



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

The Effects Of Global Economic Crisis of 2008 to Financial Statements and Liquidity Ratios on Companies Operating In BIST Energy Sector (2005-2013 Term Review) * *

Selcuk Kendirli¹ , Muhammet Cankaya² and Altug Cagatay³

¹ Hitit University, FEAS, Banking and Finance Department

² Hitit University Sungurlu Vocational School

³ Gaziosmanpaşa University, Almus Vocational School

Abstract. The purpose of this study is to compare and analyze whether the 2008 global economic crisis affected the balance of the energy companies which are listed in the İstanbul Stock Exchange and have not shown continuity in 2005-2013 period by using a variety of analyzing methods. Companies that demonstrate continuity between the years 2005-2013 were not assessed in this study. Horizontal and vertical analyses were made on the financial statements of the companies which are evaluated and liquidity ratios were assessed. Based on this analysis, it was found that these companies were differently affected by the crisis.

Keywords: Financial Crisis, Balance Sheets, Financial Analysis

JEL Codes: F65, G12, O16

1. Introduction

Etymology of the word “crisis” comes from the Greek “krisis”, where it is used as a synonym of “depression” and “despondence” in social sciences and means serious breakdowns in normal relationship in facing unexpected social, economic or psychological development and situations occurred when common solutions to the problem translates into a failure (Işık, 2011: 3). In 20th century, world economy witnessed to Great Depression of 1929 considered as the biggest global crisis and the Mortgage Housing Financing Crisis originated from USA. Global economic crisis of 2008 is considered as the worst financial crisis ever since 1930.

* A version of this research was presented at the 3rd International Conference on Economic Sciences and Business Administration – ICESBA2016, held on 29-30th September 2016.

 Assoc. Prof. Dr. Selcuk KENDIRLI. Tel.: +90 543 323 92 38; fax:+90 364 277 10 10. E-mail address: selcukkendirli@hitit.edu.tr.



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

Economic crisis that began in 2008 affected both Europe and our country, but especially United States. Despite all the negative effects of the crisis, it is not possible to tell the same thing for the real sector in our country in which all banks survived. Interest rates increased under the influence of the crisis, inflation pressure, currency fluctuations and demand shrinking both inland and outland seriously affected the real sector (Gümüş and Aydemir, 2014: 2).

The purpose of this study is to investigate the effects of 2008 global economic crisis on the financial statements and liquidity ratios of the energy sector companies operating in Istanbul Stock Exchange (BİST). 2005-2008 and 2008-2013 periods were subjected to the analysis separately to reveal the pre-crisis and post-crisis periods, respectively. Statements were examined using ratio analysis, horizontal and vertical analyses techniques.

According to the results, there were no financial statements identical for all companies operating in the field of energy. Some of the companies maintained the financial discipline and preferred a balanced growth during crisis. Other companies did not gave up, getting into debt and continue to grow and acquire real assets. Actually, every single company was affected by the crisis at different levels, because its distinct financial structure and strategic projections.

2. Crises In Globalized Economies

Economic crises usually affects developed and large economies, in parallel with the liberalization of the capital movements and globalization of capitalism and spreads rapidly worldwide (Terzi, 2009: 153). A crisis broke out in one country affects not only that country, but also many other countries, depending on the scale of the crisis caused by the absence of trade restrictions.

Therefore, crises deeply affects especially emerging countries. Developing countries are forced to attract the capital necessary to their economic growth. Otherwise, economic growth will decelerate and, even de-growth will emerge. Developing countries must review their macro-economic policies in such periods and introduce new regulations based on the current conditions.

A slowdown is experienced in world economy together with the 2008 global economic crisis and many countries grew at a slower pace compared to the past. Money and capital flow towards the developing countries were also affected and many countries faced financing problems.

Mortgage is a consumer credit in which the creditor bank receives temporary housing pledge from the customer as repayment warrant. Customers can buy any house or finance any of their needs through a mortgage credit in exchange for a house mortgaged to the bank.

(http://www.denizmortgage.com.tr/mortgage_nedir).

A great deal of participants such as individual investors, institutional investors and investment banks are involved in mortgage markets which comprises of primary markets regulating the mortgage credit and secondary markets in which instruments created based on these credits are traded. Mortgage credits are based on certain distinctions such as the mode of payment, structure of interest and the reputation of the borrower. As such, mortgage credits can be divided into three main categories:

Prime or A-quality (high-income group)

Subprime or risky group (low-income group)



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

The purpose of this distinction is to ensure that the credit is provided on the basis of the interest rates suitable for the risk structure, by determining the risks according to the group of which the borrower belongs. Although, subprime and Sub-A concepts are not an official description developed by an authority or rating institution, these concepts are developed in order for gaining a better understanding of the difference between more risky debtors and other debtors. Particularly, subprime mortgage credit is an innovation designed for the customers who have a high insolvency risk, due to some factors in relation to the credit or lower credit quality, and fall into the low-income group to become a homeowner (Öztürk and Gövdere, 2010: 384).

