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Factoring Application as an Alternative to Financing and Effects of Various Macroeconomic Indicators

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Abstract

Alternative funding methods are frequently used – especially in developing and transforming economies – for the sake of ensuring the capital supply that businesses need. One of these alternative funding methods is the factoring method. Factoring application, which is a technique that provides funds through selling receivable accounts of sale on credit to institutions referred to as factor, is a significant application which is recently being preferred by businesses. In this study, it was aimed to evaluate the general aspects of the factoring application and the relationship between the application and the economic indicators through panel data analysis. As a result of the study, it was observed that when inflation and interest rates are high, businesses tend to choose factoring applications for the sake of funding.

Keywords: Factoring, Inflation Rate, Interest Rate, Panel Data Analysis

I. Introduction

Factoring stands out as a financing technique that is mostly used in the businesses of which sales volumes are mainly based on sales on credit and it is widely used all over the world. Factoring, as a source of financing, has a very successful validation in transitional and developing countries since it is very useful in short-term commercial financing. (Spasic, Bejatovic and Mijatovic: 2012). It is seen that especially small and medium sized businesses tend to come across various difficulties in creating sources of financing they need. Financial constraints are a major obstacle to the growth and development of small and medium-sized businesses. The difficulties faced by small and medium sized businesses while seeking fund from financial institutions due to their need for funding source and using loans from banks to meet these needs have led the businesses to seek new paths in line with alternative financing methods. In addition, having insufficient funds – due to businesses' structure and strength – to meet the requirements demanded by banking systems, facing difficulties in creating collateral and within this context not being able to obtain loan amounts that are needed, etc. have made the need for alternative financing methods even more evident. To satisfy the mentioned needs, factoring – among other financing methods – stands out as the right choice, especially for SME's. In times of economic crises; banks avoid attending to credits, businesses cannot efficiently follow up their receivables, and hence, the desire for overcoming various financing difficulties leads to an increase in the use of factoring application.

II. An Overview of Factoring

The major challenges that inevitably follow modern business activities are predominantly financial. Businesses, while carrying out their activities, are generally exposed to various problems such as liquidity problems, conditions for receiving a credit, risk of claim payment, costs, etc. In addition, due to the widespread exchange of goods and services within the scope of international commercial relations emerging under the influence of globalization, as a result, occurrence of different possessions and accordingly having different legal regulations in the field of banking and finance have led to a further increase in the mentioned problems and risks (Spasic, Bejatovic and Mijatovic, 2012). Access to funding sources in businesses plays an important role in obtaining a sustainable financial competition.

Access to funding sources in enterprises plays an important role in winning the sustainable financial competition. In the case of businesses, cash inflows and outflows occur simultaneously and financial institutions are exposed to the creation of funding sources through borrowing and so on. The simultaneous failure of cash inflows and outflows in enterprises and the problems that financial institutions face in creating financing through borrowing lead businesses to seek alternative sources of financing (Denčić-Mihajlov, Milenković-Kerković, 2011).

Factoring can be defined as the transfer of the risks, which arise from the sales of the businesses which are subject to sales on credit, to institutions which are stated in the name of "factor or factoring company". In other words, it can be defined as the sale of short term receivables to factoring companies to receive cash immediately (Ceylan, 2003: 1; Toroslu, 2011: 1).

Factoring is a financing technique in which the receivables of a business that arise from conducted services or sold products are purchased by a well-versed firm called the factor. Thus, the client is still kept as the client of the business however his debt is transferred to the factor institution and the client is obliged to fulfill his obligations to the factor institution (Denčić-Mihajlov, Milenković-Kerković, 2011).

Factoring is also defined as a form of supplier financing in which businesses sell their receivables that are listed as a sale on credit with a discount to receive cash immediately. Factoring should not be evaluated as a loan type and although it creates funding for the business' operational activities it does not place any additional obligations on the business' balance. The factor or the factoring company that purchases a business' receivables assumes the credit risk of the buyer's solvency. In this context, factoring can be expressed as a comprehensive financial service that includes credit protection, accounts receivable bookkeeping, collection services and financing (Klapper, 2006: 1).

