

# ASSESSMENT OF AGRILENDING TO SMALL AND MEDIUM-SIZED AGRICULTURE PRODUCERS IN THE UKRAINIAN BANKING SECTOR

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#### **Definitions**

MinAgroPolicy: Ministry of Agrarian Policy and Food of Ukraine.

**SMPs:** Small and Medium-sized Agriculture Producers. For the purpose of this study, the term is used as defined by the AgroInvest report titled "Small and medium-sized producer Access to Finance: Strategy and Action Plan, (09.2011)". According to this report, SMPs are business entities with yearly income up to Euro 500,000 cultivating up to 1,500 ha. There is now clear statutory definition of SMPs in Ukraine<sup>1</sup>. For this study purposes, it is important to stress the word *producer* in the definition which points to the fact that we focus on households and producers of any institutional form.

**Commission:** National Commission of Ukraine regulating operations at the financial services market.

**NBU:** National Bank of Ukraine

<sup>&</sup>lt;sup>1</sup> Law of Ukraine "On Development and Government Support of Small and Medium-Sized Businesses in Ukraine" # 4618-VI dated March 22, 2012 amended Article 55 of the Commercial Code of Ukraine, specifically:

<sup>3.</sup> Depending on the number of employees and yearly income from any activities, business entities may be relegated to small (including micro), medium-sized or large businesses.

Micro businesses will include:

Duly registered self-employed individuals with the yearly income from any activities up to the equivalent of Euro 2,000,000 as converted at the average yearly exchange rate of NBU and up to ten employees in a reporting period (calendar year); Legal entities of any institutional form with the yearly income from any activities up to the equivalent of Euro 2,000,000 as converted at the average yearly exchange rate of NBU and up to ten employees in a reporting period (calendar year); Small businesses will include:

Duly registered self-employed individuals with the yearly income from any activities up to the equivalent of Euro 10,000,000 as converted at the average yearly exchange rate of NBU and up to 50 employees in a reporting period (calendar year); Legal entities of any institutional form with the yearly income from any activities up to the equivalent of Euro 10,000,000 as converted at the average yearly exchange rate of NBU and up to 50 employees in a reporting period (calendar year);

Large businesses will include legal entities of any institutional form with the yearly income from any activities up to the equivalent of Euro 50,000,000 as converted at the average yearly exchange rate of NBU and up to 250 employees in a reporting period (calendar year).

All the other business entities belong to medium-sized businesses.

#### INTRODUCTION

The research underlying this report was carried out at the request of the AgroInvest Project in June of 2013. The report describes the current situation regarding lending to agricultural SMPs by the Ukrainian banking sector, describes key characteristics of such lending, and provides relevant conclusions and recommendations.

This report is produced in response to recommendation number 9 of the USAID Office of Inspector General Audit of USAID/Ukraine's AgroInvest Project (audit report no. 9-121-13-002-P, dated March 31, 2013). Recommendation number 9 states: "We recommend that USAID/Ukraine work with Chemonics International Inc. to reassess AgroInvest's future relationship with commercial banks, dedicate more resources to activities with credit unions, and document the results." The report is therefore intended to assist AgroInvest in revising its strategy with regard to expanding agrilending to SMPs and the future development of relationships with Ukrainian banks. The study assesses the current market situation in the Ukrainian banking sector and identifies existing opportunities for increasing the volume of lending to SMPs.

To address the goals of the study, the following tasks were completed:

- Review the current situation with Ukrainian bank services with regard to SMP finance and development trends with allowance for general trends in the financial services market;
- Assess commercial banks' interest and ability in increasing the volume of SMP financing in the short term (within two or three years);
- Provide AgroInvest with recommendations on (i) the feasibility of allocating AgroInvest resources for the purpose of fostering lending to SMPs by banks and (ii) the Project's further strategic and tactical actions in this area of activities.

Professional publications and Ukrainian regulations affecting SMP agrilending directly or indirectly constituted the *informational basis* for the study.

Data from informational bulletins, statistical compendia, and reports of the State Statistical Service and National Bank of Ukraine (NBU) and other publically available sources provided the *factual basis* for the study.

Limitations on the study: the study was limited to assessing prospects for direct agrillending to SMPs.

### Based on the study the following overarching findings (detailed in the body of the report) can be stated:

- The situation in the Ukrainian agriculture sector affects not only national food security but also the situation in other sectors of the national economy and development of rural areas where one third of the Ukrainian population resides.
- Agriculture is an important export-oriented sector of the national economy which demonstrates good performance, even under crisis conditions.
- SMPs are an important category of agricultural producers, whose operations significantly affect the entire agricultural sector and social development across Ukraine.
- In the process of business operations, agriculture producers experience cash gaps for reasons beyond their control.
- SMPs may satisfy their need for finance by replenishing floating capital or reinstating fixed assets by means of direct loans from banks and/or credit unions.

- During the post-crisis period banks "expanded" their loan portfolios predominantly by converting loans in foreign currencies into loans in UAH. Despite the fact that retail deposits are the primary source of funding for banks' loans, real retail loan portfolios do not tend to grow.
- There was no trend toward material expansion of banks' portfolio of loans to SMPs during the last four and a half years.
- An analysis of available statistics evidences that neither banks nor SMPs are interested in lending/receiving loans at this time because of high interest rates.
- High risks and, consequently, large losses sustained by agricultural producers cause substantial
  uncertainty in agriculture business operations, especially those of SMPs. This leads to a higher percentage
  of defaults, discourages banks from lending to SMPs, and makes loans more expensive for borrowers.
- At times when production output falls, agriculture producers have to raise prices for produce, thus negatively affecting general inflation expectations of the Ukrainian population.
- Risks associated with agricultural production finance makes loans more expensive for SMPs which, in turn, increases agriculture production costs. There are no reasons to expect bank lending of SMPs to grow in the short and medium-term.

In a situation where demand for financing is high in areas outside of agriculture, banks are not sufficiently motivated to lend to agricultural SMPs, especially if their creditworthiness is doubtful. As there are other options for investing their liquidity, banks will opt for less risky alternatives rather than lending to agricultural SMPs. In addition to expensive money (deposits) banks also have the option of using cheap money (current account balances), transactions with domestic government bonds and other – less risky – transactions have become a good alternative to a search for other lending opportunities (like lending to SMPs, for instance).

#### **Recommendations to AgroInvest:**

- (1) It is not feasible for AgroInvest to allocate resources and make efforts to engage new partner banks for SMP lending purposes because of the low level of Ukrainian banks' activity in this segment of the lending market;
- (2) It is recommended that AgroInvest not expand its collaboration with new banks and at present focus on training activities with only its four defined partner banks which already have certain developments and are willing and ready to invest their own resources in SMP lending;
- (3) Continue developing cooperation with credit unions so that they develop their agrilending capacities and continue activities related to drafting and implementing new laws which would improve the institutional capacities of credit unions and their SMP lending capacities;
- (4) Intensify activities in the identification of existing legal and economic hindrances to SMP's access to finance. It is important to draft and lobby for changes to the current legislation which would facilitate both direct lending to SMP business operations by banks and/or credit unions and indirect finance through agriculture input suppliers;
- (5) Train workers and managers of agriculture enterprises, farmers, and rural residents on direct loan origination processes and agriculture cooperative organizations;
- (6) Further analyze the economic feasibility of implementing a DCA guarantee programs to support expanded SMP lending in collaboration with the State Committee of Ukraine on Regulatory Policies and Entrepreneurship, Ukrainian Entrepreneurship Support Fund, or other institutions whose activities would facilitate access to finance for SMPs.

