



**Convergence Romania
Special Projects Initiative
Public-Private Sector Steering Committee**

**Rural Lending
Warrants Certificate Legislation Project**

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Executive Summary

In this Executive Summary we set out our key observations and recommendations from Goodwood's work on rural lending in Romania during March 2007.

It is stated by the EU and the US Department of Agriculture (USDA) (the top two grain exporting economies in the world) that Romania has by far the worst rural infrastructure in the current EU.

Agriculture and forestry are important traditional economic sectors in Romania, both in terms of the agricultural area (14.7 million ha. of which arable land is 64%) and forest area (6.7 million ha.), and in terms of the percentage of the population occupied in agriculture and forestry (32%).

The fragmentation of the industry into millions of subsistence farms after the 1989 Revolution resulted in small farmers not being able to afford good quality inputs (machinery, seeds, fertilizers and pesticides) resulting in very low yields.

This factor, coupled with severe effects from weather and soil erosion, has hit the grain industry very badly.

All of Romania's CEE and CIS grain producing competitors now have working WDC schemes in place. So far, Romania has been able to enact the new legislation and to establish the institutions theoretically necessary to implement a WDC scheme but this has not been put into practice. This Rural Lending Project is aimed at helping to resolve that hiatus.

Following Romania's accession to the EU in January 2007, Common Agricultural Policy ("CAP") payments will be phased in over a 10-year period subject to qualification of individual farms. It is estimated that less than 10% of Romania's 4.2 million farms will benefit from the CAP, leading to a further polarization of the industry. The total assistance programme for 2007 to 2013 amounts to €19.7 billion.

However, with commercially viable farms falling from 23,000 in 2002 to 18,000 in 2005, the creation of a sufficient population of commercial farms may be an uphill struggle, even with the CAP inducements.

The Romanian commercial banks are generally active in agricultural lending although the lending volumes have been rather static at around RON 2.6 billion over the past 3 years. Romania needs to find better ways of extending credit for the development of its most sustainable economic asset, its large fertile farmlands. Today, the banks perceive there are high risks based on past losses in the sector.

WDC's have the potential to inject further liquidity into the agricultural sector from the banks by freeing up land and other collateral that today secures bank lines

Divisions of the top world grain traders are in Romania and are investing heavily. Cargill alone owns more than 15% of the total silo capacity in Romania. The top 20-25 names have 90% of the market.

In their dealings with these huge enterprises, Romania's small farmers are in a weak commercial position. The big grain traders can only deal with commercial-size consignments; so there have developed in the market intermediaries (or consolidators). The small farmers receive very low prices for the grain, leaving them with little surplus cash for investment.

The SPI Secretariat's work on the newly enacted laws has revealed that Romania has sufficient relevant legislation to develop a workable WDC system. There is good potential demand for this type of financing which, along with CAP payments, would help to develop farms of suitable size with better quality inputs leading to higher crop yields.

Our work under the TAN project, supported by the SPI Secretariat, has led to various recommendations for improvement in the proposed WDC scheme, principally aimed at establishing stakeholder trust. In making these recommendations, we have made detailed analysis of a WDC scheme introduced in Bulgaria in 1998 and summary analysis of work done by the United Nations in 2002 to assess parallel programmes in Hungary and Poland. Following gap analysis of these programmes against the proposed Romanian scheme we have developed the following recommendations: -

- At present the new WDC laws do not expressly forbid the issue of WDC's by the silos for grain that they themselves own, but the operational norms indicate otherwise. A small change to the norms will address this important issue, making finance available via WDC's for the 85% majority of the grain stored in this way.
- There is an urgent need for compulsory silo licensing based on financial and technical compliance, and ongoing robust inspection by a professional and independent regulatory body.
- The PWG needs to further analyse the existing Romanian Grading Commission structure and regulations. We understand from our meeting with the RGC that they are already compliant with EU norms but the project's conformation of this as part of the rollout plan would give confidence to the depositors and the banks.
- There is a need for market liquidity to provide backup to the collateral of the WDC's. In the absence of a developed commodities market in Romania, under the current Romanian design it is envisaged that there will be a WDC Guarantee Fund administered by the RCGF. This is in final development stage after delays and Goodwood recommend that the opportunity should be taken to identify best practices in this respect from the various international models. The quality of public information on these schemes is poor.
- There is a need to further refine the content of the WDC's themselves. We have set out in this Report the detailed recommendations on this topic that resulted from the design of the Bulgarian programme in 1998.

The Public Sector or Private Sector Implementation Approach

We have identified that the PWG has the option to promote two differing approaches for the implementation of these recommendations: -

The Public Sector Approach

Under this model the Ministry of Agriculture should take urgent action to resolve the current hiatus in the rollout of WDC's, promoting the scheme throughout the industry and instilling confidence of stakeholders.

The Private Sector Approach

Under this model the key stakeholders (banks, insurers, farmers) should form a single entity for the licensing and regulation of the silo industry, grain grading and control of WDC instruments.

Further details of both approaches are set out in this Report but these are preliminary suggestions only. Further work is required by the PWG on analysis of the current status of the international models and final assessment of what action is required to implement the recommendations of the TAN, or indeed other recommendations that may emerge from further analysis and from factors associated with the current Romanian political environment.

1. The Present Situation of Rural Lending in Romania

In order to place the existing rural lending climate in Romania in context it is important to describe current agricultural issues plus the impact of the EU Common Agricultural Policy. This section will explain the key factors that exist today in Romanian agriculture. This description will help to identify the imperatives and the urgency that exist to extend more credit to farmers, will set out the banks' current lending practices and market positioning, thus setting the scene for the description of the proposed WDC scheme.

1.1. Romanian Agriculture in 2007

Appendix 1 to this report describes Romanian agriculture in 2007 in full, using data from the Romanian Ministry of Agriculture, Forestry and Rural Development 2007 to 2013 Plan, plus information from desktop research and commentary from Goodwood. The principal facts are summarized in the body of the Report here.

With an area of 238,000 square kilometers and a population of more than 21 million inhabitants, Romania is an important new EU member state in terms of size, although there is a large gap between Romania and the old member states as far as the level of economic and social development is concerned.

It is stated by the EU and the US Department of Agriculture (USDA) (the top two grain exporting economies in the world) that Romania has by far the worst rural infrastructure in the current EU.

Agriculture and forestry are important traditional economic sectors in Romania, both in terms of the agricultural area (14.7 million ha. of which arable land is 64%) and forest area (6.7 million ha.), and in terms of the percentage of the population occupied in agriculture and forestry (32%). Despite the high numbers of people engaged in the sector, in 2005 the contribution of agriculture and forestry to the gross value added (GVA) was only 9.6%, a dramatic drop from 13.9% in 2004, because of the poor harvest in 2005.

In terms of labour occupied in the primary agricultural sector, only 6% are employees, 52% being self-employed and 42% being unpaid family workers. Out of the total population occupied in the primary sector, there is a high number of people above 55.

Cereals

The cereals market has an annual value of €100 million. Some forecasts state the market will be worth €500 million by 2017. Competition and economies of scale will put small farmers out of business and larger competitors will buy out their land. This means huge opportunities for investors. There may also be a natural migration of agri-business to the east, as western countries outsource farming to Eastern Europe where the land is more fertile and labour costs are lower. Around one third of Romania's potential farming land is still unexploited.

The Romanian Commodities Exchange estimates that over 67% of the total arable land of Romania is used to grow grain and sunflower seeds. Of this area, the most important crop is maize (32%) and wheat (21%), followed by sunflowers and barley.

The following table shows the production of the three most important grain crops over a four-year cycle.

Romanian Grain Production 2000 to 2003 (Millions of Metric Tonnes)

Commodity	2000	2001	2002	2003
Maize	4.9	9.2	8.4	8.8
Wheat	4.4	7.7	4.4	2.5
Barley	0.9	1.6	1.2	0.5

Since 1990 the export of grains from Romania has collapsed due to the breakup of the former Comecon trading pact. After 1996, production stabilized at a self-sufficiency level and although there are some small net exports of grain in more recent years this does not include wheat, where Romania is a net importer.

The principal lesson to be learned from the collapse of the Romanian grain industry over the past 20 years is that the existence of large tracts of fertile soil is not enough to be an efficient producer.

The fragmentation of the industry into millions of small farms after 1989 resulted in small farmers not being able to afford good quality inputs (machinery, seeds, fertilizers and pesticides) resulting in very low yields.

The price of fuel, chemicals and fertilizers has grown between 30% and 120% per annum. This trend, coupled with severe effects from weather and soil erosion, has hit the grain industry very badly.

The Romanian Commodities Exchange published in 2003 the following table showing the cost breakdown of wheat production per tonne

Input	US Dollars per Tonne
Soil cultivation, fertilizing, spraying, harvest	28.28
Seeds	7.60
Fertilisers	19.59
Chemicals	10.17
Transport	2.54

Manual labour	1.21
Others	17.00
Total input costs per tonne	86.39
Average market price per tonne	120.00

It can be seen that wheat production has very low margins for farmers and that the input costs, over which they do not have control, have the potential to make the activity loss making.

In 2006 it was assessed that the average profitability in Romania for growing wheat, after deduction of inputs and without any financing charges, was no more than 5% at harvest time, when farm gate prices are lowest for the producers. This number grows to around 20% in the winter but this uplift is subject to the capacity of the farmer to finance the storage period and depends on market prices, the maintenance of grain quality, storage and finance charges.

These factors are important to consider in context of the WDC scheme. If farmers are able to be convinced of the value of this scheme, there exists potential to make production more profitable, producing cash that may be used to invest in better quality inputs, thereby increasing yields.

In 2007 the other main issues in Romanian agriculture are:

- Small farm sizes.
- Sizes of commercial farms declining.
- CAP constraints for small farms.
- Resistance to land consolidation in post Communist Romania
- Mechanisation at very low levels
- Crop losses due to the above and to weather conditions.
- Low crop yields.
- Need for more extensive irrigation networks.
- Many grain silos not compliant with EU norms or obsolete/disused
- Soil quality generally high but with contamination problems in some areas
- Excessive soil moisture and drought.
- Soil erosion
- High flood occurrence
- Labour migrations from rural areas
- Immigration of foreign farmers with good methodologies
- Rural poverty and unemployment.
- Poor transport networks.

In conclusion, the current situation in terms of education, employment, investment, transport and other forms of communication, healthcare and facilities for the elderly has a strong negative impact on the quality of life in rural areas and hinders the economic development of these areas. It is not surprising that forward-looking young people are leaving rural areas in large numbers.

1.2. The Common Agricultural Policy (CAP)

Pillar 1 of the CAP provides basic income support for farmers, based on production volumes.

Pillar 2 is aimed at developing the sustainable use of rural land including farming, the living environment and as an amenity for rural dwellers. Pillar 2 is not coupled to production.

Efforts are being made to integrate EU CAP instruments with Romanian national policies and other EU structural funds in order to take advantage of all available funding sources and to coordinate these instruments for the development of rural Romania.

Until the end of 2006, support was provided to farmers from national programmes (e.g. the Farmer Life Annuity Programme) and from the EU co-financed SAPARD programme. With effect from accession in 2007 Romania will benefit from CAP payments that will be phased in over a 10-year period subject to qualification of individual farms.

The total assistance programme for 2007 to 2013 amounts to €19.7 billion of which €5 billion will be direct payments to farmers and €7.3 billion will be used for investment projects in agriculture and rural development.

To absorb the impact of the 10-year period for the gradual implementation of direct payments, Romania has decided to supplement the direct payments from the EU ("SAPS") with complementary national direct payments ("CNDP's").

SAPS will be fully financed from the EU and CNDP's will be financed from the national budget and from the National Rural Development Plan (20% contribution) for the first three years.

Calculations for Romania show that in 2007 the basic SAPS alone will not result in an immediate increase in income for agricultural producers, because the SAPS represent 25% of the 2004 level for direct payments received by farmers in other member states. A topping up of SAPS by 30 percent CNDP's is envisaged to ensure an adequate income level for all qualifying farmers.

It is expected that the single payment scheme and other direct payments under the first pillar of the CAP in 2007-2013, together with the investment measures and other measures of the rural development policy, will contribute to the anticipated agricultural structure, i.e. larger, specialised, and more competitive farms as the groundwork of the agricultural economy.

Direct payments will also contribute to the setting up of a larger number of medium to large family farms, including semi-subsistence holdings, and self-sufficient small farms to achieve other goals, i.e. environmental protection, maintenance of cultural landscape, social equilibrium and settlement.

2. Current Rural Lending Legal/Institutional Framework

Between 2001 and 2003 Romania enacted new legislation, updating a law from 1937, that had the potential to create an environment in which WDC's could be used by farmers and grain traders to obtain short term working capital financing from the banks.

What is a WDC and what are the other legal requirements for the system to operate?

A WDC is a simple document used in many grain producing countries to signify the quality, quantity and ownership of a certain consignment of grain. In order to fit its purpose, a WDC must fulfil all the

characteristics of a negotiable or bearer instrument in the relevant country. This permits rapid transferability of the title to the consignment.

In most examples the WDC is in two parts, firstly the description of the consignment including the following data: -

- Type of grain
- Date of harvest
- Date of delivery to the storage silo
- Quantity
- Quality according to the accepted norms in the country, using scientific analysis of all value-relevant characteristics.

The second part of a WDC comprises a page showing all of the endorsements of title to the consignment. By virtue of the negotiability of the instrument, the current endorsement establishes title to the consignment. In certain countries, WDC's are bearer instruments, transferred by mere delivery from seller to buyer. Either way, the second part of the WDC creates a liquid instrument, able to be valued and transferred quickly by a holder, whether that be the borrower or the lender.

The World Bank Rural Finance Project, undertaken in Romania by Agriteam Canada Consulting Ltd in the second half of 2004, identified that WDC schemes have been introduced in Bulgaria, Hungary, Slovakia, Ukraine, Poland, Russia, Turkey and Kazakhstan with varying degrees of success.

That project was set up in order to recommend the basis for the setting up of a WDC indemnity fund in Romania. The project report, delivered in February 2005, assessed that in addition to the introduction of WDC's, Romania would also need to establish a rigorous and unimpeachable technical and financial inspection and licensing system for silos before they would be allowed to issue WDC's. There would in addition need to be a common and industry accepted basis to determine the quality of the grain stored on delivery. Such grading should be the basis for establishing the market price of the consignment. Finally there should be a method for rapidly compensating innocent parties if there is a default. This issue was recommended by Agriteam to be covered by the setting up of an indemnity fund. Agriteam were of the opinion that only with a combination of rigorous licensing, inspection, grading (all on terms acceptable to the market), plus the existence of an indemnity fund, would it be possible to implement WDC's successfully in Romania. It was felt that without all of these components in place, lenders would consider WDC's to be high risk instruments and they would not enter the market unless they could be sure that there was a mechanism to rapidly indemnify legitimate claims.

Agriteam in fact calculated that the level of backing for a WDC fund would need to be USD3.75m. It was recommended that this amount should be accumulated through the collection of fees taken for the issue of guarantees by the fund.

Furthermore, Agriteam recommended that a new single entity be set up for the administration and control of the industry, The Romanian Grains Commission. Here it was felt that the objectives of the silo licensing and inspection authority, the grading activities of the current RGC, plus the objectives of the WDC indemnity fund were very closely aligned and there would be cost benefits from having a single unit. It was recommended that

It is regrettable that more than 2 years later there has been so little progress on the setting up of a WDC indemnity fund in Romania.

2.1. The Legal Framework for Rural Lending based on WDC

As part of an earlier phase of the Rural Lending Project, the SPI Secretariat undertook on behalf of the PWG an analysis of the current legal framework regarding Warrant Deposit Certificates, which concluded that to date the implementation of the regulatory framework has yielded poor results.

It is apparent from that work and from the Work of Agriteam Canada on behalf of the World Bank in 2004 that Romania has the following legislation in place to support the introduction of WDC's. In principle this legislation appears to be adequate to support the rollout of WDC's in Romania.

- Romanian Government Emergency Ordinance 141/2002, as amended by Law 149 of 14th April 2002. These pieces of legislation provide for the regulation of grain warehousing, the WDC system and the creation of the WDC indemnity fund.
- Methodological norms dated 23rd January 2003 regarding grain warehousing, the WDC system, and the creation of a WDC indemnity fund.
- Order no 483 dated 8th August 2003 for the regulation of the organisation and operation of the Commission for Warehouse Licensing.

It was observed, though, during that work and during the TAN assignment, that there were a number of areas that might usefully be reconsidered. These are set out below.

2.1.1. *Voluntary or compulsory licensing?*

Concerns remained within the PWG over the proposed voluntary nature of the registration and licensing of silos. These concerns have proven well founded as, to date, no silos have applied for licensing. This is considered to be an important constraint to the development of confidence of the key stakeholders in the stability and operation of the silos. In the 29th March PWG meeting Goodwood recommended that licensing should be compulsory, as did some other participants including the Ministry of Agriculture, and it was agreed that this issue would form a part of the ongoing debate.

2.1.2. *Should Silo Companies issue WDC's on their own stocks?*

Under the current Romanian law this is not illegal. However, the operational norms issued by the Ministry of Agriculture are drafted in a manner that might preclude this. The 29th March PWG meeting highlighted that issue and the fact that, as 85% of the grain normally stored in silos in Romania is in fact owned by the silo owners, this norm wording could rule out financing for the majority of the grain. The PWG agreed that it would be a good idea to review this issue.

By way of background, US silo companies are empowered to issue WDC's on their own grain and this permits multi-million dollar financing for the grain industry each year.