The securitization process of mortgage credits as primary market products to be traded in secondary markets is a process based on the issuance of securities by the bank for the price of the real estate after pledging. Credits provided by the bank are sold for long-range to the domestic and foreign direct investors or intermediary firms. This system transfers the interest expense paid by the borrower to the holders of the security as interest income. By this means, financial intermediary firms both distribute the interest risk in financial statements and generate intermediary and commission revenue. House acquisition purpose of the mortgage credits provided in the USA changed to a housing speculation particularly due to the lack of inspection and problems started to arise in the system (Öztürk and Gövdere, 2010: 384).

In the early 2000's, providing housing credits to the economic actors carrying the risk of high repayment and earning low income in the USA and this led to higher interest rates and increasing house prices. Outbreak of financial crisis in the USA in 2007 affected the real sectors of other countries in a negative way by spreading to the rest of the world economy, particularly as of 2008 Fall (even as of the early 2008 in certain countries). Serious decreases in industrial production and massive increases in unemployment rates were experienced as of 2007, after the enormous increases in house prices in the USA reversed in the early 2006. Thereafter, a great regression occurred in the merchandise trade of the world in the second half of 2008 (http://mpa.ub.uni-muenchen.de/29470/1/MPRA_paper_29470.pdf).

Many finance experts points the 2008 global economic crisis as the result of granting too easily of mortgage credits on a large scale. This hand-over operation so called *derivative products* includes the agreements that allows companies to subject their risks coming from other operations, to commerce. These agreements served to translate the default risk from the creditor to the debtor and transfer it to the third parties. While the company is transfer the risk, this process entails higher risks and the investments made on derivative products through these credits were growing like a snowball. Derivative products that served to transfer the risk and as such, functioned as insurance in the system, they started to become themselves a factor increasing thrisk. 2008 crisis is a financial crisis stemmed from the combination of mortgage credits provided to individuals and institutions through marginal areas and derivative products with no end. Insufficient regulations and lack of inspection are considered as the main causes of that growth of this problematic area (Eğilmez, 2011: 67-68).

A cash measurement package towards the banking system in Turkey was not needed for the first stage of 2008 global economic crisis. The application of a similar package after 2001 crisis may be considered as the most important reason of the lack of additional measurements in banking system in the 2008 global economic crisis. Many of the bailout packages and regulations applied by many countries towards the financial markets in 2008 crisis had already been implemented in Turkey after 2001 February crisis.



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

However, whether it was necessary to prepare a package involving the utilization of public resources and provision of credit support by public sector to real sector was debated seriously (Berberoğlu, 2011: 110).

The growth rate in agriculture, industry and service sectors of the economy in Turkey decreased since 2007, and therefore GDP had a stable course in 2008. GDP shrank 4.8% in 2009 due to the spread of the crisis. Rates of capacity utilization also dropped in those years, due to insufficient demand from companies (Yıldırım, 2010: 54).

3. Data Set And Application

3.1. Companies Included in Evaluation

Financial statements whose data is open to access in the relevant period and which belong to the companies traded in Istanbul Stock Exchange (BIST) were evaluated in order for revealing the effects of crisis on the financial statements of energy companies. Companies subject to the study are listed in Table 1.

Table 1: BIST Energy Companies included in evaluation.

Code	Name of the Company
AKENR	AKENERJİ ELEKTRİK ÜRETİM A.Ş.
AKSUE	AKSU ENERJİ VE TİCARET A.Ş.
AYEN	AYEN ENERJİ A.Ş.
ZOREN	ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.

Liquidity ratios of Ak Enerji A.Ş. covering the years between 2008-2013 are shown in Table 3. 2008-2013 ratios of Ak Enerji A.Ş fell below the generally accepted ratios and this fall continued from 2008 to 2012. Other ratios except for Cash Ratio remained below the generally accepted ratios in the end of 2013.

Financial statements of 2005-2008 and 2008-2013 were evaluated separately to compare the pre-crisis term, crisis term and post-crisis term. One or more techniques of horizontal analysis, rate analysis and vertical analysis were used for every single company individually and pre-crisis, crisis and post-crisis terms were evaluated by comparing the findings obtained.

3.2. Examining the Financial Statements on the Basis of Companies

Current ratios of 200% for the companies whose liquidity ratios are evaluated by Western finance councils and 150% for the countries with a high inflation are considered as sufficient. These councils considered the 100% liquidity ratio and 20% cash ratio as sufficient (<http://www.bilgaz.net/dosyalar/OranAnalizi.pdf>).

Calculations of liquidity ratios are as given below:

Current ratio % = Rev. Ass. / STL

Liquidity ratio % = Liquid Assets (Cash Equivalents+trade receivables+other receivables) / STL

Cash ratio % = Cash Equivalents / STL

Financial statements of the 4 energy field operating companies whose financial data related to the period between 2005-2013 are evaluated separately for the pre-crisis and post-crisis terms.

Liquidity ratios of Ak Enerji A.Ş. covering the years between 2005-2008 are shown in Table 2. As can be seen in the data of Table 2, 2005-2008 ratios of Ak Enerji A.Ş can be considered as having good ratios,



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

because these are above the generally accepted ratios. However, there seems to be a great decline in 2008 in which the crisis emerged, despite sufficient ratios.