# FACTORS WHICH MAY INFLUENCE BANKS' INTEREST IN LENDING TO SMPS' AGRICULTURE OPERATIONS

As the world population, especially the urban population, continues to grow, so does the demand for agriculture products. Meanwhile, activities providing people with food products are no longer limited to the agriculture sector; food production forms a system of mutually dependent industries (processing, transportation and logistics, wholesalers and retailers, etc.) which is heavily influenced by the situation in the agricultural sector.

Around one third of the Ukrainian population resides in rural areas, and most of these people are employed in agricultural production (see Table 1). The condition of the agriculture sector directly affects rural development and the living standards of most rural residents.

Years 2008 2009 2010 2011 2012 Total population 46.19 45.96 45.78 45.60 45.45 Rural population 14.78 14.63 14.51 14.41 14.33 Percentage of the rural population 32.0 31.8 31.7 31.6 31.5

Table 1: Ukrainian Population (in millions as of January 1st)

Rural areas are responsible for the national security of Ukraine. Unfortunately, an increase in the role of agricultural production is not accompanied by the development of infrastructure which would ensure the harmonious development of rural communities. Rural communities lacking land suffer from this problem most of all. Lack of development increases unemployment and contributes to the deterioration of the social environment, thus worsening the demographic situation and reproduction capacities of rural areas.

Quantitative and qualitative characteristics of human resources are an important criterion for assessing the condition of rural areas at the national and regional levels. Most important of them are living standards and quality of life of the rural population and availability of opportunities for satisfying people's economic, cultural, and household needs. These standards are not being met in rural areas, and a lack of comfortable housing; social, cultural, educational institutions; and retail outlets makes it difficult for rural areas to meet the agri-industrial sector's demand for labor.

Conclusion # 1: The condition of the Ukrainian agriculture sector affects not only national food security but also the situation in a number of other sectors and development of rural areas where one third of the Ukrainian population resides.

Ukraine is one of the world's leading food producers. During recent years, Ukraine has demonstrated good performance in this sphere, and has become the third largest global agriculture producer after the USA and EU. Today, Ukraine is the number one barley exporter, and has been among the three leading global grain producers since 2011. In the same year, Ukraine became the third largest corn supplier in the world (after the USA and Argentina) and the largest exporter of sunflower seeds.

Ukraine may retain around 20 percent of its agricultural produce to fully satisfy its food needs and export four times as much, thus influencing global economic processes. That is why developing the SMP agrilending system must continue to be a priority among current systemic-and-structural reforms.

According to the State Statistical Service, the decline in agricultural output during the crises was not as dramatic as in other sectors of the Ukrainian economy (see Attachment 1). The profitability of

agriculture production has been growing constantly (see Attachment 2); for instance it reached 27% in 2011.

## Conclusion # 2: Ukrainian agriculture is an important export-oriented section of the national economy which demonstrated good performance even under crisis conditions.

According to the March 2013 "Market Survey on the Current Status of Agrillending to SMPs in Ukraine" prepared by AgroInvest, in 2011, 28.9 percent and 38.8 percent of all cropland was cultivated by rural households and SMPs (using up to 3,000 ha), respectively.

Large agriculture companies and agriholdings used as little as 32.8 percent of the cropland. As of 2012, 41,934 out of 43,479 agriculture enterprises (96.4 percent) could be defined as SMPs.

Table 2 shows the contributions of major agriculture producer categories to the 2012 gross agriculture production output. Thus, private households produced about 50 percent of the total agricultural produce. Farmers existing as legal entities were relegated to the agriculture enterprises category.

Table 2: Contributions of Major Agriculture Producer Categories to 2012 Gross Agriculture Production Output

|                                      | Agriculture Produce | Plant Produce | Animal Produce |
|--------------------------------------|---------------------|---------------|----------------|
| Agriculture enterprises <sup>2</sup> | 50.7%               | 55.0%         | 41.8%          |
| Small holdings <sup>3</sup>          | 49.3%               | 45.0%         | 58.2%          |

Conclusion # 3: SMPs constitute an important category of agriculture producers whose operations greatly impact the situation in the entire Ukrainian agriculture sector and social development across Ukraine.

Income growth in rural regions is dependent upon the formation of sustainable regional economic cycles and regional and local financial institutions' capacity to ensure proper circulation of financial resources needed for such cycles.

Agriculture production is resource intensive and characterized by a long duration of the production cycle which conditions a long period of funds circulation and requires development of proper conditions for provision of the agriculture sector with reliable sources of finance needed to replenish floating capital and reinstate fixed assets.

Tables 3: Operational Costs by Production Components as % of the Total Operational Costs

| Period | Material costs | Cost of goods/services<br>purchased for re-selling<br>purpose (no added<br>value created) | Depreciation | Labor costs | Social contributions | Other operational costs |
|--------|----------------|---|--------------|-------------|----------------------|-------------------------|
|        | All sectors    |   |              |             |                      |                         |
| 2005   | 26.8           | 54.4  | 2.5          | 5.9         | 2.1                  | 8.3                     |
| 2006   | 25.2           | 56.3  | 2.5          | 5.8         | 2.1                  | 8.1                     |
| 2007   | 26.6           | 54.4  | 2.5          | 6.0         | 2.1                  | 8.4                     |
| 2008   | 26.9           | 53.2  | 2.5          | 6.0         | 2.2                  | 9.2                     |
| 2009   | 25.3           | 52.6  | 3.2          | 6.4         | 2.3                  | 10.2                    |

<sup>&</sup>lt;sup>2</sup> **Agriculture enterprise** means a business operations entity with legal entity status or separated structural unit of a legal entity carrying out regular agriculture production operations. Farms are also relegated to agriculture enterprises.

<sup>&</sup>lt;sup>3</sup> Small holdings means households producing agriculture products for both own consumption and commercially. This category includes self-employed individuals engaged in agriculture production.

| 2010 | 26.5 | 52.8     | 2.8                | 5.9    | 2.1 | 9.9  |
|------|------|----------|--------------------|--------|-----|------|
| 2011 | 28.1 | 51.4     | 2.6                | 6.1    | 2.2 | 9.6  |
|      |      | Agricult | ture, hunting, for | restry |     |      |
| 2005 | 58.9 | 0.2      | 5.8                | 19.1   | 3.1 | 12.9 |
| 2006 | 59.9 | 0.1      | 5.9                | 18.8   | 3.1 | 12.2 |
| 2007 | 59.2 | 0.0      | 6.3                | 18.1   | 3.8 | 12.6 |
| 2008 | 59.2 | 0.0      | 5.9                | 17.1   | 4.1 | 13.7 |
| 2009 | 62.0 | 0.0      | 5.8                | 13.7   | 4.0 | 14.5 |
| 2010 | 60.9 | 0.0      | 5.8                | 13.4   | 4.5 | 15.4 |
| 2011 | 62.4 | 0.0      | 5.5                | 12.9   | 4.2 | 15.0 |

The operational costs structure in agriculture (see Table 3) differs from that in other sectors significantly: material costs, depreciation, and labor costs in agriculture are almost double the average ones for all sectors. SMP costs are associated with the purchase of pesticides, fuel and lubricants, seeds, spare parts, chemical fertilizers, electricity, various services, labor costs, payroll taxes, and other costs. Timely funding of agricultural production precludes suspension of agriculture production operations because of lack of funds for purchasing fixed assets and replenishing floating capital.

Conclusion # 4: Because of specific aspects of agriculture, agriculture producers experience cash gaps arising in the course of normal operations that preclude them from paying operational costs or making investment in fixed assets in a timely manner.

