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EXTERNAL METHODS OF FINANCING FOR HUNGARIAN AGRICULTURAL ENTERPRISES

METODY ZEWNĘTRZNEGO FINANSOWANIA WĘGIERSKICH PRZEDSIĘBIORSTW ROLNYCH

Key words: agricultural enterprise, loan, trends

Słowa kluczowe: przedsiębiorstwa rolne, pożyczka, tendencje

Abstract. One of the most important tools for increasing business performance is to provide a proper level of financial resources, which is important for the continuity of all business establishments. Those factors that determine agricultural financing have specific characteristics. Due to the specifics of rural economies, agricultural enterprises have a low capacity for self-financing, thus they need significant external resources. After EU accession there has been a significant increase of subsidies received by farmers, but the distribution of support is not equal and available for all. Our aim was to analyse agricultural HUF and FX short term loans between the years 1995 and 2013 to find out the relationship between foreign currency and the effects of strengthening of Hungarian forint. We tried to find trends, we created forecasts and analyzed them with two different methods to get a proper view on correlation and changes in this period. Agriculture, like all sectors of the economy, needs credit loans for its development. In a competitive financial environment, profitable agriculture can obtain the credit loan it needs. Bank lending becomes this economy's engine.

Introduction

Crucial challenge for farmers is that they frequently face financial constraints. According to our opinion there are four major factors to mention when we discuss agricultural financing. Firstly, one of the sources of this problem is an imperfect capital market or the phenomenon of credit rationing. [Čechura 2009]. One tool for increasing performance is to provide a proper level of financial resources, which is important for the continuity of all business establishments. Providing the sector with an appropriate level of capital and credit is an essential condition for the Hungarian agriculture to become competitive and market oriented. Those factors that determine agricultural financing have specific characteristics [Széles 2007].

- financing resources of enterprises can be both internal and external; the following list presents external resources,
- external debt, non-institutionalized forms of involvement as an additional source of funds which can be ownership or shareholder loans, family loans or loans from friends, credit suppliers, customer deposits and warehouse credit,
- external debt, institutional financing forms from financial institutions for example bank loans, leasing and factoring; it means, we have to pay the credit back,
- external, capital-related financing involving “surplus” money invested in potentially profitable businesses; these include informal investors, business angels and risk capital.

Secondly, state support often described as an independent group, and a very special resource. Enterprises can be supported by the Hungarian state or the European Union. In Hungary the direct role of state assets is for the following: tenders announced from domestic sources, announced proposals co-financed by the European Union, access to credit assistance programs, capital programs, guarantees, collateral security. Specialties in Hungarian agricultural financing are the following:

- special loan products of services provided by the Hungarian Development Bank (MFB),
- other funding programs with financial interest and active support guarantor fees.

Funding for Growth Scheme by the Central Bank of Hungary:

- started in April 2013;
- the Scheme aimed to support SME's in accessing forint denominated loans and to strengthen financial stability;
- Loan Interest Rate maximum fixed at 2.5%/year;
- agricultural businesses have received one-third of the grant.

According to Csáki and Jámor [2009] EU membership has led to a significant increase of subsidies received by farmers and the increase of farmers' incomes in Hungary. The support, however, is not evenly distributed. In Hungary, more than 90% of the enterprises are small businesses. Agricultural farm size is very different in the European Union. There were 12.2 million farms across the EU-28 in 2010, working 174.1 million hectares of land (utilized agricultural area) or two fifths (40.0%) of the total land area of the EU-28. The average size of each agricultural holding (farm) in the EU-28 was 14.2 hectares [Coyette, Schenk 2013].

The third factor namely, financial instability in Europe is also penetrating the agricultural sector and the variation of interest rates for agricultural credit is increasing across countries. Perhaps the most dramatic signal of growing financial instability is that the financial leverage (gearing rate) of European farms rose in 2008 by almost 4 percentage points, from 14 to 18% [Pietola et al. 2011]. Financial leverage is important for each sector of the economy. In Hungary, leverage is highest in the building industry, but has increased in the agricultural sector since the start of the crisis [Széles 2007]. Local and rural capital markets should be closely linked not only to the domestic financial market within the country but increasingly so to the EU and even to global financial markets. The sector and country-specific financial risks are additionally reflected by international investors, and these risks quickly transmit to the cost of money that each country and sector has to pay [Pietola et al. 2011].

This anatomy of the crisis suggests at least three ways in which it can affect EU farmers [Petrick, Kloss 2013]:

- the banking crisis may cause a credit crunch for agricultural borrowers, by spoiling the functioning of rural financial markets;
- economic recession and dwindling demand for income-elastic food products may lead to a reduction of farm incomes;
- constraints on public budgets may lead to spending cuts in agricultural and rural policies.

The fourth factor is that the Hungarian agricultural sector is in a better position than other sectors of the economy. Péter and Domán [2013] have written that 57.5% of the economy's total debt involved foreign currency denominated loans in the first quarter of 2013, whereas in the same period 17% constituted agricultural loans. It means that HUF-based loans were dominant, so Hungarian agriculture is becoming less affected by currency fluctuations.