Table 2: 2005-2008 Liquidity Ratios of Ak Enerji A.Ş

RATIOS	AK ENERJİ			
	2005	2006	2007	2008
Current Ratio %	345	322	297	203
Liquidity Ratio %	200	251	254	187
Cash Ratio %	173	215	154	91

Ak Enerji A.Ş.'nin 2008-2013 yıllarını kapsayan likidite RATIOSı Table 3'de gösterilmektedir. Ak Enerji A.Ş'nin 2008-2013 dönemi RATIOSı, genel kabul görmüş oranların altına düşmüş ve 2008 yılından 2012 yılına kadar düşüş devam etmiştir. 2012 ile birlikte düzelme başlasa da 2013 yılı sonu itibariyle Nakit Oranı hariç diğer oranlar genel kabul görmüş oranların altında kalmıştır.

Table 3: 2008-2013 Liquidity Ratios of Ak Enerji A.Ş.

RATIOS	AK ENERJİ					
	2008	2009	2010	2011	2012	2013
Current Ratio %	203	83	40	36	63	104
Liquidity Ratio %	187	71	37	28	55	90
Cash Ratio %	91	44	9	14	36	64

As can be seen in the Table including the 2005-2008 liquidity ratios of Aksu Enerji A.Ş, the liquidity ratio in 2005 seem to be quite low. In addition to this, it can be said that STL's were kept low and the company operated with high cash position, because liquidity ratios of 2006-2008 were significantly above the generally accepted ratios.

Table 4: 2005-2008 Liquidity Ratios of Aksu Enerji A.Ş.

RATIOS	AKSU ENERJİ			
	2005	2006	2007	2008
Current Ratio %	20	7.059	1.912	2.968
Liquidity Ratio %	0	6.229	1.797	2.828
Cash Ratio %	0	5.930	1.647	2.825

2008-2013 liquidity ratios of Aksu Enerji A.Ş are given in Table 5. 2008-2013 ratios of Aksu Enerji A.Ş. are significantly above the generally accepted ratios. It shows that the company preferred to keep cash and similar assets high.

Table 5: 2008-2013 Liquidity Ratios of Aksu Enerji A.Ş.

RATIOS	AKSU ENERJİ					
	2008	2009	2010	2011	2012	2013
Current Ratio %	2.968	949	1.275	1.473	3.392	754
Liquidity Ratio %	2.828	870	1.186	1.354	3.381	741
Cash Ratio %	2.825	108	1.136	1.249	3.357	717



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

2005-2008 liquidity ratios of Ayen Enerji A.Ş are given in Table 6. Current ratios and liquidity ratios of Ayen Enerji. A.Ş remained under the generally accepted ratios, however current ratios are above the generally accepted ratios, despite fluctuating.

Table 6: 2005-2008 Liquidity Ratios of Ayen Enerji A.Ş.

	AYEN ENERJİ			
RATIOS	2005	2006	2007	2008
Current Ratio %	50	76	133	166
Liquidity Ratio %	44	61	9	60
Cash Ratio %	22	51	1	47

As can be seen in Table 7 including the liquidity ratios of Ayen Enerji in 2008-2013, current ratios and liquidity ratios of Ayen Enerji A.Ş seem to remain under the generally accepted ratios and these ratios continued to get smaller after the crisis, however these ratios had a course above the generally accepted ratios in last two years.

Table 7: 2008-2013 Liquidity Ratios of Ayen Enerji A.Ş.

	AYEN ENERJİ					
RATIOS	2008	2009	2010	2011	2012	2013
Current Ratio %	166	108	145	36	72	62
Liquidity Ratio %	60	36	49	8	38	43
Cash Ratio %	47	14	24	1	24	29

2005-2008 liquidity ratios of Zorlu Enerji A.Ş. are given in Table 8. In this period, all ratios of Zorlu Enerji A.Ş were under the generally accepted ratios. Particularly cash ratio seems to be quite low.

Table 8: 2005-2008 Liquidity Ratios of Zorlu Enerji A.Ş.

	ZORLU ENERJİ			
RATIOS	2005	2006	2007	2008
Current Ratio %	100	30	24	62
Liquidity Ratio %	78	16	7	29
Cash Ratio %	1	0	2	1

As can be seen in Table 9 including the liquidity ratios of Zorlu Enerji A.Ş. in 2008-2013, all ratios of Zorlu Enerji A.Ş. remained under the generally accepted ratios after the crisis, and no recovery was achieved.

Table 9: 2008-2013 Liquidity Ratios of Zorlu Enerji A.Ş.

	ZORLU ENERJİ					
RATIOS	2008	2009	2010	2011	2012	2013
Current Ratio %	62	48	49	64	39	32
Liquidity Ratio %	29	37	39	34	35	24
Cash Ratio %	1	6	17	7	13	10