A set of existing problems with agriculture production finance can be boiled down to two problems: (i) Lack or insufficiency of funds for replenishing floating capital and (ii) a need to reinstate fixed assets. The former problem is usually solved with short-term funding whereas the latter one is solved with medium- and long-term funding. Listed below are standard ways to fund solutions to the said problems:

- (1) Funding from agriculture producer's own funds or through cooperation;
- (2) Financial support from the government;
- (3) Direct finance from banks or non-banking financial institutions;
- (4) Acquiring fixed assets through financial leasing;
- (5) Indirect funding by input and equipment suppliers (factoring, promissory notes etc.);
- (6) Indirect funding by customers (forward funding etc.).

Each of these options may be implemented in a number of ways. Options 1, 2, 3, 5, 6 are used predominantly for replenishing floating capital. Investments in fixed asset are usually made with Options 4, 5 and/or partially, Options 1, 2, 3.

Efficiency of agriculture production finance depends on the extent to which it may meet the economic interests of major players (agriculture producers, banks and non-banking financial institutions, input and equipment suppliers, customers, and the government) and the level of mutual trust among them.

The TOR for this study does not require making an analysis of prospects for indirect funding of SMPs by input and equipment suppliers or customers with engagement of banks through factoring and forward finance.

It is worth noting that indirect SMP financing is feasible and promising as banks will lend to SMPs' partners rather than SMPs because the former are more capable of assessing their cash flows and provide adequate collateral. Such collaboration can enable input suppliers and customers to increase their sales and develop their customer bases.

SMPs may obtain short- and medium-term financing by taking out loans from banks and non-banking financial institutions. As current practices demonstrate, these are mainly credit unions which provide loans to SMPs because financial companies operate mostly in cities and virtually never lend SMPs.

#### SITUATION WITH LENDING TO SMPS BY BANKS

At this point, it makes sense to consider the situation of lending to SMPs by banks as despite being able to lend SMPs, banks rarely do so in practice.

Conclusion # 5: SMPs have a clear need in filling the cash gap; this can be made with direct finance from banks and/or credit unions.

For the purpose of this analysis, it is worth considering banks' sources of funding and, more specifically, deposit trends. According to the NBU (see Table 4), the total deposits in 177 banks with the total capital of UAH 175.4 billion total UAH 597 billion.

Table 4: Residents' Bank Deposits by Sectors of the National Economy<sup>4</sup>, End of Period Balances (UAH millions)

| Period  | Total   | Including households | Including non-financial corporations |
|---------|---------|----------------------|--------------------------------------|
| 2009    | 334,953 | 214,098              | 94,796                               |
| 2010    | 416,650 | 275,093              | 116,105                              |
| 2011    | 491,756 | 310,390              | 153,120                              |
| 06.2012 | 514,493 | 342,449              | 140,963                              |
| 12.2012 | 572,342 | 369,264              | 173,319                              |
| 03.2013 | 597,084 | 390,185              | 173,263                              |

Since 2009, households have deposited UAH 176.1 billion (the current balance is UAH 390.2 billion) whereas legal entities have deposited UAH 78.4 billion i.e. 2.25 times less than private households.

Such a big difference can be explained by increasing the guaranteed amount of reimbursement for natural persons (UAH 50,000 in 2007; UAH 150,000 in 2008; UAH 200,000 in 2012) and NBU decisive measures to supplant bank deposits in foreign currencies with UAH deposits, in particular, by revised NBU policies toward formation of mandatory reserves by banks (see Table 5). The reserve requirements were raised for foreign currency deposits substantially. The latter development fosters conversion of deposits in foreign currencies into UAH deposits, and decreased interest of the banks in hard currency deposits.

<sup>&</sup>lt;sup>4</sup> According to the Classification of Institutional Sectors of the Ukrainian Economy approved by Order of the State Statistics Committee of Ukraine # 96 dated April 18, 2005 residents are grouped in five sectors of the national economy: (1) financial corporation; (2) public administration; (3) non-financial corporation; (4) households; (5) non-commercial organization serving households.

The non-financial corporations sector include corporations whose core activities are production of goods or provision of non-financial services. In other words, these are business companies operating in the real sector of the economy. The non-financial corporations sector is divided into the following sub-sectors: government non-financial corporations, private non-financial corporation, non-financial corporation under foreign control.

The households sector comprise individuals in the customer capacity and, in some cases, self-employed individuals.

Table 5: Mandatory Bank Reserve Requirements for Deposits of Non-Financial Corporations and Households (%)

|                       |       | Term Deposits | Current and Call Accounts |       |            |
|-----------------------|-------|---------------|---------------------------|-------|------------|
| Validity Period       | TIATI | Foreign C     | Currencies                | TIATI | Foreign    |
|                       | UAH   | Short-term    | Long-term                 | UAH   | Currencies |
| 05.01.2009-31.01.2009 | 0     | 4             | 4                         | 0     | 7          |
| 01.02.2009–30.06.2011 | 0     | 4             | 4                         | 0     | 7          |
| 01.07.2011-29.11.2011 | 0     | 6             | 2                         | 0     | 8          |
| 30.11.2011-30.03.2012 | 0     | 7.5           | 2                         | 0     | 8          |
| 31.03.2012-29.06.2012 | 0     | 8             | 2                         | 0     | 8.5        |
| Beginning 30.06.2012  | 0     | 9             | 3                         | 0     | 10         |

Banks' increasing interest on deposits in local currency led to competition in this segment accompanied by gradual growth of average weighted rates of interest on deposits, specifically, UAH deposits (see Table 6), and constant decrease of interest rates on deposits in hard currency. This, in turn, led to an increase in loan interest rates and, finally, resulted in a negative impact on the loans' costs.

Table 6: Yearly Average Weighted Rates of Interest on Resident Deposits in a Relevant Period (%)

|        | _             |      |                    |
|--------|---------------|------|--------------------|
| Period | Interest Rate | UAH  | Foreign Currencies |
| 2005   | 8.0           | 8.5  | 6.8                |
| 2006   | 6.8           | 7.6  | 5.8                |
| 2007   | 7.2           | 8.2  | 5.8                |
| 2008   | 8.3           | 9.9  | 5.4                |
| 2009   | 11.8          | 14.0 | 9.2                |
| 2010   | 9.4           | 10.3 | 7.9                |
| 2011   | 7.3           | 8.1  | 5.5                |
| 2012   | 11.3          | 13.4 | 5.7                |

The banking sector overcame the crises thanks to increased funding and NBU refinancing<sup>5</sup>. As a result, banks' loan portfolios were increased to some extent (see Table 7).

Table 7: Bank Loans Extended to Residents by Sectors of the National Economy (Loan Balance, UAH millions)

| Period  | Total   | Households | Non-Financial Corporations |
|---------|---------|------------|----------------------------|
| 2009    | 723,295 | 241,249    | 462,215                    |
| 2010    | 732,823 | 209,538    | 500,961                    |
| 2011    | 801,809 | 201,224    | 575,545                    |
| 06.2012 | 802,302 | 189,687    | 585,926                    |

<sup>5</sup> NBU refinanced Ukrainian banks to the amount of UAH 249.2 billion between January 01, 2009 and April 30, 2013.

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| 12.2012 | 815,142 | 187,629 | 605,425 |
|---------|---------|---------|---------|
| 03.2013 | 826,596 | 188,406 | 613,186 |

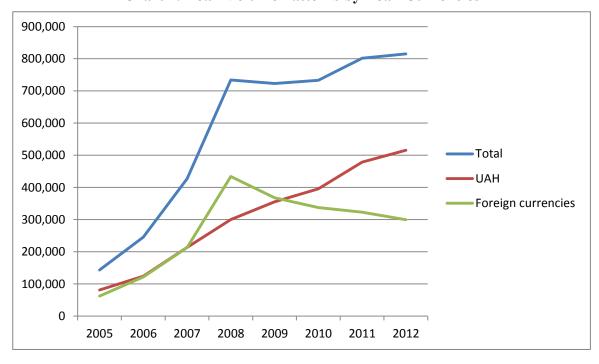
Data in Table 7 is evidence that the small increase of the loan portfolio is attributed to loans provided to non-financial corporations whereas the volume of loans to households was reduced.

