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Abstract or Executive Summary

Introduction

In emerging markets, the investor may encounter instability of the political regime, external conflict, corruption, civil strife and war, control of exchange rates, unexpected inflation, various defaults, the expropriation of private capital and other events in the country. Therefore, to succeed in emerging markets must take into account the whole situation together. To this end, we introduced the concept "country risk".

Country risk - is a complex process, the nature of which can be varied and is determined by the dynamics of the interaction of many financial, socio-economic and political factors.

Country risk - a risk that the actions of the sovereign will affect the ability of the debtor related with this country to fulfill its obligations

The nature of the risk can be different and is determined by factors on which it is based - political, economic, financial, social and others.

Effective risk management, demonstrating the potential benefits, at the same time requires solving a number of conceptual and practical problems. First, it depends on the ability to quantify the risks. In turn, as a measure of risk requires the identification of the uncertainty and its potential effect.

All of these causes the actuality of the work.

The statement of the work is to study the country risk premium in emerging markets.

Problem objectives of the work:

- To explore the concept of "country risk"
- To consider the models and methods for estimating the country risk
- To learn the rules for estimating the country risk premium
- To estimate the country risk premium on the example of Kazakhstan

In our work, we used the following methods:

- The method of theoretical analysis: review of the theoretical aspects of the assessment of country risk and calculate the country risk premium.

- The method of comparative analysis: comparison of different methods for calculating the premiums for country risk.
- The method of practical analysis: calculation of premiums for country risk on the example of Kazakhstan.

Literature Review

Placed at the heart of Eurasia the 9th largest country The Republic of Kazakhstan is the one of the fastest growing economy in the world and the biggest crude exporter.

Kazakhstan has substantial fossil fuel reserves, uranium, copper, zinc reserves and etc. Caspian Sea ports, pipeline and rail lines carrying oil improved in recent years. We have also strengthened agriculture industry with livestock and grain. Comparing to other former Soviet Union Kazakhstan was the first that received investment-grade credit rating in 2002 year. After realizing high dependence on oil and extractive industries Kazakhstan changed course to diversification that includes improving transport, pharmaceuticals, petrochemicals, telecommunications and food sectors. Kazakhstan entered in the Belarus-Kazakhstan-Russia Customs Union in 2010 and Custom union evolved to the Eurasian Economic Union in January 2015. Armenia and Kyrgyzstan joined in January and August. Tajikistan, Syria and India becoming political and economical closer to the Economic Union. Many experts project worsening relationships between Kazakhstan, Russia and Belarus in case of diverging views about common currency between Kazakhstan, Russia, and Belarus.

"Kazakhstan has denied any discussions on establishing a common currency market have even taken place" was written on official website of the organization.

Kazakhstan is economically dependent on China and Russia. The major part of import comes from Russia and China is the biggest trading partner. Weakened exchange rate of China negatively influenced on Kazakhstan economy. "In the long run, an economic slowdown in China may hurt Kazakhstan, as the world's second-largest economy might need less of the commodities that Kazakhstan produces" – according to Bloomberg1.

¹ http://www.bloomberg.com/news/articles/2015-08-21/six-facts-to-know-about-kazakhstan-after-the-tenge-s-spectacular-crash.

Oil Prices

Corresponding energy official's opinion, if oil prices drop to \$30 per barrel, Kazakhstan would cut oil output for several years. Moreover, Kazakhstan that is non-OPEC country produced 1.6 barrels per day, as much as OPEC's eight biggest producer Angola.

Corresponding to the Deputy Energy Minister's speech, the decline in oil prices in the next year would lead to cut production of oil.

Weakening China economy and oversupply of oil production from OPEC and Russia led to oil prices drop.

Despite the fact, that Kazakhstan is going to cut oil production in case of decline in oil prices, Russian and Mexico, which is not OPEC member, have not intention to cut the oil output.

Kashagan oil field was launched in September 2013 but gas leaks were detected and Kashagan oil field stopped oil production. Experts do not expect launching before 2017. This oil fied can extend country's oil output nearly by 90-100 tones.

Exchange rate

On 20 August NBK announced a more flexible exchange rate policy and a shift to inflation targeting that lead to immediate depreciation by 26% of the tenge against the U.S. dollar.

There was transition to a floating exchange rate regime, therefore the National Bank of Kazakhstan has an independence in setting interest rates in domestic market. After announcing floating exchange rate regime National Bank have not controlled the interest rates for while. National Bank did not inject the liquidity when the system needed and did not withdraw after fiscal injections. Moreover, interest rates exceeded 60% and fell below 5% in same period of time hitting the banking sector. Generally speaking, there was no interest rate policy. Now controlling interest rates in the money market is only one instrument of NBK to manage inflation and exchange rate. According to Halyk Finance, "the interest-rate corridor 12-14% meets these requirements".

In this turbulent time NBK is required to have a transparent policy based on predictability and have to be explained to the market.

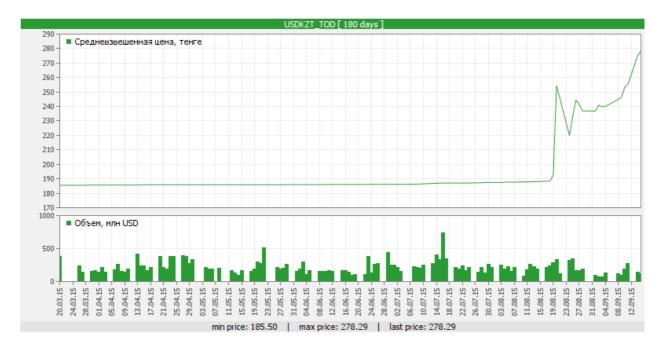


Image 1

Source: kase.kz

KZT last week depreciated by 6.5% to 263,07KZT / USD on Friday, which was probably related to the fact that the tenge was relatively strong against the ruble, the currency of the main trade partners of Kazakhstan. It should be noted that today the tenge depreciated to 282KZT / USD at the end of the morning session, Moved to the mark 4,11KZT / RUB against 3,51KZT / RUB week earlier and thus close to the 5-year average 4,61KZT / KZT. Weak tenge ruble stimulates imports from the neighboring country, putting pressure on the tenge exchange rate through trade flows.

As repo rates, we note that one-day rate has not dropped below the lower limit of 7%, starting from September 8, which, in our opinion, was due to the more active involvement of the National Bank in this market for the protection of the lower limit. Regulator withdraws liquidity from the system through repo operations, as well as due to the resumption of placement of its short-term notes.

September 14 National Bank posted a 28-day discount notes for T150 billion, which, in our view, is part of a new policy to regulate the money market through market mechanisms rather than foreign exchange intervention carried out earlier.

It should be noted that last week, the market rate for interbank deposits Kazprime increased to 11%, which, in our view, is an additional indicator of the effectiveness of the 12% increase in the base rate as the benchmark for the money market. In the second half of last week, the average rate on 1-day repo and 1-day swap declined below 10%, but today opyatb grown to 11-12% per annum.

Regarding the volume of trading, reported a decline in activity (for 5-day moving average) in the swap market by 18%, while the foreign exchange spot and repo markets, we note the increase of sales at 78% and 88% respectively on Friday.



Image 2

GDP Growth

Real GDP growth decreased from 6% to 4.3% in 2014 year. The factor that influence on the decline of GDP are following: currency devaluation in February 2014, damages in Kashagan oilfield since October 2013, reduced international demand on country's export commodities,

decline in oil prices. In this 2015 year GDP growth is 1.5% and experts expect recovery of GPD growth by 2.1% in 2016 year2

Inflation

The inflation rate in Kazakhstan was recorded at 3.80 percent in August of 2015. Inflation Rate in Kazakhstan averaged 61.54 percent from 1992 until 2015, reaching an all time high of 2960.80 percent in December of 1992 and a record low of 1.90 percent in December of 1998. Inflation Rate in Kazakhstan is reported by the Agency of the Republic of Kazakhstan on Statistics.

Consumer prices in September 2015 increased by 1.0% m / m (1.1% m / m in seasonally-adjusted terms), which is the largest monthly increase since April 2014, and by 4.4% y / y . Inflation in September was well below our expectations (4.3% m / m). The price index for durable goods and other non-food items, almost all of which are imported and all - traded grew faster than the other components.

The following factors slower trickle:

Firstly, the statistics are not going to retail prices at the end of the month, and within a month.

Second, retail sales of goods of pre-devaluation prices.

The most rapid growth was observed in prices for gasoline (\pm 14.0% m / m sa) after the announcement of deregulation of prices from 4 September. Food inflation was caused by rise in prices of sugar (13.6% m / m sa), one of the controlled goods.

Thus, leakage of the exchange rate will continue to exert inflationary pressure on non-food products. Tariffs on utility services are also likely to increase over the next 12 months to cover the cost of maintaining investment income. However, it is not expected that weakened the Tenge will have a strong impact on food inflation.

2 http://www.reuters.com/article/2015/09/08/kazakhstan-gdp-idUSR4N11000W20150908.

Base rate

Today the National Bank of Kazakhstan raised the base rate from 12% to 16% and narrowed the interest rate band to ± 1 pp, down from ± 5 pp. The National Bank stated that the higher rate will keep medium-term inflation within the target 6-8%, while a narrower band will reduce money market volatility and "give clearer signals to the market". Previous base rate was set on September 2 at 12% with a band of ± 5 pp. Next meeting on the base rate is scheduled for November 6.