Table 10: Balance Sheet Changes and Ratios of Ak Enerji A.Ş. in 2005-2008

FINANCIAL SITUATION TABLE											
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED	
TERM	31.12.2005		CHANGE	31.12.2006		CHANGE	31.12.2007		CHANGE	31.12.2008	
REPORT CURRENCY	TL	%	%	TL	%	%	TL	%	%	TL	%
ASSETS											
CURRENT ASSETS	228.624.754	36	-9	208.929.728	33	-6	196.027.872	33	21	238.049.931	28
REAL ASSETS	399.269.278	64	7	428.333.721	67	-7	399.016.736	67	56	622.744.754	72
TOTAL ASSETS	627.894.032	100	1	637.263.449	100	-7	595.044.608	100	45	860.794.685	100
SOURCES											
SHORT-TERM LIABILITIES	63.876.868	10	1	64.826.024	10	-12	556.877.292	10	95	111.161.309	13
LONG-TERM LIABILITIES	74.660.331	12	91	142.813.239	22	4	148.848.268	25	85	270.428.208	31
EQUITY CAPITALS	488.259.491	78	-12	428.340.381	67	-9	388.013.975	65	24	479.205.168	56
PAID-CAPITAL	65.340.000	10	0	65.340.000	10	0	65.340.000	11	0	65.340.000	8
NET TERM PROFIT/LOSS	-79.091.304	-13	-24	-59.790.065	-9	-33	-40.280.291	-7	-321	126.888.622	10
NET WORKING CAPITAL	164.747.886	26	14	144.103.704	23	4	139.150.580	23	10	126.888.622	15
TOTAL SOURCES	626.796.690	100	-1	635.979.644	100	7	593.739.535	100	-31	860.794.685	100

Table 10 shows the consolidated balance sheet including the items of Ak Enerji A.Ş. on a pro rata basis. As can be seen in the relevant Table, the share taken by current assets item from active assets in 2005-2008 seem to be gradually decreasing. Share of current assets decreased from 36% in 2005 to 28% in 2008. Real assets item showed a substantial increase in the same term. Although there was no serious difference in short-term borrowing in terms of ratios, long-term borrowing showed a significant increase on a pro rata basis.



Table 11: Balance Sheet Changes and Ratios of Ak Enerji A.Ş. in 2008-2013

FINANCIAL SITUATION TABLE																		
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2008			31.12.2009			31.12.2010			31.12.2011			31.12.2012			31.12.2013		
REPORT CURRENCY	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	
ASSETS																		
CURRENT ASSETS	238.049.931	28	48	352.724.408	23	-22	274.897.785	14	-20	220.195.047	10	139	525.686.641	19	-24	398.264.030	12	
REAL ASSETS	622.744.754	72	85	1.152.868.719	77	42	1.638.274.143	86	23	2.009.016.999	90	14	2.297.863.384	81	22	2.803.118.614	88	
TOTAL ASSETS	860.794.685	100	76	1.505.593.127	100	27	1.913.171.928	100	17	2.229.212.046	100	27	2.823.550.025	100	13	3.201.382.644	100	
SOURCES																		
SHORT-TERM LIABILITIES	111.161.309	13	283	426.230.535	28	11	471.568.868	25	30	611.824.119	27	-21	484.794.349	17	-21	381.928.345	12	
LONG-TERM LIABILITIES	270.428.208	31	35	364.785.475	24	86	676.880.446	35	61	1.092.808.294	49	28	1.394.321.527	49	43	1.991.426.717	62	
EQUITY CAPITALS	479.205.168	56	49	714.577.117	47	7	764.724.614	40	-31	524.579.633	24	80	944.434.149	33	-12	828.027.582	26	
PAID-CAPITAL	65.340.000	8	156	167.328.910	11	125	375.814.000	20	0	375.814.000	17	0	375.814.000	13	94	729.164.000	23	
NET TERM PROFIT/LOSS	88.950.920	10	-74	23.422.693	2	-213	-126.369.923	-1	700	-211.048.080	-9	-137	79.014.305	3	-261	-127.081.836	-4	
NET WORKING CAPITAL	126.888.622	15	-273	-73.506.127	-5	-63	-196.689.083	-10	-50	-391.629.072	-18	-1.058	40.892.292	1	150	16.335.685	1	
TOTAL SOURCES	860.974.685	100	-43	1.505.593.127	100	-21	1.913.173.928	100	-14	2.229.212.046	100	-21	2.823.550.025	100	-12	3.201.382.644	100	

Table 11 shows the consolidated balance sheet including the items of Ak Enerji A.Ş. on a pro rata basis. The share taken by current assets from active assets in 2008-2013 seems to gradually decrease. Share of current assets decreased from 28% in 2008 to 12% in 2013. In spite of this, real assets item quadrupled in 5 years. Long-term borrowing in the same period showed a serious increase. Net working capital became a deficit account in those years due to great increases in short-term liabilities of the company and the lack of a change in the current assets.



Table 12: Balance Sheet Changes and Ratios of Aksu Enerji A.Ş. in 2005-2008

FINANCIAL SITUATION TABLE												
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2005			31.12.2006			31.12.2007			31.12.2008		
REPORT CURRENCY	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	
ASSETS												
CURRENT ASSETS	4.638.219	100	-32	3.151.701	11	41	4.442.149	16	16	5.161.524	14	
REAL ASSETS	19.938	0	123.539	24.651.067	89	-3	23.869.435	84	28	30.585.674	86	
TOTAL ASSETS	4.658.157	100	497	27.802.768	100	2	28.311.584	100	26	35.747.198	100	
SOURCES												
SHORT-TERM LIABILITIES	210.468	5	-79	44.647	0	420	232.377	1	-26	172.326	0	
LONG-TERM LIABILITIES	0	0	#SAYI/0!	1.959.610	7	-3	1.900.973	7	74	3.298.456	9	
EQUITY CAPITALS	4.447.689	95	480	25.798.511	93	1	26.178.234	92	23	32.276.416	90	
PAID-CAPITAL	858.000	18	873	8.352.000	30	0	8.352.000	30	0	8.352.000	23	
NET TERM PROFIT/LOSS	779.493	17	-310	-1.635.028	-6	-123	379.723	1	33	505.252	1	
NET WORKING CAPITAL	4.427.751	95	43	3.107.054	11	-26	4.209.772	15	-16	4.989.198	14	
TOTAL SOURCES	4.658.157	100	-83	27.802.768	100	-2	28.311.584	100	-21	35.747.198	100	