A detailed analysis of processes at the lending market occurring after 2008 shows the volume of loans in foreign currencies was reduced significantly while the volume of UAH loans rose (see Table 8 and Chart 1).

Table 8: Loans Extended to Residents by Currency (Loan Balances as of Period End, UAH millions)

| Period | Total   | Loans in UAH | Loans in Foreign Currencies |
|--------|---------|--------------|-----------------------------|
| 2005   | 143,423 | 81,279       | 62,144                      |
| 2006   | 245,230 | 123,787      | 121,443                     |
| 2007   | 426,867 | 213,802      | 213,065                     |
| 2008   | 734,022 | 300,220      | 433,801                     |
| 2009   | 723,295 | 355,521      | 367,774                     |
| 2010   | 732,823 | 395,504      | 337,319                     |
| 2011   | 801,809 | 478,596      | 323,213                     |
| 2012   | 815,142 | 515,580      | 299,562                     |

**Chart 1: Loan Volume Patterns by Loan Currencies** 



Taking into consideration the dynamics of lending since 2009, it is worth noting that the growth of the loan portfolio was impacted by conversion of foreign exchange loans into UAH loans, and conversion occurred against the backdrop of depreciation of the Ukrainian national currency (from UAH 4.84 for

one US Dollar to UAH 7.70 for one US Dollar between September and December 2008; the current exchange rate is around UAH 8.14 for one US Dollar).

**Table 9: Newly Originated Loans** 

|                            | Loans originated in a specific month (UAH billions) |       |       | End month loan balance<br>(UAH billions) |
|----------------------------|---|-------|-------|--|
|                            | 01.2013   02. 2013   03 2013                        |       |       | 03 2013                                  |
| Total                      | 101.2   | 111.3 | 115.9 | 826.6                                    |
| Households                 | 9.1   | 8.8   | 10.5  | 188.4                                    |
| Non-financial corporations | 86.4  | 99.7  | 101.8 | 613.2                                    |

**Table 10: Newly Originated Loans to Households** 

|                     |         | iginated in a s<br>h (UAH billio | End month loan balance<br>(UAH billions) |       |
|---------------------|---------|----------------------------------|--|-------|
|                     | 01.2013 | 02. 2013                         | 03 2013                                  |       |
| Total               | 9.1     | 8.8                              | 10.5                                     | 188.4 |
| Consumer loans      | 7.9     | 7.3                              | 8.9                                      | 127.3 |
| Real property loans | 0.056   | 0.111                            | 0.168                                    | 56.9  |

**Table 11: Newly Originated Loans to Non-Financial Corporations** 

|              | ·        |                 | • •                    |       |
|--------------|----------|-----------------|------------------------|-------|
|              | Loans or | iginated in a s | End month loan balance |       |
|              | mont     | h (UAH billio   | (UAH billions)         |       |
|              | 01.2013  | 02. 2013        | 03.2013                |       |
| Total        | 86.4     | 99.7            | 101.8                  | 613.2 |
| Agriculture  | 4.2      | 4.7             | 4.2                    | 36.1  |
| Industry     | 23.8     | 29.9            | 30.7                   | 169.2 |
| Construction | 2.0      | 2.1             | 2.3                    | 44.8  |
| Trade        | 44.9     | 48.8            | 48.2                   | 220.6 |

Conclusion # 6: During the post-crisis period, banks "expanded" their loan portfolios predominantly by converting their foreign exchange loans into UAH loans. Despite household deposits being the main source of funding for banks, the banks' loan portfolios do not tend to grow. The fact that a certain number of SMPs can be relegated to the household category means that the banks' portfolios of loans to SMPs was not growing significantly during the last 4.5 years.

An analysis of patterns of average weighted loan interest rate changes is important for our study purposes (see Table 12). While loan interest rates for non-financial corporations have remained virtually unchanged since 2005, those for households have risen by more than ten percent.

Table 12: Rates of Interest on Loans to Residents (Except Other Deposit Corporations (Yearly Weighted Averages, %)

| Period | Interest rate (%) | UAH loans (%) | Forex loans (%) | Interest rate for non-<br>financial corporations (%) | Interest rate for households (%) |
|--------|-------------------|---------------|-----------------|--|----------------------------------|
| 2005   | 14.6              | 16.4          | 11.5            | 14.4   | 16.3                             |
| 2006   | 14.1              | 15.4          | 11.3            | 13.9   | 15.2                             |
| 2007   | 13.5              | 14.4          | 11.3            | 13.1   | 15.6                             |
| 2008   | 16.0              | 17.8          | 11.6            | 15.5   | 18.7                             |
| 2009   | 18.3              | 20.9          | 10.0            | 18.0   | 22.3                             |
| 2010   | 14.6              | 15.7          | 10.5            | 14.0   | 25.2                             |
| 2011   | 14.3              | 16.0          | 9.2             | 13.3   | 26.5                             |

| 2012 | 15.5 | 18.4 | 8.4 | 14.5 | 27.4 |
|------|------|------|-----|------|------|

According to data in Attachment 2, the average profitability of agriculture production was 27 percent in 2011. This means that the SMPs operate at loss if they take out loans at 27.4% per annum. Actual rates of interest on bank loans may be much higher. Under such high loan interest rates, it is not realistic f reach such profitability of agriculture production for SMPs which would enable them to remain competitive.

Conclusion # 7: Available statistical evidence suggests that not only banks are not interested in lending SMPs but also it is economically unfeasible for SMPs to take out bank loans at current interest rates.

The NBU statistics that are publically available do not show information on the situation with bank loans to SMPs specifically. Ukrainian banks just divide all borrowers into individuals and legal entities and specify economic activity for corporate borrowers according to Economic Activity Classification ДК 009:2010. At the same time, the situation with deposits, loans, and percentages of past-due loans of non-financial corporations by economic activities as of late March 2013 (Attachment 3) demonstrates that lending in the domains of agriculture, forestry, and fisheries, combined, is the sixth priority of bank lending of the Ukrainian economy.

At the end of March 2013, in total, borrowers in the agricultural sector received as little as 5.9 percent of all loans. In so doing, despite an existing opinion about the creditworthiness of agriculture producers, the percentage of past due loans extended to borrowers from the agriculture, forestry, and fishery sectors is almost nine percent, and this figure exceeds bank indicators for other bank loans.

This is due in part to the fact that in the agriculture sector, possibilities to generate profit and, accordingly, cover own costs (including costs of external finance) seasonally dependent. Sector performance is dependent on weather conditions to a far larger extent than any other sector. This makes agriculture production operations prone to risks which are beyond producer control.

Inherent risks of agriculture production are systemic. They may inflict substantial losses upon a large number of agriculture producers simultaneously, thus causing a need to provide them with government support. It is because of these risks that agriculture producers incur losses in some years and many of them can hardly continue operating. According to State Statistical Service data, agriculture production output greatly varies by regions and years.

Most years, the Ukrainian agriculture sector suffers from dangerous natural phenomena and unfavorable weather conditions. Losses come in many forms, such as low yields, small production output etc. Crop yield losses caused by unfavorable weather conditions may be as high as 45 percent to 60 percent in some years. In such years, to stabilize the situation in the agriculture sector and in attempts to ensure national food security, the government has to support affected agriculture producers.

At the time of unfavorable weather conditions agriculture producers seek for ways to cover their losses. They do it by re-distributing their own resources or, more frequently, by raising prices for their produce. Patterns shown in Chart 2 confirm that the agriculture production index and agriculture produce price index are correlated.