Factoring represents a complex financial product that combines crediting services, the risk of non-cash liabilities, the retrieval, the recovery and, as well as, the accounting of debts. The mechanism for the implementation of the mentioned complex operations of the factoring involves three parties (Grecu, 2010: 567); the business that is requesting the service, factor (a financial institution) and debtor business.

Factoring operations are shaped according to the specifications of the agreement on which a consensus was reached. For instance, if the buyer and the seller operating in the same country then the operations are named as a local factoring, if the buyer and the seller are operating in different countries then the operations are named as an international factoring. (Kaya and Gerekan, 2011: 79). Zerbini (2014) states that it is significant to remove the massive legal barriers in the financing operations and to create an international receivable collection for the sake of sustaining the businesses and, in this context, factoring will become an easily reachable finance method. International factoring has a significant potential for financing the abroad operations. Wherever the operation of the business is, they can still beneficiate from the abroad operations (Vasilescu, 2010).

Evaluating in terms of local operations, factoring process takes places through certain stages and in between three parties. The first party is the business that is selling their rights of which occurred through commercial operations that are conducted by the business that is requesting the service to the factoring firm, the second party is the business that is going to pay the debt within a defined due date to the seller business and factoring firm are the mentioned parties (Kaya and Gerekan, 2011).

III. Current State of Factoring Application both in the World and in Turkey

According to Factors Chain International, who is the source of international statistical data, worldwide factoring endorsement in 2015 reached to 2.373.000 Euros. As of different years, in between 2009-2015 periods, worldwide factoring endorsement has shown an increase of 85 percent. When 2015 is evaluated, England and China are the leading countries among the chosen countries in terms of having the highest factoring endorsement. Also, China has increased its endorsement over 4 times during the last 7 years and Germany comes in the second place. When the data from 2015 is evaluated, England's – a country that has the highest factoring endorsement – sums up its endorsement mainly from local factoring operations, and among its total endorsement only Taiwan's international factoring application is exceeded.

Factoring concept - which is identified as a finance technique - took place in Turkey's banking terminology in 1983 after "Decree Law on Lending Money" was published in the official newspaper. In mentioned law's 3rd sentence factoring is defined as; "Receivables that are inherited from the sale of goods and services are sold to a company and the company provides financing in return to these receivables and take responsibility for collecting the receivables."

In Turkey factoring application first took place in 1988 throughout the finance market. The very first comprehensive law on factoring was published in the official newspaper dated 12.13.2012 and numbered 28496. The mentioned law – 6361 numbered Financial Leasing, Factoring and Finance Companies – merged three different industries. After the law came into force, in 04.24.2013 a regulation regarding the essence and principles regarding Financial Leasing, Factoring and Finance Companies' Foundation and Working was published (Uyanık, 2015: 34).

Factors in Turkey such as most of the local commerce to takes place with a payment term, companies usually suffer from operating capital due to high rates of inflation, economy is mainly based on export, most of the export products are available to factoring, international trading to transform into a payment terms in terms of accounting, etc increases the importance and the popularity of factoring (Özdemir, 2005:208).

According to FCI data in table 1.a. and Table 1.b., when Turkey is evaluated it is seen that 1.6% of the total factoring endorsement worldwide is provided by Turkey. In the last 7 years, Turkey's factoring endorsement increased by 93%. International factoring endorsement is 7.896 million Euros, local factoring endorsement is 31.414 million Euros, and hence, the total factoring endorsement is 39.31 million Euros. In the current situation, Turkey, as well, is a member of 20 factoring enterprise, FCI.