Two weeks ago, after the NBK reintroduced exchange rate management, the rates rose to almost 17%, pushing on the ceiling of the band. High policy rate was a consequence of the decision to manage the exchange rate at the level the market believed to be overvalued. We view the decision to on the base rate as a positive, but only conditionally on the managed exchange rate. However, the decision to manage the exchange rate we view as unnecessary or unsustainable.

The rates could be sustained at 17% for no longer than a few months without seriously compromising the stability of the banking system. For most recent example, look at the evolution of policy rates in the last two years in Russia. We expect the NBK to lower the rates too and no later than within three-four months, but probably as soon as at the next meeting of the Committee on Nov 6, 2015.

The decision to narrow down the rate band from 10pp to 2pp was not unexpected either. A month ago, before the first meeting of the Committee, we ventured that an optimal policy at the time was a combination of interest rate in a narrow band of 12-14% and a floating exchange rate.

In the event, the NBK chose the interest rate within a very wide band of 7-17%, presumably under float. Since then the NBK added direct repo to its instruments list, shortened the duration of its Notes, lifted the lower bound of the interest rate corridor from 7% to 11.95%, introduced direct repo to withdraw liquidity at 7% (when interest rates in the repo market fell

through the lower bound), added direct repo at 12% to keep the interest rates closer to the target rate. On the side of providing reserves, the NBK introduced a o/n repo auction12%, but reduced offers from T150bn only T3bn. On Sep 22 the NBK raised the lower bound of the corridor to 11.95%.

Sovereign rating of the Republic of Kazakhstan

Standard & Poor's Rating Services affirmed country's long-term foreign and local currency sovereign credit rating at 'BBB' and short-term – 'A-2'. Credit rating agency described environment in Kazakhstan as "highly centralized political environment, moderate level of economic development, limited monetary policy flexibility, and high dependence on the hydrocarbon sector".

Standard & Poor's Rating Services expects GDP growth to slow to 2.8% in 2015-2018. The outlook is negative for several reasons: weak external demand and volatile oil prices, high dependence of oil prices, currency depreciation, weak consumer lending, the lower-than-expected exports of other raw material

Equity market.

The ratio of highly liquid assets of the banks to demand liabilities on 31.12.2014 increased over 1 year with a value of 0.79 to 0.91. The volume of highly liquid assets of banks amounted to 2 395 billion. N. or 20% of total liabilities of banks. 70% of highly liquid assets are concentrated in 10 banks, including 35% in the three largest banks. In general, the banking system for 12 months in 2014 the volume of highly liquid assets of banks increased by 12%, including 7.4% growth was provided by three banks.

The increase in the deposit base of clients with a moderate increase in lending capacity by banks leads to highly liquid assets, including the expense of government securities portfolio. On 31.12.2014 in the total securities portfolio of banks under the encumbrance were securities worth 247.7 billion. N., Which is 2.1% of the liabilities of banks (20.8% of the securities portfolio of banks)

Taking into account the current requirements of potential additional amount of securities that can be pledged NBK under reverse repurchase agreements, on 31.12.2014 amounted to 500.6 billion. N. or 4.3% of total liabilities of the banks, of which IFPC volume of SS is 465 billion. n. (3.9% of the total liabilities of the bank), bonds of JSC "National Welfare Fund" Samruk-Kazyna "- 50.8 billion. N. (0.4% of total bank liabilities), short-term notes of the NBK - 3.5 bln. Tenge. (0.03% of total liabilities of banks). It is worth noting that about 80% of the volume of unencumbered government securities IFPC (415 billion. N.) is in the portfolios of 13 banks.

When transferring to encumber the potential volume of government securities and bonds IFPC "NWF" Samruk-Kazyna "liabilities of banks to the NBK will be around 6.4% of total liabilities. This amount exceeds the amount of liabilities of banks to the NBK refinancing operations during the last crisis in 2010 (454.8 billion. N., Or 3.53% of total bank liabilities). Nevertheless, the issue of a possible expansion of the list of collateral acceptable to the NBK during operations to provide liquidity to banks, is relevant, given that banks accumulated short-term liquidity is not excessive, but rather forced.

For example, the Bank's securities portfolio are securities that are not in accordance with the applicable requirements may act as collateral for reverse repurchase agreements with the NBK, but could be considered as collateral due to the high solvency of their issuers. In particular, unencumbered bonds of JSC "National Welfare Fund" Samruk-Kazyna "(issued and purchased after 01.04.2009), the national companies of Kazakhstan, as well as government securities of foreign countries, the total present value of 206.6 billion. N. or 1.8% of total liabilities of banks (17.5% of the total securities portfolio of banks). A significant portion of these securities (168.2 billion. N., Or 81.4% of the total) is in the portfolios of the four major banks. About 15.8% is in the portfolios of banks and the remaining 6 2.8% - in the portfolios of other nine banks.

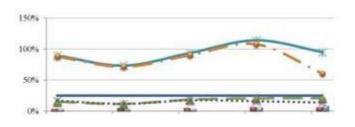


Image 3

Note:

- 1) The graph shows the ratio of AFP-to-equity banks (in%).
- 2) The sample consists of five banks, which account for over 50% of the total off-balance sheet foreign exchange position of the banking sector.

Source: NBK

In 2014, it was held 5 meetings of the Financial Stability and Development of the financial market of the Republic of Kazakhstan, to discuss the current and future direction of development of the banking and insurance sectors, as well as the securities market.

With regard to the securities market members and participants in the financial market continued to discuss measures to reform the organized securities market in the Republic of Kazakhstan, with the result that formulated the following basic steps:

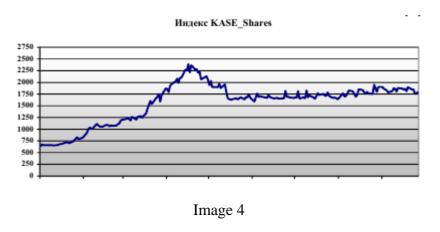
- Development of the functioning of the new methodology for assessing the securities, de-motivating manipulation in the securities market;
- Determination of the list of operations that can hold investment banks in comparison with the brokerage companies and deposit banks;
- The introduction of a mechanism to strengthen oversight of major transactions and activities of insiders in the securities market.

KASE

Mitigation requirements for issuers of securities on the market slightly increased its role in the sources of raising funds. At the same time, this factor can have a direct impact on the

increase of risks of investors conducting transactions on the securities market, and, above all institutional investors.

Activation of trades in the stock market characterized by progressive dynamics of growth of the index KASE_Shares, which reflects the change in quotations of demand for shares from the official list of the Exchange category "A", including the market capitalization of their issuers (Figure 1).

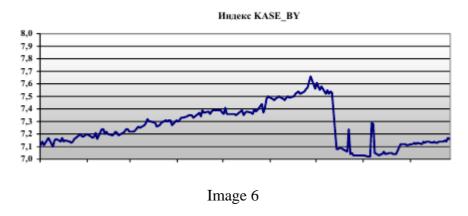


The positive dynamics of index reflects the growth of shares capitalization (Figure 2). Unlike previous years, this was achieved mainly due to the increase in value of the shares in the trading system of JSC "Kazakhstan Stock Exchange" (KASE), and also because of the expansion of the authorized capital of listed companies. So, just from the beginning of this year, the total market value of shares traded on KASE, increased by 2.5 times. The proportion of shares in the total stock market capitalization increased from 53.9% at the beginning of the year to 70% as of October 1, 2014.



Image 5

The increase in market capitalization of corporate bonds, as before, was due to the expansion of the list of securities admitted to KASE. It should be noted also decrease in the index of corporate bond yields for the last time (Figure 3).



Volatility index stock returns and corporate shares leads to increased liquidity risk and interest rate risk in the event of a crisis may negatively affect the quality of the investment portfolio of the participants of the stock market and, in particular, large institutional investors such as pension savings funds.

The increase in the number of issues and issuers contributed to reduce the requirements for issuers and their securities, admitted (admitted) to trading on the Stock Exchange. In particular, the requirements for the legal form of the issuer for inclusion in the official list in the highest categories have been expanded to include limited partnerships. There have also been reduced requirements for equity and sales volume issuers to be included in the official list of the stock exchange by category, following the highest.

Based on KASE analysis, we can conclude that the market is not liquid.

Total open currency positions

The total open foreign currency positions in the whole banking sector and the banks separately maintained within the established limits of foreign exchange risk. However, in view of the existing imbalances in the balance sheet accounts in foreign currencies in order to comply with standards of currency positions, as well as short-term liquidity management, banks open large-scale off-balance sheet positions in the PFI.

Given the characteristics of the national infrastructure, foreign exchange and money markets, in the absence of any central counterparty banks mainly deal with the PFI in the OTC market. Thus the currency risk on the OTC market transactions PFI in foreign currencies is unevenly distributed and concentrated in some banks. Thus, on average, more than half of public off-balance sheet items, including PFI transactions, accounted for five banks (including the subsidiaries of non-residents), to maintain an open off-balance sheet foreign exchange position at a level equal to or greater than the bank's own capital.

Political Programs

The instrument support the banking sector and an increase in long-term funding of banks can be further implementation of government programs aimed at financing the priority areas. In the long term, the main sources of funding for these programs should be the means, attracted development institutions on market principles with proper control of their leverage and the resources redistributed by optimizing costs and increase efficiency in government programs.

As part of the monetary authorities and banks to ensure liquidity NBK considers:

- Empower the banks for the use of existing mechanisms;
- The launch of new instruments for providing liquidity (credit auctions);
- Conditionality of funding to improve the quality and structure of loan portfolio growth of credit activity of the priority sectors.