Index of volume of agricultural produce Index of sale prices of agricultural produce

Chart 2: Correlation between the agriculture production index and agriculture produce price index

Source: Official data of the State Statistical Service of Ukraine

Given the correlation indicated in Chart 2, it becomes clear that agricultural producers increase prices for commodities when volumes of produce are decreasing.

Conclusion #8: High risks and, consequently, large losses of agriculture producers make the agriculture business operations highly uncertain, especially, SMP operations. A high percentage of defaults on loans to SMPs lead to higher loan interest rates and discourage banks from lending and SMPs from borrowing.

In addition to arguments stated above for the Conclusion #7, other obstacles for a banks' agrilending to SMPs expansion could be identified.

Serious problems arising from SMP lending processes are lack of liquid collateral and difficulties faced by agriculture producers with proving their creditworthiness. When assessing borrower's creditworthiness, a bank must assess borrower's ability to pay and keep borrower records the content of which are specified by the Regulation on Ukrainian Banks' Provisions for Covering Losses that May be Caused by Asset-Side Banking Transaction (Attachment 2)<sup>6</sup>.

Many SMPs use cash but report losses incurred in the production process. In this situation, they can hardly convince banks that the will repay loans on time. At the same time, the more precisely a bank is able to assess credit risks, the better terms and conditions of lending it may offer.

The loan security must be liquid, be durable and feature low costs for storage and sale. Besides, prices for the collateral should be stable. A traditional approach to identifying how fulfillment of borrower's obligations are secured is set forth by the Civil Code of Ukraine. The following are types of loan security: forfeit, surety, guarantee, deposit, and collateral.

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<sup>&</sup>lt;sup>6</sup> NBU Board Resolution # 2 dated January 25, 2012.

An agriculture producer willing to borrow funds from a bank has to secure repayment of the loan, for instance by pledging its property.

A list of property which may be used as collateral is defined by the bank. However, SMPs face certain problems with securing loans, such as:

- Difficulties in valuating residential and commercial property located in rural areas;
- Vehicles and agriculture machinery are highly depreciated (their average age is 14 years)
- Most SMPs do not have cash deposits with banks because they would use their deposits rather than take out loans at high interest rates;
- It is hard to valuate agriculture animals;
- Many SMPs are not able to secure loans with "entire enterprises" (property complexes).

The most realistic potential collaterals for SMPs are stock-in-trade, future crop, and crops in storage facilities confirmed by single and double warehouse receipts. However, banks may hardly be interested in such forms of collateral. Depending on specific credit risks, banks are bound to form their provisions by assets which decrease the balance value of bank assets as of the first day of every month. This, in turn, affects fulfillment of economic standards by banks. The fifth group of loan securities<sup>7</sup>, which inter alia includes biological assets, goods, future crops, animal litter etc., has a liquidity ratio which is 2.5 times lower than that set for the first group of loan securities.

There is a hope that if it is enhanced, with further instruments and mechanisms of reliable securing of the agrarian receipts, the Law of Ukraine "On Agrarian Receipts", which was passed in 2012, will facilitate lending of agriculture producers. Unfortunately, most SMPs have limited access to mechanisms of advancing agriculture production operations through forward procurements to the state reserve and Agrarian Fund.

It is also worth noting that land is an important form of securing loans to agriculture producers in other countries. In Ukraine, with the moratorium on sale/purchase of agriculture land in place; it is prohibited to contribute agricultural land to the charter capital of agriculture companies etc. In fact, this makes the future situation with agrilending uncertain. Despite the establishment of the State Land Bank, which is supposed to create favorable conditions so that agriculture producers have an access to inexpensive financing, it is hard to say today from what sources the State Land Bank will fund inexpensive loans to agriculture producers. In our opinion, land will not become liquid collateral for banks in the nearest future because of the moratorium on land sales. If/when the moratorium is lifted, other obstacles for land collaterization by the banks could exist during some time, like an imperfect valuation system, for instance.

Stringent requirements to borrowers set by banks make bank loans inaccessible to many SMPs. Most banks prefer extending loans to large enterprises which are able to provide adequate security and project their future cash flows.

Conclusion # 9: High credit risks make loans to SMPs hardly accessible and expensive. This, in turn, increases agriculture production costs. There are no prospects for growth of SMP lending by banks in the short- and medium run.

In spite of the gradual decrease in the NBU nominal discount rate, it is still relatively high, making money expensive in Ukraine.

<sup>&</sup>lt;sup>7</sup> Regulation on formation and use of provisions for covering potential losses caused asset-side banking transaction by Ukrainian banks as approved by NBU Board Resolution # 23 dated January 25, 2012.

To overcome the crisis, the NBU pursued tough monetary policies such as limiting consumer lending by prohibiting foreign exchange loans to individuals; setting higher requirements to bank provisions to cover potential losses under foreign exchange loans; amending the NBU Regulation on Bank Operations in Ukraine<sup>8</sup>; approving the Methodology for Setting Economic Standards Regulating Bank Operations in Ukraine<sup>9</sup> and Regulation on Formation and Use of Provisions by Ukrainian Banks to Cover Potential Losses Caused by Asset-Side Operations<sup>10</sup>; and amending the Regulation on NBU Sanctions for Violating the Banking Legislation<sup>11</sup> with regard to setting liquidity standards and imposing penalties on banks for non-compliance with the liquidity standards.

More stringent requirements to mandatory bank provisions and strict supervision over compliance with economic standards by banks led to the situation where banks did not have sufficient cash to fund their asset-side transactions and were not interested in risky lending. As a result, loans became more expensive for borrowers, and agriculture production costs rose, thus creating preconditions for price growth.

Between 2009 and 2012, the percentage of loans in bank assets fell from 85 percent to 72 percent, and the percentage of long-term loans in the loan portfolio was reduced from 64 percent to 48 percent.

To substantiate our conclusion, it is also worth looking at patterns of major indicators of the banking system and trends in investment of available funds by banks. Attachment 4 shows data of deposit corporations (except the National Bank of Ukraine) which are important for the analysis's purposes.

Given almost 200 percent growth of deposits since 2008 (mainly due to funds of households as described above), the loan portfolio of the banks increased, partially, because of conversions of "old" loans into hard currency, as it was stated above. At the same time, the value of state securities in the banks' portfolios increased from 18 billion UAH in 2008 to 84 billion UAH in 2013.

A number of measures taken by the NBU in the post-crisis period to regulate the liquidity level enabled Ukrainian banks to clean their balances from problem loans, whereas the emergence of alternative areas of investments slowed down formation of banks' loan portfolios. Thanks to the active purchase of securities by banks, the banking sector was able to generate profit for the first time after three years (2009 through 2011) of operating at a loss.

The budget deficit and large government debt which was to be repaid in 2012 forced the national government to increase borrowings. In 2012, the government borrowed UAH 109.8 billion. As a consequence, the nominal government debt grew to UAH 399.2 billion.

As the lending sector was weak, financial resources were used mainly for government borrowing. As offers of domestic government bonds increased, Ukrainian banks opted for the purchase of government securities (rather than lending of the real sector and agriculture sector in particular). As a result, the bank's financial status became more dependent on NBU funding and government financing.

The above mentioned processes led to the situation where the Ukrainian banking system transferred from lending to the private sector to lending to the Governments in order to generate maximum profit with minimum costs. In addition, the so called "state financing" does not leverage economic growth of businesses.

<sup>&</sup>lt;sup>8</sup> NBU Board Resolution # 368 dated August 28, 2001.

<sup>&</sup>lt;sup>9</sup> NBU Board Resolution # 315 dated June 02, 2009.

<sup>&</sup>lt;sup>10</sup> NBU Board Resolution # 23 dated January 25, 2012.