In contrast, the Hungarian Grain Law forbids silo companies from also being traders, indicating that the silo companies would only be able to issue WDC's on stocks owned by third parties.

2.1.3. *Format and Content of the WDC's*

Our project meeting with the Romanian Commodities Exchange highlighted the fact that relevant information was missing from the current Romanian design for WDC's, as described in this paragraph. Discussion ensued in the 29th March PWG meeting on this issue and it was agreed that more work needed to be done with industry experts in order to refine the information that should be included for each commodity.

The example discussed was the gluten content for wheat consignments but other characteristics were important for other commodities.

It was concluded that recommendations from the PWG should be made to the Ministry of Agriculture in order to make compulsory the inclusion of all value relevant data. This would have direct benefit for the WDC scheme but (through making WDC's acceptable to key players and thus tradeable) could also assist the development of the Romanian Commodities Exchange, hence eventually provide liquidity for the WDC scheme.

2.2. *The Institutional Framework for Rural Lending based on WDC*

2.2.1. *The Role of the Romanian Grading Commission*

Following a 1996-97 World Bank project, a Canadian sponsored programme and a USAID initiative, The Romanian Grading Commission was established under Romanian law in 2002.

These are the main features to the operation of the RGC: -

- A grain grading evaluation standard for all commodities in line with EU regulations
- The establishment of a compulsory grading system for all commodities
- The facilitation of stakeholder trust in silo operations. Stakeholders include banks, farmers, grain traders and the Rural Credit Guarantee Fund
- A workable online supervision system has been developed by RGC but there is a need for accurate data to launch the system, that is 2 years away from full functionality subject to investment capital

The RGC, from our series of meetings, appears to have a good reputation in the industry for being professional and well regulated by the enacted legislation. It plays an important part in the setting of standards in the industry and is a step towards creating the level of trust and confidence in the silo industry that is essential to the full-scale implementation of WDC's.

Over the meeting with RGC the idea that it may be worth considering the establishment of a single body, in line with much of the US practices, to licence and monitor silos and to provide grain-grading services. This entity, in order to maximise effectiveness and to optimise the confidence factor, would probably need to be regulated by the State.

2.2.2. The Role of the Licensing Commission

The Commission for Warehouse Licensing was established under Order 483 dated 8th August 2003. The principal conditions of licensing seem to be the existence of a minimum paid up capital of 300,000 old lei per tonne of licensed storage capacity (or an equivalent deposit of cash with the State Treasury). In addition silos need to have suitable equipment for the separation of foreign bodies from the grain plus machinery to protect against dust and pollution.

It was provided in the legislation that registration and licensing of silos would be optional.

Nominations were later made for the members of the Licensing Commission but this body has not been active to date and we understand that a number of the original nominees have since died.

As part of the proposed reconsideration of voluntary vs. compulsory licensing, it is recommended that the Commission be reconstituted with suitable active members.

2.2.3. The Role of The Romanian Commodities Exchange

The RCE was established in 1992. In 2006 the RCE transacted €400-500 million in various commodities.

To date, no grain deals have been undertaken but efforts are being made on bilateral deals with the RCE really acting as a broker.

The RCE exhibits good expertise and has an energetic and market-orientated team with good IT and back office processes in place.

This potentially excellent resource has the scope to fulfil one of the key pillars of a WDC system, namely market liquidity. In order to achieve this, market-making activity needs to be undertaken.

In reality this would need to come from the banks, through which, on a pooled basis, the exit risk for defaulted deals could be mitigated for the banking industry.

This factor could be addressed in a short time horizon.

The exchange could then act additionally as an information provider with pricing, harvest expectation and trend analysis, etc.

2.2.4. The Role of the WDC Deposit Guarantee Fund/Indemnity Fund

The RCGF is an important potential component in the establishment of trust and confidence in the WDC framework in the minds of the stakeholders. It is so due to the proposal that the RCGF should be used as the institution to administer the WDC Guarantee/Indemnity Fund. This proposal follows the

various international models used for establishing WDC frameworks in the absence of a liquid commodities market or a secondary market for the trading of WDC's.

As such, the guarantee fund will provide liquidity to defaulted loans but could outlive its usefulness once an active commodities market develops.

These concepts were adopted in the international models with the intention that the guarantee funds would cease to exist in due course. It is unclear, from the Internet research Goodwood undertook, whether those transitions have actually occurred as some time has elapsed since those programmes were established and we do not have current data. Perhaps, again, such information may be obtainable via the Nib's connections with other central banks.

As part of our project we met with the RCGF to gain an understanding of the current status and strategy on the delayed implementation of their entry to the market supporting warrant deposit certificates lending via the proposed WDC Guarantee Fund. We also sought to understand the remaining barriers to full implementation and the actions that need to be taken to resolve these. We also took the opportunity to learn more about the structure of the RCGF, its current volumes and operations.

Before the issuance of a guarantee the RCGF undertakes detailed due diligence of the borrower and of the project. Additionally RCGF coordinates with various insurance companies to ensure cover for fire, flood, theft and malpractice. Main partners include Omnis, Aliens, Generally and Aviv.

Compliance requirements for the maintenance of continuing RCGF coverage include: -

- Payment of the guarantee commission
- Monthly advice by the lender to RCGF of the status of the loan and of the borrower

Guarantees to cover WDC's

RCGF has the legal capacity to issue cover for individual loans backed with warrant deposit certificates now, but if this is to be extended under a specific guarantee fund to cover the whole WDC programme there will need to be a policy decision by the Government. In this context, the RCGF has provided a position paper to the PWG in February that is being considered by the Minister of Agriculture.

2.2.5. The Role of the Insurance Companies

The principal insurers involved in the agricultural industry are Allianz Tiriac, Omnisig and Aviva.

At present, the insurance market in Romania is not innovative and in the farming industry the risks covered are quite basic.

Insurers are involved in covering grain in silos against fire, water damage, earthquake, lightning, explosion and smoke damage as standard.

Extension cover is available for hail, storm, atmospheric contamination, stock deterioration and spontaneous combustion.

Typically, insurers provide different contracts for the main stages of agricultural production: growing, harvesting, storing.

Insurance for this industry is now in the early stages of development with Allianz and Omnisig believed to be the market leaders.

In terms of the proposed WDC programme in Romania, in the future insurance companies should consider providing backup indemnity bonds in place of the RCGF guarantee fund for WDC's and/or to participate in regulatory processes to mitigate their risk, along with the banks. However, given the current stage of development of the insurance market in Romania, with low levels of innovation being displayed, we would expect it to be some time before this development could be a viable option. However, it should be noted that this transition milestone was designed into the other international models to which we refer in this Report. As an important international example, indemnity bonds, issued by the insurance market, provide backup for WDC's in the USA, a concept that was designed into the other CEE WDC programmes

3. Existing Rural Lending Practices in Romania

3.1. Bank Financing

Most of the first tier banks in Romania are now under foreign ownership, banking groups committed to agricultural lending internationally, including other CEE/CIS countries where grain production is a major industry. The concept of lending against WDC's is therefore well established within those groups.

However, within Romania itself the banks have not been lending against WDC's. Indeed, the agricultural sector itself is viewed with caution by the banks. Loan losses in past years have been higher than in other lending sectors, due to the poor financial performance of many borrowers in the middle to low market, the lack of financial and other reliable information for banks and, not least, the past difficulties in realising collateral, primarily agricultural land and buildings.

The market in collateral assets has not been liquid, although there are some signs that this factor is now improving. A principal impediment to realisation, the inefficiency and potential for corruption in legal processes, remains a major constraint in Romania.

The introduction of WDC's has high potential to encourage better volumes of lending by the banks to the farming sector. Both the liquidity and the legal realisation processes under WDC's could be significantly streamlined vs. land and buildings collateral.

Due to the relatively recent acquisition of controlling stakes in leading Romanian banks by international banking groups, many of the major banks have been, and in notable cases (BCR and Banc Post) still are, going through extensive restructuring exercises in order to harmonise lending policies and risk management techniques with their overseas head offices. Those banks in restructuring are in course of refining their market positioning on rural lending and it will be some time before their strategies are made known to the market.

The TOR for the assignment calls for information on volumes of lending by the banks, loan loss experience, plus trends. This information has not been made available to us by the banks we have met, despite requests. WE SHOULD NOT COMPLAIN - WE DO HAVE NBR DATA Additionally, we have sought information from the banks' websites and in one case from the hard copy annual accounts but, due to the segments within which the banks present their information in their published balance sheets (i.e. aggregating the agriculture and food sectors), it has not been possible to identify volumes and trends of agricultural lending by individual banks.

However, we can say that the total of lending by the Romanian banking sector to the agriculture, forestry and fishery sector amounted to some RON 2.6 billion (circa €800 million) as at December 2006, having been RON 2.3 billion as at December 2005 and RON 2.5 billion as at December 2004. These relatively stable numbers compare with an explosive 90% growth in consumer loans between 2004 and 2005 and a growth of 57% in mortgage lending. (Source: NBR Monthly and Annual Bulletins).

We would recommend that the PWG work to obtain reliable industry and bank-by-bank data from the NBR for agriculture alone, ideally identifying cereal production and storage credits, plus loan loss experience and trends.

Individual bank approaches

From our meetings with the banks and our knowledge of the Romanian banking industry, we have observed various approaches to rural lending. In context of this section it should be noted that it has not been possible, in the short period of the TAN assignment in Romania, to assess the strategies being followed by a wide population of banks. In particular, it was not possible, despite a number of requests, to have meetings with the second tier banks, most of which remain in majority Romanian ownership and some of which have headquarters in cities other than Bucharest. This is a pity, as we feel that meetings with them would have given us a wider insight. Their input should be sought at later stages of this Project.

In this section we do not name, for reasons of confidentiality, the banks to which we refer. Their cooperation has been core to the development of this report and we thank them for their assistance. Banks will be referred to as Bank 1, 2, etc.

Bank 1

Has established a large team covering trade and structured finance activities, geared to the corporate end of the market. This forward-looking team includes within its ambit agricultural lending to grain storage companies that are well capitalised and highly proficient.

This business includes, but is not limited to, facilities made available to Romanian subsidiaries of major international grain storage and trading companies that have become established in Romania in the past 5 years. These companies have typically acquired already established grain silos from the State, restructured the businesses and injected additional technology and capital. These businesses are now growing strongly, both organically and by further acquisitions, including new build silos sometimes financed partly via international donor agencies.

The bank is also engaged in lending to locally owned companies that have acquired silo assets from the State.

It can be seen that this bank is taking a cautious risk mitigation approach to lending in the grain sector, lending to strong companies and with traditional fixed asset collateral, rather than using WDC's. It is to be welcomed, though, that this strategy is playing a major role in the development of grain financing in Romania and is helping to establish better market conditions for the rollout of WDC's in due course.

This bank has launched its own grain financing credit product, developed in Romania and tailored to the needs of the local market, which includes the possibilities of: -

- Harvest pre-financing

- Financing for the trading of cereals and oil seeds
- Financing for the processing of cereals and oil seeds

Covering the following Romanian commodities: -

- Wheat
- Maize
- Sunflower seeds
- Soya beans
- Rape seed

The bank concentrates on high quality customers who have good expertise in the sector and operate at the high end of the market, have a high level of suitable equipment and staffing, with access to harvest storage facilities and the capacity to market their produce.

Accordingly, the bank has to date concentrated on financing silo stocks held by depository groups each with a storage capacity of 500,000 tonnes plus.

The bank believes this policy has a potential market of 25 million tonnes per annum.

The bank considers that there remain two barriers to the possible development of this business: -

- The continuing lack of clarity concerning the requirements for the licensing, regulation and inspection of the depositories (urgent Ministry of Agriculture action required).
- Lack of progress in the entry of the Deposit Certificates Guarantee Fund into the market.

Despite these deficiencies they have taken a commercial decision to enter the market and are budgeting to expand their penetration this year.

Their fundamental risk mitigation of the current risks by working at the top of the market is further underpinned with: -

- Robust financial analysis of the storage company and its parent (taking downstream guarantees or letters of comfort where possible)
- Analysis of the technical storage facilities
- Current regulation status
- Market reputation of the depository

In addition the Bank ensures compliance of the depository with the regulations of the National Grading Commission.

The Bank in all cases ensures suitable insurance cover for fire, water damage, explosion and other risks (from an insurer on the Bank's approved list)

Ongoing risk mitigation is managed with periodic site visits and the monitoring of a blend of market values from the countries surrounding Romania. The maximum lending cap is at 75% of this blended value.

Loans have an average term of 6 months.

The default risk is covered via a Remarketing Agreement giving the Bank the right to sell the grain in the event of borrower default to the silo company.

The Bank provides a periodic market report for their clients, that gives details of consumption, production, pricing trends and regulatory changes. This has separate sections covering each of the produce set out in this section.

Bank 2

Its penetration of the agricultural sector is today constrained by an extensive restructuring programme following foreign takeover. The bank is majority focussed on large corporate lending and the retail sector, which is growing rapidly in line with the penetration of the unbanked sector by all Romanian banks.

This bank is today in process of moving its WDC targeted clients into a micro finance segment within its retail operations. The bank's website reveals that it has been quite active in agricultural lending in the past with total agricultural exposure equating to around 4% of total corporate lending in previous balance sheets. It should be noted that this number is static, in common with the industry numbers obtained from NBR, whereas other industry exposures have grown rapidly in past years, along with retail and mortgage lending.

No information was available to us regarding specific products geared to the agricultural sector. We believe this is due to the current restructuring processes and a refocusing of the bank's product offering.

Bank 3

This bank was subject to a foreign takeover some time ago and its restructuring process is completed successfully. The bank has established a specialist Agricultural Division around 18 months ago, staffed with local professionals augmented with agricultural specialists from the overseas head office.

The bank, in common with others, has had problems with agricultural lending in the past but they are now expanding their commitment to the sector. Today they have over 2,000 clients in agriculture generally, including crop financing where they concentrate on farm sizes of 250 ha. and above, secured with crop pledges

To date, they have not been financing the storage of grain.

The bank's approach is regional in focus and once they become more comfortable with grain financing they will probably work on a "hub" basis, financing small groups of farmers feeding grain into a central silo.

Financing at present has been via SAPARD and the Farmers' Fund with clients including food processors, silo companies and oil producing companies at the top end of the market with fixed asset mortgages where possible and assignments of receivables

During 2003 they worked with the EBRD on a €40m project to extend credit to smaller farmers, in which they used warrants but they did not consider the scheme successful at the time, needing further development in risk mitigation.

In terms of current credit products they have specific and multi product lines. On specific lines they have a product that provides crop finance for farmers in the grain industry where the borrower has a harvest pre-sell agreement with a large silo company or a food processor.

The key characteristics are: -

- Term 3-12 months
- Possible grace period principal and interest up to 10 months
- Variable interest rate
- Minimum RON 25,000 up to maximum 80% of the foreseen expenses
- Collateralised on fixed and moveable assets with up to 50% guarantee from the RCGF plus an assignment of the sale contract in favour of the bank
- Compulsory insurance for the crop, plus fixed and moveable assets

Another credit product is designed to finance farmers of soya beans, sunflowers or rapeseed. Here again the farmer has to have a pre-sell agreement with a large grain silo or with a food processor.

The key characteristics are: -

- Term 3-12 months
- Possible partial grace period principal and interest up to 12 months
- Fixed interest rate 7%
- Minimum RON 10,000 up to maximum 80% of the foreseen expenses
- Collateralised on fixed and moveable assets with up to 50% guarantee from the RCGF plus an assignment of the sale contract in favour of the bank
- Compulsory insurance for the crop, plus fixed and moveable assets

3.2. Financing by grain silo companies or food processing companies

The Romanian grains industry now includes the major players in the international markets, grain storage and trading companies including such names as: -

Cargill, the largest privately owned company in the USA that owns 15% of the silo capacity in Romania and in December 2006 bought a Romanian oilseed crushing and refining plant with a daily capacity of 1,200 tonnes.

Glencore, the Swiss based commodities group with 70 grain and oilseed silos worldwide, capacity 5.5 million metric tonnes.

Bunge, the agribusiness, fertiliser and food processing business founded in Amsterdam but now based in New York State with an annual profitability around \$800 million

Alfred Toepfer, Hamburg based and with 40 million tonnes of annual trade in agricultural commodities worldwide

These companies all have significant investments in Romania and are committed to the grain industry. A number of these companies provide credit facilities to large farmers to enable them to finance the growing cycle, providing crop finance and sometimes storage finance against signed agreements from the farmers to sell the crop to the commodity company. This has the principal benefit of securing grain supplies at fixed prices for the trader/processor.

We believe that Cargill, which is a major player in global financial services and risk management in addition to being a commodities company, is one of the main providers of crop finance. However, as it is a private company, we do not know the terms of such financing or the extent of it. Special access is required in order to obtain its financial accounts over the Internet.

4. Borrower perspectives on obtaining Rural Credit in Romania

4.1. Silo Companies

We met one borrower, a grain silo company, as part of our on site work. The silo owner, who is also a trader, expressed himself to be happy with the nature of the financing he was obtaining from his bank, essentially a multi-product line secured with a variety of collaterals including mortgages and a pledge over grain.

WDC's were discussed and we were told that warrants could be used to finance the purchase of pre-sold produce by the food processors. We heard the same comments regarding the current lack of clarity on the licensing process, licensing conditions and ongoing monitoring/grain grading that we heard from our bank correspondents.