Table 1. a. Factoring Turnover Growth By Country

	2009	2009(%)	2010	2010(%)	2011	2011(%)	2012	2012(%)	2013	2013(%)	2014	2014(%)	2015	2015(%)
United Kingdom	195613	0.15255	226243	0.13758	268080	0.13349	291200.1	0.13696	308096	0.14007	350622	0.14945	376601	0.1587
China	67300	0.05248	154550	0.09398	273690	0.13628	343759	0.16167	378128	0.17191	406102	0.17309	352879	0.14871
France	128182	0.09996	153252	0.09319	174580	0.08693	186494	0.08771	200459	0.09113	226598	0.09658	248193	0.10459
Germany	96200	0.07502	129536	0.07877	158033.9	0.07869	157420	0.07404	171290	0.07787	189880	0.08093	209001	0.08807
Italy	124250	0.0969	143745	0.08741	175182	0.08723	181878	0.08554	178002	0.08092	183004	0.078	190488	0.08027
Spain	104222	0.08128	112909	0.06866	122125	0.06081	124036	0.05834	116546	0.05298	112976	0.04815	115220	0.04855
United States	88500	0.06902	95000	0.05777	105000	0.05228	77543	0.03647	83739	0.03807	97670	0.04163	95000	0.04003
Japan	83700	0.06527	98500	0.0599	111245	0.05539	97210	0.04572	77255	0.03512	51072	0.02177	54184	0.02283
Taiwan	33800	0.02636	67000	0.04074	79800	0.03974	70000	0.03292	73000	0.03319	56680	0.02416	52693	0.02221
Turkey	**20280**	**0.01582**	**38988**	**0.02371**	**30869**	**0.01537**	**31702**	**0.01491**	**32035.53**	**0.01456**	**41229**	**0.01757**	**39310**	**0.01657**
TOTAL WORLD	1282281		1644429		2008231		2126242		2199605		2346143		2373003	

Reference: https://fci.nl/en/about-factoring/statistics

Table 1 .b. Domestic-International-Tolal Factoring Volume By Country In 2015 (In Millions of Euro)

Country	Domestic	International	Total
United Kingdom	351.950	24.651	376.601
China	226.600	126.279	352.879
France	180.745	67.448	248.193
Germany	149.401	59.600	209.001
Italy	148.448	42.040	190.488
Spain	98.798	16.422	115.220
United States	80.000	15.000	95.000
Japan	53.129	1.055	54.184
Taiwan	13.410	39.283	52.693
Turkey	**31.414**	**7.896**	**39.310**

Reference: https://fci.nl/en/about-factoring/statistics

IV. Data and Methodology

In this study, macroeconomic indicators of subsectors of manufacturing sector that affect the factoring endorsement are tried to be determined. It is expected that macroeconomic indicators and economic stability will have an impact on the preferences of the businesses regarding their factoring practices as being an alternative for financing. In line with this objective, primarily endorsements of the subsectors are evaluated. Data set of this study is formed by 10 subsectors that existed in the manufacturing sector between 2009 and 2015. A stable panel of these 10 subsectors that is spread over 9 periods is formed. The subsectors that take part in this study are specified in Table 2.

Table 2 Subsectors of manufacturing sector take part in the study

Nuclear Fuel. Petroleum Products Coal Products Industry	Machinery and Equipment Industry
Textile and Textile Products Industry	Food, Beverages and Tobacco Industry
Metal Main Industry and Processed Material Production	Other Non-Metal Mines Industry
Transport Storage and Communication	Electrical Gas and Water Resources
Transportation Vehicles Industry	Paper Crude. And Paper Products Printing Industry

Model 1 is going to be evaluated by panel data analysis that has dependent and independent variables. Dependent variables are factoring endorsements of the each subsector while independent variables are determined as inflation rate and interest rate that can be affected mostly by factoring industry and constituted by various macroeconomic indicators. The variables in the model are shown in the table.

Table 3 Variables in the Analysis

	Variables
Fac	Factoring Endorsements
INF	Inflation Rate
INTR	Interest Rate

In order to make regression estimation in panel data analysis, firstly the compatibility of the data to be included in the analysis should be examined. First of all, the stationarity of data should be tried to be determined for this. In the study, common unit root processes were investigated by using panel unit root tests including Levin, Lin and Chu (2002) tests and apart from that individual unit root process was investigated by using Im-Pesaran and Shin (2003) test for each unit (operation). When the analysis results of panel unit root tests are examined, in general it is observed that there is no unit root in the series in the tests.