Table 12 shows the consolidated balance sheet including the items of Ak Enerji A.Ş on a pro rata basis. As can be seen in the Table, the share taken by current assets from active assets in 2005-2008 seems to gradually decrease. Share of current assets decreased from 100% in 2005 to 14% in 2008. Real assets investments of the company showed a substantial increase in this 4 years period. Long-term borrowing in the same period increased significantly. However, these liabilities do not occupy share in passive total liabilities due to the strong structure of the equity capital of the company.



Table 13: Balance Sheet Changes and Ratios of Aksu Enerji A.Ş. in 2008-2013

FINANCIAL SITUATION TABLE																	
TYPE OF FINANCIAL TABLE	CONSOLIDATED		CHANGE	CONSOLIDATED		CHANGE	CONSOLIDATED		CHANGE	CONSOLIDATED		CHANGE	CONSOLIDATED		CHANGE	CONSOLIDATED	
TERM	31.12.2008			31.12.2009			31.12.2010			31.12.2011			31.12.2012			31.12.2013	
REPORT CURRENCY	TL	%	%	TL	%	%	TL	%	%	TL	%	%	TL	%	%	TL	%
ASSETS																	
CURRENT ASSETS	5.161.524	14	23	6.349.938	16	3	6.514.787	16	-74	1.704.117	5	116	3.678.984	9	27	4.670.125	11
REAL ASSETS	30.585.674	86	8	33.025.589	84	2	33.674.270	84	-7	31.430.450	95	19	37.488.836	91	-3	36.538.007	89
TOTAL ASSETS	35.747.198	100	10	39.375.527	100	2	40.189.057	100	-18	33.134.567	100	24	41.167.820	100	0	41.208.132	100
SOURCES																	
SHORT-TERM LIABILITIES	172.326	0	288	669.319	2	-24	511.003	1	-77	116.687	0	-12	102.085	0	490	602.364	1
LONG-TERM LIABILITIES	3.298.456	9	16	3.826.594	10	8	4.134.814	10	-8	3.810.696	12	26	4.801.392	12	36	6.542.895	16
EQUITY CAPITALS	32.276.416	90	8	34.879.614	89	2	35.543.240	88	-18	29.208.184	88	24	36.264.343	88	-6	34.062.873	83
PAID-CAPITAL	8.352.000	23	0	8.352.000	21	0	8.352.000	21	0	8.352.000	25	0	8.352.000	20	0	8.352.000	20
NET TERM PROFIT/LOSS	505.252	1	681	3.948.202	10	-40	2.377.654	6	-314	-5.076.799	-15	-239	7.056.159	17	-131	-2.201.469	-5
NET WORKING CAPITAL	4.989.198	14	-12	5.680.619	14	-5	6.003.784	15	276	1.588.430	5	-56	3.576.899	9	-12	4.067.761	10
TOTAL SOURCES	35.747.198	100	-9	39.375.527	100	-2	40.189.057	100	21	33.134.567	100	-20	41.167.820	100	0	41.208.132	100

Table 13 shows the consolidated balance sheet including the items of Aksu Enerji A.Ş. on a pro rata basis. As can be seen in the Table, no significant change exist with respect to the share taken by current assets item from active assets in 2008-2013, however current assets item showed a 20% increase. Regarding the borrowing structure of this period, short-term liabilities seem to increase 3 times in 2009 in which the impacts of crisis were felt, compared to the previous year, however this amount has a small share in total amount. Real assets doubled in the 5 years after the crisis. We can conclude that the structure of the equity capital of the company is strong. The company did not achieve its pre-crisis growth in the post-crisis term and showed a stable growth.



Table 14: : Balance Sheet Changes and Ratios of Ayen Enerji A.Ş. in 2005-2008

FINANCIAL SITUATION TABLE												
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2005			31.12.2006			31.12.2007			31.12.2008		
REPORT CURRENCY	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	
ASSETS												
CURRENT ASSETS	57.076.549	10	24	70.734.487	14	-30	49.225.880	11	174	135.020.216	26	
REAL ASSETS	516.119.156	90	-14	444.856.884	86	-12	391.032.539	89	0	390.712.315	74	
TOTAL ASSETS	573.195.705	100	-10	515.591.371	100	-15	440.258.419	100	19	525.732.531	100	
SOURCES												
SHORT-TERM LIABILITIES	117.255.403	21	-22	92.045.151	18	-25	68.999.980	16	18	81.502.885	16	
LONG-TERM LIABILITIES	240.388.745	43	-6	225.898.780	44	-36	144.805.322	34	40	203.204.192	39	
EQUITY CAPITALS	207.606.107	37	-7	193.678.785	38	11	215.299.149	50	7	231.345.374	45	
PAID-CAPITAL	119.610.000	21	0	119.610.000	23	0	119.610.000	28	0	119.610.000	23	
NET TERM PROFIT/LOSS	4.897.216	1	-419	-15.642.328	-3	-238	21.620.364	5	93	41.721.884	8	
NET WORKING CAPITAL	-60.178.854	-11	182	-21.310.664	-4	8	-19.774.100	-5	-137	53.517.331	10	
TOTAL SOURCES	565.250.255	100	10	511.622.716	100	19	429.104.451	100	-17	516.052.451	100	