The corporate loan portfolio of banks fell by 13.0% and retail loans fell by 4.9% between December 2008 and July 2012. The decrease in FX is much higher due to exchange rate changes. According to European Central Bank figures in local currency terms in Hungary at the end of July 2012, the domestic loan portfolio of companies was almost 17% lower than that of December 2008. Compared to the EU-27 average, the reduction is only 2%. We need to take into consideration all of the four factors to understand that the proper management of financing is inevitable for agricultural farmers and there is a strong correlation between of strength of HUF and acquiring financial resources

Material and methods

It is not easy to analyze external financing forms in agriculture. There is no database in Hungary about capital-related financing options and non-institutionalized forms of financing, therefore data about institutional financing forms have been collected. A survey conducted by The Research Institute of Agricultural Economics has diagnosed the financing structure in Hungarian agriculture. According to Merkel and Tóth [2010] financing forms, 42% constitute bank loans, 18% supplier credit, 15% from integrator, 11% leasing, 1% factoring and 13% from other resources.

The research was conducted on the basis of secondary data. The Hungarian National Bank database was used. Bank loans constitute the biggest part in the institutional financing form. Agricultural loans from financial institutions and cooperatives between 1995 and 2013 were analyzed.

Our aim was to demonstrate that the crisis influenced the use of external financing methods in Hungarian agricultural enterprises. Different methods were considered and it was decided that the trend calculation method should be used. Analytical trend calculation is the most frequently used way of trend calculation. The permanent tendency of the time series can be expressed by certain well-fitting functions [Barrow 2006]. The linear trend calculation was selected.

Results

Loan data has been collected by the Hungarian National Bank since 1995. The Hungarian National Bank collects quarterly loan data. We can observe seasonal effects during the course of the year – increasing amounts until September and decreasing after that quarter. The table has included the status from 31st December. There are different institutions in the Hungarian financial system and they have published separate data from banks, specialized credit institutions, EEA (European Economic Area, shortly EEA) branches with balance sheet totals exceeding 100 bil-

Table 1. Monetary Financial Institution loans to agricultural corporations in Hungary between 1995 and 2013
Tabela 1. Pożyczki monetarnych instytucji finansowych na rzecz korporacji rolnych na Węgrzech między 1995 a 2013 rokiem

Year/ Rok	HUF loans/ <i>Pożyczki w forintach</i>			FX loans/ <i>Pożyczki walutowe</i>		Total loans/ <i>Ogółem kredyty</i>		Total loan/ <i>Ogółem kredyty</i>
	long term loan/ <i>kredyt długoterminowy</i>	overdraft loan/ <i>kredyt na rachunku bieżącym</i>	short term loan/ <i>kredyt krótkoterminowy</i>	long term loan/ <i>kredyt długoterminowy</i>	short term loan/ <i>kredyt krótkoterminowy</i>	HUF	FX	
HUF BLN/ <i>mld forintów</i>								
1995	34.9	11.1	19.1	0.2	3.7	65.1	3.9	69.0
1996	39.8	19.1	32.6	1.2	4.1	91.5	5.4	96.8
1997	80.3	23.5	40.4	2.1	5.5	144.3	7.6	151.9
1998	108.2	33.9	41.3	2,5	6,2	183,4	8,7	192,1
1999	114.5	39.2	51.6	2,3	3,5	205,3	5,8	211,1
2000	117.8	43.4	62.5	8.6	4.8	223.8	13.4	237,2
2001	105.5	40.6	72.5	2.2	5.2	218.6	7.4	226.0
2002	106.8	39.4	84.7	3.7	5.1	230.8	8.9	239.7
2003	191.2	13.8	60.6	5.2	15.1	265.6	20.3	285.9
2004	262.3	13.5	46.2	11.0	24.4	322.0	35.4	357.4
2005	247.8	14.2	67.2	19.4	36.3	329.2	55.7	385.0
2006	217.7	18.4	74.3	25.8	23.1	310.5	48.9	359.4
2007	184.5	19.1	114.7	33.5	22.6	318.3	56.1	374.4
2008	163.8	25.6	94.8	51.5	39.3	284.3	90.9	375.1
2009	155.7	24.1	85.2	49.4	27.9	265.0	77.3	342.3
2010	152.9	21.7	70.0	48.4	20.8	244.5	69.2	313.8
2011	150.5	26.9	77.5	49.7	21.0	254.9	70.7	325.6
2012	150.5	29.2	78.9	35.6	16.6	258.6	52.1	310.7
2013	209.7	29.9	67.7	27.0	16.7	307.2	43.7	350.9

Source: own calculation based on data from Hungarian National Bank

Źródło: opracowanie własne na podstawie danych Węgierskiego Banku Narodowego

Table 2. Differences between real agricultural loan data and linear trend forecasts

Tabela 2. Różnice między rzeczywistymi danymi kredytu rolnego i prognozy trendu liniowego

Year/ Rok	Real data/ Rzeczywiste dane	Model A		Model B	
		forecast/ prognoza	differences/ różnica	forecast/ prognoza	differences/ różnica
2008	375,12	413,52	-38,40	426,82	-51,70
2009	342,31	438,01	-95,70	438,01	-95,70
2010	313,78	462,49	-148,71	436,97	-123,19
2011	325,61	486,98	-161,37	428,27	-102,66
2012	310,69	511,47	-200,77	423,48	-112,79
2013	350,90	535,95	-185,05	415,79	-64,89
2014	N/A	560,44	N/A	417,52	N/A

Source: own calculation

Źródło: obliczenia własne

corporate credit institution portfolio. Corporate credit institutions are “banks for the country” and they are important for farmers.