Forecasts

In the medium term the positive expectations of the economy of Kazakhstan will be compensated short-term risks to external stability of the country. In general, according to various forecasts, both domestic and international organizations, in 2016 it is expected to maintain high rates of economic growth of Kazakhstan (Table 1).

This is confirmed by the estimates of the National Bank of Kazakhstan in the composite leading indicator, according to which the dynamics of 2016 will not significantly differ from the

2015 This uncertainty regarding the development of external demand for Kazakhstani products will balance the expectations of economic agents for recovery of domestic demand.

Also, the prospects for metal prices are closely linked to the economic situation in China, which has seen a slowdown in the economy. World prices are projected grain and gold trend will continue to decrease. At the same time, while maintaining oil prices at current levels, and uncertainty about the operation of the Kashagan field downside risks to the stability of the balance of payments remains high

Table 1
Forecast growth of the Kazakh economy

Indicator name	2016	2017
The International Monetary Fund	5,0%	5,2%
Ministry of Economy and Budget Planning	6,0%	6,0%
The World Bank	5,5%	5,7%
Eurasian Development Bank	5,3%	5,6%

Source: IMF, MEBP, WB, EDB

Trade flows between the Republic of Kazakhstan and the Customs Union countries continue to be characterized by a predominance of imports to Kazakhstan by a significant lag in exports from Kazakhstan.

Moreover, the structural imbalances in the economy of Kazakhstan, where the share of the primary sector remains significant, impact on the commodity composition of exports and imports with the countries of the Customs Union. In particular, Kazakhstan's export flows to Russia at the end of 2014 decreased by 5.4%, mainly due to a decrease in prices for mineral products that make up 41% of exports of Kazakhstan in Russia. Import flows from Russia to Kazakhstan show a constant trend of growth and at the end of 2014 increased by 4.3%. This

significant rate increases consumption, imports from Russia, particularly at the expense of the physical volume of non-food products.

Methodology

In our work, we used the following methods:

- The method of theoretical analysis: review of the theoretical aspects of the assessment of country risk and calculate the country risk premium.
- The method of comparative analysis: comparison of different methods for calculating the premiums for country risk.
- The method of practical analysis: calculation of premiums for country risk on the example of Kazakhstan.

Study the method of theoretical analysis: review of the theoretical aspects of the assessment of country risk and calculate the country risk premium

On the basis of the study of literature, we were able to explore the country risk, consider models and methods for assessing country risk.

Various sources are different definitions of country risk, based on which we have compiled own definition, which includes other definitions.

Country risk is the risk of inadequate behavior of the authorities in relation to businesses operating in the country concerned. The more predictable the state's attitude to business, the more the state's policy promotes the development of enterprises, the lower the risks of doing business in a country and as a consequence, less than the required rate of return.

In international practice, there are many methods and models to assess these risks.

Consider the main rating agencies and they use techniques of country risk ratings.

Based on different sources, we have identified the following main rating agencies and they use techniques of country risk ratings.

Bank of America World Information Services. Bank of America, based on 10 economic indicators evaluates the level of country risk for 80 countries. A summary of each of the indicators, as well as the final mark (average value for all parameters) range from 1 (the least

difficult) to 80 (most problematic). His clients Bank of America offers the assessment of country risk in the current year, historical data for 4 years and forecast for 5 years.

Control Risks Group (CRG). CRG Conducted measurement of political risk (of 118 countries), is based on the assessment of the three indicators. On the basis of expert reports the total value of the risk may vary between the following values: <minor>, <Low>, <Mid>, <High>, <very high>. Anticipation is building different scenarios.

Economist Intelligence Unit. Country Risk Assessment produced for 100 countries and is based on four components: political risk (22% of the total assessment, is composed of 11 indicators); the risk of economic policy (28%; 27 variables); economic and structural risk (27%; 28 variables) and liquidity risk (23%; 10 variables). These numerical values of the risk placed on the scale - 0 (lowest risk) to 100 (highest risk), respectively, are converted into a letter grade scale: A-E.

International Country Risk Guide (ICRG). ICRG provides an assessment of country risk for 140 countries. This model is based on estimates of the three components of country risk: political (50 points out of 100 in the overall assessment, 12 variables), financial (25 of 100, 5 variables) and economic (25 of 100, 5 variables) risks. Each of the 22 variables assessed on its own scale, the maximum values of which add up to 100. On the scale of the resulting maximum risk corresponds to 0, the minimum - 100.

On the basis of a methodical approach to building their rating can be divided into four groups.

- Qualitative evaluation methods. The methodology of weighing the factors that affect the risk are expert opinions. The subjectivity of such assessments reduces the reliability of the results.

The use of these methods makes sense only in attracting a very experienced group of experts, a very good knowledge of not only the situation in the country being assessed, but clearly representing research objectives. Further increase in the reliability of the analysis results

can be achieved by structuring the evaluated quantitative factors, i.e. their systematization, which will hold a rating based on a breakdown of the surveyed countries in the group, however, intradeeper level of risk assessment difficult 3.

- Quantitative evaluation methods is preparation of a directory of country risk

When implementing this method, based on the known country statistics there is a selection of the most significant figures in the development of the country, affecting the estimation of risk - the risk factors.

The resulting risk value R - multifactor function that depends, generally speaking, the values of the factors taken into account (xi - the set of values of i-factor):

$$R = R(x_1, x_2, x_3, ..., x_n) = R(x_i), i = 1 ... n,$$

where the factors are used as the only ones that have an objective numerical value (usually the economic indicators), or to calculate risk using a plurality of already numerically expressed risk estimates (based on quantitative and qualitative assessments).

The effectiveness of this method is reduced because of the difficulties on the basis of historical data of their usual extrapolation fairly reliable forecasting changes the value of the country risk; lack of consideration of qualitative factors that may have a significant impact on the level of country risk; ignoring the scale factor in the final ranking.

- Econometric methods for assessing country risk

This method allows a certain degree to solve some problems of previous methods. The framework is made with the help of risk prediction is the fact that a number of economic indicators (e.g. growth rates, various indexes, ratios, etc.) may serve as a basis for assessments of future trends. However, qualitative factors (political, social and cultural situation in the country, etc.) are not taken into account statistics, but have often essential for risk assessments remain unaddressed.

3 Taleb, n.n. 2007. The Black swan: The Impact of the highly Improbable 1 ed. n.y.: Random house

While econometric approach applies for greater objectivity, the most appropriate and free from defects can be considered analysis system based on a combination of qualitative and quantitative methods for assessing country risk.

- Combined methods for assessing country risk

The models, built on the use of both qualitative and quantitative information, first there is the construction of an index of the country on the basis of:

- numerical absolute and relative indicators (the use of statistical and economic analysis to determine the weight of variables);
- expert assessments of quality indicators (e.g., social and political development); weight variables are also determined by peer review.

The results obtained are summarized in the summary index whose value typically ranges from 1 to 99.

Structural and qualitative (factor) method of statistical evaluation of country risk

The method is based on an expert study two characteristics of risk: the likelihood and magnitude of losses, ie the risks are weighted by the probability of a particular scenario.

Each of these methods of risk assessment has its advantages and disadvantages. The main advantage of a numeric expression to the descriptive - that manage to quickly review the factors or variables, and find a relationship. But it lost nuances, which may be very important4.

- The main drawback of qualitative assessments is a heavy reliance on subjective opinions of experts.
- The most common and best current methods of risk assessment is a combination of quantitative and qualitative approaches.
- However, it should be noted that the history of recent financial crises that have occurred in Asia, Russia, Brazil and led to significant losses of foreign investors showed the failure of

⁴ Baker, n.l., haugen, R.a. 2012. low Risk stocks outperform within all observable Markets of the world. Rochester, ny: social science Research network. available at: http://papers.ssrn.com/abstract=2055431 (accessed May 18, 2015).

rating agencies and the existing models of evaluation of country and political risk in terms of forecasting and prediction of such events.

• In this regard, the development of adequate models of country risk assessment remains valid.

The paper also carried out the calculation of premiums for country risk.

In practice, it has been used four methods of evaluation of country risk premium: the method of credit rating, method broad investment rating, the method of the fundamental factors and the method of the relative riskiness of the stock markets.

The choice of method depends on the availability of information for the analyst.

The most common - method of credit rating, building assessment on sovereign spreads the risk of default. The method is based on the premise that government bond yields can be regarded as a direct measure of country risk. This method identifies the country risk and the risk of sovereign default.

The disadvantage of credit rating - focusing only on the credit risk of the country, although the specific country risk factors of investing in equity much more. The result - an understatement of the country risk premium. For global investors, choose from a variety of tools by countries, this deficiency can be ignored. For segmented markets require modifications.

For the segmented markets, and to reflect the increasing number of country risk factors is recommended to modify the method of ranking, introducing an assessment of local variability of the stock market in relation to sovereign debt. The logic of such an adjustment is based on the excess of the country risk of investing in shares over the country risk of investing in bonds. The standard method of ranking gives the analyst estimate of the risk premium of investing in bonds of the local market. This estimate is too low for the amount of the premium for investing in the equity, so apply further modification. Formula modified premium for country risk rating on the basis of the method is as follows:

⁵ Caballero, R.J. 2008. creative destruction. In s. n. Durlauf l. e. Blume (eds) The new palgrave Dictionary of economics, 307–311. Basingstoke: nature publishing group available at: http://www.dictionaryofeconomics.com/ (accessed January 18, 2015).

Country risk premium = sovereign default spread local market x (s stock market / s state.

Bonds) of the local market,

where 6 - represents the standard deviation of the securities (stock index of the country in the numerator and the denominator of the index bonds).