In general, those silo companies that are also traders (most of them) are not in favour of the introduction of WDC's due to the fact that at present they are the buyers of last resort and are able to encourage farmers to sell immediately after harvest at low prices. Clearly, if farmers, through WDC's, are able to obtain bank finance and thus wait for better market prices for the grain, this will hit the profits of the traders. This factor could explain why no silo companies have yet applied for licences on the current and ill-advised voluntary basis.

4.2. Farmers

We met a representative of a farmers' group during the PWG meeting on 29th March.

We did not have the opportunity during the PWG meeting to obtain individual feedback from the farmers' representative. However, from his comments raised during the general meeting, and from our other discussions during our work, we are aware that farmers have the following concerns:

Farmers are working on very fine margins as shown in the table earlier in this report on wheat production. Consequently they cannot afford to sustain erosion in the value of their grain in the silo or to absorb high storage costs or high credit costs.

Farmers need to be certain that if they deposit grain in a silo and pay a fee that there is a proper system to regulate the operation of the silo and a competent independent authority protecting their interests in the event of mismanagement, malpractice or theft. After all, a farmer could potentially be storing an entire season's work with a third party.

The farmer needs to be certain of the standards and regulations surrounding the grading of his grain, at the point of acceptance by the silo company and at periodic later dates. He can then be sure that there is no degradation of his asset and that he will receive a market price in accordance with his expectations. This process of initial and subsequent grading is important also because, unless it is a very large consignment taking up an entire silo, his grain will be commingled with that of other farmers.

The grain needs to be stored in suitable conditions and in compliance with regulations that are understood by all parties.

In essence, the farmer needs to have confidence that the quantity and quality of his grain will not be compromised during the storage period.

This concern is very closely aligned with the banks' need to control and protect the value of their collateral underpinning WDC's.

Romanian grain storage fees are higher than in Western Europe and are often not adequately explained to depositors. Disputes arise commonly. There was a call from the farmer group to make it compulsory to display storage costs.

The farmer group also made a call for comparisons to be made between bank financing backed by WDC's and bank financing backed by a pledge on the stock or other collateral. Such a comparison would need to consider possible differences in interest margins and fees charged by the banks under each option, as well as storage, grading and other inspection costs for the WDC option. It was agreed that the PWG would undertake this analysis.

It was not discussed during the PWG meeting but there is strong resistance within the farmer community to the granting of mortgages over fixed assets (which in the case of smaller farms also includes the family home) to secure short term bank lending. This is a clear constraint under the current system as banks are unwilling to lend without such collateral due to their historic bad experience in the industry.

There is potential for WDC's to help here as if they could be successfully introduced farmers could obtain short-term finance backed by the produce of the farm. The banks could benefit from having more liquid collateral and could potentially lend at lower margins, helping to resolve the credit cost issues for the farmers.

The use of WDC's could also, in securing short term lines, free up other farm assets currently securing those lines, which could then be used to secure medium term investment loans required for modernising farm buildings, establishing on-farm grain silos or for better machinery.

5. Impediments perceived by banks and other stakeholders in Rural Credit

Banks are adopting a cautious approach to rural credit.

As mentioned earlier in this Report, the banks generally have a cautious approach to agricultural lending due to past bad experiences in the sector. Whilst, as set out earlier, various banks have developed marketing strategies and specific products tailored to the industry, lending volumes are currently static and growth is being seen in other areas.

Banks generally require mortgage collateral.

Despite the specific products, most bank lending is made against specific mortgages or pledges over fixed or moveable assets. This is not an innovative approach but is understandable in view of the banks' perceptions of the credit risk factors already mentioned. However, it is certainly an impediment to the extensive development of short-term agricultural portfolios by the banks due to the farmers' unwillingness to secure short term lending with mortgages.

Lack of reliable information for banks.

Smaller businesses in rural Romania find it impossible to provide reliable business plans and other financial information to support lending decisions by banks.

Borrower concerns over financing costs.

From the borrower perspective the smaller farmers are suspicious of the banks and are critical of bank interest margins and operational fees, which are indeed much higher than are seen in Western Europe. This factor is heightened when grain farmers are working at low profit margins, as seen in this Report.

Borrower resistance to granting mortgages for short-term credits.

In particular the farmers are aware that the banks typically seek mortgages over fixed and moveable assets in order to collateralise their lending, including short term lines. Clearly, in the case of small farmers, giving a charge over the farm to a bank puts in jeopardy the family home and farmers have been reluctant to do this in return for short-term financing. Taking a mortgage for a short-term line also adds significant legal costs for the farmer. For longer term financing there is not such strong resistance from the farmer groups.

Lack of transparency.

Banks and borrowers may be reluctant to do business due to concerns over a lack of transparency in rural regulations and proposed structures for WDC's. Concerns exist over silo licensing, monitoring

processes, grading and guarantees/liquidity plus the lack of clarity over supervision by competent authorities on standards acceptable to all stakeholders.

Small farmers vs. large farmers.

These factors are clear impediments to the widespread development of rural lending to small and medium size farmers, the area where most capital investment is required.

The situation is different for larger farmers and grain silo companies/grain traders. These are larger and more sophisticated businesses, able to absorb bank costs into their operational expenses and with the financial records and audited accounts that banks need to make positive lending assessments.

These factors have been and are still present in other CEE farming countries and have, in no small part, contributed to the development of WDC schemes to support the extension of more bank credit to smaller farmers. Romania is in great need of an operational WDC scheme.

6. The Potential for Warrant Deposit Certificate Lending

6.1. The Benefits of Warrant Deposit Certificate Based Lending

6.1.1. For Romania and for the Farmers

Romania has a relatively small number of large successful farms that are competitive with their Western Europe counterparts.

Given the very small average size of farms at present, the vast majority of farmers will not be able to benefit from the CAP payments. This will restrict farming investment and prevent the introduction of better farming methods. The lack of capital will also hinder the gradual consolidation process that needs to take place in order for farms of a competitive size to be developed.

The development of larger efficient farms is core to the Romanian government's rural development objectives but this will require huge financial inputs. Most of this input will come from CAP payments but there is a large role for the commercial banks to play in this process.

A successful introduction of WDC's offers:

- Potential for the farmers to finance the holding of grain for a period after the harvest, possibly resulting in a price uplift of 20% or more on sale of the grain
- Farmer access to short term financing linked to trading assets of the farm
- Release of bank liquidity into the rural economy.
- Better development of Romania's most sustainable economic asset, its fertile farming land.
- Earnings from more efficient farming to be channelled into farm consolidation and better inputs, qualifying more farmers for CAP payments.

6.1.2. For the Grain Storage Companies

The Romanian grain storage industry is fragmented and outdated with many old inefficient silos and excess capacity. The entry to the industry of international groups with best practices and the development and new investment being made by locally owned silo operators signals the way for the future, instilling rising confidence in the industry from all stakeholders.

The part of the storage industry that is committed to high quality operation in a normalised and regulated industry with better standards for all, has much to gain from the regulatory aspects of WDC's. WDC's and their potential; for more transparency in the industry would: -

- Encourage the storage of grain for longer periods by farmers and third party grain traders, Earn better storage fees for the silos.
- WDC finance would enable better investment in the building of modern silos plus the upgrading of existing silos
- Increase available credit backed by WDC's issued on the silos' own grain stocks.

Additionally, optimised levels of regulation associated with WDC's would build confidence in the industry, increasing business volumes and marginalising low quality or corrupt operators.

6.1.3. For the Banks

It is important for the Romanian banks to find sectors other than real estate and retail lending in which to make profits. Agricultural lending on grains, with the added protection of regulated WDC instruments, offers excellent potential for: -

- A new form of liquid collateral for the banks
- Increased volumes of lending with good risk mitigation
- Use of WDC's as a means of financing short term lines required by smaller farmers and traders/silo operators
- New lending relationships will also permit the banks to increase their penetration of the rural market
- Resultant additional potential for medium term development lending based on the fixed assets of the borrowers.

If we take the example of the wheat market alone, the lending potential could be calculated as follows:

Median annual production	5 million tonnes
Intervention price	€100
Crop value	€500 million
Assume 65% loan to value ratio	
Total annual revolving lending capacity	€325 million

6.1.4. For the Insurers

The storage of grain for longer periods and in larger quantities, permitted by the use of WDC's, would result in more demand for insurance cover for grain in silos.

As more innovation develops in the Romanian insurance market, the insurers could consider indemnifying the WDC Guarantee Fund, via an insurance bond structure.

6.2 The Introduction of WDC Programmes in Parallel CEE Markets

Essentially, Romania is now the only major CEE grain producer without a working WDC scheme.

In May 2003, following a study of the WDC programmes in various countries, the United Nations, EBRD and the Polish Ministry of Agriculture organised a conference in Warsaw on the benefits of WDC and a comparison of the schemes operating in relevant countries. This section of the Report has

been prepared by Goodwood based on that work and including additional analysis and commentary. Although the numbers quoted in this section are not current, the issues raised are highly pertinent. Goodwood recommend that the NBR use its connections with other central banks to obtain current data on the volumes of WDC's and associated bank lending in these countries.

Since the mid 1990s, WDC's have been introduced in a number of Central and Eastern Europe (CEE) and Commonwealth of Independent States (CIS) countries. A number of components need to be in place:

- A functioning cereals market, supported by government regulations that are conducive and friendly to the system;
- Adequate legislation and law enforcement tools and mechanisms;
- Credit institutions able and willing to invest into grain inventories and;
- Support by the key players in the cereals industry.

6.2.1. Legislation and law enforcement

The presence of a legal framework and effective law enforcement is the key component for the emergence and successful performance of any national grain-financing programme.

There must be an authoritative grain silo oversight agency or licensing and inspection body, trusted by all market participants. The best solution is believed to be an oversight agency, placed within the framework of state administration.

6.2.2. Stakeholder Resistance

Out of the five primary participants in the system: producer, warehouseman, processor/trader, banker and insurance agency, it is the producer and warehouseman that have been the most difficult to convince of the WDC benefits.

The producers suffer due to insufficient understanding of market concepts, concerns over the quality of storage that could affect the value of their goods, and regulations/legal remedies. In addition, as seen in our recent feedback session in Romania, farmers are suspicious of the storage companies and of the regulators. They are also reluctant to pay high storage charges and require full disclosure and if possible standardisation of fees.

The warehouseman has a natural reluctance to raise performance standards up to the new licensing requirements without seeing the reward to compensate for the increased costs of becoming involved in a WDC.

In addition, the introduction of a scheme to finance the holding of grain by farmers will damage the profits of those warehousemen who are also grain traders (as is true in most cases in Romania) as the farmers will no longer be driven to sell to the traders immediately after the harvest at low prices. Instead, the farmers can hold the grain until prices are better using the WDC as collateral to a bank. In a normal year and dependent on grain supply and demand, the cost of bank interest for the holding period would be much less than the benefit of market price uplift.

However, despite the fact that in all cases the principal aim of WDC's has been to stimulate rural lending by banks to the farmers, CEE and CIS experience has shown that farmers are not the first ones to profit from the introduction of the WDC system; the grain traders, millers and exporters and importers are the ones to benefit immediately.

A large part of this factor is due to the need to educate and inform the farmers regarding the benefits of the scheme. This takes time, as the farmers are normally a disparate group. In addition, due to the fact that in most such countries the banks have had portfolio quality problems in the past from lending to the agricultural sector, the banks will need time to adopt the concept of lending direct to the farmers against these new collaterals.

Finally, only when WDC-related licensing and inspection procedures are enforced do farmers benefit in the medium term from improved market liquidity and transparency.

A well functioning grading system is necessary for WDC development.

6.2.3. Lessons learned from WDC implementation in other CEE nations

Specific grain laws versus generic silo receipts legislation

There are clear benefits to adopting a special law on grain silos and grain silo receipts, although a country may adopt a generic law and later develop the specific grain bylaws.

The generic law approach risks ignoring the numerous specifics of the cereals business and leaves room for incorrect interpretation.

At the same time, WDC-specific legislation is sufficient only in cases when basic legislation e.g. the commercial or civil codes, provides proper solutions regarding such issues, such as simplified out-of-court foreclosure, the transferability of the silo receipt, etc.

Licensed public silos

The licensed grain storage facility must function as a public grain silo, in other words a silo available to third parties, not one owned by the State. The storage agreements with customers must be standard and not discriminative. Silos must officially post storage and handling tariffs in a transparent manner, thereby engendering confidence of the farmers and other grain depositors.

There are in this respect important differences among countries; for example, in the US a public silo has the right to be involved in grain dealership, in other words to execute its own trade deals in grain. US grain silos have also the right to issue receipts for their own use and continue to resort to this right quite intensively to finance their trade operations.

On the other hand, in Hungary the law imposes prohibitive restrictions for public silos to be involved in trade for themselves. The Hungarian system empowers public silos to be only a place for storage of grain intervention stock.

In the recent feedback session in Romania it was generally felt that the Convergence project's recommendation that the depositories should be empowered to issue WDC's on their own stocks was a good idea, as it would free up the system for use by the depository-traders that currently store 85% of the grain in Romania.

Voluntary versus obligatory participation in the WDC

In most CEE and CIS countries the commercial silo industry has been highly monopolistic, even after the move to the market economy, and the incentive for silos to be voluntarily licensed may be weak. As mentioned above, this is particularly true when silos are also traders, as the introduction of WDC's has the potential to cut their profits.

In some countries an incentive for the public silos has been offered in the form of allocating the right to licensed silos alone to keep cereal stocks under the state intervention schemes, e.g. in Hungary and Slovakia. However it is unlikely that the storage fees for such activity would fully compensate the loss of profits on trading activity.

Simplified out-of-court foreclosure procedure and warehouseman lien

Simplified out-of-court procedure, deployed by the silo receipt lender in case of the borrower's default, is one of the key components of a successful WDC scheme.

Such a procedure allows a bank to lower the individual borrower's risk and to provide low-cost asset-based financing that is especially advantageous for the emerging private agricultural sector in the transition economies, where the court systems are commonly overloaded or sometimes corrupt.

The simplified procedure offered by, for instance, a bearer instrument, provides an efficient means for the bank to liquidate its collateral in a legal sense. Coupled with an efficient national market for grains, the banker could be in a strong position in the event of default. These factors are key to stimulating the participation of the banks in WDC's, additionally helped by the existence of an indemnity fund arrangement.

A defined ranking for the settlement of claims is embodied in the legislation of most countries with the priority of state debts first and warehouseman rights second in priority due to the existence of a warehouseman's lien in civil law.

The silo performance guarantee system

There are numerous pros and cons of using indemnity funds versus bonding in each country. In the US, the homeland of the indemnity fund concept, there is considerable scepticism among silo operators regarding both of these forms of underwriting. They dislike the idea of having financial responsibility through the fund or indemnity structure for competitors' mismanagement and fraudulent behaviour.

Meanwhile in CEE countries, the establishment of indemnity funds may be the only realistic start-up mechanism for customer protection and satisfaction of claims. One simple reason to launch the indemnity fund may be the lack of classical bonding procedures in the country's legislation, or a lack of insurance market sophistication preventing insurers from providing bond cover.

However, in the CEE and CIS countries, the establishment of indemnity funds can be prevented by a lack of financial resources. It is then advisable to deploy alternative mechanisms such as bonding, simple insurance or banking guarantees where possible.

Market circulation of silo receipts: expectations versus reality

In CEE countries such as Poland, Slovakia and Hungary, national silo receipt legislation contains quite lengthy and detailed provisions related to circulation of these instruments on the secondary market.

However, none of these expectations has been realised to a significant extent so far. In a single case, the Bratislava Commodity Exchange has made available silo receipts for secured loans worth SKK215 million (S\$6.1 million) in 2001.

Prospects for WDC following CEE candidate countries' accession to EU

Harmonisation of national cereals market intervention policy with the CAP

The WDC is a system used mainly in the United States to assist farmers in obtaining loans with the grain deposited in licensed and certified silos as collateral. There is relatively little experience in the European Union in using WDC as a cereals market intervention and financial instrument.

There are however strong arguments to consider WDC as a prospective tool to implement the European Union's Common Agricultural Policy (CAP) grain intervention processes, specifically in CEE economies.

The WDC could replace private sector institutions and organizations essential for the functioning of the cereals market that exist in EU countries but are not present in the CEE transition economies. Building such institutions requires time and resources.

CAP in Poland May 2004

In the case of Poland, the introduction of CAP mechanisms as of May 2004 changed fundamentally the intervention and support policy mechanisms on the cereals market. Most important for the development of storage services offered by the WDC, was the changed date when the intervention procurement starts.

The intervention procurement in EU member countries starts on 1 November and continues until the end of May of the following year.

The changed date of intervention may create demand for storage services by the grain silos, in particular storage services that will guarantee quality standards.

The next important requirement of intervention under the EU CAP is the quantity standards that all participants must observe. The standards concern especially the minimum size of lots to be delivered, which must exceed 80 tonnes. This requirement may force a number of producers that themselves are not capable of delivering 80 tonnes of uniform grain to the intervention centre to turn to grain silos or trader-consolidators that would buy and prepare the grain to a uniform standard. This process is already active in Romania.

WDC and intervention programmes in selected CEE and CIS countries

Bulgaria

Bulgaria annually produces 5 to 7 million tonnes of grain, including 3 to 4.5 million tonnes of wheat.

In Bulgaria, the Law on Grain Warehouse Receipts was approved in autumn 1998. The present system has been in place since 1999.

According to national statistics, the number of licensed public silos increased from 5 in 1999 to 42 in 2003; their total licensed capacity presently amounts to 4.6 million tonnes.

Local banks provide credits to farmers and traders against the silo receipts issued by the licensed grain silos. The volume of loans disbursed against silo receipts increased from the equivalent of US\$300 thousand in 1999 to US\$6.5 million in 2002 and US\$5.9 million as of May 2003.