<sup>&</sup>lt;sup>11</sup> NBU Board Resolution # 369 dated August 28, 2001.

As government revenues depend on economic performance of the real sector, the said shift in banks' operations may negatively affect the national economy in the long run.

Conclusion # 10: Under increased demand for money, Ukrainian banks are not greatly interested in lending to SMPs, especially those with doubtful ability to pay. When having a number of options for investing their available liquidity, banks choose projects that are less risky than lending to SMPs. In addition to expensive money (i.e. deposits), banks use also cheap money (i.e. current account balances), transactions with domestic government bonds, and other – less risky – transactions which have become a serious alternative to lending transactions.

Summarized below are the factors and major economic risks discouraging banks from lending to SMPs in Ukraine:

- (1) The demand for agriculture finance is seasonal;
- (2) Most (potential) borrowers lack liquid collateral and the best source of such, i.e. land, will not become liquid collateral in the near future;
- (3) Agriculture production is prone to weather risks which, in turn, pose credit risks;
- (4) Performance of agriculture producers is affected by seasonal and global fluctuations of prices; this poses the risk of default;
- (5) To some extent, SMPs do not trust non-local financial institutions; they are not ready to pay interest which exceeds their profitability;
- (6) The level of SMPs' awareness of financial and legal issues is low; this limits their capabilities to receive finance;
- (7) There are other, less risky, investment opportunities available to banks.

#### RECOMMENDATIONS

Recommendation #1: AgroInvest should not allocate additional resources nor take efforts to engage new partner banks for the purpose of collaboration in SMP lending because the Ukrainian banking sector is not interested in this segment of the lending market.

Serious risks which may arise in the process of lending to SMPs, including tough NBU requirements with regard to maintaining economic standards and increased demand for money force banks to opt for less risky ways of investing their free liquidity (rather than lending to SMPs). SMP lending is not a priority for many banks for good reasons. Managers of banks which have never lent to SMPs or have very limited or even negative experiences in this area perceive lending to SMPs as diverting bank officers from other operations which generate more profit under current conditions.

In view of lack of the Ukrainian banking sector's interest in SMP lending we agree with auditors' recommendation to revise AgroInvest policy with regard to not engaging new partner banks for SMP lending purposes.

Recommendation #2: AgroInvest should not continue expanding its cooperation with banks in the training area and focus training efforts on existing partner banks which are willing to invest their own resources in SMP lending.

Those banks which are interested in expanding their loan portfolios with loans to SMPs and already have positive experiences in SMP lending need to enhance their loan products for SMPs and minimize associated risks to ensure compliance with regulatory requirements.

AgroInvest signed three Memoranda of Understanding with banks (CredoBank, MetaBank, and Erste Bank) envisaging the holding of seminars for specialists from these banks. These banks have worked to develop loan products tailored for SMP needs and train their credit officers on SMP lending. AgroInvest should continue to support existing partner banks' developments and willingness to invest their resources in the given segment of the lending market by means of seminars and other training events.

Under the current Ukrainian legislative and regulatory frameworks and existing economic status of SMPs, engagement of new partner banks for the purpose of training on SMP lending will not result in substantial increase of SMP lending.

Recommendation # 3: AgroInvest should (i) expand its cooperation with credit unions to help them develop their agrilending capacities and (ii) expand activities in drafting and implementing legislative changes which would facilitate development of credit unions' institutional and SMP lending capacities.

Unlike banks, credit unions are limited by law regarding opportunities for investing their available funds. They have to use deposits as a source of funding their loans because the purchase of government securities is economically unfeasible for credit unions. In the latter case, credit unions will have to share a large percentage of return with banks which process their transactions. That is why credit unions have good reasons for developing new loan products, especially in regions with limited opportunities for profitable investments. Using expensive sources of funding such as deposits, credit unions are interested in lending to SMPs because the profitability of agricultural production is sufficient for loan repayment.

Credit unions' interest in SMP lending is also based on key psychological aspects of financial institution operations "in the field", such as "everyone knows his/her neighbors" and "a borrower appreciates having a good image".

However, despite being interested and capable of financing SMP business operations, <u>Ukrainian credit</u> unions cannot realize this potential to the full extent in the long run because of existing statutory and <u>institutional limitations</u>. First, they do not have access to the deposit guarantee system and are not able to use inexpensive sources of funding. The absence of a financial center of credit cooperation and the impossibility of using inexpensive sources of funding available in the financial market impose certain limitations on the use by credit unions of financial resources for asset-side transactions in the long run. Second, since the current legislation allows credit unions to provide financial service to individuals only, they may extend loans to individual farmers and no other SMP categories.

Therefore, SMP lending by credit unions cannot be expanded unless existing legislative problems are solved. This calls for reforming the credit cooperation system and drafting changes to the legislation which would facilitate SMP lending by credit unions.

Recommendation # 4: AgroInvest should intensify its activities in the identification of existing legal and economic barriers hindering access to finance for SMPs. It is important to draft and lobby for necessary changes to the legislation which would facilitate both direct lending to SMPs by banks and/or credit unions and indirect funding through input suppliers and customers.

Our study results and existing legislative hindrances to SMP lending by credit unions call for searching for solutions which would change this situation. To this end, one should identify existing hindrances, compile a list of legislative and regulatory novelties which would motivate financial institutions to lend SMPs, and propose this list to relevant government authorities, the NBU, banks, and the public.

Recommendations on the importance of enhancing finance to SMPs provided in the assessment which are based on this study considerations, and of development of producers' organizations for increase of

agricultural production(both direction of development are listed in the Annual Message of the President of Ukraine to the Parliament "On Domestic and External Situation of Ukraine in 2013") may become important arguments in discussions with relevant government authorities (MinAgroPolicy, NBU, the State Commission on Financial Services).

Recommendation # 5: AgroInvest should continue to conduct seminars and other training events for managers and staff members of agriculture enterprises, farmers, and rural households to increase their awareness of loan origination processes in banks and credit unions and agriculture cooperative organizations.

Once necessary changes and amendments have been made to current laws and regulations with AgroInvest support which facilitate SMP lending by banks, there will be a need to develop new or enhanced existing bank loan products for SMPs and conduct relevant training and public education events.

In view of a lack of informational, advisory, and methodological support to SMP lending and an imperfect system for professional retraining of SMP managers and workers and the importance of disseminating positive experience in SMP lending and cooperation, we recommend that AgroInvest engage agriculture producers in its training programs as trainees.

Recommendation # 6: AgroInvest should further study the economic feasibility of implementing a guarantee program(s), such as USAID's Development Credit Authority (DCA), to support the expansion of SMP lending in collaboration with the State Committee of Ukraine on Regulatory Policies and Entrepreneurship, Ukraine Business Support Fund or other institutions whose activities will facilitate access to finance for SMPs. Such a detailed feasibility study of such a guarantee program was beyond the scope of this current report. The author believes such programs are possible to implement in Ukraine, but sustainability is not realistic.

As is the case with small and medium enterprises in any sector, agricultural SMPs often suffer from a lack of long financial history and collateral, poor management quality, and high bankruptcy risk.

Based on international experience in stimulating SME lending by banks, we may recommend implementation of various guarantee programs which would partially take credit risks which lenders are exposed to.

If profitable projects of small and medium-sized businesses need finance and meet lenders' requirements but lack adequate collateral, guarantee programs (funds) provide support to such project in the form of guarantees in order to ease an access to finance for such businesses.

In many countries and transition economies in particular, guarantee programs (funds) are set up as not-for-profit organizations which are supported by government institutions.