For global investors, diversify the assets in different markets, country risk can be estimated from the volatility of the local market relative to developed markets such as the US. In such inclusion in the analysis of the relative risks of investing fourth is under construction method. The higher the standard deviation of the price of shares of the local market should be compensated for global investors higher yield of the country, which reflect country risk premium. This approach assumes that the larger the relative volatility of the local market, the higher the average premium for the risk of investing in it.

The fourth method of setting the country risk premium is constructed on the basis of the analysis of the relative riskiness of the local market.

The formula for calculating the average premium for the risk of investing in shares is as follows:

The risk premium on the local market risk premium = developed market's relative volatility = risk premium developed market's (s local stock market / s fund. US market).

The standard deviation of the US stock market is about 20% (estimated annualized).

Country risk premium = risk premium on the local market - the premium in developed markets = (km - kf) US x ((sloc / sUS) - 1)

Where $^{\delta loc}$ - the standard deviation of stock prices in dollar terms in the local market, showing the risk of investing in shares of the country.

This method shows a good score, but it has one major drawback, due to the characteristics of the analyzed stock markets - ignoring market liquidity. With a low liquidity of the stock market of the standard deviation of the local market may be too low, which leads to an underestimation of the country risk premium. In fact, the method is based on a similar liquidity

on the local market and the US market. Development of methods may be the introduction of amendments to the liquidity of the market.

The analysis of the theoretical aspects of the study of the country risk premium to the following conclusions.

Based on the experience of many developed countries in Kazakhstan should be effectively serving the analytical service of the Government of the country to monitor the status segments of the financial market, the impact of the global financial markets on the economy, methods of international rating agencies in relation to the national ranking and biggest national companies in various sectors; collection and processing of analytical reports departmental analytical services in government agencies such as the Ministry of Finance, the FSA, the National Bank, the Ministry of Economy. With this in mind, it should be developed forward-looking statements and practical action plans on the impact on those or other negative developments in banking, insurance, pension, foreign exchange, cash, commodities and other markets, and in general in the national economy.

Taking into account the opinion of many experts is necessary to develop procedures for assessing country risk and its impact on the national economy for 2015, must first be approved by the procedure of assessment of country risk policy. These include, in particular, will include: methods for assessing country risk based on sovereign ratings by international rating agencies; the frequency of collection of information from external sources of analytical political and economic situation in the country; means of supervisory authorities or by the financial institution's own country ratings, the possibility of adjustments; means of supervisory authorities and financial institutions limits and other restrictions on the frequency of revision.

The forward-looking assessment of the country risk for 2015-2016.

1. Definitely, we have to recognize that in 2015 the world economy will face the highest levels of economic and political risks in the last decade, it is also stated in the report of the World Economic Forum.

2. Specifically, this year to be "the most important risks facing the world today, according to the report - a systemic financial crisis, a rise in price of food, the vulnerability of global supply chains and the rise in price of energy".

At the macro or micro level risk management implies action on the part of supervision for this segment of the market or the company. Should be monitored for analytic review the state of the financial market and financial organizations operating on the periodical press, which is necessary to study the reports of international rating organizations to assess the individual bank and insurance company financial market of Kazakhstan. There should be an analysis of options for possible adverse effects of various factors on the activity of the insurance market or specifically for the company. The company should be prepared by appropriate procedures in the event of a shortage of time, threats to assets, production or personnel. Decisions on policy adjustments and market development activities of the company must be based on a realistic assessment of risks, the negative factors of influence should be the minimum, what steps should be taken to minimize risks based on the consequences of the impact of country risk.

Analysis and Finding

In my opinion, implied equity risk premium to define country risk premium, which is reflecting forward-looking estimates, is more sufficient in current volatile market. Implied equity risk premium for Kcell stock is based on Residual Income model and it contains the idea of Damodaran's approach in finding equity risk premium through discounted cash flow model.

Kcell JSC was founded in 1998y. In 2Q2015 company opened 2 stores in Almaty and Astana, new tariff plan "Hello, Kazakhstan" and discussions of possibility to introduce 4G which is starting from January 2016. Company offers Internet access, intercommunication, messaging and etc. The results of 2Q2015 is lower-than-expected, first, net sales decreased by 10.5% y/y, net income decreased by 31.5% y/y. This revenue decline can be described by heavy price war between Beeline, Altel, Activ and etc. The most of income is from voice service that is 63% from total revenues. Kcell approved "Annual Dividend" which is approximately 70% of the net income of full 2014 year and "Special Dividend" representing 30% of the net income of 2014 year. Annual dividends are already paid in the end of April, while Special Dividend is going not latter than 30 October.

Website Capital IQ provided us data of the KCell Company for the calculation.

Appendixes A-E contains the next data:

- Balance Sheet. The balance sheet is a report that summarizes all of an entity's assets, liabilities, and equity as of a given point in time. It is typically used by lenders, investors, and creditors to estimate the liquidity of a business. The balance sheet is one of the documents included in an entity's financial statements. Of the financial statements, the balance sheet is stated as of the end of the reporting period, while the income statement and statement of cash flows cover the entire reporting period.
- Income statement. A summary of a management's performance as reflected in the profitability (or lack of it) of an organization over a certain period. It itemizes

the revenues and expenses of past that led to the current profit or loss, and indicates what may be done to improve the results.

In contrast to a balance sheet, an income statement depicts what happened over a month, quarter, or year. It is based on a fundamental accounting equation (Income = Revenue - Expenses) and shows the rate at which the owners equity is changing for better or worse. Along with balance sheet and cash flow statement it forms the basic set of financial information required to manage an organization. Also called earnings report, operating statement, or profit and loss account.6

- Ratios. A financial analysis comparison in which certain financial statement items are divided by one another to reveal their logical interrelationships.

Some financial ratios (such as net sales to net worth ratio and net income to net sales ratio) are called primary because they indicate the fundamental causes underlying a company's strengths and weaknesses. Others (such as current assets to current liabilities ratio, and current liabilities to net worth ratio) are called secondary because they depict the company's competitive position and financial structure as effects of the causes identified by the See primary ratios. also activity ratios, efficiency ratios, investment ratios, leverage ratios, liquidity ratios, and profitability ratios.

- Key Statistical. A statistical concept is a statistical characteristic of a time series or an observation.
- Cash Flow. Cash flow is the net amount of cash and cash-equivalents moving into and out of a business. Positive cash flow indicates that a company's liquid assets are increasing, enabling it to settle debts, reinvest in its business, return money to shareholders, pay expenses and provide a buffer against future financial challenges. Negative cash flow indicates that a company's liquid assets are decreasing. Net cash flow is distinguished from net income, which

includes accounts receivable and other items for which payment has not actually been received. Cash flow is used to assess the quality of a company's income, that is, how liquid it is, which can indicate whether the company is positioned to remain solvent 7.

Appendix F contains relative valuation. Appendix G contains spread of bonds and spread of CDS on the example of oil sector of Kazakhstan. Appendix G also contains CDS OIL GDP table.

Table 3 contains Kazakhstan international bonds

Table 3. Kazakhstan international bonds

		Co				С			Amt	Coupo	
	Tick	upo	Matu	Mty	Cou	ur	BB	Ask	Out(M	n	Ask Yield
Name	er	n	rity	Type	ntry	r	Rtg	Px	M)	Type	to Maturity
Kazakhstan			•	AT		U	_			• •	
Government	KAZ	3,8	14.10	MATU		S	BB	93,	150000	FIXE	
International Bond	AKS	75	.2024	RITY	ΚZ	D	В	733	0000	D	4,737229
Kazakhstan				AT		U					
Government	KAZ	3,8	14.10	MATU		S	BB	93,	150000	FIXE	
International Bond	AKS	75	.2024	RITY	ΚZ	D	В	752	0000	D	4,7354692
Kazakhstan				AT		U					
Government	KAZ	5,1	21.07	MATU		S	BB	100	250000	FIXE	
International Bond	AKS	25	.2025	RITY	ΚZ	D	В	,18	0000	D	5,1003639
Kazakhstan				AT		U		100			
Government	KAZ	5,1	21.07	MATU		S	BB	,31	250000	FIXE	
International Bond	AKS	25	.2025	RITY	ΚZ	D	В	9	0000	D	5,0821325
Kazakhstan				AT		U					
Government	KAZ	4,8	14.10	MATU		S	BB	83,	100000	FIXE	
International Bond	AKS	75	.2044	RITY	ΚZ	D	В	972	0000	D	6,0542795
Kazakhstan				AT		U					
Government	KAZ	4,8	14.10	MATU		S	BB	83,	100000	FIXE	
International Bond	AKS	75	.2044	RITY	ΚZ	D	В	846	0000	D	6,0651258
Kazakhstan				AT		U					
Government	KAZ		21.07	MATU		S	BB	99,	150000	FIXE	
International Bond	AKS	6,5	.2045	RITY	ΚZ	D	В	739	0000	D	6,5189914
Kazakhstan				AT		U					
Government	KAZ		21.07	MATU		S	BB	99,	150000	FIXE	
International Bond	AKS	6,5	.2045	RITY	KZ	D	В	548	0000	D	6,5336482

Table 4 is a table that relates the interest coverage ratio of a firm to a "synthetic" rating and a default spread that goes with that rating. The link between interest coverage ratios and ratings was developed by looking at all rated companies in the United States. The default spreads are obtained from traded bonds. Adding that number to a riskfree rate should yield the pre-tax cost of borrowing for a firm.