According to Model A the linear trend was introduced for real agricultural loan data between 1995 and 2008. 2008 saw the beginning of the crisis in Hungary, and affected institutional financing forms. The linear trend equation was $y = 24.485x + 70.718$. The fittings of the trends were close (R^2 equalled 0.938). The average yearly loan increase was HUF 24.486 billion. The linear trend represented a solid line between 1995 and 2008, and the forecast was from 2009 to 2013. Dominant differences can be observed before and after the crisis, total credits were HUF 342.3 billion in 2009 and the forecast was HUF 438 billion. This was a huge drop. The situation was the same in 2013, with HUF 185.05 billion being the difference between real data and forecasts for the total loan amount.

Model B is only one-year ahead forecast, that is, forecast 2009 using data through 2008, then 2010 using data though 2009 etc. Model A has the biggest difference in 2012 compare to Model B where it can be found 2010. Model B provides a closer approach.

For HUF loans, the highest amount (HUF 329.2 billion) was in 2005 (in the period under review). Increases could be observed in all three types at the end of the 90s. The changes were significant in 2003, long term loans almost doubled while overdraft and short term loans drastically reduced. Long term credit amounted to HUF 262.3 billion (EUR 0.88 billion) - the highest volume in the period. Since 2010 it stagnated at about HUF 250 billion (EUR 0.84 billion).

It can be said that a significant change had not happened before 2003. The share of the FX loans rate was very small in the agricultural crediting portfolio. The effect of the crisis could be observed for long term FX loans, which increased until 2008. The highest loan volume was more than HUF 50 billion (EUR 0.17 billion) in 2008. Fluctuation in the short term FX loans can be observed, with the volume decreasing since 2008.

Conclusions

Agriculture, like all sectors of the economy, needs credit for its development. In a competitive financial environment, profitable agriculture can obtain the credit it needs. We have analysed agricultural HUF and FX short term loans between the years 1995 and 2013 and tried to find trends in this period.

In the last year of research 2013, the total agricultural loan amounted to HUF 350.9 billion. 87.0% (HUF 305.2 billion) of this amount came from banks, specialized credit institutions, EEA branches and 13% from corporate credit institution. In the year 2013, agricultural credit amounted to 4.8% in the bank portfolio and 14.2% in the corporate credit institution portfolio.

lion forints and corporate credit institutions with balance sheet totals exceeding 6 billion forints. Table 1 shows HUF and FX loans for agriculture.

In the last year of research 2013, the total agricultural loan amounted to HUF 350.9 billion, 87% (HUF 305.2 billion) of this amount came from banks, specialized credit institutions, EEA branches and 13% from corporate credit institutions. In the same year, agricultural credit equaled 4.8% in the bank portfolio and 14.2% in the

The linear trend was used for the real agricultural loan data between 1995 and 2008 and forecast between 2009 and 2013. It was concluded that the average yearly loan increase was HUF 24.486 billion. We could see dominant differences before and after the crisis, total credits amounted to HUF 342.3 billion in 2009 whereas the forecast was HUF 438 billion. The situation was the same in 2013 when HUF 185.05 billion was the difference between real data and forecasted for the total loan.

The Funding for Growth Scheme by the Central Bank of Hungary can be a good opportunity for agricultural enterprises. The question is if they can or cannot take this opportunity?

This paper shows the impact of 2008 world economic crises on agricultural farm financing and can be used as a case study or a starting point for further reseaches int he CEE region.

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Streszczenie

Przeanalizowano długo- i krótkoterminowe pożyczki HUF i FX udzielane węgierskim przedsiębiorstwom rolnym w latach 1995-2013 i określono tendencje tego zjawiska w tym okresie. Sektor rolny do swojego rozwoju potrzebuje dofinansowania. Zapewnienie odpowiedniego poziomu środków finansowych jest ważnym czynnikiem, umożliwiającym stałe funkcjonowanie podmiotów. Ze względu na specyfikę sektora rolnego możliwość samofinansowania wśród gospodarstw rolnych jest niewystarczająca, co za tym idzie potrzebują one znacznych zasobów zewnętrznych. Po przyłączeniu się do UE zaobserwowano istotny wzrost dotacji przyznanych rolnikom, jednak podział tego wsparcia był nierówny i nie dla wszystkich rolników dostępny. Na przykład ze względu na wielkość gospodarstw, te małe są w gorszej sytuacji. W konkurencyjnym otoczeniu dochodowe gospodarstwa rolnicze mogą uzyskać kredyty z banków. To znaczy, że banki udzielające pożyczek stają się dla sektora rolnego napędem ekonomicznym.

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