Table 14 shows the consolidated balance sheet including the items of Ayen Enerji A.Ş. on a pro rata basis. As can be seen in the Table, the share taken by current assets item from active assets in 2005-2008 seems to gradually increase on a pro rata basis. Share of current assets decreased from 10% in 2005 to 26% in 2008. Real assets investments of the company significantly decreased in 2007, both quantitatively and proportionally. With respect to the liabilities, both short-term and long-term liabilities of the company in the same period decreased both quantitatively and proportionally. Net working capital of the company remained as a deficit account in 2005, 2006 and 2007. Current assets of the company are quite low in this period. Net working capital of the company rose to account in credit together with the significant increase in current assets in 2008.



Table 15: Balance Sheet Changes and Ratios of Ayen Enerji A.Ş. in 2008-2013

FINANCIAL SITUATION TABLE															
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2008			31.12.2009			31.12.2010			31.12.2011			31.12.2012		
REPORT CURRENCY	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE
ASSETS															
CURRENT ASSETS	135.020.216	26	-36	86.392.716	17	-2	84.410.348	17	5	88.521.817	10	56	138.090.340	14	50
REAL ASSETS	390.712.315	74	5	408.946.174	83	0	408.915.079	83	101	821.464.551	90	0	821.937.671	86	17
TOTAL ASSETS	525.732.531	100	-6	495.338.890	100	0	493.325.427	100	84	909.986.368	100	5	960.028.011	100	22
SOURCES															
SHORT-TERM LIABILITIES	81.502.885	16	-2	79.751.500	16	-27	58.386.755	12	323	246.718.196	28	-22	193.082.267	21	71
LONG-TERM LIABILITIES	203.204.192	39	-20	161.890.911	33	8	174.374.570	36	110	366.825.290	41	30	476.363.986	51	24
EQUITY CAPITALS	231.345.374	45	5	241.888.340	50	3	249.067.431	52	9	272.536.947	31	-5	260.196.926	28	-16
PAID-CAPITAL	119.610.000	23	0	119.610.000	25	0	119.610.000	26	43	171.042.300	19	0	171.042.300	16	0
NET TERM PROFIT/LOSS	41.721.884	8	12	46.759.410	10	-13	40.852.812	8	-42	23.587.121	3	-4	22.611.347	2	-316
NET WORKING CAPITAL	53.517.331	10	706	6.641.216	1	-74	26.023.593	5	-116	-158.196.381	-18	188	-54.991.927	-16	-56
TOTAL SOURCES	516.052.451	100	7	483.530.751	100	0	481.828.756	100	-46	886.080.435	100	-5	931.643.179	100	-19

Table 15 shows the consolidated balance sheet including the items of Ayen Enerji A.Ş on a pro rata basis. As can be seen in the Table, while there were a significant decrease in the share taken by current assets item from active assets in 2008-2011, great increases were seen in the following years, contrary to this situation. Real assets item had almost no change in 2008-2010, however a great increase was observed in 2011 and 2013. With respect to the liabilities, although short-term liabilities reduced in 2009 and 2010, a 3.2 times increase was observed in the following year. Long-term liabilities structure was also reduced in 2009 and 2010, however high amounts of increases were observed in the following years. The period between 2008 and 2010 as a whole, the share of the liabilities in total resources increased from 55% to 81%. In parallel with current assets remaining low, net working capital of the company had a negative course in the last three years.



Table 16: Balance Sheet Changes and Ratios of Zorlu Enerji A.Ş. in 2005-2008

FINANCIAL SITUATION TABLE												
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2005			31.12.2006			31.12.2007			31.12.2008		
REPORT CURRENCY	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	CHANGE %	TL	%	
ASSETS												
CURRENT ASSETS	113.055.828	10	-24	86.337.863	10	74	150.188.054	13	112	318.055.000	12	
REAL ASSETS	445.291.748	80	70	755.675.566	90	30	983.024.706	87	131	2.275.008.000	88	
TOTAL ASSETS	558.347.576	100	51	842.013.429	100	35	1.133.212.760	100	129	2.593.063.000	100	
SOURCES												
SHORT-TERM LIABILITIES	66.780.090	12	328	285.605.093	35	116	618.162.091	57	-17	509.991.000	20	
LONG-TERM LIABILITIES	169.133.706	31	49	252.618.336	31	-22	197.277.287	18	956	2.083.437.000	80	
EQUITY CAPITALS	315.287.305	57	-9	285.779.429	35	-4	273.380.013	25	-100	-365.000	0	
PAID-CAPITAL	81.665.350	15	0	81.665.350	10	0	81.665.350	8	0	81.665.350	3	
NET TERM PROFIT/LOSS	46.275.738	2	-655	-46.143.724	-6	-79	-9.553.735	-1	3.420	-336.254.000	-13	
NET WORKING CAPITAL	551.201.101	8	-123	-199.267.230	-24	-57	-467.974.037	-43	144	-191.936.000	-7	
TOTAL SOURCES	565.250.255	100	-33	824.002.858	100	-24	1.088.819.391	100	-58	2.593.063.000	100	