$$FAC_{it} = \beta_{0it} + \beta_{1it}INF_{it} + \beta_{2it}INTR_{it} + e_{it} \qquad \text{(Model 1)}$$

When the model is established there some statistical problems might occur. These problems may be changing variance and autocorrelation. Therefore, before making any forecasts of the models, problems related to changing variance and autocorrelation are being investigated. While Modified Wald Test (MWALD) is undertaken for investigating problems related to changing variance, for detection of problems related to autocorrelation Wooldridge Test is undertaken. Presence of these problems can hinder consistent and efficient forecasts. Hence, when encountered with these problems, the standardized model (PSCE) that is proposed by Beck and Katz (1995) can be used. Forecasts which were being made according to the results obtained through our research displayed problems regarding autocorrelation and variance. To overcome the mentioned problems and to have more valid forecasts PCSE which is also used in case when N observation number is higher than the T time dimension, is being used.

V. Results of Analysis

The obtained data through the analysis that were aimed to identify various macroeconomic indicators affecting factoring process are as they are shown in the table 4.

Table 4. Analysis Result

	PCSE	
	t-test	**P-value**
INF	1.78	0.075**
INTR	2,77	0.006*
Constant	-2,13	0.033
R^2	0.1056	
Wald statistics X^2	162.55	0.000
Wooldridge	6.93	0.0093
Breusch-Pagan	70.83	0.000
Obs. Number	90	90

Note: * means 5% significance level, ** means 10% significance

When the production market is evaluated, the factoring endorsement conducted by the production market is affected through various macroeconomic indicators. According to these analyses, factoring endorsement is 10% positively affected at the level of significance and the effect of interest is also positive at the level of 1%.

When the results are evaluated, it is seen that factoring endorsement is affected through various macroeconomic indicators. Factoring is a global and an alternative financing source (Vasilescu, 2010). The most common problem that the businesses face is that the management of business operation capital. The ability of the business to operate at full capacity, to keep the production uninterrupted, to expand the business volume, to reduce the risk of failing to fulfill the obligations, to increase the credit worthiness, to prevent the business to fall into a difficult position financially in case of extraordinary situations, to carry out its activities profitably and efficiently are all significant in terms of managing the businesses' operating capital (Akgüç, 1998). Businesses usually overcome the operating capital difficulties through factoring, in other words by obtaining cash flow. Management of the operating capital is also dependant on various macroeconomic indicators, therefore, it is assumable that factoring – as an alternative financing method – is expected to be effected by the macroeconomic indicators as well. It is seen that in the periods when inflation is high, businesses need a higher level of funding to operate such activities. Factors in Turkey such as high inflation rate to continuously cause problems to businesses, our economy's dependence on exportation, most of the export products are being available to factoring, international trading to transform into a payment terms in terms of accounting – open accounts –, continuous decrease in the documentary credit payment method are all increasing the demand for factoring (Özdemir, 2005: 209).

Before factoring application became common, small and medium sized businesses used traditional methods through banks to provide funding (Hopson and Hopson, 2014). Factoring application stands out as a more beneficiary method compared banking finance (Keasey et al, 2014). Especially when the bank credit interest rates are increased, businesses that are seeking funding are seem to increase the factoring endorsement. That is why, it is seen that businesses tend to use factoring in case when inflation and interest rates are comparatively high.

VI. Results

Factoring is an application that offers solution to the businesses that are seeking to improve their liquidity level and to form a flexible and a fast solution for ensuring business capital. As a financial instrument, factoring enables the small and medium-sized businesses to increase their liquidity and at the same time removes the risk of receivables collection (Czternasty and Mikolajczak, 2013).Businesses can carry out efficient receivables management with factoring application. In times of economic uncertainties, factoring institutions play a significant role to provide the cash flow that the businesses need to maintain their assets. It is an alternative financing method to overcome the distressed periods. In this study, it was our goal to evaluate the relationship between the factoring application and the macroeconomic indicators and the obtained results displayed that in times of increased inflation and interest rate, businesses tend to choose factoring application over other financial solutions. This situation can be seen as an indicator that in distressed environments, businesses incline towards factoring application, which is an alternative financing method.

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