Later statistics are not available to us. However, NBR may be able to obtain comparative numbers on Bulgaria and other CEE/CIS countries through their reciprocal arrangements with other central banks.

Hungary

The average Hungarian grain harvest is 10 to 14 million tonnes.

Hungary was the first CEE country to introduce WDC's in 1996.

In that year three large grain elevators were licensed as public silos. The licensed public silos sublease additional independent storage facilities in the countryside to increase the capacity for storage. The State Intervention Agency is using silo receipts issued by public silos as the main tool of government intervention on the grain market.

The program works fairly well and about 4 million tonnes of grain pass annually through the public silos with substantial bank credit being made available against issued silo receipts.

The bank credits disbursed against grain silo receipts represent a value equal to about half of total annual Hungarian on-farm investments. This indicates the huge potential of such a scheme in Romania

Poland

In 2002, 20 private sector grain silos with a total storage capacity of 284 thousand tonnes started procurement and storage operations, operating on the basis of a law passed in 2000.

Some 184 thousand tonnes of grains were stored under contracts with the Agricultural Market Agency (ARR) and 1,014 silo receipts were issued in this start-up stage. By the end of 2003 there were expected to be up to 35 grain silos working with WDC's, all licensed by the Minister for Agriculture with total storage capacity of 0.5 million tonnes, approximately one tenth of the grain marketed annually in the country.

6.3. Proposals for WDC Scheme in Romania and The Need for Confidence in the System

Between 2001 and 2003 Romania enacted new legislation, updating a law from 1937, that had the potential to create an environment in which WDC's could be used by farmers and grain traders to obtain short term working capital financing from the banks.

What is a WDC?

A WDC is a simple document used in many grain-producing countries to signify the quality, quantity and ownership of a certain consignment of grain. In order to fit its purpose, a WDC must fulfil all the characteristics of a negotiable or bearer instrument in the relevant country. This permits rapid transferability of the title to the consignment.

In most examples the WDC is in two parts, firstly the description of the consignment including the following data: -

- Type of grain
- Date of harvest
- Date of delivery to the storage silo
- Quantity
- Quality according to the accepted norms in the country, using scientific analysis of all value-relevant characteristics.

The second part of a WDC comprises a page showing all of the endorsements of title to the consignment. By virtue of the negotiability of the instrument, the current endorsement establishes title to the consignment. In certain countries, WDC's are bearer instruments, transferred by mere delivery from seller to buyer. Either way, the second part of the WDC creates a liquid instrument, able to be valued and transferred quickly by a holder, whether that be the borrower or the lender.

The World Bank Rural Finance Project of 2004. What other measures are needed for WDC's?

The World Bank Rural Finance Project, undertaken in Romania by Agriteam Canada Consulting Ltd in the second half of 2004, was aimed at recommending the basis for the setting up of a WDC indemnity fund in Romania. The project report, delivered in February 2005, assessed that in addition to the introduction of WDC's, **Romania would also need to establish a rigorous and unimpeachable technical and financial inspection and licensing system for silos before they would be allowed to issue WDC's. There would in addition need to be a common and industry accepted basis to determine the quality of the grain stored on delivery. Such grading should be the basis for establishing the market price of the consignment. Finally there should be a method for rapidly compensating innocent parties if there is a default. This issue was recommended by Agriteam to be covered by the setting up of an indemnity fund. Agriteam were of the opinion that only with a combination of rigorous licensing, inspection, grading (all on terms acceptable to the market), plus the existence of an indemnity fund, would it be possible to implement WDC's successfully in Romania. It was felt that without all of these components in place, lenders would consider WDC's to be high-risk instruments and they would not enter the market unless they could be sure that there was a mechanism to rapidly indemnify legitimate claims.**

Agriteam in fact calculated that the level of backing for a WDC fund would need to be USD3.75m. It was recommended that this amount should be accumulated through the collection of fees taken for the issue of guarantees by the fund.

Furthermore, Agriteam recommended that a new single entity be set up for the administration and control of the industry, The Romanian Grains Commission. Here it was felt that the objectives of the silo licensing and inspection authority, the grading activities of the current RGC, plus the objectives of the WDC indemnity fund were very closely aligned and there would be cost benefits from having a single unit. It was recommended that this new entity be administered by a Supervisory Board of seven individuals of whom 3 would be appointed by the Ministry of Agriculture and the remainder be made up of representatives from other stakeholders.

Goodwood recommend that the PWG review the findings of that Report as part of the proposed refinement of the WDC rollout process.

It is regrettable that more than 2 years later there has been so little progress seen in the setting up of a WDC indemnity fund in Romania.

The need to establish confidence in the WDC systems as seen from the Bulgarian project

In Appendix 2 of this Report we describe in detail a system for warrant deposit certificates in Bulgaria. In that work it was identified that in that closely parallel market, in addition to the passing of relevant legislation, it was necessary for there to be three pillars in place.

Pillars 1 and 2 relate to confidence issues.

In the work in Bulgaria it was observed that if WDC's were to be successfully introduced, the banks needed to have confidence firstly in the legal structure and operational framework surrounding WDC's but also that they required certainty that the actual grain that underpinned the WDC's would be stored and maintained in line with optimal industry norms as seen in other countries.

Turning to the standpoint of the grain trader or farmer wanting to finance the storage of grain via WDC's it is crucial that the storage is done in accordance with the enacted regulations, thereby ensuring the volume and quality of the grain to be sold at some future date to repay the bank financing.

From both of these standpoints, Pillar 1 is aimed at ensuring compliance by the storage companies with financial and technical standards established and maintained by appointed regulatory bodies.

Pillar 1

Establishes a system of compulsory silo licensing based on financial and technical compliance, and ongoing robust inspection by a professional and independent regulatory body. This would give confidence to the depositors, the lending banks and the depositories themselves because if the industry is impaired by poor quality silo operators then those that are well established and managed will not be as successful as they could be.

With good regulation, those compliant depositories would be empowered to operate in a normalised industry with high financial and technical standards. Non-compliance would result in either arbitrary closure by the authorities or in gradual marginalisation due to non-availability of credit or investment capital.

Secondly, the depositors and the banks both require assurance concerning the grading of the grain, at the point at which it enters the silo and at periodic dates thereafter. This ensures that the value of the consignment is not affected due to poor silo management or other factors. Pillar 2 is therefore aimed at establishing confidence in the continuous quality of the grain that they own.

Pillar 2

Establishes a system, based on internationally accepted norms, and run on an independent but regulated basis under a Grading Commission structure, of initial and periodic inspection of the grain itself, augmented with an efficient IT system to facilitate off-site supervision. This would give confidence to the depositors and the banks.

6.4 The Need for Liquidity Backing for the Warrant Deposit Certificates

Both the depositors and the banks require there to be a liquidity framework that provides an exit for the depositor via a future sale of the grain, or for the bank in the event of default by the borrower.

Pillar 3

Establishes a liquidity process to provide backup to the collateral of the depository receipts in the event of borrower default. In the ideal world this would be provided via a developed commodities market with reliable pricing and trend information. In the absence of such in Romania, as has been seen in other countries, the liquidity could be provided through an indemnity fund structure provided via the public or private sector. Defaulted loans would thereby be paid out through the fund, with the

fund then assuming the rights of the warrant certificates and seeking recovery through insolvency processes and the grain market.

In the longer term and as capital markets develop in emerging countries, there will be a development of a commodities market and in time this will provide open market liquidity to the collateral.

6.5. Deficiencies in the Current Romanian Legal and Institutional Framework for WDC's

6.5.1. Legal Issues

As part of an earlier phase of the Rural Lending Project, the SPI Secretariat undertook on behalf of the PWG a detailed study of the law of 1937, plus the enacted legislation from 2002 to 2003 regarding Warrant Deposit Certificates, which concluded that from a legal and regulatory standpoint, there existed a suitable framework to introduce a working system for WDC's in Romania.

Goodwood have reconsidered the legal framework for WDC's in connection with the investigation of parallel market systems and we are of the opinion that there is not a need for new legislative action to make Romanian WDC's a workable option. Rather, there is a need to make some adjustments to peripheral regulations that will resolve the current lack of progress in implementation. These are set out below.

6.5.2. Voluntary or compulsory licensing?

The Romanian silo industry is still emerging from the Communist era. The industry in the past has had a bad reputation, deserved or not, for corruption and this element of mistrust is a major barrier to the WDC system.

At the top end of the market there are most of the biggest grain storage companies in the world, owning significant storage volumes and operating in an impeccable manner. Secondly, there are well-capitalised locally owned operators who are running modern or modernised silo assets on a profitable and transparent manner. However, there remains uncertainty of lower level operators who may be in more remote areas and may have a major influence in a community.

Most of the other nations in CEE and worldwide that operate WDC's require compulsory licensing of silos. Goodwood feel that this is not unreasonable as the storage of grain for a fee represents a fiduciary operation and in the case of Romania involves hundreds of millions of dollars worth of third party assets. Moral hazard issues remain high in Romania and we believe that better transparency of the WDC system would support its acceptance by the community.

In context of this, the currently proposed voluntary nature of the registration and licensing of silos should be reconsidered. Concerns have been expressed by PWG members on this issue. These concerns have proven well founded as, to date, no silos have applied for licensing. This is considered to be a major constraint to the development of confidence of the key stakeholders in the stability and operation of the silos. In the 29th March PWG meeting Goodwood recommended that licensing should be compulsory, as did some other participants including the Ministry of Agriculture, and it was agreed that this issue would form a part of the ongoing debate.

6.5.2. Silo Companies to issue WDC's on their own grain

Under the current Romanian law this is not illegal. However, the operational norms issued by the Ministry of Agriculture are drafted in a manner that might preclude this. The 29th March PWG meeting highlighted that issue and the fact that, as 85% of the grain normally stored in silos in Romania is in fact owned by the silo owners, this norm wording could rule out financing for the majority of the grain. The PWG agreed that it would be a good idea to review this issue.

In comparison with international systems, US silo companies are empowered to issue WDC's on their own grain and this permits multi-million dollar financing for the grain industry each year.

In contrast, the Hungarian Grain Law forbids silo companies from also being traders, indicating that the silo companies would only be able to issue WDC's on stocks owned by third parties.

6.5.4. Format and Content of the WDC's

Our project meeting with the Romanian Commodities Exchange highlighted the fact that not all value relevant information was included on the current Romanian design for WDC's.

Discussion ensued in the 29th March PWG meeting on this issue and it was agreed that more work needed to be done with industry experts in order to refine the information that should be included for each commodity.

The example discussed was the gluten content for wheat consignments but other characteristics were important for other commodities.

It was concluded that recommendations from the PWG should be made to the Ministry of Agriculture in order to make compulsory the inclusion of all value relevant data. This would have direct benefit for the WDC scheme but (through making WDC's acceptable to key players and thus tradeable) could also assist the development of the Romanian Commodities Exchange, hence liquidity for the WDC scheme.

We have considered this aspect in connection with our investigation of other WDC schemes. Whilst we have not been able to see the format of WDC's from those other markets, the design of the Bulgarian 1998 scheme, on the recommendation of the US grain industry experts that were employed, made recommendations that, in addition to the transferability that needs to be embodied in a WDC, a WDC should have various characteristics.

The following paragraphs are an extract from the final Bulgarian project report.

The Bulgarian legislation describes the WDC as a promissory security issued by a public silo and proves the deposit of grain and the obligation of the silo to deliver the grain to the legitimate holder of the receipt. The WDC is defined in the Commercial Law. There are several important specifications added to this definition that concern the WDC for grain.

1. *Location and bin number of the grain storage, in which the grain has been deposited.*
2. *Year, harvest and quality of the grain deposited. In the case of wheat, this must include the gluten content, a major determinant of value. Other types of grain must include all price-relevant information included in the WDC, so that the holder of the instrument can be certain of the amount, grading and value of that particular consignment. The WDC is effectively the passport of that consignment of grain. In order to achieve full acceptance of the WDC instrument, it is*

important that all stakeholders agree and regulations are passed as to what should be included on the WDC. This has the additional benefit of reducing commercial disputes over the later delivery of the consignment.

In Bulgaria the WDC is issued according to the silo register and consists of two parts – collateral and commodity. The ownership of the grain is transferred only with full endorsement of the receipts.

*The format and technical description on the WDC create **the third level of security of the system**. The WDC bears all the attributes of a controlled and transferable security and the maintenance of a silo register contributes to the additional trust in the system. The functionality and protection afforded by the WDC is determined by the fact that it is the physical carrier of important information related to the value of the collateral through the precise description of the quality and the quantity of the grain and its right of ownership according to the existent endorsements. The holder of the receipt, according to the Grain Law is entitled to make claims immediately after the state collectibles and the storage fees owed to the public silo and before any other creditors.*

6.5.5. Institutional Issues

Comparison with the models of institutional frameworks for WDC's in other CEE and US markets reveals that Romania has legal provisions establishing the main components of a suitable institutional framework for the establishment of a working WDC scheme.

However, we would make the following additional recommendations: -

Licensing Commission

This needs to be reconstituted with committed and active members operating in a transparent manner in accordance with norms that are made public to all stakeholders.

Romanian Grading Commission

The PWG should review the operational methods of the RGC in comparison with EU norms and recommend any suitable changes.

RCGF

We welcome the news that it is making progress in its proposed handling of the WDC Guarantee Fund. This is crucial in the absence of real commodity market liquidity for the WDC's and in view of the low innovation currently available in the Romanian insurance markets, that could otherwise provide indemnity bonds as per the US market.

Romanian Grains Commission

The PWG should re-examine the rationale for a single entity as recommended in the 2004 World Bank/Agriteam Project

7. Making the Romanian WDC Scheme Work

7.1. Options for a workable WDC scheme in Romania

Gap Analysis of Current Features of Romanian WDC's vs. International Models

Characteristic	Romania	International	Recommendation
WDC negotiability	Yes	Yes	None
Rights and duties of WDC holders defined	Yes	Yes	None
Prospective holder of WDC needs to know prior claims on WDC	No	Yes	Needs to be established under WDC regulatory environment
WDC needs to contain all value-relevant data on grain consignment	Partial	Yes	Stakeholder review of WDC contents and adjust as required
Effective Grain Silo Licensing Commission	Voluntary registration. High moral hazard.	Compulsory in many models	Licensing to be made compulsory
Periodic inspection of silos	Current proposal would grant licence for 5 years	Regular compliance checks to maintain licence validity	Licence for 5 yrs subject to compliance with biannual checks
Grain grading	Legislation in place and Grading Commission operational	Active grain grading institutions	Review methodologies of RGC in line with EU norms
WDC indemnity fund	Legislated but not implemented	In place in most countries	Establish fund in line with legislation
Silos need to be able to issue WDC's on grain stocks owned by them	Prevented by current operational norms	US system permits annual multi million dollar financings by banks of grain stocks owned by silo companies	Ministry of Agriculture to revise operational norms
Single entity for silo licensing, inspection, grain grading and indemnity fund	Non existent	Objectives of these activities are closely aligned. Single entities in place in certain countries	Consider the single entity option to be run under a Supervisory Board structure as envisaged in the Agriteam Canada 2004 project for World Bank
Need for accurate market information and price data	Non existent	Available via commodity markets or Ministry of Agriculture	Ministry of Agriculture to provide in medium term. Longer term via Romanian Commodities Exchange
Need for true market liquidity via active commodities exchange and secondary market trades of WDC's	Non existent	Active commodities exchanges in western countries. Exchanges in CEE countries are being developed	Romania needs an effective commodities exchange

The remaining barriers to the introduction of WDC's are relatively simple to resolve and are: -

- Establish compulsory licensing requirements for silo companies on terms that are acceptable to all stakeholders. Silos to be subject to ongoing six monthly periodic inspection by a regulatory body in the private or public sector, with EU standard methodologies that are acceptable to all market participants.
- Review existing Grading Commission regulations in line with industry requirements and EU standards. Establish new standards as necessary for frequency of grading inspection
- Review the nature of the information that is set out in WDC's to ensure that this includes all value-specific information. Seek industry input on data required in comparison with established parallel markets and make new standards compulsory under the authority of the Ministry of Agriculture
- Establish WDC Guarantee Fund under the control of the RCGF, ensuring that the risks indemnified are in line with the requirements of the lending banks, the farmers and the insurers. Consider the framework used in parallel markets.
- Consider the option to combine licensing, silo inspection, grain grading and the WDC indemnity fund under a single entity as recommended by Agriteam Canada in their 2004/2005 project.
- Ministry of Agriculture and the banks to launch a nationwide awareness campaign for the farmer groups, individual farmers and grain traders setting out the features and benefits of the scheme
- Romanian Government to sponsor the development of an active grain commodity market to be implemented as soon as feasible.

These solutions would be in line with the successful introduction of WDC's in Bulgaria as described in Appendix 2 of this Report and would be based on the expert input given to that country by US industry professionals as part of a USAID technical assistance programme. That advice, plus the World Bank 2004 project advised by Agriteam Canada for the establishment of the WDC indemnity fund, have been based in turn on tried and tested methodologies in place in the USA and Canada.

Essentially, in order to implement these changes and resolve the issues Goodwood considers that there are two main choices to be made, a Public Sector Approach or a Private Sector Approach. The key attributes of these options are set out in the next two sections.

However, please note that the technical provisions of the public/private option would remain the same. The main difference between the two approaches would be the entity responsible for action (under the public option the Ministry of Agriculture and under the private option an entity to be established by the stakeholders) and the funding sources for the indemnity fund (the State budget or a private sector option).