Table 16 shows the consolidated balance sheet including the items of Ayen Enerji A.Ş on a pro rata basis. As can be seen in the Table, active assets of the company in 2005-2008 seem to increase every year consistently. A high amount of increase was observed particularly in real assets item. With respect to the liabilities, both short-term and long-term liabilities showed significant increases both quantitatively and pro rata basis in parallel with the increases in the real assets. Net working capital had a negative course in 2006, 2007 and 2008, because short-term liabilities showed an increase in high amounts in proportion to the current assets.



Table 17: Balance Sheet Changes and Ratios of Zorlu Enerji A.Ş. in 2008-2013

FINANCIAL SITUATION TABLE																		
TYPE OF FINANCIAL TABLE	CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED			CONSOLIDATED		
TERM	31.12.2008			31.12.2009			31.12.2010			31.12.2011			31.12.2012			31.12.2013		
REPORT CURRENCY	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	CHANGE	TL	%	
ASSETS																		
CURRENT ASSETS	318.055.000	12	9	345.937.000	14	11	383.157.000	15	69	648.001.000	16	-10	581.471.000	13	1	586.365.000	9	
REAL ASSETS	2.275.008.000	88	-9	2.068.433.000	86	8	2.228.113.000	85	57	3.489.399.000	84	13	3.944.507.000	87	46	5.767.605.000	91	
TOTAL ASSETS	2.593.063.000	100	-7	2.414.370.000	100	8	2.611.270.000	100	58	4.137.400.000	100	9	4.525.978.000	100	40	6.353.970.000	100	
SOURCES																		
SHORT-TERM LIABILITIES	509.991.000	20	41	721.476.000	30	9	785.499.000	30	40	1.103.209.000	27	35	1.491.185.000	33	13	1.685.479.000	27	
LONG-TERM LIABILITIES	2.083.437.000	80	-30	1.463.613.000	61	14	1.668.733.000	64	99	3.327.161.000	80	-15	2.843.196.000	63	37	3.897.566.000	61	
EQUITY CAPITALS	-365.000	0	-62.917	229.281.000	9	-32	157.038.000	6	-289	-296.089.000	-7	-164	189.394.000	4	304	764.217.000	12	
PAID-CAPITAL	81.665.350	3	245	281.665.000	12	0	281.665.000	11	0	281.665.000	7	78	500.000.000	11	0	500.000.000	8	
NET TERM PROFIT/LOSS	-336.254.000	-13	-129	97.891.000	4	-168	-66.725.000	-3	511	-407.362.000	-10	-247	598.585.000	13	-152	-309.171.000	-5	
NET WORKING CAPITAL	-191.936.000	-7	-49	-315.539.000	-16	-7	-402.342.000	-15	-12	-455.208.000	-11	-50	-909.714.000	-20	-17	-1.099.114.000	-17	
TOTAL SOURCES	2.593.063.000	100	7	2.414.370.000	100	-8	2.611.270.000	100	-37	4.134.281.000	100	-9	4.523.775.000	100	-29	6.347.262.000	100	

Table 17 shows the consolidated balance sheet including the shares taken by the items of Ayen Enerji A.Ş on a pro rata basis. As can be seen in the Table, while no significant change in the share taken by current items from active assets in 2008-2010 observed, a great increase is seen in 2011, contrary to this situation. This fluctuating increase continued in the following two years. Real assets item had almost no change in 2008-2010, despite the significant increases in the following year. With respect to the liabilities in this period, a significant increase in short-term liabilities for every year is observed. Long-term liabilities were reduced in 2009-2010; however these liabilities showed a significant increase in 2011. Although the liabilities were decreased in 2012, these increased again in 2013 and their share in the total resources became 61%. Net working capital was in deficit account in this 5 years period, because short-term liabilities of the company increased consistently and current assets couldn't respond to this.



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

4. Conclusions and Recommendations

Global economic crisis emerged in 2008 took effect around the world, particularly in the USA and Europe. The crisis increased the need of developing countries for an external financing. Generally, developing countries can finance their foreign trade deficit due to the lack of sufficient savings. Therefore, these countries that are dependent on finance markets are necessarily affected by any negative development in finance markets. Turkey as a developing country was also affected by the global economic crisis in 2008 and fluctuations were observed in exchange rates, inflation and interest rates.

In this study, the effects of 2008 global economic crisis on the financial statements and liquidity ratios of energy sector companies traded in BIST. 2005-2008 and 2008-2010 periods were evaluated separately and compared to demonstrate the pre-crisis and post-crisis terms, respectively. Balance sheets were evaluated by using ratio analysis and vertical and horizontal analysis techniques.

When looked at the effects of 2008 global crisis on financial statements and liquidity ratios of energy companies traded in BIST and evaluated within the scope of this study, it can be said that no common situation is in effect and every single company had individual situations due to the different operations of their financial structures.