⁷ http://www.investopedia.com/terms/c/cashflow.asp#ixzz3ox00mh2d

Appendix I contains such data about GGM as: Dividend yield, Growth in earnings and Long-term dividend yield.

Appendix J contains top down equity premium. When attempting to strip away the various components of any type of return, we are rarely able to determine the source for each component. Usually, therefore, these components do not exactly add up to the return. The bottomup approach is no exception. While it provides a more detailed explanation about the relationship between P/E growth and the market, there is a small difference between the added components and the actual return. The topdown approach uses the same theory as the bottom-up, although it does not require adding up the various components and, therefore, is more practical.

Table 5 contains data about historical equity premium. The historical equity risk premium (ERP), also referred to as the realized ERP, ex post ERP or the excess return, can be defined as the return of a stock market index minus the risk free return calculated as an annual percent over some historical period. The historical ERP can be expressed as an arithmetic average of the annual rates or a geometric average, which is the total return over the period. In the U.S., the S&P 500 index or its predecessors are frequently used to measure stock market returns while the 6 month Treasury (T) bill or 10 year T-bond are used for the risk free rate. The 10 year T-bond is used here due to its long history and the long term nature of pension benefits.

Using historical stock and bond market performance data to estimate future performance raises a number of issues beyond simply what time period and data series to use. These include the validity of using historical data to project future returns and whether arithmetic or geometric mean or some other measurement should be used.

Table 5. Historical equity premium

	Equity return		Treasury	Equity risk premium arithmetic	Geometric
09.окт.15	4,93%	09.окт.15	2,12%	2,99%	2,72%
01.янв.15	4,99%	01.янв.15	1,88%	3,19%	2,92%
01.янв.14	5,51%	01.янв.14	2,86%	2,06%	1,76%
01.янв.13	5,87%	01.янв.13	1,91%	2,73%	2,36%
01.янв.12	6,73%	01.янв.12	1,97%	2,48%	2,14%
01.янв.11	6,13%	01.янв.11	3,39%	0,79%	0,49%
01.янв.10	4,83%	01.янв.10	3,73%	0,19%	-0,07%
01.янв.09	1,41%	01.янв.09	2,52%	1,34%	1,09%
01.янв.08	4,66%	01.янв.08	3,74%	0,43%	0,28%
01.янв.07	5,76%	01.янв.07	4,76%	-0,52%	-0,68%
01.янв.06	5,53%	01.янв.06	4,42%	-0,10%	-0,29%

Table 6. 3-Month Treasury Bill: Secondary Market Rate, Percent, Monthly, Not Seasonally Adjusted

Frequency: Monthly						
observation_da	TB3M		4.93%		Historical equity risk	Geometri
te	S		estimat	te	premium	c
01.09.2015	0,02%	01.09.201	5,17		5,13%	4,75%
		5	%			
01.08.2015	0,07%	01.08.201	4,87		5,08%	4,70%
		5	%			
01.07.2015	0,03%	01.07.201	4,74		5,12%	4,74%
		5	%			
01.06.2015	0,02%	01.06.201	4,73		5,13%	4,75%
		5	%			
01.05.2015	0,02%	01.05.201	4,70		5,13%	4,75%
		5	%			

When we calculated equity risk premium, we have used different methods, such as arithmetic and geometric average, Gordon Growth Model, Top-down equity risk premium, DCF Damodaran, Implied equity risk premium. Consider each of these methods in details.

Geometric Versus Arithmetic Mean

The arithmetic mean of a sample of n entries is the sum of the entries divided by n while the geometric mean is the nth root of the product of the entries. In much of the statistical work, the historical returns each year are assumed to be independent and identically distributed random variables. However, investment returns are serially negatively correlated

Jacquier developed an unbiased estimate of the mean (U) from historical data by weighing the geometric (G) and arithmetic (A) means by the ratio of number of years in the projection (P) to the number of years in the sample (S):

$$U = A*(1-P/S) + G*(P/S)$$

As the projection time gets longer, the geometric mean becomes more important. When the projection time equals the sample time the geometric mean is the unbiased estimate of the mean. Since most pension work involves long projection periods, the geometric mean is a more appropriate measure for future projections.

Table 7. Arithmetic and Geometric average

	Equity risk		Equity risk		Equity risk		Equity risk
	premium		premium		premium		premium
	Arithmetic		Arithmetic		Geometric		Geometric
	average		average		average		average
Date	Bonds		Bills		Bonds		Bills
09.окт.15	2,99%	01.09.2015	5,13%	09.окт.15	2,72%	01.09.2015	4,75%
01.янв.15	3,19%	01.08.2015	5,08%	01.янв.15	2,92%	01.08.2015	4,70%
01.янв.14	2,06%	01.07.2015	5,12%	01.янв.14	1,76%	01.07.2015	4,74%
01.янв.13	2,73%	01.06.2015	5,13%	01.янв.13	2,36%	01.06.2015	4,75%

Gordon Growth Model

Many investors estimate the market risk premium using historical averages. However, the Gordon growth model can be algebraically manipulated to create a forward-looking market risk

premium based on the current market valuation. Such a model should help estimate the actual return investors should expect from investing in the stock market.

Estimating the risk premium in this way is simple. Start with the dividend yield on the market index, add the consensus long-term earnings growth rate and subtract the current long-term government bond yield.

GGM = Forecasted div yield +long-term earnings growth rate - current long-term government bond yield

Table 8. Gordon Growth Model

	Gordon Growth Model
	= Forecasted div yield +long-term earnings growth rate - current long-term government bond yield
Mar 31, 2015	3,39%
Dec 31, 2014	3,97%
Sep 30, 2014	4,65%
Jun 30, 2014	5,51%
Mar 31, 2014	22,46%

Top-down equity risk premium

The calculation begins with the same inputs as the historical ERP—the market's total returns and the 20-year Treasury bond income returns. The top-down approach allows the practitioner to remove the portion of returns already known to be demand-driven (i.e., P/E growth) from the total return rather than add up all the company-generated returns. Although the difference between the bottom-up approach and the top-down approach is fairly negligible, the top-down approach is thought to reach a more accurate supply-side ERP. The first step in

calculating the supply-side ERP using the top-down approach is calculating the historical ERP geometrically. The top-down approach shows the supply-side as an adjusted historical ERP, as it excludes all investor-driven components.

Table 9. Top-down equity risk premium

	Top-down equity risk premium
	= ((1+exp.infl.)*(1+gr.rate in real GDP)*(1+growth rate in the P/E ratio)-1)+expected income component)-Expected risk free rate
2015	5,00%
2014	4,56%
2013	5,92%
2012	5,34%
2011	4,03%
2010	3,00%

DCF Damodaran

If we assume that stocks are correctly priced in the aggregate and we can estimate the expected cashflows from buying stocks, we can estimate the expected rate of return on stocks by computing an internal rate of return. Subtracting out the riskfree rate should yield an implied equity risk premium 8.

This implied equity premium is a forward looking number and can be updated as often as you want (every minute of every day, if you are so inclined).

Table 10. Buyback yield

PERIOD	Buyback yield

⁸ Damodaran, a. 2014. equity Risk premiums (eRp): Determinants, estimation and Implications – The 2014 edition. Rochester, ny: social science Research network. available at: http://papers.ssrn.com/abstract=2409198 (accessed January 19, 2015)

31.03.2013	3%
30.06.2013	3%
30.09.2013	3%
31.12.2013	3%
31.03.2014	3%
30.06.2014	3%
30.09.2014	3%
30.12.2014	3%
31.03.2015	3%
30.06.2015	3%
14.10.2015	3%

Table 11. Buyback and Dividend, Inflation adjusted

	Buyback	Dividend yield	Buyback and Dividend	Inflation adjusted		Inflation
20	2,24%	1,83%	4,07%	4,01%	Oct 14, 2015	0,20%
20	3,32%	2,13%	5,45%	5,28%	Jan 1, 2014	1,62%
20	3,14%	2,20%	5,34%	5,23%	Jan 1, 2013	1,46%
20	2,94%	1,94%	4,88%	4,81%	Jan 1, 2012	2,07%
20	3,11%	1,92%	5,03%	4,95%	Jan 1, 2011	3,16%
20	3,01%	2,09%	5,10%	5,09%	Jan 1, 2010	1,64%

Table 12. DCF Damodaran

Price	14.10.2015	2002,65	2001,021103
	CF	DCF	
2015	101,8398448	99,871419	0,25
2016	106,35135	98,364179	1
2017	111,0627148	95,007133	2
2018	115,982793	91,764658	3
2019	121,1208308	88,632846	4
2020	126,4864836	85,607918	5
	2130,232758	1441,773	
Short-term growth rate = earnings growth rate			
			4,43%
Years	2015	2016	4,43%
Years Cash Flow Per Share	2015	2016 3,20%	·
			2017
Cash Flow Per Share			2017
Cash Flow Per Share Long-term growth = risk free = 10 year bond	-0,91%		2017
Cash Flow Per Share Long-term growth = risk free = 10 year bond Risk-free	-0,91%		2017
Cash Flow Per Share Long-term growth = risk free = 10 year bond Risk-free Oct 13, 2015	-0,91%		2017

The price on 16 October of Kcell Stock was \$5.1. Based on RI model, I forecasted EPS for 5 years from 2015 to 2020.

I organized RI model as two-stage model with forecasted 5 years and then continuing residual income. The RI model method includes values in the accounting balance sheet and then adjusts by adding discounted residual incomes.