7.2. Public Sector Approach

The Public Sector Approach follows the principles that are already embodied in the existing WDC scheme, in other words that the Ministry of Agriculture plays the core role in the implementation.

However, the following action steps recognize various improvements that have been found to be necessary during the SPI Secretariat and TAN work in Romania and to some extent based on the Romania-specific World Bank 2004 Agriteam project, plus the Bulgarian WDC model. The action steps further recognise the current hiatus in the implementation of the Romanian WDC scheme.

Consequently, under the Public Sector Approach the Ministry of Agriculture is recommended to take the following urgent action: -

- The revision of the terms of the WDC's to include all value-specific information about the grain consignment, such as gluten content. In order to make this most effective, the Ministry should seek the input from the following groups: -
 - Romanian Grading Commission
 - Romanian Commodities Exchange
 - Bank group
 - Farmer group
- Revision of the Ministry operational norms to permit silos to issue WDC's relating to their own stocks of grain. Goodwood consider this to be essential as 85% of the grain is owned by the silos. This would align Romania's WDC system with a key feature of the WDC methodology in use in the USA for many years and through which multi million dollar short term financings are arranged each year
- Review the basis of the terms of silo initial licensing with stakeholders including RCGF, banks, farmer groups, and insurers. This is considered to be essential to instil confidence of the stakeholders in the system.
- Reconsider the optional versus compulsory licensing debate. Goodwood are in favour of compulsory licensing as another means of instilling confidence.
- Review the standards for ongoing supervision and compliance monitoring of the silos with input from the same entities. Train silo inspection teams in line with EU standards. This is considered to be essential to instil confidence of the stakeholders in the system
- Reconstitute the Licensing Commission with active qualified members
- Consider one or more WDC pilot lending schemes as seen at the inception of Bulgaria's WDC programme. This would have the benefit of displaying to the potential market that this system works and has the potential to provide liquidity for farmers and traders
- Promoting the use of the WDC scheme via an awareness programme. This we consider essential to resolve the current lack of knowledge of the WDC system and how it can be used

- Consideration of the merger of licensing, monitoring and grading operations under a single entity regulated by the State, as seen in the USA, or under a Supervisory Board structure as envisaged in the 2004 World Bank project. Goodwood can see no particular reason to keep these institutions separate. Combining them would create a single transparent entity and would engender the confidence of the stakeholders
- Sponsoring action by the RCGF to establish and fund the WDC Guarantee Fund with transparent regulations and norms made available to all stakeholders. This is essential in order to launch the system
- RCGF to consider longer term option of backing the WDC's with a bond issued by the insurance market

7.3. The Private Sector Approach

The private sector approach would adopt a market-driven set of solutions to successfully rollout the WDC programme in Romania. This approach would recognize that there are a number of key stakeholders (RCGF, banks, insurers, farmers, grain traders and silo companies) that have interest in making WDC's successful in Romania. This approach would also recognise the current demands being made of the Ministry of Agriculture in terms of the introduction of the CAP, compounded by the worsening political climate in Romania.

However, it should be noted that the provisions of the private sector approach are in essence not different from the public option. The principal benefit would be that a private initiative would circumvent the hiatus apparently existing in the Ministry of Agriculture and that the funding for the indemnity fund would be provided by private resources.

Such resources could include a syndicated loan provided by the banks with risk sharing from other stakeholders or a gradual build up of funds to be collected from fees for the issue of guarantees by the fund. Once the assessed \$3.75m of capital were raised, such fees could then continue to be collected to cover operational expenses of the fund and to provide a surplus to cover unexpected claims under the indemnity fund.

Stakeholders to consider forming a single entity for: -

- Compulsory licensing of silos to issue WDC's on terms in accordance with EU standards
- Inspection and ongoing compliance monitoring of silos in accordance with EU standards
- Grain grading in accordance with its existing standards, following review of these by all stakeholders
- Provision of guarantee fund for the underwriting of grain deposit loans supported by WDC's. Estimated requirement circa US\$3.75 million per annum revolving as assessed in the Agriteam 2004 project
- Training and licensing of individual officers on basis of EU norms
- Funding to come from a combination of Government grant, syndicated loan, equity, guarantee fees, grading and inspection fees

Comparison of Public Sector and Private Sector Approaches

Characteristic	Public Sector	Private Sector	Comments
WDC needs to contain all value-relevant data on grain consignment	Ministry of Agriculture to review contents and amend	Stakeholder review of WDC contents and adjust as required	Private option may achieve a better consensus for acceptance
Effective Grain Silo Licensing Commission	Licensing to be made compulsory. State involvement may add to the comfort factor	Involvement of private sector in regulating licensing may lead to disagreements	Goodwood favour compulsory licensing but PWG should seek input from stakeholders
Periodic inspection of silos	Current proposal would grant licence for 5 years	Biennial compliance checks to maintain licence validity	Goodwood favour ongoing inspection to build confidence in the system
Grain grading	Legislation in place and Grading Commission operational	No change required but consider single entity as below	Confidence of all users in the robustness of grain grading is essential
WDC indemnity fund	Legislated but not implemented. Needs to be	To be established using	Establish fund in line with

	established with funding from State budget	private sector funding	legislation
Silos need to be able to issue WDC's on grain stocks owned by them	Ministry of Agriculture action required to amend operational norms	As public sector	Current operational norms severely restrict possible lending volumes
Single entity for silo licensing, inspection, grain grading and indemnity fund	To be considered under the responsibility of the Ministry of Agriculture	Single entity to be established under a Supervisory Board of 7 members with 3 coming from Ministry of Agriculture as per Agriteam model	Consider the single entity option to be run under a Supervisory Board structure as envisaged in the Agriteam Canada 2004 project for World Bank
Need for accurate market information and price data	To be provided by the Ministry of Agriculture	To be provided by the Romanian Commodities Exchange as soon as the market permits this	Ministry of Agriculture to provide in medium term. Longer term via Romanian Commodities Exchange
Need for true market liquidity via active commodities exchange and secondary market trades of WDC's	Ministry of Agriculture to sponsor the development of an active primary and secondary market in grains	Banks to provide liquidity to the Romanian Commodities Exchange to support market making activity	Romania needs an effective commodities exchange

7.4. Estimated Economic Impact of the Successful Introduction of Warrant Deposit Certificates in Romania

Additional cash flow available with WDC framework

Data and assumptions:

- i. The sample of farms has 204.562 firms that total 4,192,000 hectares accounting for 30% of total agricultural area in use¹;
- ii. Focus is on wheat production which accounts for 32% of the overall crop production;
- iii. Yield per hectare of wheat production is 3.4;
- iv. It follows that the annual crops produced by the sample is 4,550,000 tons;
- v. Sale price composition breakdown of wheat production per tonne of sample farms is the following (Table 1)²

Table 1

		Baseline	Scenario	
Total input costs per tonne (USD/tonne)		90	90	
Mark up (%)		5%	20%	
Average market price (USD/tonne)		95	108	
Incremental price (USD/tonne)		14		
	t	Sale price	% of quantity produced	Weighted price
	t ₀	95	20%	
Release of price increase	t _{3 months}	102	40%	
	t _{6 months}	108	40%	
			100%	103

- vi. Estimated outstanding bank lending to the sample of wheat-producing farms is worked out as follows (Table 2):

Table 2

¹ The sample is composed of 100% of enterprises whose size is more than 50 ha and 50% of enterprises falling into 5 to 50 ha size class)

² Based on Table published in 2003 by the Romanian Commodities Exchange.

Loans to agriculture, forestry and fishery sector (December 2006) (Mln, RON)	<i>a</i>	2,600
Loans to agriculture, forestry and fishery sector (December 2006) (Mln, EUR)	<i>b</i>	739
Estimate of loans to Agricultural sector (%)	<i>c</i>	80%
Estimate of loans to Agricultural sector (Mln Eur)	$d=b*c$	591
Percentage of wheat production out of overall crop production (%)	<i>e</i>	32%
percentage of sample wheat production out of overall wheat production	<i>f</i>	60%
Estimated outstanding bank lending to sample Farms producing wheat (Mln Eur)	$g=d*e*f$	113

Findings:

- Thanks to a viable WDC framework, farmers would be able to sell their wheat production at a better price;
- This would allow them to get 116 mln euro over 5-year time as net present value of incremental cash flow;
- At the end of the considered time span, the incremental cash flow accrued would increase the bank lending available to farmers by 100% (see [Table 3](#)).

Table

3

Cash Flow Breakdown

	Baseline	Scenario				
		t ₁	t ₂	t ₃	t ₄	t ₅
Cash flow from sales	338.5	368.6	368.6	368.6	368.6	368.6
Cash flow production costs	-322.4	-322.4	-322.4	-322.4	-322.4	-322.4
Cash operating expense	16.1	46.2	46.2	46.2	46.2	46.2
Incremental annual cash flow (<i>t_n vs baseline</i>)		30	30	30	30	30
Incremental financial cost due to marginal commercial bank borrowing (Mln, Eur) Terms (maturity: 6 months, interest rate: 11.3%)		-1.7	-1.7	-1.7	-1.7	-1.7
Net incremental cash flow (Mln, Eur)		28	28	28	28	28
NPV Incremental cash flow (Mln, Eur) [<i>t_n vs baseline</i>]		27	25	23	22	20
		116				
Available commercial bank lending to sample farms (Mln, EUR) <i>[t_n vs baseline]</i>	113 [*]	140 ^{**}	165 ^{**}	188 ^{**}	209 ^{**}	229 ^{**}
Overall % incremental bank lending to farmers as a result of a viable WDC		102%				

*=Under assumption that outstanding lending is steady over time since cannot be increased by means of traditional bank products

** = Present Value

8. Proposed Action Plan

Issue	Measure	Benefits	Priority	Responsibility
Obtain feedback on TAN final report	PWG member action	Achieve consensus for next steps and Final Action Plan	High	SPI Secretariat
Decisions on next steps	Convene Third PWG meeting	Open discussion on issues raised in TAN report	High	SPI Secretariat
Agree Final Action Plan	Design Final Action Plan	Incorporation of all feedback and inputs	High	SPI Secretariat
Agree Public Sector or Private Sector Approach	Implement Approach	Rollout of WDC Scheme	High	Ministry of Agriculture or PWG
Implementation Monitoring	PWG ongoing process	Ensures compliance with agreed action	High	PWG and SPI Committee

9. Appendix 1

An Analysis of Romanian Agriculture and the Impact of the Common Agricultural Policy

This section has been prepared by Goodwood based on data and other information taken from the Romanian Ministry of Agriculture, Forestry and Rural Development 2007 to 2013 Plan, with added analysis from other sources and commentary from Goodwood.

Romanian agriculture in the 20th century

Despite its reputation as the “breadbasket of Europe” in the early 20th century, Romania was never an agricultural paradise. Before 1945 farmland was small in scale and inefficient. Romania’s landscape was full of tiny parcels of land that were incapable of supporting modern technology. Following 1945, the Communists forced collectivisation of land and peasant plots on the Stalinist model. From 1946 until 1962, 80,000 peasants resisting collectivisation were also put into prison or sent to labour camps where many died.

There were three farming structures set up: state farms, private farms and collectives. By the 1980’s, 17% of the land was in state farms, 75% in collective farms and 8% private. The former stable systems of farm structures, management and markets were replaced with central control and politically-inspired national self-sufficiency at huge cost and with very poor efficiency.

Following the Revolution in 1989, the Ministry of Agriculture displayed further mismanagement and incompetence. There was a failure to harmonise the quota and support system of providing security to agricultural business with the realities of the emerging free market. The state restored the property rights to former owners and peasants working the land into about four million small farms, most of them subsistence. However the farming traditions and the work ethics of the pre Communist era had been lost. This was combined with bad application of the law and poor regulation by the state, meaning farmers found it hard to make profits.

During the 1990s, the state controlled the prices of agriculture yields, but at the same time the costs of seeds, chemical and pesticides increased constantly. More and more farmers began to leave their jobs and abandon farming between 1991 and 1996.

Romanian Agriculture in 2007

With an area of 238,000 square kilometers and a population of more than 21 million inhabitants, Romania is an important new EU member state in terms of size, although there is a large gap between Romania and the old member states as far as the level of economic and social development is concerned.

The current national trend of continuous GDP growth started from 2000, to reach a peak in 2004 (of 8.5% as against the previous year), scoring an average of about 5% over the past years, which means that the GDP/capita in 2005 was around 34% of the EU25 average, as compared with 27% in 2001. These numbers must be balanced with the fact that the accession of the 10 former CEE and CIS countries in 2004 will have driven down the overall average. Numbers are not available for the agricultural sector alone.

Rural areas play an important part in this respect, both by their size and residential, economic and recreational dimensions. Rural areas in Romania cover 87% of the territory, and include 45% of the

population, i.e. 9.7 million inhabitants.

It is stated by the EU and the US Department of Agriculture (USDA) (the top two grain producing economies in the world) that Romania has by far the worst rural infrastructure in the current EU.

Agriculture and forestry are important traditional economic sectors in Romania, both in terms of the agricultural area (14.7 million ha.) and forest area (6.7 million ha.), and in terms of the population occupied in agriculture and forestry (32 %). In 2005, the contribution of agriculture and forestry to the gross value added (GVA) was 9.6%, a dramatic drop from 13.9% in 2004, because of the poor harvest in 2005.

In terms of labour occupied in the primary agricultural sector, out of a total of 2.9 million people occupied in 2005 (down from 2002, when it was 3.3 million), only 6% are employees, 52% being self employed and 42% unpaid family workers. Out of the total population occupied in the primary sector, there is a high number of people above 55.

The basic training of the qualified labour in agriculture is done in the traditional specialised education system, although, over the past years, the number of graduates of specialised schools has dropped. Between 1998-2005, the number of schools specialised in agriculture (secondary schools, vocational schools, postgraduate secondary schools) decreased, while the number of schools specialised in forestry and veterinary medicine increased.

The total number of trainees in professional courses in 2005 was 35,000, of which 33,000 were farmers.

The total area of agricultural land in Romania was 14.7 million hectares in 2005 of which arable land represents about 64%, vineyards and vineyard nurseries 2%, orchards and orchard nurseries 1%, pastures 23% and hayfields 10%.

The process of agricultural and forest land restitution to the private owners started in 1991 and by 2005 about 96% of the agricultural land had been restituted. The process is still ongoing as there is much litigation and disputes over locations and boundaries but a large percentage of owners have now received their land and property titles, although, with the poor efficiency of the Romanian judicial system, it will take many years for this process to be concluded.

Agricultural contributions to the GVA (around 12-13% in 2000 onwards) are low compared with utilised resources and are decreasing as compared to 1990, when the contribution was 20%. This decline is explained by the fact that non-agricultural sectors had higher economic growths than the average agriculture growth. GVA input from agriculture in 2004 was 13.4%.

Primary sector occupation is to be found mostly in agriculture (98.8% in 2002). Out of the people occupied in agriculture, only 67.1% had a full time (mostly self-employed) job.

The extreme fragmentation of agricultural land and lack of association demarcates agricultural activity with subsistence and semi-subsistence farms on the one hand and commercially viable farms on the other.

In 2005, out of the total number of 4.2 million agricultural holdings, 4.1 million were occupying a land area of 13 million hectares. Out of these, more than 90% hold less than 5 ha. of land. Less than 1% are larger than 50 ha.

Placing the country in direct comparison with another EU member state with a large agricultural sector, in 2005 the average land area used by an arable farm in Romania was just over 3 ha., compared

with 70 ha. in France.

Cereals

The average cereal production is not stable from one year to another, as it depends on the climate conditions and is inefficient in comparison with its potential. For instance in 2005 wheat production was 2,508 kg/ha., representing 40% of the potential and maize 3,150 kg/ha., representing also 40% of the potential.

Principal Issues affecting Romanian Agriculture Today

The main issues in Romanian agriculture are:

Farm Sizes

- A very large sector of subsistence and semi-subsistence agriculture made up of small individual holdings
- Poorly equipped farms, with a relatively low yield, wasting much of the labour input and using most of the production for their own consumption
- Large commercial farms including rented plots (covering more than half of the area), which are relatively well equipped, with high yields, but which still do not use the land to its true potential
- The intermediate sector, being commercial family holdings (larger individual farms), which is very underdeveloped, compared with other EU member states. In common with most other sectors of the Romanian economy, there is no true middle class in agriculture. There are very rich farmers at the top of the sector, whereas those at the bottom are very poor, down as low as in third world countries. A major aim of current Romanian policy in this sector is to develop this middle class in agriculture, through identifying ways of extending direct EU payments and rural credit schemes to farmers who do not currently qualify.
- The average agricultural area used by an individual holding increased in 2005 against 2002, from 2 ha. to around 3 ha., but in the same period the average size of land used by a commercial farmer reduced. This indicates the effect of the closure or downsizing of 5,000 commercial farms in this period. This is a notable statistic because despite Romanian agricultural in recent years being aimed at encouraging the development of farms with a commercially viable size, it seems that many owners of commercial farms have either moved out of the industry or have sold off parts of their land. This indicates that this ongoing policy has major constraints.
- Farms considered subsistence farms by Eurostat cover 71% of holdings.

However, because there are many small holdings in Romania (subsistence and semi-subsistence) for which there is no real possibility of restructuring, the share of holdings taken into account for EU CAP support to become commercial holdings will only include about 320,000 semi-subsistence holdings. The future for the approximately 3.7 million farms smaller than this looks bleak, as they will not benefit from CAP payments.

