

JEDEP 20 - PROF. UNIV. DR. MANUELA EPURE

Prof. univ. dr. Manuela Epure on Mon, Feb 20 2017, 8:19 AM

2% match

Submission ID: 133006034

# Attachments (1)

Kendirli\_Cankaia.docx () null%

Word Count: 7,435 Attachment ID: 153659364

## Kendirli\_Cankaia.docx

# Plagiarism attempt possible

SafeAssign found that some of the words in this submission contain characters from different languages, or character sets. Mixing character sets does not always mean plagiarism has occurred, but it can be used to avoid automatic detection. You may want to review this document manually to verify its originality.

The Effects Of Global Economic Crisis of 2008 to Financial Statements and Liquidity Ratios Which Companies are Settled In BIST Energy Sector (2005-2013 Term Review) [footnoteRef:1]\*\* [1:

\* 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.]

Selcuk Kendirli1 [footnoteRef:2]□, Muhammet Cankaya 2 and Altug Cagatay 3 [2: □Assoc. Prof. Dr. Selcuk KENDIRLI. Tel. +90 543 323 92 38; fax:+90 364 277 10 10. E-mail address: selcukkendirli@hitit.edu.tr.]

1 Hitit University, FEAS, Banking and Finace Department 2 Hitit University Sungurlu Vacational School 3 Gaziosmanpaşa University, Almus Vocational School Abstract. Aim 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 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. As a result of the analysis the companies have been found to be affected to different degrees by the crisis.

Keywords: Financial Crisis, Balance Sheets, Financial Analysis JEL Codes: F65, G12, O16 1. Introduction "Crisis" word, etymologically coming from Greek "krisis", is used as a synonym of "depression" and "despondence" in social sciences and means serious breakdowns in normal relationship in the face of an unexpected social, economic or psychological development and situations occurred after the failure of existing solutions to solve the problem (Işık, 2011: 3). In 20th century, world economy witnessed to Great Depression of 1929 considered as the biggest crisis globally and the Mortgage Housing Financing Crisis originated from USA. Global economic crisis of 2008 is considered as the worst financial crisis ever since 1930.

2008 economic crisis took effect in Europe and our country, but mainly in the USA. 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 aim 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 was no situation which is common for all energy companies. Some of the companies maintained the financial discipline and preferred a balanced growth in the time of crisis. Others did not gave up getting into debt and continue to grow and acquire real assets. Eventually, every single company was affected by the crisis at different levels, because their financial structure and strategic projections are distinct.

1. Crises In Globalized Economies Economic crises emerging particularly in large economies in parallel with the liberalization of the capital movements and globalization of capitalism is spreading to the global area readily and rapidly (Terzi, 2009: 153). A crisis emerging in any country does not affect not only the country it out-broken in, but also many other countries depending on the size of the crisis due to the absence of borders in trade.

Crises deeply affect particularly developing countries. Developing countries have to attract the capital necessary for growth to their territories. 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 hypothec 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 to give the bank as mortgage.

(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) The aim 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 the borrower. 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 formed for the people who have a high possibility of being insolvent due to the risk 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 speculatorship particularly due to the lack of inspection and problems started to arise in the system (Öztürk and Gövdere, 2010: 384).

In 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 resulted in defaults together with the increase in the interests and decrease in the 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://mpra.ub.uni-muenchen.de/29470/1/MPRA\_paper\_29470.pdf).

Many finance experts points the 2008 global economic crisis as the result of hand-over of mortgage credits on a large scale. This hand-over operation called as derivative products includes the agreements that allows companies for subject their risks coming from other operations to commerce. These agreements served to taking the default risk of the debtor from the creditor and transfer it to the third parties. While the company transferring the risk can take much bigger risks,

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 started to become a risk factor increasingly. 2008 crisis is a financial crisis given rise by 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 at the first stage in 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 for 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. 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).

Growth rates in agriculture, industry and service sectors in Turkey economy decelerated as of 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 the demand insufficiency of 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

## 1 AKENR AKENERJİ ELEKTRİK ÜRETİM A.Ş

### AKSUE AKSU ENERJİ VE TİCARET A.Ş

#### AYEN AYEN ENERJİ A.Ş.

### 1 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 precrisis 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 rations 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 receiables) / STL Cash ratio % = Cash Equivalents / STL Financial statements of 4 energy companies whose financial data for 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, 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

#### AK ENERJİ

RATIOS 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.

AK ENERJİ

RATIOS 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.

AKSU ENERJİ

RATIOS 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.