When a horizontal and vertical analysis is applied for the balance sheet of Ak Enerji A.Ş; it can be seen that short and long term liabilities showed a significant increase and, in the following 3 years, the company operated with negative net working capital in parallel with the significant increase in short-term liabilities. This situation is an indicator of facing a cash problem in the short term. While liquidity ratios of the company were above the generally accepted ratios, they remained under the standards after the crisis. In the light of all these data, Ak Enerji A.Ş. can be considered as negatively affected by the crisis.

Although the turnover of Aksu Enerji A.Ş. was relatively lower than other companies evaluated, there were no risk in terms of liquidity ratios and balance sheet analysis, because the company preserved its financial discipline in both pre-crisis and post-crisis terms. Equity capital structure and net working capital are positive. Therefore, this company is considered as not affected by the crisis.

It can be said that Ayen Enerji A.Ş did not affected by the crisis financially, through the vertical and horizontal analysis on the balance sheets. There was no considerable increase in the share of liabilities in the total balance sheet of the country in both pre-crisis and post-crisis term. The company continued its investments in the years in which the effects of the crisis reduced in the world and in our country, and acquired real assets by increasing the short and long term liabilities. There was an increase in the liquidity ratios of the company in immediately before and after the crisis. This indicates that the company received the signals of the crisis and increased its cash level. There seem to be a decline in liquidity ratios of the company, because the effects of the crisis reduced in the world and in our country in the following years.

Zorlu Enerji A.Ş. acquired real assets in crisis years and financed this acquisition by both short-term and long-term liabilities. The company did not give up this tendency after the crisis and turned on to acquisition of real assets through huge liabilities. The company operated with negative networking capital in those years and this amount showed an increase in every passing year. Therefore, the risk of finding short-term cash for the company gradually increased. Debts of the company decreased considerably, because the



(online) = ISSN 2285 – 3642

ISSN-L = 2285 – 3642

Journal of Economic Development, Environment and People

Volume 6, Issue 1, 2017

URL: <http://jedep.spiruharet.ro>

e-mail: office_jedep@spiruharet.ro

company preferred to grow in crisis periods too. While the share of liabilities in balance sheet was 75% before the crisis, this increased to 107% after the crisis. That being said, the liquidity ratios remained low continuously and the company can be considered as affected by the crisis in a negative way.

As can be understood from analyzing results of the companies evaluated, they were affected by the crisis in different ways due to the differences in their strategies. With reference to these data, no negative effect of the crisis can be considered as common for whole energy sector. 2 of 4 companies were affected by the crisis financially in a negative way. When looked at the turnover increases of the companies, there were great increases and the energy companies of our country maintained their growth policies. As a result of all these evaluations, given foreign-source dependency of our country in energy area, these energy companies need to adopt financial discipline as a central focus. To have an energy sector with a competitive, strong financial body and a sustainable profitability in global markets is crucial for our national economy. Matters such as branding, technology, R&D investments should be put maximum importance to provide a healthy development and deliver products with added value. Governments must implement policies directed at both contributing to the growth of energy sector and reducing the foreign-dependency in energy.

5. REFERENCES

- [1] BERBEROĞLU, B. (2011). 2008 Global Krizinin Türkiye ve Avrupa Birliği'ndeki Etkilerinin Kümeleme Analizi İle İncelenmesi.
- [2] EĞİLMEZ, M. (2011), "Küresel Finans Krizi", Piyasa Sisteminin Eleştirisi içinde Edt, Saadet ÖZKAL, Remzi Kitabevi A.Ş., İstanbul, ss: 42-43
- [3] GÜMÜŞ, F. B.,ve AYDEMİR, L. (2014). 2008 Küresel Finans Krizinin Sektörel Bazda Şirket Bilançolarına Etkilerinin Analizi. İşletme Bilimi Dergisi, 2(1), 37-64.
- [4] IŞIK, E. (2011), "2008 Küresel Finansal Krizin İşletmelerin Çalışma Sermayeleri Üzerindeki Etkilerinin Oranlar Aracılığı ile Tespiti, İMKB' de bir araştırma" Eskişehir Osmangazi Üniversitesi, Yüksek Lisans Tezi (Çevrimiçi), <https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>
- [5] ÖZTÜRK, S., ve GÖVDERE, B. (2010). Küresel Finansal Kriz Ve Türkiye Ekonomisine Etkileri The Effects Of The Global Financial Crisis And Turkish Economy.
- [6] TERZİ, N. (2009) ; "Hedge Fonlar: Küresel Finans Piyasalarının Gizemli Oyuncuları" Beta yayınları; Mart, İstanbul.
- [7] YILDIRIM, S. (2010). 2008 Yılı Küresel Ekonomi Krizinin Dünya ve Türkiye Ekonomisine Etkileri. KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi, 12(18), 47-55.
- [8] http://mpr.ub.uni-muenchen.de/29470/1/MPRA_paper_29470.pdf Erişim Tarihi: 12.11.2014
- [9] <http://www.bilgaz.net/dosyalar/OranAnalizi.pdf> Erişim Tarihi: 14.11.2014
- [10] http://www.denizmortgage.com.tr/mortgage_nedir/ Erişim Tarihi: 18.11.2014