A major barrier to the consolidation of farm sizes into commercial holdings is of course the resistance of farmers to any such process, stemming from the memories of the Communist era. Up to 80,000 peasants were imprisoned in those days for attempting to resist collectivisation and it is only in recent years that land titles have been restored to their successors.

Decline of Farm Numbers

In 2005 the 4.2 million holdings in Romania had fallen by 5% from 2002. Even commercially viable farms had fallen from 23,000 in 2002 to 18,000 in 2005.

Mechanisation

The technical equipment of individual holdings improved during 2002-2005, with 4% more tractors, 26% more planters, and 31% more combines but by comparison with the wider EU the ratio of tractors and combines per hectare remains very low. Due to the very high number of subsistence farms, from a narrow statistical standpoint it could be argued that the main motive power for agriculture in Romania in the 21st century is animals.

This poor mechanisation ratio leads to long harvesting seasons, poor crop quality and high losses of harvested outputs.

Much of the machinery is old or even obsolete (more than 50% of the existing tractors are more than 8 years old). This statistic does not show the true picture, because a 10-year-old Romanian-manufactured tractor will be using technology more than 30 years behind current standards in Western Europe.

Significant investment in modern machinery is still required, despite the contributions made by SAPARD during its 4-year existence in Romania.

Irrigation

In 2005 Romania had an irrigation network covering around 2.8 million hectares, of which 1.5 million hectares was recently refurbished. This large irrigation infrastructure was underused in the last decade because of the theft of large sections of the pipes and further investment is needed to improve both the extent and the quality of the system to assist crop yield goals.

Grain Silos

The storage facilities for agriculture commodities have high storage and conditioning costs and many silos and storage rooms cannot guarantee the standard storage conditions required by national legislation, let alone EU standards. Only 60% of the existing storage facilities are still active and by 2003 only 20% had been updated according to the European norms.

This is a further area requiring significant investment in order for Romania to become competitive.

Soil Quality

In general Romania is recognised as a country with a good quality of soil with a large part of the country being in the upper categories of soil fertility. However, a large part of the soil is affected or shows high risk of soil degradation because of erosion, acidification, alkaline contamination, excessive moisture or drought, salt content and compaction.

Excessive soil moisture affects 4 million ha. of agricultural land. Conversely, frequent drought affects about 7 million ha. of agricultural land.

Several rural areas are affected by excess moisture and floods risk.

Soil Erosion

Soil erosion is a widespread problem. This is mainly caused by water erosion, which together with

landslides affects more than 7 million ha. of agricultural land. The largest problems exist in the Moldavian uplands, Sub-Carpathian hills and in the Transylvanian Tableland.

126 million tonnes of soil are lost annually through erosion on a countrywide basis.

In Romania the flood occurrence is frequent, especially in spring, due to snow melting and blockage of rivers by ice and in summer due to heavy torrential rains, when the rivers exceed the average levels. Over the last 16 years the flood occurrence has increased as a consequence of the climate change combined with illegal deforestation (the main cause of landslides), plus a lack of maintenance of the flood prevention infrastructure.

Serious floods occurred during 2005 and 2006, resulting in loss of human and animal lives and drastic alterations of the landscape. Their frequencies, and their severity, appear to be increasing. Further results of the floods include destruction of roads, bridges, railways and houses.

Labour Migrations from Rural Areas

Large numbers of the young active population have, in recent years, moved towards urban areas, in search of better jobs and a more attractive lifestyle. This is particularly true of people aged between 20 and 39.

As a result, there is an ageing population in rural areas, many of whom suffer from the Communist era work ethic resulting in low productivity. The Ceausescu regime drove thousands of farmers from the land and made them into industrial workers. These people are now in their 50's and they do not belong in the countryside any more. Their children were born in the cities where they enjoy a better lifestyle and have no incentive to work on the land. Only their grandparents, now in their 70's, remain to work the farms. It will be many years before this factor can be corrected.

The current lack of adequate training in agricultural skills, plus the greater potential for legal cross border working following the EU accession, can only increase the number of circa 2 million Romanians already working abroad, probably many more if informal workers are included.

In order to avoid this migration of the rural population towards the cities and other countries, farm restructuring has been one of the aims of the state policies, as an addition to job creation, mostly in non-agricultural activities.

Immigration factors

Immigration of foreign farmers is also very important to the Romanian rural economy, because large external financial resources are brought in and contribute to the national economy (especially rural economy) and to changing mentalities towards a more modern approach.

In certain parts of Romania, for instance, there are quite large populations of farmers of Italian and other nationalities who have entered the economy to take advantage of low cost fertile land and low relative labour costs.

Rural Poverty and Unemployment

The average income in rural areas is € 95 per month compared with about € 135 in towns and much higher in Bucharest. 43% of the income of rural households comes from agricultural production.

The highest unemployment rate (more than 20%) was recorded in the 18 to 24 years age group.

Hidden unemployment is also high in rural areas, because almost 85% of the rural population, in theory at least, works in agriculture, much of it at the subsistence level.

Transport Networks

The Romanian rail network continues to suffer from 60 years of poor investment.

Consequently, in rural areas the roads are the most important transport routes, but the development of rural roads and traffic systems is well below European standards. Only half of the agricultural communities have direct access to the road network, meaning that the current road network only serves 60% of the total rural population.

In production terms this factor has a major effect on the efficiency of agricultural transport.

From the social perspective more than 25% of the communes cannot use the roads if there is heavy rain and snow.

The incidence of flooding aggravates this problem.

In 2005, public roads in Romania covered 80,000km, and 80% of these are county and commune roads. Only 10% of the county and commune roads have been modernised.

Through the SAPARD Programme, 2000 km of roads were modernised and upgraded, a tiny fraction of what is needed.

In conclusion, the current situation in terms of education, employment, investment, transport and other forms of communication, healthcare and facilities for the elderly has a strong negative impact on the quality of life in rural areas and hinders the economic development of these areas. It is not surprising that forward-looking young people are leaving rural areas in large numbers.

The Common Agricultural Policy

The future rural development policy of Romania, co-financed by the European Agricultural Fund for Rural Development (EAFRD), representing pillar 2 of the Common Agricultural Policy (CAP), is designed to accompany the support policy of pillar 1, providing basic income support for farmers, based on production volumes.

The 2nd pillar (commonly referred to as the decoupling measures) is increasingly important under more recent EU policy and provides support for the development of the agriculture and forestry sectors, for preservation and protection of land, nature and environment and for the improvement of the quality of life in rural areas. In essence Pillar 2 is aimed at developing the sustainable use of rural land including farming, the living environment and as an amenity for rural dwellers.

Restructuring, modernising and developing the Romanian agriculture and food sector as well as the forestry and wood-processing sector, constitute a huge challenge to the enhancement of the competitiveness of the sectors.

Therefore, efforts are being made to integrate EU CAP instruments with Romanian national policies and other EU structural funds in order to take advantage of all available funding sources and to coordinate these instruments for the development of rural Romania.

Until the end of 2006 support was provided to farmers from national programmes (e.g. the Farmer Life Annuity Programme) and from the EU co-financed SAPARD programme.

In order to pursue a sustainable economic, environmental and social development of rural Romania and given the EU single market and the trade goals that drove Romania's EU accession in particular, the Romanian overall rural development strategy must focus on enhanced competitiveness, at the same time taking into consideration the need for protection of nature, environment, land and water resources in rural areas.

It can easily be seen that there is a great deal of work to be done.

The overall objectives of the Romanian national rural development strategy are to:

- Increase the economic dynamics of Romanian rural areas including the development of a sustainable agriculture and forestry sector;
- Preserve, protect and consolidate nature, environment and natural resources;
- Enhance the social dynamics and the quality of life in rural areas.

The objectives are designed to be achieved by: -

- Improving the skills of the farmers and foresters allowing a better management of the agricultural holdings and forests;
- Improving the competitiveness of commercial and semi-subsistence farmers;
- Restructuring and modernising the processing and marketing sectors for agricultural and forestry products;
- Developing subsistence farms into semi-subsistence holdings producing for their own consumption and for the market;
- Modernising commercial agriculture performed by full-time family farms and larger enterprises.

This will facilitate the gradual evolution towards a competitive agriculture and forestry sector, food and wood processing, taking advantage of the opportunities of EU membership and the world market. The consequence will be a notable change within the agriculture sector in Romania, though the process will take many years.

For the period 2007-2013, the main strategic targets of the Romanian agri-food sector are: -

- Consolidating and recapitalising the family-type farms;
- Increasing the incomes of the rural population;
- Developing and strengthening the processing sector
- Ensuring food safety standards for the population and
- Raising the contribution of the agri-food sector to the Gross Domestic Product.

EU Payments

The general principles for EU direct payments to Romania are: -

Romania has opted for the simplified area payment scheme (SAPS) for a period of 3 years, with the possibility of a 2-year extension, based on the Commission's agreement at accession.

In the meantime, Romania will perfect its Integrated Administration and Control System in order to comply with the EU requirements. Romania's delays in establishing this system (essentially the CAP payments mechanism) at one point threatened to postpone Romania's accession to the EU.

To absorb the impact of the 10-year period for the gradual implementation of direct payments, Romania has decided to supplement the direct payments under SAPS with complementary national direct payments (CNDP's).

SAPS will be fully financed from the EU.

CNDP's will be financed from the national budget and from the National Rural Development Plan (20% contribution) for the first three years.

CNDP amounts will be allocated to sectors playing a significant role in Romanian agriculture and that need to be supported according to the provisions indicated in the National Strategy for Agriculture and Rural Development, whilst being at all times compliant with the Common Agricultural Policy.

Calculations for Romania show that in 2007 the basic SAPS alone will not result in an immediate increase in income for agricultural producers, because they represent 25% of the 2004 level for direct payment received by farmers in other member states. A topping up of SAPS by 30 percent CNDP's is envisaged to ensure an adequate income level for all qualifying farmers.

It is expected that the single payment scheme and other direct payments under the first pillar of the CAP in 2007-2013, together with the investment measures and other measures of the rural development policy, will contribute to the anticipated agricultural structure, i.e. larger, specialised, and more competitive farms as the groundwork of the agricultural economy.

Direct payments will also contribute to the setting up of a larger number of medium to large family farms, including semi-subsistence holdings, and self-sufficient small farms to achieve other goals, i.e. environmental protection, maintenance of cultural landscape, social equilibrium and settlement.

However, with commercially viable farms falling from 23,000 in 2002 to 18,000 in 2005, the creation of a sufficient population of commercial farms may be an uphill struggle, even with the CAP inducements.

10. Appendix 2

Lessons to be Learned from the Introduction of WDC's in Bulgaria

Romania's neighbour is a major grain producing country, around 5 to 7 million tonnes annually. This, plus its concurrent accession to the EU, renders it a valid comparison with the Romanian grain industry. It is accurate to say that the Bulgarian system of grain financing is considerably more advanced than in Romania.

In July 1997 a team of Bulgarian and American experts completed a survey of the grain production and processing industry in Bulgaria. The survey was sponsored by USAID. The main goal of the survey was to analyze the situation in the grain sector, identify major problems and constraints and recommend a plan for resolution. There were 9 key issues that were identified by consensus from all the groups participating in the survey:

1. Lack of trade rules and developed infrastructure of the domestic market and for access to the international markets
2. Very high price of quality seeds
3. High price of agricultural inputs
4. Lack of reliable grain storage facilities in the smaller production units and limited choice for reliable grain storage
5. Lack of reliable standards for quality of grain
6. Lack of access to commodity markets
7. Very limited access to short term financing for operational capital
8. Lack of information about sources of financing
9. Lack of access to reliable grain marketing information

As a solution to these issues the team proposed the introduction of WDC's.

At the initial stage of development of the WDC system in Bulgaria, two major constraints for the producers and processors and traders of grain were identified. One was the access to short term financing for operational capital. The financial institutions in Bulgaria were still very conservative in their short term lending policies and the requirements for collateral for such credits were not achievable for the majority of small and medium size producers and processors. The second problem was the lack of a regulated and guaranteed system of grain storage, where depositors could safely store their products and wait for the best market price.

There was considered to be high importance of the grain industry in Bulgaria for overall agricultural development, leading to the introduction of the Grain Industry Development Programme, funded by USAID.

The major components of the programme were:

1. Development and Implementation of the WDC system in Bulgaria.
2. Development of grain commodity markets.
3. Assistance to providers of grain marketing information.
4. Assistance to the trade organizations in the grain industry in their efforts to consolidate and influence policy decisions and establish trade rules.
5. Technical assistance and training to private grain processing and storage companies.

The main programme objective was to introduce the WDC system as an alternative solution for grain producers and processors to provide short term financing for their operations, using grain as collateral.

A well-developed system of licensed public silos and the use of WDC's for storage and marketing of grain provided the following advantages that contribute to the overall development of the grain industry:

1. Provides a uniform and well-regulated system for storage of grain.
2. Provides protection for the depositors of the grain insuring the quality and the quantity of the deposited grain.
3. Introduces the use of WDC's, which are official documents for ownership, are easily transferable and can be used as collateral for short-term loans.

The concept of a WDC system was based on grain storage in silos licensed as public silos. These silos received the right to store grain of third parties and issue WDC's. Receiving the license, the silo bears the responsibility to constantly provide a high level of technical and financial performance. This is one of the ways to create confidence in the depositors and in the lending banks that their grain would be stored with guaranteed quality and quantity. Public silos were situated in large production areas, important marketing centres or near import-export terminals.

The WDC's that are issued by the public silos as simple instruments for using grain as collateral for short term financing. The producers, traders and processors are given the opportunity to be flexible in using the grain they own as collateral and to determine the best time to market the grain. The use of WDC's makes the transfer of ownership between the seller and buyer easier and quicker, avoiding the need for physical relocation of the commodity. This is particularly important for the development of the commodities markets.

The financial institutions that accept WDC's as collateral benefit from a higher level of potential liquidity of the WDC (versus a mortgage over land) and from priority over this collateral before other creditors, with the exception of the borrower's debts to the State. The banks also have the advantage of a higher level of protection of the collateral enforced by both the good management practices of the licensed public silo and the supervision of the regulatory agency.

A well operating WDC system is based on appropriate legislation that enables a regulatory agency to execute control of the key components of the system. The existence of clear and secure licensing procedures contributes to the creation of trust in the system. The legal framework should be designed in such a way that provides clear definitions for the rights and responsibilities of all participants in the system.

The WDC system in Bulgaria was formalised on July 29, 1998, after the Parliament passed the new law for the marketing and storage of grain. This event was an important step forward after a six months public discussion among representatives of the grain industry – producers, processors and traders, bankers and experts from the Ministry of Agriculture and the Agricultural Commission in the Parliament.

The importance of the discussion for the future development of the grain industry in Bulgaria was emphasised by the personal involvement of the Minister of Agriculture and the Head of the Parliamentary Agricultural Commission. The Grain Law contains the legal framework that provides conditions for the implementation of the WDC system and defines the rules and regulations for the marketing and storage of grain. The document also describes the authority of the government institutions that regulate this process as well as the rights and responsibilities of the physical persons and legal entities involved in the storage and marketing of grain.

The main goals of the Grain Law

1. To create conditions for sustainable development of the production and processing of grain in Bulgaria.
2. To provide stability for the grain market in the country.

Public Silos and Grain Storage

The Grain Law regulates two types of business entities, involved in the storage of grain – public silos and grain storage, both of which are subject to licensing procedure. The licensed grain storage entity was not entitled to issue WDC's.

A licensed Public Silo for storage of grain according to the Bulgarian legislation is a sole proprietor (trader) with its main business activity being the storage of deposited grain and issuing of WDC's as well as joint stock companies and limited liability companies registered under the Commercial Law. The major licensing requirements for a public silo were as follows:

1. Minimum required capital for incorporation of a public silo for grain
2. The public grain silo should have a minimum storage capacity
3. The public grain silo provides bank deposit or irrevocable bank guarantee of around US\$5 per metric tonne capacity at the disposition of the Ministry of Agriculture. The expiration of the deposit or the bank guarantee cannot be earlier than two months after the expiration of the license for the public silo.
4. The public grain silo cannot be a creditor or provide guarantees for credits for a third party.
5. The public grain silo is required to insure the grain storage against fire, flood and earthquake.
6. The public grain silo is required to make public the storage fees.
7. The public grain silo is required to provide to the National Grain Service information regarding its business operation.

In addition to the above-mentioned requirements, the public grain silo has to meet several technological standards as well as prove its financial stability.

This **first level of protection of the system** created conditions under which the licensed Public Grain Silos can be reliable participants, thus providing guarantees for appropriate storage of the grain of appropriate quality and quantity. This condition is very important for the depositors and for the financial institutions that will accept this grain as collateral. The performance of the public silo is crucial for the smooth operation of the system.

The Grain Law additionally stipulates the creation of a **second level for protection of the system**. Within one year from the passing of the law in the parliament, the public silos had to form an indemnity fund, which guarantees their performance. This issue is of utmost importance for the confidence and the stability of the system as a whole.

Guarantees of the performance of public grain silos

There are several approaches used in other countries for secondary guarantee of the performance of the public grain silos. One of the most popular approaches also broadly used in USA is the insurance bond, purchased by the silo and kept by the licensing authorities. This insurance bond covers partly the risks of the depositors related to the improper performance of the public silo.

Another approach for creating a performance guarantee is the accumulation of an indemnity fund that protects the interests of the depositors. It is also possible to have a combination of indemnity fund and insurance bonds with well-defined mechanism of payments of the claims.

There are several basic principles that should be followed. The indemnity fund should be privately financed and managed and administered with active participation of the private sector and reliable insurance companies should issue the insurance bond. The premium of the insurance bond should be affordable by the industry and at the same time reflect the risk level in the country.