Guarantees can be provided by organizations of various institutional forms: guarantee funds, guarantee programs, mutual guarantee societies etc. In view of the economic importance of small and medium-sized businesses, specifically SMPs, many countries set up loan guarantee funds. Such funds are established in EU member countries (European Association of Mutual Guarantee Societies<sup>12</sup>), Russia, Turkey, USA, and countries throughout Latin America and Asia. They have been operating for many years and are distinguished by their high quality, safety, efficiency, and effectiveness.

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<sup>12</sup> http://www.aecm.eu/en/members.html?IDC=55

Guaranteeing repayment of loans to SMPs is beneficial for banks because such guarantees reduce credit risks and mandatory reporting requirements for the provisions regarding covering potential losses<sup>13</sup> from such loans.

The loan guarantee system enables borrowers to secure loans with less valuable collateral whereas banks are able to expand their low risk customer base and optimize their administrative costs. The guarantee fund, in turn, receives a fee for preparing a loan application and administrative support of the loan project.

Access to bank finance for SMPs could be facilitated by implementation of a USAID DCA guarantee program (loan, portfolio, debt and open guarantees) intended for lending development. In our opinion, in the long run, provision of guarantees through implementation of DCA guarantee programs will not ensure multiplication or sustainability because, as our study results suggest, banks are not interested in lending SMPs in general for the reasons outlined in this analysis. Besides, without a partner in place which would be able to continue the DCA program once it has ended, the volume of bank lending may decline again.

Implementation of a DCA guarantee programs is feasible, but it depends on the condition that some Ukrainian guarantee fund, or the Government, provides matching support to SMEs and SMPs in particular.

The Law of Ukraine "On Development and Government Support of Small and Medium-Sized Businesses in Ukraine" # 4618-VI dated March 22, 2012, relegates two major types of government financial support *inter alia: 1)* partial reimbursement of interest on loans to small and medium-sized businesses and guarantees and; 2) sureties under loans to small and medium-sized businesses. Such support is provided through the Ukrainian Business Support Fund<sup>14</sup> and regional and local business support funds.

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<sup>&</sup>lt;sup>13</sup> According to Item 4.2 of the Regulation of formation and use by Ukrainian banks of provisions for covering potential losses from asset-side transaction unconditional and irrevocable guarantees are relegated to Group 1 of loan securities. Therefore, bank are interested in extending loans secured by such guarantees.

<sup>&</sup>lt;sup>14</sup> Regulation on use by the Ukrainian Business Support Fund of funds allocated for supporting business development in Ukraine as approved by Order of the State Committee of Ukraine on Regulatory Policies and Entrepreneurship # 303 dated September 27, 2010.

#### **ATTACHMENTS**

#### Attachment 1

|      | Agriculture production output indices (% of the previous year) |                |                 |             |                       |                 |                     |                |                 |  |  |  |
|------|--|----------------|-----------------|-------------|-----------------------|-----------------|---------------------|----------------|-----------------|--|--|--|
|      | All household c  | ategories      |                 | Including   |                       |                 |                     |                |                 |  |  |  |
|      | Agriculture Including  |                |                 |             | Agriculture enterpris | es              | Small holdings      |                |                 |  |  |  |
|      | Agriculture produce  | IIICI          | luding          | Agriculture | Inclu                 | ıding           | Agriculture produce | Including      |                 |  |  |  |
|      | produce  | Plant products | Animal products | produce     | Plant products        | Animal products | Agriculture produce | Plant products | Animal products |  |  |  |
| 2001 | 110.2  | 112.3          | 106.8           | 120.0       | 122.4                 | 110.7           | 104.1               | 102.5          | 105.8           |  |  |  |
| 2002 | 101.2  | 98.5           | 105.7           | 97.6        | 94.1                  | 112.0           | 103.8               | 103.7          | 103.9           |  |  |  |
| 2003 | 89.0   | 85.9           | 93.9            | 74.4        | 70.3                  | 88.9            | 98.8                | 102.3          | 95.4            |  |  |  |
| 2004 | 119.7  | 133.1          | 100.5           | 142.5       | 155.5                 | 106.6           | 108.1               | 116.9          | 98.8            |  |  |  |
| 2005 | 100.1  | 97.5           | 105.1           | 101.1       | 96.6                  | 119.1           | 99.4                | 98.3           | 100.9           |  |  |  |
| 2006 | 102.5  | 101.8          | 103.6           | 108.3       | 106.1                 | 115.4           | 98.6                | 97.8           | 99.5            |  |  |  |
| 2007 | 93.5   | 90.9           | 98.0            | 94.5        | 89.9                  | 108.3           | 92.8                | 92.0           | 93.8            |  |  |  |
| 2008 | 117.1  | 128.6          | 98.7            | 136.3       | 148.8                 | 105.2           | 102.5               | 108.3          | 95.6            |  |  |  |
| 2009 | 98.2   | 95.3           | 104.2           | 94.9        | 90.2                  | 111.3           | 101.5               | 102.4          | 100.5           |  |  |  |
| 2010 | 98.5   | 95.9           | 103.4           | 97.7        | 93.7                  | 109.1           | 99.1                | 98.5           | 100.1           |  |  |  |
| 2011 | 119.9  | 130.4          | 101.3           | 128.7       | 137.9                 | 106.0           | 111.8               | 121.7          | 98.3            |  |  |  |
| 2012 | 95.5   | 91.9           | 103.9           | 93.4        | 89.1                  | 107.0           | 97.8                | 95.5           | 101.7           |  |  |  |

**Attachment 2** 

|      | Profitability of Agriculture Production (%) |           |       |                 |            |        |                  |          |             |           |                    |         |       |      |
|------|---|-----------|-------|-----------------|------------|--------|------------------|----------|-------------|-----------|--------------------|---------|-------|------|
|      |   | Including |       |                 |            |        |                  |          |             |           |                    |         |       |      |
|      | Agriculture                                 | Plant     |       |                 | Including  |        |                  | Animal   | з неї       |           |                    |         |       |      |
|      | produce                                     | products  | Grain | Sunflower seeds | Sugar beet | Potato | Field vegetables | products | Cattle meat | Pork meat | Lamb and goat meat | Poultry | Milk  | Eggs |
| 2001 | 18.3  | 35.8      | 43.3  | 68.7            | 1.5        | 11.4   | -0.8             | -6.6     | -21.4       | -7.2      | -24.9              | -1.7    | -0.8  | 25.1 |
| 2002 | 4.9   | 22.3      | 19.3  | 77.9            | -8.6       | 24.2   | 8.9              | -19.8    | -40.5       | -16.9     | -26.7              | -1.1    | -13.8 | 14.6 |
| 2003 | 12.6  | 41.7      | 45.8  | 64.3            | 6.2        | 33.5   | 30.9             | -18.8    | -44.3       | -33.0     | -37.8              | 11.0    | 9.9   | 18.5 |
| 2004 | 8.1   | 20.3      | 20.1  | 45.2            | -0.8       | -0.7   | -5.0             | -11.3    | -33.8       | -14.4     | -44.3              | 3.8     | -0.4  | 15.2 |
| 2005 | 6.8   | 7.9       | 3.1   | 24.3            | 4.8        | 17.8   | 16.1             | 5.0      | -25.0       | 14.9      | -32.1              | 24.9    | 12.2  | 23.5 |
| 2006 | 2.8   | 11.3      | 7.4   | 20.7            | 11.1       | 56.2   | 14.8             | -11.0    | -38.4       | -9.2      | -34.3              | 12.1    | -3.7  | -6.8 |
| 2007 | 15.6  | 32.7      | 28.7  | 75.9            | -11.1      | 24.7   | 14.1             | -13.4    | -41.0       | -27.6     | -46.4              | -19.0   | 13.8  | 9.1  |
| 2008 | 13.4  | 19.6      | 16.4  | 18.4            | 7.1        | 7.9    | 11.1             | 0.1      | -24.1       | 0.3       | -38.6              | -11.3   | 4.1   | 13.0 |
| 2009 | 13.8  | 16.9      | 7.3   | 41.4            | 37.0       | 12.9   | 19.1             | 5.5      | -32.9       | 12.1      | -31.8              | -22.5   | 1.4   | 13.1 |
| 2010 | 21.1  | 26.7      | 13.9  | 64.7            | 16.7       | 62.1   | 23.5             | 7.8      | -35.9       | -7.8      | -29.5              | -4.4    | 17.9  | 18.6 |
| 2011 | 27.0  | 32.3      | 26.1  | 57.0            | 36.5       | 17.7   | 9.9              | 13.0     | -24.8       | -3.7      | -39.6              | -16.8   | 18.5  | 38.8 |

The profitability of agriculture production is the ratio of the profit (or losses) from selling agriculture produce to its full production costs.