AKSU ENERJİ

RATIOS 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

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 liqudity 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

(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

(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

2

1 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

#### 2 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

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

CHANGE 31.12.2009

CHANGE 31.12.2010

CHANGE 31.12.2011

CHANGE 31.12.2012

CHANGE 31.12.2013

#### 3 REPORT CURRENCY TL % % TL % % TL % % TL % % TL % % 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

CHANGE 31.12.2006

CHANGE 31.12.2007

CHANGE 31.12.2008

#### 2 REPORT CURRENCY TL % % TL % % TL % % 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 o o #SAYI/o!

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

CONSOLIDATED

CONSOLIDATED

CONSOLIDATED

CONSOLIDATED

CONSOLIDATED

TERM 31.12.2008

CHANGE 31.12.2009

CHANGE 31.12.2010

CHANGE 31.12.2011

CHANGE 31.12.2012

CHANGE 31.12.2013

### 3 REPORT CURRENCY 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

CHANGE 31.12.2006

CHANGE 31.12.2007

CHANGE 31.12.2008

#### 2 REPORT CURRENCY TL % % TL % % TL % % 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

CONSOLIDATED

TERM 31.12.2008

CHANGE 31.12.2009

CHANGE 31.12.2010

CHANGE 31.12.2011

CHANGE 31.12.2012

CHANGE 31.12.2013

#### 3 REPORT CURRENCY TL % % TL % % TL % % TL % % TL % % TL %

#### **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 50 206.919.140 18

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 17 961.357.557 82

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 1.168.276.697 100

#### 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 71 331.113.199 29

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 24 594.765.388 52

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 -16 219.855.345 19

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 0 171.042.300 15

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 -48.846.437 -4

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 -124.194.059 -11

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 1.145.733.932 100

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

CHANGE 31.12.2006

CHANGE 31.12.2007

CHANGE 31.12.2008

#### 2 REPORT CURRENCY TL % % TL % % TL % % 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

CHANGE 31.12.2009

CHANGE 31.12.2010

CHANGE 31.12.2011

CHANGE 31.12.2012

CHANGE 31.12.2013

#### 3 REPORT CURRENCY TL % % TL % % TL % % TL % % TL % % 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.

1. 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 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. Pursuant thereto;

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 onto acquisition of real assets through huge liabilities. The company operated with negative net working 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 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. Given that the liquidity ratios remained low continuously, the company can be considered as affected by the crisis in a negative way.

As can be understood from the analysis results of the companies evaluated, they 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 are 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 e 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 produce products with added value. Governments must employ policies directed at both contributing to the growth of energy sector and reducing the foreign-dependency in energy.

- 3. 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://mpra.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

# Citations (3/3)

- 1 http://www2.dsi.gov.tr/skatablo/tablo2.htm
- <sup>2</sup> Another student's paper
- 3 Another student's paper

## **Matched Text**

Suspected Entry: 74% match

**Uploaded** - Kendirli\_Cankaia.docx

AKENR AKENERJİ ELEKTRİK ÜRETİM A.Ş

Source - http://www2.dsi.gov.tr/skatablo/tablo2.htm

ELEKTRİK ÜRETİM A.Ş

Suspected Entry: 65% match

**Uploaded** - Kendirli\_Cankaia.docx

**AKSUE AKSU ENERJİ VE TİCARET A.Ş** 

Source - http://www2.dsi.gov.tr/skatablo/tablo2.htm

VE TİCARET A.Ş

Suspected Entry: 66% match

**Uploaded** - Kendirli\_Cankaia.docx

ZOREN ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş

Source - http://www2.dsi.gov.tr/skatablo/tablo2.htm

ELEKTRİK ÜRETİM A.Ş

Suspected Entry: 66% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

Source - Another student's paper

TI TI- TI-

Suspected Entry: 66% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

Source - Another student's paper

TI TI- TI-

Suspected Entry: 66% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

**Source** - Another student's paper

TI TI- TI-

Suspected Entry: 66% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

Source - Another student's paper

TI TI- TI-

Suspected Entry: 67% match

Uploaded - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

% TL % % TL %

Source - Another student's paper

TL TL TP TP TL TL TL TL TB TB

Suspected Entry: 67% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

% TL % % TL %

Source - Another student's paper

TL TL TP TP TL TL TL TL TB TB

Suspected Entry: 67% match

**Uploaded** - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

% TL % % TL %

Source - Another student's paper

TL TL TP TP TL TL TL TL TB TB

Suspected Entry: 67% match

Uploaded - Kendirli\_Cankaia.docx

REPORT CURRENCY TL % % TL % % TL % % TL %

% TL % % TL %

Source - Another student's paper

TL TL TP TP TL TL TL TL TB TB