In the case of Bulgaria, analysis of the most appropriate instruments for financial guarantees decided on the establishment of an indemnity fund as a second level of protection of the system. In the spring of 2000, the Minister of Agriculture approved the status of the Grain Indemnity Fund.

Confidence of the banks in the WDC system

The two levels for protection of the system that have been described, in order to work, need to be accepted by the depositors and the financial institutions. Both levels are targeted towards the secure storage and the quality maintenance of the collateral. The banks that accept WDC's should trust the public silos that have issued them and feel comfortable with the technical and financial conditions for storage of the grain used as collateral.

During the initial period of operation under these new regulations, it was agreed that the banks should design ways to execute parallel control of the public silos using their own specialists for informal inspections.

WDC

The WDC is a core component of the system. WDC's vary in different countries in precise form but in essence should be a comparatively simple document based on strong legislation. If they provide a simple mechanism for transfer of ownership or initiating a pledge, they become a very well accepted and commonly used tool.

The Bulgarian legislation describes the WDC as a promissory security issued by a public silo and proves the deposit of grain and the obligation of the silo to deliver the grain to the legitimate holder of the receipt. The WDC is defined in the Commercial Law. There are several important specifications added to this definition that concern the WDC for grain.

1. Location and bin number of the grain storage, in which the grain has been deposited.
2. Year, harvest and quality of the grain deposited. In the case of wheat, this must include the gluten content, a major determinant of value. Other types of grain must include all price-relevant information included in the WDC, so that the holder of the instrument can be certain of the amount, grading and value of that particular consignment. The WDC is effectively the passport of that consignment of grain. In order to achieve full acceptance of the WDC instrument, it is important that all stakeholders agree and regulations are passed as to what should be included on the WDC. This has the additional benefit of reducing commercial disputes over the later delivery of the consignment.

In Bulgaria the WDC is issued according to the silo register and consists of two parts – collateral and commodity. The ownership of the grain is transferred only with full endorsement of the receipts.

The format and technical description on the WDC create **the third level of security of the system**. The WDC bears all the attributes of a controlled and transferable security and the maintenance of a silo register contributes to the additional trust in the system. The functionality and protection afforded by the WDC is determined by the fact that it is the physical carrier of important information related to the value of the collateral through the precise description of the quality and the quantity of the grain and its right of ownership according to the existent endorsements. The holder of the receipt, according to the Grain Law is entitled to make claims immediately after the state collectibles and the storage fees owed to the public silo and before any other creditors.

The Bulgarian National Grain Service

The National Grain Service is a specialized agency within the Ministry of Agriculture. The National Grain Service is based in Sofia and has regional offices. The major functions of the NGS are as follows:

1. Recommends for licensing the public grain silos, organizes and implements control of the licensing process.
2. Keeps and maintains public registers of the public grain silos.
3. Executes initial, periodical and special examinations of the financial, operational and technical condition of the public grain silos as well as the quality and quantity of the stored grain.
4. Administers the printing of WDC's.

The operations of the National Grain Service create **a fourth level of security for the system**. The control and the regulation of the performance of the public silos and the use of the WDC's aim at a constant level of trust in the system among the users – producers and financial institutions. A secure operation of the public silo provides security for the grain. It is crucial for the users of the system to feel comfortable that the important components of the value of the collateral, its quality and quantity, will not be compromised by improper business practice of the public silo. Equally, it is important that the silos themselves submit to this regulation, adding a disincentive to illegal or inefficient operation.

Pilot Project

A pilot project was introduced to test the system. It included a selection of silos, producers and banks willing to participate on a voluntary basis. Silo inspectors from the USA, teamed with employees of the National Grain Service, executed initial and subsequent examination of the participating silos. The initial examination determined the financial and technological status of the applicants and the subsequent examination checked the actual quantities of grain described in the financial documents of the silo.

Three silos took part, along with four production co-operatives and five private producers. Five Bulgarian banks also participated.

The three groups were involved in the negotiation process determining the conditions for short term financing based on the use of grain as collateral. The lack of official WDC's at the time was substituted by contracts for storage of grain, signed by producer, banker and grain silo.

All the participants in the pilot project had access to grain marketing information through the weekly bulletin of the Agency for Agri Market Information (SAPI). This bulletin contained marketing information for domestic and export markets as well as some situation analysis and trends.

As a result of the negotiation process four short-term loans in a total amount of about 25,000 US\$ were given to producers by the regional branches of two of the banks. The loans were based on 70% of the market value of the grain at the time of signing the contracts.

The pilot project proved that the system could work successfully in Bulgaria and become a vital alternative for short term financing based on the use of grain as collateral.

With more traditional bank lending being based on real estate or fixed asset collateral, this would have the major impact of releasing more potential bank funding into the market. In the course of the pilot project the participants and a team of Bulgarian and American experts evaluated the strengths and the

weaknesses of the system at the present stage of development and recommended several important steps for the future implementation. These recommendations were:

The future development of the grain market in Bulgaria should be comprehensive and should include:

- enforcement of transparent trade rules (regulated and arbitrated by a National Grain Association)
- create a better access to reliable marketing information
- upgrade the Bulgarian grain standards to international norms
- develop the grain markets (wholesale markets and commodity exchanges) in order to create liquidity for the collateral
- increase the role of the private sector in legislation initiatives and regulation of the market rules
- optimization of the domestic and export grain market infrastructure

The Pilot Project approach proved to be an extremely important tool for the implementation of the WDC system. It was a comparatively low cost and low risk exercise that tested the different components of the system and identified potential impediments.

The months following the Pilot Project were dedicated to several areas of assistance, aimed at providing the necessary framework for nationwide implementation of the system.

WDC Awareness seminars

Nine seminars were organized in various parts of Bulgaria to promote the system amongst possible potential users. The target groups for the seminars were local grain producers (farmers), processors, silo operators and bankers. The format of the seminars included presentation of the WDC system, sharing experience from American silo managers, training in basic principles of grain marketing and presentation of the licensing requirements from the National Grain Service. About 600 people participated in the seminars and were given the opportunity to learn more about the system and express their comments in open discussions.

US Training

Two groups of six silo examiners from the National Grain Service were sent to the USA on a practical training trip. The activity was organised by the US Department of Agriculture "USDA" and funded by USAID. An active partner in the design and implementation of the training was the Kansas City Commodity Office. The main goal of the training was to create technical skills in the Bulgarian examiners, by providing them with an opportunity to work with counterpart examiners from the USA. The training was extremely successful and the Bulgarian examiners gained good experience in initial and subsequent silo examination practices.

Licensing process

After the awareness campaign the National Grain Service started to receive applications for licences as Public Grain Silo or Grain Storage. Experts from the Service examined the application papers and began the examination of the silos.

On August 3, 1999 the Official Gazette published the Regulation on the Establishment of the Indemnity Fund that guarantees the receivables of the depositors and the legitimate holders of WDC's in the public grain silos that participate in the indemnity fund. The Fund guarantees the total amount of all receivables of the depositors and legitimate WDC holders, which derive from the contracts for deposit of grain. According to the above-mentioned regulation each licensed public grain silo has to participate in the indemnity fund.

On November 9, 1999, with the approval of the Minister of Agriculture, the National Grain Service and three of the licensed public grain silos registered an Indemnity Fund “Grain” according to the Regulation for the Establishment of Indemnity Fund (“the Fund”).

The capital for the Fund is raised from:

- Initial payment of the participants (affiliation fee);
- Income from managing the fund;
- Loans;
- Funds received from international projects;
- Other income.

The State Fund for Agriculture approved a three-year loan bearing no interest to the Fund for the amount of 5,000,000 BGL (\$2,500,000). The proceeds of this loan are part of the capital of the Fund and serve as a guarantee for the receivables of the depositors and legitimate holders of the WDC's.

The scheme has since been extended on an industry-wide basis.

Various participants in the industry also took part in a study tour which incorporated visits to licensing institutions of public silos in Hungary and Slovakia, public silos participating in the WDC's system in Hungary and Slovakia, banks lending money against WDC's as collateral and commodity exchanges in Budapest and Bratislava using WDC's as instruments in grain trade. The participants in the study tour learned about the development of the WDC Systems in Hungary and Slovakia. They also studied the models of cooperation between grain producers, processors and public silos.

At the beginning of December 1999 the first commercial transactions were made under this new system.

All the components of the system were in place by harvest 2000. Many grain producers and processors used the WDC's system in the summer and autumn of that year. More than 200,000 MT of grain was deposited in the public silos and over 320 receipts were issued. As of December 2000 the deposited volumes were more than 100,000 MT. SG Expressbank, Union Bank and United Bulgarian Bank gave credit to depositors against WDC's alone. Several months after harvest the 3 banks together lent about \$US3,500,000 to receipt holders, providing them with working capital without selling the grain immediately after harvest, allowing them in the ensuing seven months to earn 30% more than at harvest time. In the meantime the grain was stored in the secure licensed public silos, and the depositors received credit collateralised by WDC's only.

The WDC system in Bulgaria has since developed actively. In November 2000 a US trip was arranged for the managers of 6 public silos, during which they learned about the specifics of the American WDC system, grain growing technologies in US and the work of the federal and state institutions in the grain sector. They also visited typical US farms and licensed public silos. In terms of grain marketing, the Bulgarian silo managers visited the Kansas City Commodity Exchange, as well as the federal laboratory that exerts control over the grain grading.

Conclusions reached from the WDC implementation in Bulgaria

After one year of countrywide implementation of the WDC system in Bulgaria the project management reached the following conclusions:

- I. Main barriers and impediments for the implementation of the program and solutions to them :
 - A. **Technical:** The WDC implementation program did not face substantial technical problems due to the available USAID funding and ability to mobilise the best expertise and technical knowledge. The programme had access to extremely qualified consultants and volunteers, who worked hard in identifying the optimal solutions specifically for the Bulgarian environment. The availability of the highly professional expertise of USDA employees involved in creating the enabling legislation and control of the system, together with the strong support of the private grain sector and finance professionals contributed greatly to the implementation strategies.

B. Institutional: The implementation process was supported by all key institutions during its various phases. The international donors and USG organisations coordinated their support and provided a broad platform for development of all the necessary components. USAID as the major sponsor of the project made sure all necessary resources were available for the implementation process. EBRD contributed an extremely valuable input in the development of the secondary legislation in such a way that the financial institutions felt comfortable with using the WDC instrument. The World Bank included the development of the WDC system in Bulgaria as a major requirement during the negotiation process for two large loans to the government of Bulgaria. Throughout the whole process, the project received the full support of The Ministry of Agriculture and The Agricultural Commission in the Parliament.

From an institutional standpoint the biggest challenge for the programme was to create trust in the system among the participants, particularly the grain producers and the banks. The history of government owned monopoly grain storage facilities and several cases of newly privatized elevators who applied unfair business practices, created a high level of unwillingness of the producers to use third party services for grain storage. This put a lot of pressure on the awareness programme and required many face-to-face meetings with the licensed silo operators before commercial relations were possible. The financial sector was sceptical of agricultural lending, because of the inherent higher risk in the system. The program implementers spent a lot of time working with the banks and taking into consideration all their concerns in order to help to design legislation, and systems of control and financial guarantees, that would be acceptable.

C. Legal: One of the advantages of the implementation approach in Bulgaria was the availability of several legislative models from parallel emergent markets, notably Hungary and Slovakia, that served as a reference point through all the steps in the development of the Bulgarian legislation. Most of the basic features of the Bulgarian Grain Law mimic the Grain Warehousing Law in the USA. The historical existence of a similar legislation before World War II in Bulgaria assisted the legal consultants in developing approaches that had already been practised in the local conditions.

II. Improvement of the accessibility of small operators and farmers to the system

The WDC system does not discriminate among the depositors who are able to use it. The grain is stored commingled in the silos, unless the depositor especially wants them stored separately and is ready to cover the costs. Accordingly there are no lower limitations for the volumes stored under WDC's and small farmers are able to use the system in the same way as medium and large ones.

There are several incentives that could be used to make the access of small farmers to the system easier. One of them is a government programme for subsidising the storage fees in public silos. This approach has been used in Bulgaria as a short-term incentive for support of the WDC system. The State Fund for Agriculture provided storage subsidies for small producers and used public silos after harvest 2000. This measure proved to be extremely popular and increased the participation of the small producers in the system.

Another possibility is for the commercial banks that lend against WDC to lower their interest rates for this type of loans, once their confidence in the system is established and provided their loan loss rates are acceptable. The concept here is that the banks should be able to do so based on the higher liquidity of the collateral they receive and the additional levels of protection in the system.

III. Key priority components for the successful implementation of the system :

A. Consensus between the government authorities, the financial sector and the private industry about the necessity and the advantages of implementing WDC system. Without this common platform the development process could be very difficult. There have been cases in other countries where, because of a lack of political initiative, the development of proper legislation was impeded and, although all other participants were ready to enter the market, implementation was delayed. The formation and management of the regulatory agency is a key component for the functioning of the

system. Government institutions could play an important role also in the introduction of incentives that would support the initial stage of development of the system.

- B. Involvement of at least one of the big international donor agencies, committing resources for development of the system. The unique combination in Bulgaria having all the donors on the same agenda (USAID, USDA, The World Bank, and EBRD) was a favourable condition that contributed to the overall implementation process.
- C. Involvement of an experienced implementing agent is an important component of the overall success. The agent should have the appropriate implementation know how and access to the required expertise and resources. The implementing agent would have access to the best expertise available and be able to ensure that all the components of the system are developed in parallel.
- D. Comprehensive feasibility study of the country specific potential for development of the system. This assessment would also be a good basis for the implementation methodology.
- E. Development of a country-specific implementation plan that very clearly defines the methodology and sequence of activities as well as the package of implementation tools that are appropriate for achieving the final goal.

The successful WDC system implementation in Bulgaria as well as several other examples of viable commodity-linked systems for finance in Hungary, Slovakia and Russia create a foundation for the premise that, for markets facing difficulties with loan collectivization based primarily on real estate, WDC's are viable tools to support the access of small and medium size producers to finance from commercial banks. The WDC systems play an extremely important role in the general development of marketing infrastructure and contribute to increasing the added value of the agricultural sector.

11. Estimated Economic Impact of the Successful Introduction of Warrant Deposit Certificates in Romania

This section illustrates the main facts and economics of rural financing in Romania under the existing regulations, the main transactions in soft commodities and how the main players access bank credit.

Distribution of Romanian Farm Businesses by size of land occupied

Romania has 13.9 million hectares of agricultural land, 8.8 million of which is arable³. According to the Ministry of Agriculture, there are about 4,300,000 agricultural enterprises are broken down in Table 1 in term of types and size distribution (expressed in hectares)⁴:

Table 1

Types of agricultural firms	Total	Distribution per size classes (%)			Agricultural area in use (hectares)	Average ha per firm
		Under 5 ha	5 and 50 ha	50 ha and over		
Individual agricultural holdings	4,237,889	90.9%	8.9%	0.1%	9,102,018	2.15
Agric. companies associations	1,630	4.1%	12.8%	83.1%	742,065	455
Commercial companies with private majority social capital	4,574	14%	16%	70%	1,720,792	376
Commercial companies with state majority social capital	250	37%	20%	43%	59,996	240
Units of public administration	4,818	29%	11%	60%	2,124,737	441
Cooperative units	108	52%	33%	16%	3,246	30
Other types	6,883	46%	49%	6%	153,847	22
TOTAL		4,256,152			13,906,701	

Table 2 below illustrates the production of the principal grain crops⁵:

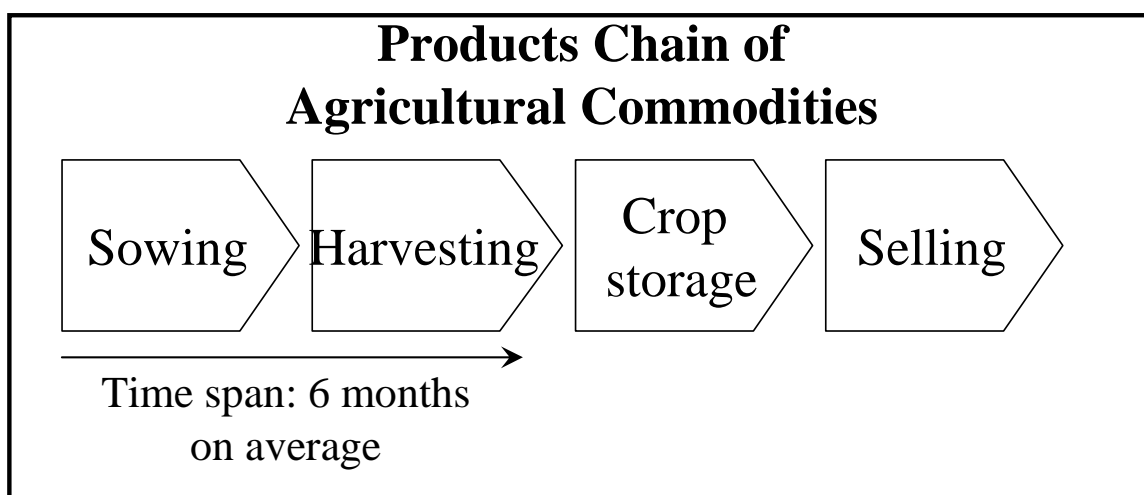
³ FAO, *Bulgaria and Romania European Union Accession*, Food Outlook No. 2, December 2006, (<http://www.fao.org/docrep/009/j8126e/j8126e14.htm>).

⁴ http://www.maap.ro/pages/dezvoltare_rurala/Annexe_Related_Chapter_1_1.pdf.