Attachment 3: Deposits and Percentage of Past-Due Loans to Non-Financial Corporations by Economic Activities as of the End of March 2013 (End Period Balances, UAH in millions)

|  | a i ciioa Baianees, eii |         | -~)   |                |                        |
|--|-------------------------|---------|-------|----------------|------------------------|
| Economic activities                                | Deposits                | Loans   | %     | Past-due Loans | % of Past-due<br>Loans |
| Total  | 173,263                 | 613,186 | 100.0 | 54,354         | 8.86                   |
| Whole and retail trade; car and motorcycle repair  | 44,377                  | 220,578 | 36.0  | 20,741         | 9.40                   |
| Processing   | 30,231                  | 133,223 | 21.7  | 13,123         | 9.85                   |
| Construction                                       | 6,643                   | 44,845  | 7.3   | 5,800          | 12.93                  |
| Professional, research, and technical activities   | 13,785                  | 44,821  | 7.3   | 1,612          | 3.60                   |
| Transactions with real estate                      | 5,226                   | 43,734  | 7.1   | 4,820          | 11.02                  |
| Agriculture, forestry, fishery                     | 22,997                  | 36,081  | 5.9   | 3,245          | 8.99                   |
| Transportation, storage, mailing, courier services | 9,006                   | 26,464  | 4.3   | 1,319          | 4.98                   |
| Supply of electricity, gas, steam; a/c             | 11,203                  | 20,198  | 3.3   | 210            | 1.04                   |
| Extraction and mining                              | 14,324                  | 13,529  | 2.2   | 605            | 4.47                   |
| Administrative and auxiliary services              | 1,903                   | 9,302   | 1.5   | 753            | 8.10                   |
| Information and information technologies           | 9,576                   | 6,597   | 1.1   | 744            | 11.28                  |
| Accommodation and catering                         | 860                     | 4,435   | 0.7   | 154            | 3.47                   |
| Arts, sport, entertainment, recreation             | 1,168                   | 4,666   | 0.7   | 457            | 9.79                   |
| Water/wastewater services; wastes handling         | 502                     | 2,202   | 0.4   | 333            | 15.12                  |
| Health care and social assistance                  | 476                     | 1,495   | 0.3   | 164            | 10.97                  |
| Other services                                     | 574                     | 821     | 0.2   | 240            | 29.23                  |
| Education  | 411                     | 195     | 0.0   | 33             | 16.92                  |

Attachment 4: Indicators of Deposit Corporations (Except for the National Bank of Ukraine) (End Period Balances, UAH in millions)

| Indicators   | 2005    | 2006    | 2007     | 2008     | 2009     | 2010     | 2011    | 2012    | 04. 2013 |
|--|---------|---------|----------|----------|----------|----------|---------|---------|----------|
| Net external assets  | -12,175 | -44,199 | -113,882 | -226,116 | -149,120 | -105,680 | -84,528 | -45,543 | -59,061  |
| Requirements to the National Bank of Ukraine                 | 24,988  | 22,614  | 33,576   | 34,326   | 40,394   | 52,747   | 53,766  | 53,649  | 57,237   |
| Net requirement to central government authorities, including | 2,380   | 2,192   | 2,744    | 13,032   | 16,650   | 63,260   | 67,185  | 65,689  | 89,177   |
| Securities except stock                                      | 3,344   | 4,198   | 5,800    | 16,926   | 20,224   | 57,496   | 60,128  | 61,164  | 83,793   |
| Requirements to other residents, including                   | 152,242 | 255,038 | 443,210  | 753,945  | 734,993  | 745,508  | 819,958 | 848,839 | 869,068  |
| Loans to non-financial corporations                          | 99,687  | 151,705 | 247,150  | 406,283  | 419,627  | 454,919  | 518,093 | 547,735 | 561,540  |
| Loans to other sectors of the national economy               | 35,677  | 82,034  | 160,455  | 280,556  | 241,311  | 209,615  | 201,291 | 187,685 | 190,111  |
| Obligations to the National Bank of Ukraine                  | 764     | 1,441   | 1,738    | 60,986   | 86,369   | 72,783   | 73,700  | 77,989  | 67,735   |
| Transferrable deposits included in the M3 cash aggregate     | 48,115  | 61,136  | 90,364   | 104,807  | 116,786  | 147,136  | 169,019 | 175,485 | 189,174  |
| Other financial corporation                                  | 1,737   | 2,750   | 4,294    | 4,147    | 4,888    | 6,171    | 5,737   | 5,407   | 5,897    |
| State-owned non-financial corporations                       | 4,036   | 3,480   | 4,215    | 7,142    | 8,078    | 10,509   | 11,027  | 20,434  | 20,194   |
| Other non-financial corporations                             | 23,165  | 28,340  | 40,896   | 52,168   | 45,620   | 62,935   | 79,826  | 70,905  | 75,138   |
| Other sectors of the national economy                        | 19,178  | 26,567  | 40,959   | 41,350   | 58,200   | 67,520   | 72,429  | 78,738  | 87,944   |
| Other deposits included in the M3 cash aggregate             | 84,629  | 123,098 | 189,374  | 252,397  | 209,581  | 265,382  | 318,843 | 390,928 | 410,537  |
| Other financial corporations                                 | 4,392   | 5,991   | 11,048   | 15,158   | 10,734   | 12,851   | 16,062  | 15,445  | 15,445   |
| State-owned non-financial corporations                       | 4,827   | 3,496   | 5,060    | 5,139    | 4,242    | 3,443    | 6,937   | 6,795   | 5,487    |
| Other non-financial corporations                             | 18,948  | 30,298  | 45,412   | 53,739   | 36,857   | 39,217   | 55,329  | 75,185  | 74,958   |
| Other sectors of the national economy                        | 56,462  | 83,312  | 127,854  | 178,361  | 157,749  | 209,870  | 240,514 | 293,503 | 314,647  |
| Securities (except stock) included in the M3 cash aggregate  | 925     | 1,650   | 4,884    | 3,200    | 2,526    | 1,031    | 3,714   | 2,072   | 2,390    |
| Deposits which are not included in the M3 cash aggregate     | 1,726   | 1,417   | 3,536    | 1,921    | 446      | 208      | 160     | 141     | 1,172    |
| Loans  | 160     | 259     | 1,038    | 1,468    | 1,310    | 1,053    | 1,738   | 2,021   | 1,565    |
| <b>Derivative financial instruments</b>                      | _       | _       | _        | 290      | 24       | 18       | 13      | 67      | 21       |
| Stock and other forms of equity participation                | 28,040  | 47,325  | 77,431   | 135,846  | 145,925  | 173,970  | 190,273 | 202,399 | 208,640  |
| Other items (net)  | 3,074   | -680    | -2,716   | 14,272   | 79,949   | 94,254   | 98,922  | 71,533  | 75,186   |