The main strengths of this approach are 1) continuing value does not take large portion of total discounted cash flows in comparison with other approaches 2) data are usually available 3)model can be used in companies where dividends are not paid or can not be predictable. The main weakness is that model is based on accounting data which can be manipulated by management.

I chose the continued residual income model that was invented by Dechow, Hutton and Sloan (1999) in which residual income dissolved over time. This model includes persistence factor, ω , that can vary from 0 to 1. The higher dividend payout, the higher levels of accounting accruals, the higher ROE, the lower persistence factor. Dechow found the average persistence factor from 1976 to 1995, which is equal to 6.2. To my objectives I chose 5.0 as persistence factor.

The expected growth of EPS is highly varied due to Kazakhstan economy retardation. I expect decline in growth rate of GDP during 2 next years and then economy will stabilize. So, I expect decline in net income at the end of 2015 year by 22% and 14% further. Then I expect growth nearly by 3% from 2017 to 2020 that is similar to average growth rate of real GDP per capita during nearly 10 years. Expected dividend on this 2015 year is nearly 100% because of company's recent decision to pay "Annual Dividend" 70% of net income in previous year and "Special Dividend" 30% of net income in previous year. And then I forecast 70% dividend payout ratio as it was assumed in company's dividend policy. Forecasted BVPS is equal to previous BVPS with added difference between forecasted EPS and DPS.

To find the required return on equity of Kcell stock, I used excel tool to find the internal rate of return. So, 14.45% is required rate of return on Kcell stock, which I can break down by equity risk premium for mature market such as US and Risk-free return (YTM T-Bonds with 10 year maturity) and country risk premium.

14.45% is broke down by 6% of equity risk premium in mature market, than 2.12% YTM and rest of the percentage is country risk premium for Kazakhstan that is equal to 6.33%.

Table 13. Information about company

Comp	Date	Ticker	Price	Shares	Require	Average	Average	Average	Persista
any				outstan	d	growth for two	growth for	growth	nce
				ding	Return	years	2016	GDP	factor
Kcell	16.10.	KCEL:LI	5,1	200	14,61%	-22%	-14%	3%	0,5
	2015	LONDO							
		N INTL							

Table 14. Residual income model

Number	Years	BVPS	EPS	Div	RI	DCF RI
1	2010	3,16	1,86	1,78		
2	2011	3,43	2,25	1,95		
3	2012	1,67	2,06	3,59		
4	2013	2,70	2,05	1,31		
5	2014	2,18	1,60	1,74		
0,25	2015	2,04	1,24	3,27	0,92	0,89
1	2016	0,02	1,07	0,87	0,77	0,67
2	2017	0,22	1,10	0,75	1,10	0,84
3	2018	0,57	1,14	0,77	1,11	0,74
4	2019	0,94	1,18	0,80	1,09	0,63
5	2020	1,32	1,21	0,82	1,08	0,54
5		1,71	1,25	1,09	1,00	0,79
					Price	5,10

We also calculated spread of CDS and spread of bonds (table 16-18). Appendix K contains Default spread with bonds and Default spread with CDS.

CDS spread is a periodic premium paid by the buyer to the seller that serves as a return over Libor required to protect against credit risk.

Spread of bonds is the difference between the yields of two bonds with differing credit ratings. Most often, a corporate bond with a certain amount of risk is compared to a standard risk-free Treasury Bond. The bond spread will show the additional yield that could be earned from a bond which has a higher risk.

Table 15. Treasury bonds yield

Treasury bonds yield	2,12%	
Default spread with bonds	07.10.2015	3,02%
Default spread with CDS	10.14.2015	3,09%

Table 16. Implied equity risk premium

Implied equity risk premium			14.10.2015	6,00%
Equity risk premium	Arithmetic average	Bills	01.09.2015	5,13%
Equity risk premium	Geometric average	Bills	01.09.2015	4,75%
Top-down equity risk premiu	m		01.09.2015	5,00%
Gordon Growth Model			31.03.2015	3,39%
Equity risk premium	Arithmetic average	Bonds	09.10.2015	2,99%
Equity risk premium	Geometric average	Bonds	09.10.2015	2,72%

Table 17. Type of default spread

Risk-free rate		
10 years Treasury Bonds YTM	9.10.2015	2,12%
3 monthes Treasury Bills YTM	9.10.2015	0,02%

Type of default spread		
Implied country risk premium	16.10.2015	6,49%
Default spread with the difference between CDS		
US and KZ	14.10.2015	3,09%
Default spread with the difference between YTM		
of Treasury Bonds USD denomicated of US and		
KZ	07.10.2015	3,02%

Table 18. Country default spread with US and KZ bonds

Security	AF279346 Corp	Security	912828K7 Govt
Start Date	4.1.2015	Start Date	9.1.2014
End Date	10.7.2015	End Date	10.7.2015
Period	D	Period	D
Pricing Source	BGN	Pricing Source	BGN

KZ US

Date	PX_LAST	YLD_CNV_LAST	Date	PX_MID	YLD_CNV_MID	Spread
07.10.2015	99,828	0,05147	07.10.2015	99,4296875	0,02064	3,02%
06.10.2015	99,576	0,0518	06.10.2015	99,7109375	0,02032	3,09%
05.10.2015	98,393	0,05337	05.10.2015	99,4921875	0,02057	3,21%
02.10.2015	97,566	0,05448	02.10.2015	100,054688	0,01994	3,39%
18.08.2015	96,436	0,05597	18.08.2015	98,2734375	0,02193	3,33%
17.08.2015	96,681	0,05564	17.08.2015	98,4921875	0,02169	3,32%
14.08.2015	97,219	0,05492	14.08.2015	98,2265625	0,02199	3,22%
13.08.2015	97,767	0,05418	13.08.2015	98,3359375	0,02186	3,16%
12.08.2015	97,534	0,05449	12.08.2015	98,6796875	0,02147	3,23%

So we can make next conclusions. Table 19 contains Required return on Kcell stock

Table 19. Required return on Kcell stock

Required return on Kcell stock		Price	Current price 16.10.2015	Difference
calculated as geometric				
average of returns + bonds	7,86%	6,67	5,1	1,57
default spread				
calculated as geometric				
average of returns + CDS	7,93%	6,66	5,1	1,56
default spread				
calculated as arithmetic				
average of returns + bonds	8,13%	6,61	5,1	1,51
default spread				
calculated as arithmetic				
average of returns + CDS	8,20%	6,59	5,1	1,49
default spread				
Macroeconomic Model				
Estimates + bonds default	10,14%	6,08	5,1	0,98
spread				
Macroeconomic Model	10.210/	6.07	~ 1	0.07
Estimates + CDS spread	10,21%	6,07	5,1	0,97
Implied ERP on S&P 500	11 140/	5.05	5 1	0.75
stock + bond default spread	11,14%	5,85	5,1	0,75
Implied ERP on S&P 500	11 210/	5.02	E 1	0.72
stock + CDS default spread	11,21%	5,83	5,1	0,73
Implied required return on	14.610/	5,1		
Kcell Stock	14,61%	3,1		

Table 20. Different methods of calculating equity risk premium on Kcell stock

Type ERP	Formula	Date	ERP
Implied equity risk premium	Implied required return - Risk-free rate (10 bonds yield)	October	6,00%
Calculated with the arithmetic average equity return over 10 years and YTM of Treasuty Bills with 3 monthes maturity	Average return on equity prices - Risk-free rate	October	5,13%
Macroeconomic Model Estimates	{[(1+EINFL)(1+EGREPS)(1+EGPE)- 1.0]+EINC} - Expected risk-free return	2015	5,00%
Calculated with the geometric average equity return over 10 years and YTM of Treasuty Bills with 3 monthes maturity	Average return on equity prices - Risk-free rate	October	4,75%
Gordon Growth Model Equity Risk Premium Estimate	Dividend yield on the index based on the year-ahead aggregate forecasted dividends and aggregate market value + Consesus long- term earnings growth rate - Current long-term government bonds	1Q2015	3,39%
Calculated with the arithmetic average of equity return over 10 years and YTM of Treasury	Average return on equity prices - Risk-free rate	October	2,99%

A Did for		
	October	2,72%
rate		
	Average return on equity prices - Risk-free rate	October

Summary/Conclusion/Recommendations/Implications

Stationarity and standard error would indicate that there is significant uncertainty in using any historical ERP estimate to forecast returns. On both theoretical and empirical grounds, the geometric mean is preferred to the arithmetic mean for pension plans. Using the arithmetic mean would have led to forecast returns substantially higher than those actually realized.

Implicit or market based ERP methods have the advantage of reflecting current market conditions. When pension plan stocks are valued at market as of the date of valuation, it would be consistent to have an ERP calculated as of the same day. Implied ERPs fall in bull markets and rise in bear markets, while historical ERPs do the opposite. Prior to 2000, the historical ERPs produced higher forecasts than implicit methods, but after 12 years of poor performance, the historical and implied ERPs are much closer.

The result of calculating Implied equity risk premium is 6%

Calculated with the arithmetic average equity return over 10 years and YTM of Treasuty Bills with 3 monthes maturity is 5,13%. The result of calculating equity risk premium with Macroeconomic Model Estimates Is 5%. Calculated with the geometric average equity return over 10 years and YTM of Treasuty Bills with 3 monthes maturity is 4,75 %. Gordon Growth Model Equity Risk Premium Estimate – 3,39%. Calculated with the arithmetic average of equity return over 10 years and YTM of Treasury Bonds with 10 years maturity is 2,99 %. Calculated with the geometric average equity return over 10 years and YTM of Treasury Bonds with 10 years maturity is 2,72%.