⁵ Sources: <http://www.insse.ro/Anuar%202005/CAPITOLE/cap14.pdf> (Tables: 14.3, .14.5, 14.6)

Table 2

Year 2004			
Crops	Cultivated area by main crops (thou ha)	Crop production for main crops (thou tons)	Yield per ha
Cereals for grain	6,113.1	23,748.4	3.9
<i>of which:</i>			
Wheat and rye	2,249.0	7,583.9	3.4
Barley	405.4	1,335.1	3.3
Oats	201.6	432.9	2.1
Maize	3,217.4	14,261.5	4.4
Sorghum	8.2	26.6	3.2
Rice	1.2	5.0	4.2
Total	6,083	23,645	
Value of 2004 crop production (Mln, RON)			38,097



The growing of cereal crops usually takes place over a 6-month time span. With certain parts of Romania having a mild climate, winter wheat, for instance, can be grown, giving 2 crops per year.

Once the harvest is complete, various steps may follow, dependent on production factors and financing capacities.

Small farms have limited access to bank or grain company financing schemes. As mentioned earlier in this report, grain farmers work on very low profit margins and are in great need of cash when they complete their harvest in order to pay wages, suppliers and to give them working capital to buy new seed for the next sowing and for survival cash until the next harvest.

Consequently small farms are likely to be “forced” to sell the crops as soon as possible in order to get cash to finance their ongoing activity. Sales could be made direct to a grain trader (if the crop is large enough) or to a “consolidator” working with small farms to assemble a commercial-size consignment for onward sale to a trader.

The prices from traders at harvest time are not very good for the farmer. Prices from consolidators are far worse.

However, though the profit is small at least the farmer is able to sell his crop at a profit and when profit margins are so small, the cash incentive, plus the certainty of a deal rather than taking his chance on market prices in 3-6 months is enough to conclude the sale.

This lack of working capital prevents small farmers from having the luxury of choosing the most appropriate time when to sell crops at better prices.

A successful introduction of WDC’s would create a framework where farmers, banks and the big trading companies (via pre sale agreements) could enter business together for mutual profit, enabling better profits for the farmers that could over time be invested in better inputs, improving yields and qualifying more farmers for CAP support.

By comparison, large farms have the financial and structural capacity to store crops and sell them at the right time.

Under the existing banking systems, farms’ access to banking finance depends on the assets eligible for being mortgaged or pledged as collateral for loans. In principle, farms can rely on any combination of the following assets:

- i) land;
- ii) buildings
- iii) equipment;
- iv) machinery;
- v) inventories;
- vi) accounts receivable.

Currently, in theory, farms are granted loans by means of a pledge on movables and/or mortgage on fixed assets.

In practice, Romania’s farms are constrained from fully exploiting their assets as collateral for bank loans. In particular, Romania’s farmers are largely precluded from obtaining finance upon inventories of commodities as collateral. As stated earlier, small farmers are wary of giving mortgages over their farms for short-term bank credit. Banks are reluctant, given their past problems with the sector, to commit without these. Small farmers also are unable to provide reliable business plans, cash flows and accounting information in order to support the lending decision

Finally under the current operational regulatory framework, Romania’s farms mainly engaged in the production of crops are not enabled to store their inventories with third entities and obtain WDC’s that in turn can be used as tradable securities to raise funds.

Storage Silo Companies

The storage industry in Romania highlighted by the following statistics⁶:

Table 4

Total capacity	Tonnes	a)	13,635,436
Silos	Number	b)	656
Average capacity	Tonnes	c)=a/b	20,786
Average capacity of largest 100 silos	Tonnes	d)	62,833
Total capacity of largest 100 silos	Tonnes	e)=d*100	6,283,300
Total capacity of largest 100 silos out of total capacity	%	f)	46%
Average filled capacity	%	g)	20%
Over capacity	%	h)	80%
Reference Year 2004			

Many of the silos remain unmodernised and 60% are no longer in use

According to Ministry of Agriculture statistics, the value of cereals that are silod in a given year amounts to €00 Million⁷.

Most of the silos, (these are also traders) use the major part (85%) of their overall storage capacity for their own commodities for onward trading to food processors. Silos store soft commodities under their ownership either because they buy them from the producers (trading business) or because they also are engaged to some extent in the upstream production process.

Clearly, silos are mainly focused on trading, and also sometimes on the production itself, rather than providing third party producers with depository services is due to the far higher profits they can make on trading grain.

Banks

As of December 2006, Romania's credit institutions granted 2,602 Million RON loans to the agriculture, forestry and fishery sector⁸.

Over recent years Romania's banks have improved the range of financial products extended to agricultural enterprises also pledging inventories of crops as collateral.

WDC's are legal documents stating the ownership of a specific amount of commodity or good with specific characteristics stored in a specific silo. In principle, silo receipts convert agricultural commodities into tradable securities so that the receipts can be pledged as collateral for loans, traded or sold⁹, however this statement is only true to the extent that there is a liquid commodities market in the country concerned.

⁶ Computations based on Agriteam Canada Consulting, *Implementation of Warehouse Receipts Project – Report on Recommendations for Establishing the Romanian Grain Indemnity Fund*, February 2005.

⁷ Source: Ministry of Agriculture.

⁸ Source: National Bank of Romania, *Monthly Bulletin - Statistical Section*, 12/2006, Table 19/d.

⁹ The World Bank, *Financial Markets, Credit Constraints, and Investment in Rural Romania*, World Bank Technical Paper No. 499, 2001

WDC Romania Impact Assessment

This section illustrates the main assumptions that are made in order to determine the following economic issue: *what will be the additional share of annual production that could be so financed against deposit certificates once WDC's are put in place?*

Assumptions and data are set below:

- The overall storage capacity eligible for being licensed falls within the largest 100 silos;
- The overall storage capacity of the largest 100 silos amounts to 6,283,300 tonnes;
- Out of the overall storage capacity, only 30% is currently filled with crops production;
- The value of cereals that are silod in a given year is €900 million;
- Out of €900 million, the annual amount currently pledged as collateral in order to obtain silo financing from Romania's banking industry is €200 million;
- Stored inventories are pledged to obtain bank loans according to the following composition:
 - on a bi-lateral basis¹⁰ 15%;
 - on a tri-lateral basis¹¹ 85%
- At this stage, the analysis is run on an aggregate level, namely without splitting borrowers between traders and others;
- Average loan to value ratio applied by banks on pledged commodities: 75%;
- The annual increase of crop production warehoused at places eligible for licensing is 20% y-o-y;
- The % of current annual stored production pledged as collateral for bank loans rises from 22% to 30%. So 30% applies both to the value currently already warehoused (only the incremental part from 22% to 30%) and to the incremental production warehoused;
- Analysis time span: 4 years.;

The following charts represent the results of the impact assessment.

Chart 1

¹⁰ Includes bank loans granted to borrowers who pledge inventories within their own silos.

¹¹ Includes bank loans granted to borrowers who pledge inventories stored with third part silos.

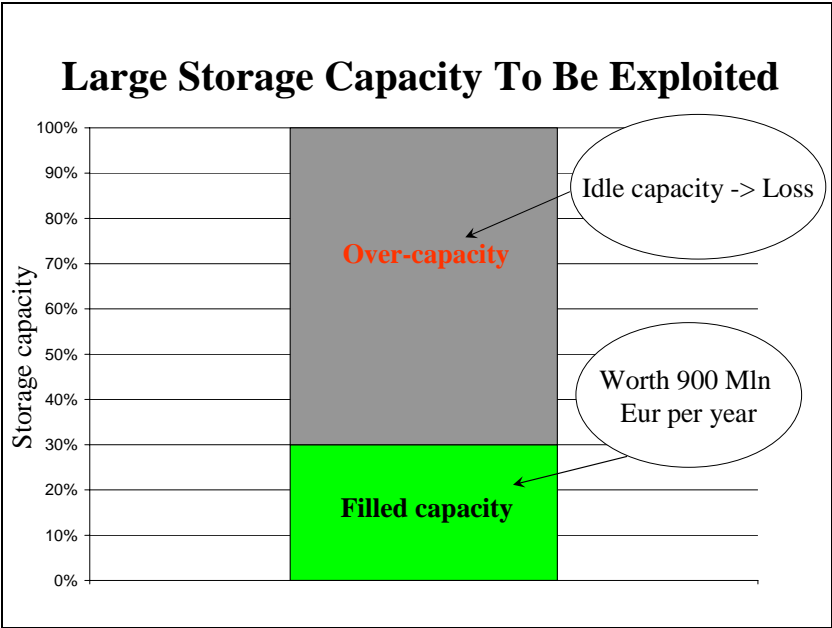


Chart 2

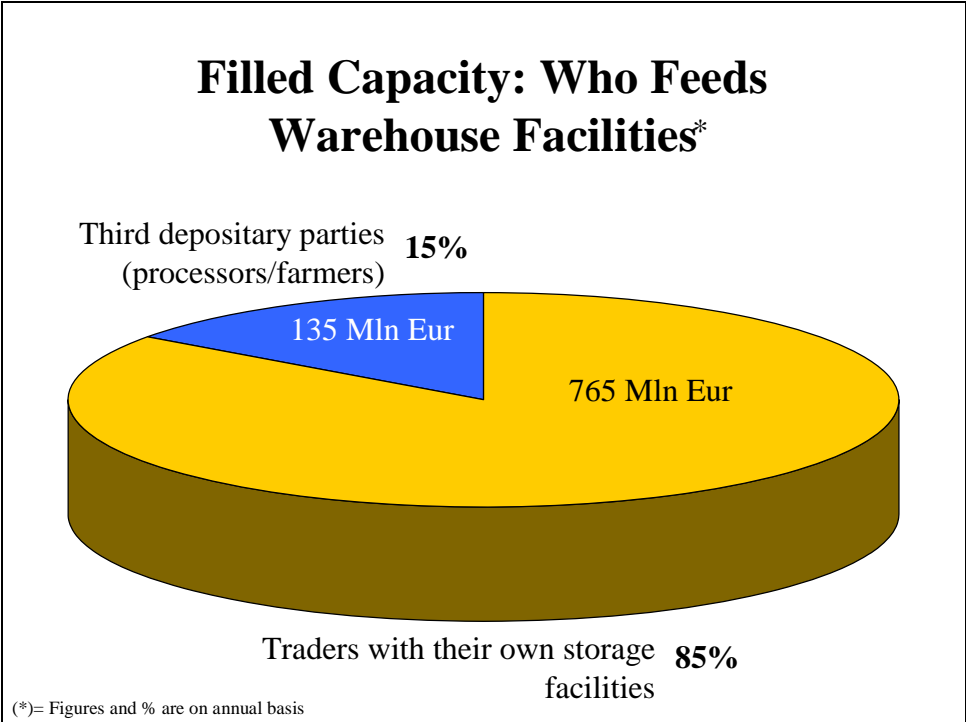
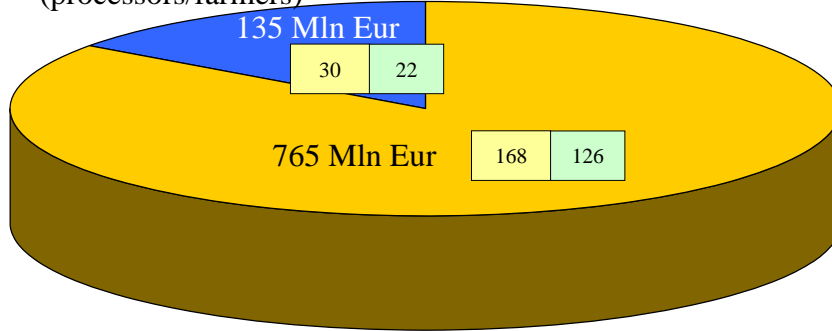


Chart 3

Warehouse Bank Financing: Current Market Dimension*

Third depository parties
(processors/farmers)



Legend:

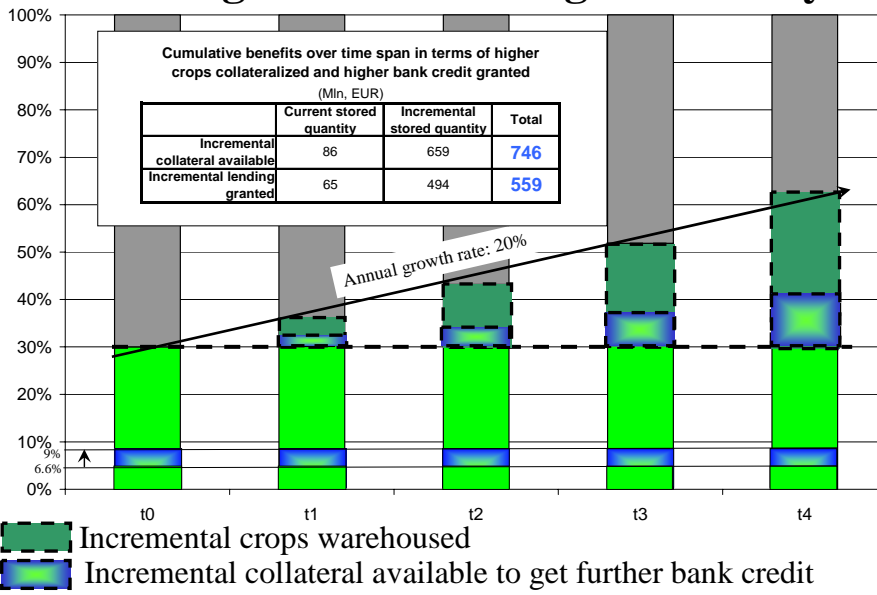
- Amount pledged as collateral
- Loans granted

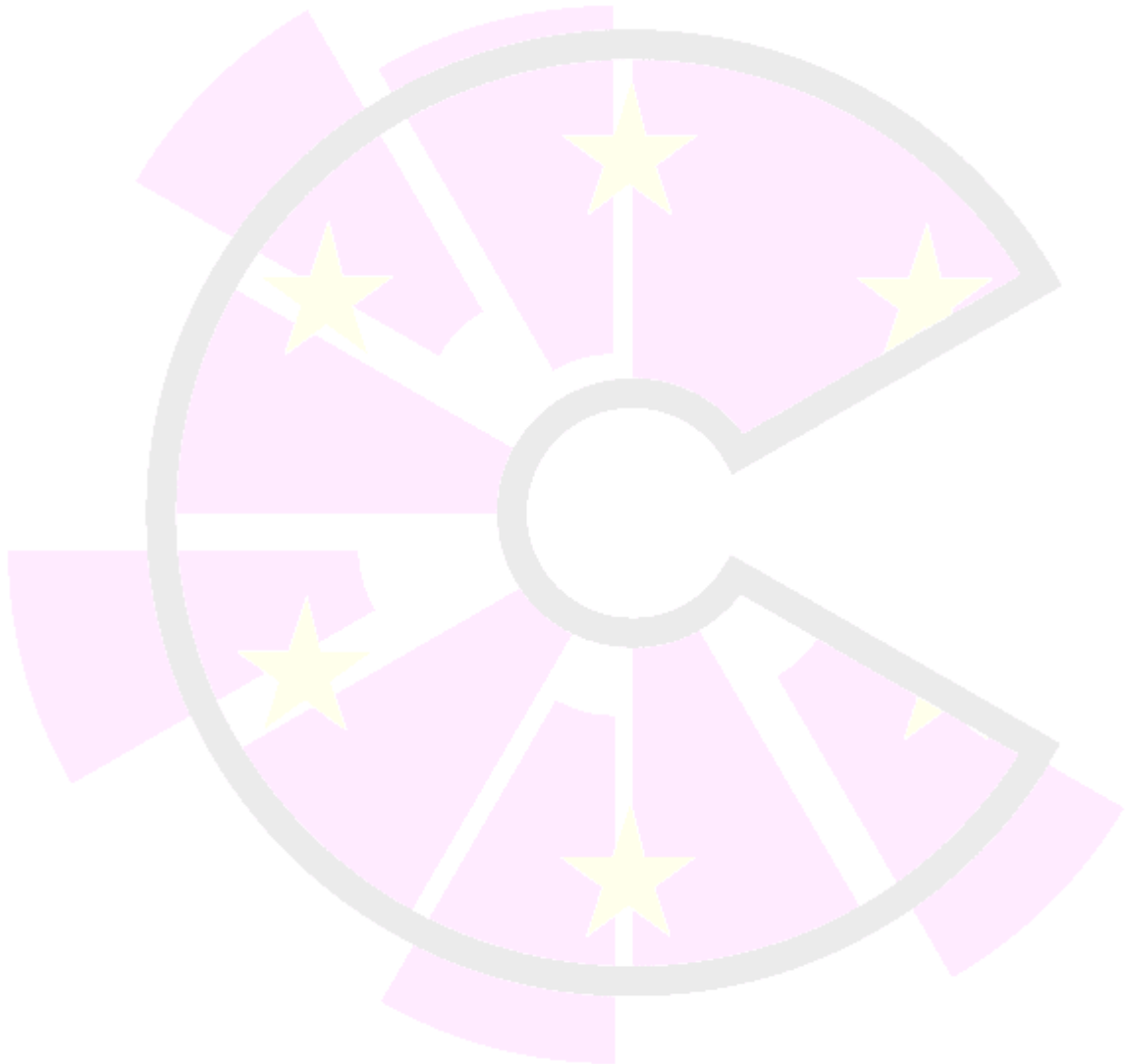
Traders with their own storage facilities

(*)- Figures and % are on annual basis

Chart 4

Incentives to Warehouse Financing: Driving Towards Storage Efficiency





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