Now that we have explored the risk premium models and their challenges, it is time to look at them with actual data. The first step is to find a reasonable range of expected equity returns; step two is to deduct a risk-free rate of return and; and step three is to try to arrive at a reasonable equity risk premium.

References

- 1. Alston, l.J. 2008. new institutional economics. In s. n. Durlauf, l. e. Blume (eds) The new palgrave Dictionary of economics, 32–39. Basingstoke: nature publishing group available at: http://www.dictionaryofeconomics.com (accessed January 19, 2015).
- 2. Baker, n.l., haugen, R.a. 2012. low Risk stocks outperform within all observable Markets of the world. Rochester, ny: social science Research network. available at: http://papers.ssrn.com/abstract=2055431 (accessed May 18, 2015).
- 3. Caballero, R.J. 2008. creative destruction. In s. n. Durlauf l. e. Blume (eds) The new palgrave Dictionary of economics, 307–311. Basingstoke: nature publishing group available at: http://www.dictionaryofeconomics.com/ (accessed January 18, 2015).
- 4. Chorn, l.g., shokhor, s. 2006. Real options for risk management in petroleum development investments. energy economics 28(4): p.489–505.
- 5. Damodaran, a. 2002. Investment valuation: Tools and Techniques for Determining the value of any asset, second edition. 2nd ed. new york: wiley, 992 p. (Russ. ed.: Damodaran a. 2006. Investicionnaja ocenka. Instrumenty i metody ocenki ljubyh aktivov. Moscow, al'pina Biznes Buks, 2006. 1341 p.).
- 6. Damodaran, a. 2014. equity Risk premiums (eRp): Determinants, estimation and Implications The 2014 edition. Rochester, ny: social science Research network. available at: http://papers.ssrn.com/abstract=2409198 (accessed January 19, 2015).
- 7. Dranev Ju. Ja., nurdinova Ja.s., Red'kin v.a., fomkina s.a. 2012. Modeli ocenki zatrat na sobstvennyj kapital kompanij na razvivajushhihsja rynkah kapitala [Cost of Capital estimation Models in emerging Markets]. korporativnye finansy. no. 2 (22). pp. 107–117.
- 8. Duarte, f., Rosa, C. 2015. The equity Risk premium: a Review of Models. federal Reserve Bank of ny. staff Report no. 714.

- 9. Harvey, C.R. 1994. predictable Risk and Returns in emerging Markets. national Bureau of economic Research. available at: http://www.nber.org/papers/w4621 (accessed March 17, 2015).
- 10. Koller, T., goedhart, M., wessels, D., Mckinsey. 2010. valuation: Measuring and Managing the value of Companies 5th ed. new york, ny: wiley.
- 11. Sharpe, W.F. 1964. Capital asset prices: a Theory of Market equilibrium under Conditions of Risk. The Journal of finance 19(3): p.425–442
- 12. Taleb, n.n. 2007. The Black swan: The Impact of the highly Improbable 1 ed. n.y.: Random house.
 - 13. Website www.kase.kz
- 14. Website http://www.reuters.com/article/2015/09/08/kazakhstan-gdp idUSR4N11000W20150908.

Appendix A. Balance Sheet

Balance Sheet as of:	дек-31- 2010	дек-31- 2011	дек-31- 2012	дек-31- 2013	дек-31- 2014	июн-30- 2015
Currency	USD	USD	USD	USD	USD	USD
ASSETS						
Cash And Equivalents	35,6	9,1	20,5	122,6	107,1	83,0
Total Cash & ST Investments	35,6	9,1	20,5	122,6	107,1	83,0
Accounts Receivable	39,3	75,2	75,2	40,3	44,4	96,8
Other Receivables	1,6	2,0	9,0	0,9	11,5	-
Total Receivables	41,0	77,2	84,1	41,1	55,9	96,8
	11,0	,=	0.,1	11,1		70,0
Inventory	7,1	12,4	6,5	3,2	12,8	17,7
Prepaid Exp.	14,7	6,9	3,4	3,5	3,3	-
Other Current Assets						-
Total Current Assets	14,2	25,2	18,8	22,8	20,6	107.5
	112,6	130,8	133,3	193,3	199,6	197,5
Gross Property, Plant & Equipment	1 076,7	1 270,4	1 445,6	1 498,8	1 332,6	-
Accumulated Depreciation	(472,6)	(594,4)	(711,7)	(770,7)	(738,1)	-
Net Property, Plant & Equipment	604,1	676,0	734,0	728,1	594,6	543,8
Other Intangibles						
Other Long-Term Assets	124,3	124,1	107,4	90,4	68,5	74,5
Total Assets	98,4 939,4	45,5	20,8 995,4	20,3	3,8 866,5	2,6
	939,4	976,4	995,4	1 032,1	000,5	818,5
LIABILITIES						
Accounts Payable	69,8	62,5	70,9	120,8	112,6	221,6
Accrued Exp.	17,6	18,8	18,7	20,3	19,4	-
Short-term Borrowings	-	-	325,9	160,2	137,2	253,2
Curr. Income Taxes Payable	14,8	6,4	5,1	8,9	2,7	-
Unearned Revenue, Current	48,8	48,4	40,0	47,6	48,3	-
Other Current Liabilities		0,3	53,8		9,4	-
Total Current Liabilities	1,1			1,4		474 D
	152,2	136,3	514,5	359,2	329,6	474,8
Def. Tax Liability, Non-Curr.	27,7	26,9	34,0	33,9	24,4	22,9
Other Non-Current Liabilities	2,,,	20,7	21,0	55,7	2 ., 1	22,7

	3,4	3,3	6,6	9,2	7,5	7,3
Total Liabilities	183,3	166,6	555,0	402,3	361,5	505,1
Common Stock	26.6	26.4	224.9	210.0	105.4	101.5
Additional Paid In Capital	26,6	26,4	224,8	219,0	185,4	181,5
Retained Earnings						
•	729,5	783,5	215,5	410,8	319,6	131,9
Treasury Stock	-	-	-	-	-	-
Comprehensive Inc. and Other Total Common Equity	-	-	-	-	-	
Total Common Equity	756,1	809,9	440,4	629,8	505,0	313,4
Total Equity						
	<u>756,1</u>	809,9	<u>440,4</u>	<u>629,8</u>	505,0	313,4
Total Liabilities And Equity						
	939,4	976,4	995,4	1 032,1	866,5	818,5
Supplemental Items						
Total Shares Out. on Filing Date	NA					
		200,0	200,0	200,0	200,0	200,0
Total Shares Out. on Balance Sheet Date	NA	200.0	200.0	200.0	200.0	200.0
Book Value/Share	NA	200,0 \$4,05	200,0 \$2,2	200,0 \$3,15	200,0 \$2,52	200,0 \$1,57
Tangible Book Value	1171	Ψ+,03	Ψ2,2	ψ3,13	Ψ2,32	Ψ1,57
_	631,8	685,7	333,0	539,4	436,5	238,9
Tangible Book Value/Share	NA	\$3,43	\$1,67	\$2,7	\$2,18	\$1,19
Total Debt	0	0	225.0	160,2	127.2	252.2
Net Debt	0	U	325,9	100,2	137,2	253,2
The Best	(35,6)	(9,1)	305,4	37,6	30,2	170,2
Debt Equivalent Oper. Leases	NA					NA
Y Mala	NT A	418,5	486,6	445,4	355,9	NT A
Inventory Method Land	NA	Avg Cost	Avg Cost	Avg Cost	Avg Cost	NA NA
Land	4,4	13,1	13,3	13,4	11,7	IVA
Buildings	,	,	,	,	,	NA
	91,8	152,5	181,5	182,2	156,0	
Machinery	765,7	830,2	986,4	1 061 0	027.1	NA
Construction in Progress	703,7	630,2	700,4	1 061,8	927,1	_
_	110,6	148,5	107,0	78,0	101,3	
Full Time Employees	NA	NA		4 105		4 = 0.5
Accum. Allowance for Doubtful Accts			1 612	1 488	1 736	1 792 NA
Accum. Anowance for Doubtful Accts	5,1	4,5	6,5	11,1	11,2	INA
Filing Date	дек-12-	май-02-	апр-30-	апр-30-	апр-30-	июл-17-
	2012	2013	2014	2015	2015	2015
Restatement Type	NCA	NC	NC	NC	O	O
Calculation Type	REP	REP	REP	REP	REP	REP
Currency	USD	USD	USD	USD	USD	USD
Exchange Rate	0.007	0.007	0.007	0.006	0.005	0.005
Conversion Method	0,007 H	0,007 H	0,007 H	0,006 H	0,005 H	0,005 H
Conversion inemod	Н	Н	н	Н	н	Н

Appendix B. Income Statement

For the Fiscal Period Ending	Reclassified 12 months Dec-31- 2010	12 months Dec-31- 2011	12 months Dec-31- 2012	12 months Dec-31- 2013	12 months Dec-31- 2014	LTM 12 months Jun-30- 2015
Currency	USD	USD	USD	USD	USD	USD
Revenue	1 035,0	1 204,1	1 210,7	1 215,6	1 028,8	974,6
Other Revenue	-	-	-	-	_	-
Total Revenue	1 035,0	1 204,1	1 210,7	1 215,6	1 028,8	974,6
Cost Of Goods Sold	396,1	471,1	507,5	514,9	461,9	469,6
Gross Profit	638,9	733,0	703,2	700,6	566,9	505,0
Selling General & Admin Exp.	157,4	173,1	187,6	172,6	121,8	115,9
R & D Exp.	-	-	-	-	-	-
Depreciation & Amort. Other Operating Expense/(Income)	17,5	1,5	(2,6)	(0,7)	3,6	(3,1)
Other Operating Exp., Total	175,0	174,7	185,0	171,9	125,4	112,9
Operating Income	464,0	558,3	518,2	528,7	441,5	392,2
Interest Expense	-	-	(4,3)	(15,7)	(8,6)	(16,4)
Interest and Invest. Income	2,9	4,9	0,9	1,9	2,5	2,4
Net Interest Exp.	2,9	4,9	(3,4)	(13,7)	(6,1)	
Other Non-Operating Inc. (Exp.)	_	-	-	-	-	-
EBT Excl. Unusual Items	466,9	563,2	514,8	515,0	435,4	378,2
Impairment of Goodwill		_	_	_	_	_
Asset Writedown	-	-	-	-	(20,0)	(19,5)
Legal Settlements	-	-	-	-	(8,8)	(8,6)
Other Unusual Items	-	-	-	-	-	-
EBT Incl. Unusual Items	466,9	563,2	514,8	515,0	406,7	350,1
Income Tax Expense	95,1	112,9	103,5	104,3	87,1	78,0
Earnings from Cont. Ops.	371,7	450,3	411,3	410,8	319,6	272,1
Earnings of Discontinued Ops. Extraord. Item & Account. Change	-	-	-	-	-	-
<i>6</i>						

Net Income to Company	371,7	450,3	411,3	410,8	319,6	272,1
	371,7	430,3	711,5	710,0	317,0	272,1
Minority Int. in Earnings	-	-	-	-	-	-
Net Income	371,7	450,3	411,3	410,8	319,6	272,1
Pref. Dividends and Other Adj.	-	-	-	-	-	-
NI to Common Incl Extra Items	371,7	450,3	411,3	410,8	319,6	272,1
NI to Common Excl. Extra Items	371,7	450,3	411,3	410,8	319,6	272,1
D Cl 14						
Per Share Items	NI A	\$2,25	\$2.06	\$2.05	¢1 <i>c</i>	¢1 26
Basic EPS Excl. Extra Items	NA NA		\$2,06	\$2,05	\$1,6	\$1,36
Weighted Avg. Basic Shares Out.	NA	2,25	2,06	2,05	1,6	1,36
		200,0	200,0	200,0	200,0	200,0
Diluted EPS	NA	\$2,25	\$2,06	\$2,05	\$1,6	\$1,36
Diluted EPS Excl. Extra Items	NA	2,25	2,06	2,05	1,6	1,36
Weighted Avg. Diluted Shares Out.	NA	200,0	200,0	200,0	200,0	200,0
Normalized Basic EPS	NA	\$1,76	\$1,61	\$1,61	\$1,36	\$1,18
Normalized Diluted EPS	NA NA	1,76	1,61	1,61	1,36	1,18
		1,70	1,01	1,01	1,50	1,10
Dividends per Share	NA	NA	NA	\$1,44	\$1,12	\$1,09
Payout Ratio %	95,7%	86,8%	174,5%	63,7%	76,1%	202,5%
Shares per Depository Receipt	1,0	1,0	1,0	1,0	1,0	1,0
Supplemental Items						
EBITDA						
TD IIII.	586,7	701,9	652,7	664,9	563,6	512,5
EBITA	473,1	567,8	527,5	538,2	444,2	394,9
EBIT	464,0	558,3	518,2	528,7	441,5	392,2
EBITDAR	NA	754,2	713,5	720,6	608,1	NA
Effective Tax Rate %	20,4%	20,0%	20,1%	20,2%	21,4%	22,3%
Current Domestic Taxes	94,5	113,6	96,1	103,4	91,4	89,5
Total Current Taxes	94,5	113,6	96,1	103,4	91,4	89,5
Deferred Domestic Taxes				0,8		
Total Deferred Taxes	0,6	(0,6)	7,4 7,4	0,8	(4,3)	(4,2)
Normalized Net Income		\~1~/	.,.		()-/	(' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
Filing Date	291,8 дек-12-	352,0 май-02-	321,7 апр-30-	321,9 апр-30-	272,1 апр-30-	236,4 июл-17-
	2012	2013	2014	2015	2015	2015
Restatement Type	RCA	NC	NC	NC	O	O

Calculation Type	REP	REP	REP	REP	REP	LTM
Supplemental Operating Evenence Items						
Supplemental Operating Expense Items						
Advertising Exp.	NA		NA	NA	NA	NA
		87,8				
Selling and Marketing Exp.						
	109,7	106,2	114,4	107,7	63,3	55,0
General and Administrative Exp.						
•	47,7	67,0	73,2	64,9	58,5	60,9
Net Rental Exp.	NA					NA
•		52,3	60,8	55,7	44,5	
Imputed Oper. Lease Interest Exp.	-		-	Í	Í	-
				29,2	22,3	
Imputed Oper. Lease Depreciation	=	-	1			-
				26,5	22,2	
Currency	USD	USD	USD	USD	USD	USD
Exchange Rate						
-	0,007	0,007	0,007	0,006	0,005	0,005
Conversion Method	Н	Н	Н	Н	Н	Н

Appendix C. Ratios

	12	10	10	10	10	T (T) A
For the Fiscal Period Ending	12	12	12	12	12	LTM
	month	month	month	month	month	12
	S	S	S	S	S	month
	Dec-	Dec-	Dec-	Dec-	Dec-	S
	31-	31-	31-	31-	31-	Jun-
	2010	2011	2012	2013	2014	30- 2015
Profitability						2010
Return on Assets %	31,9%	36,6%	33,1%	33,0%	31,7%	31,1%
Return on Capital %	40,8%	44,7%	41,4%	43,0%	42,1%	47,5%
Return on Equity %	52,3%	57,7%	66,3%	77,6%	61,6%	81,5%
Return on Common Equity %	52,3%	57,7%	66,3%	77,6%	61,6%	81,5%
Margin Analysis						
Gross Margin %	61,7%	60,9%	58,1%	57,6%	55,1%	51,8%
SG&A Margin %	15,2%	14,4%	15,5%	14,2%	11,8%	11,9%
EBITDA Margin %	56,7%	58,3%	53,9%	54,7%	54,8%	52,6%
EBITA Margin % EBITA Margin %	45,7%	47,2%	43,6%	44,3%	43,2%	40,5%
EBIT Margin %	44,8%	46,4%	42,8%	44,5%	43,2%	40,3%
Earnings from Cont. Ops Margin %	35,9%	37,4%	34,0%	33,8%	31,1%	27,9%
Net Income Margin %	35,9%	37,4%	34,0%	33,8%	31,1%	27,9%
Net Income Avail. for Common Margin %	35,9%	37,4%	34,0%	33,8%	31,1%	27,9%
Normalized Net Income Margin %	28,2%	29,2%	26,6%	26,5%	26,4%	24,3%
	20,9%		30,4%	34,0%	28,3%	
Levered Free Cash Flow Margin % Unlevered Free Cash Flow Margin %	20,9%	21,5%		34,8%	·	15,9%
Officered Free Cash Flow Marghi %	20,9%	21,5%	30,6%	34,8%	28,8%	17,0%
Asset Turnover						
Total Asset Turnover	1,1x	1,3x	1,2x	1,2x	1,2x	1,2x
Fixed Asset Turnover	1,7x	1,9x	1,7x	1,7x	1,7x	1,8x
Accounts Receivable Turnover	27,8x	21,1x	16,2x	21,4x	26,2x	11,8x
Inventory Turnover	63,4x	48,5x	54,2x	107,6x	59,4x	32,8x
Short Term Liquidity						
Current Ratio	0,7x	1,0x	0,3x	0,5x	0,6x	0,4x
Quick Ratio	0,7x	0,6x	0,3x 0,2x	0,5x	0,5x	0,4x
Cash from Ops. to Curr. Liab.	3,8x	4,0x	1,1x	1,8x	1,4x	0,4x
Avg. Days Sales Out.	3,01	7,07	1,17	1,01	1,77	0,01
	13,1	17,3	22,6	17,0	13,9	30,9
Avg. Days Inventory Out.	5,8	7,5	6,7	3,4	6,1	11,1
Avg. Days Payable Out.	3,0	7,5	0,7	3,4	0,1	11,1
	54,8	50,5	48,4	67,7	83,1	170,0
Avg. Cash Conversion Cycle	(35,9)	(25,6)	(19,1)	(47,3)	(63,0)	(128,0)
	(33,9)	(23,0)	(19,1)	(47,3)	(03,0)	(120,0)
Long Term Solvency						
Total Debt/Equity	NA	NA	74,0%	25,4%	27,2%	80,8%
Total Debt/Capital	NA	NA	42,5%	20,3%	21,4%	44,7%
LT Debt/Equity	NA	NA	NA	NA	NA	NA
LT Debt/Capital	NA	NA	NA	NA	NA	NA
Total Liabilities/Total Assets	19,5%	17,1%	55,8%	39,0%	41,7%	61,7%
EBIT / Interest Exp.	NA	NA	120,4x	33,7x	51,6x	23,9x
	INA					
*	NT A	NT A	151 4	17 1	65 0	21 2-
EBITDA / Interest Exp.	NA NA	NA NA	151,6x	42,4x	65,9x	31,3x
*	NA NA NA	NA NA NA	151,6x 115,7x 0,5x	42,4x 35,9x 0,2x	65,9x 54,3x 0,2x	31,3x 23,0x 0,5x

T . 1 D 1 . //DDITTD 1 G 1 DDW)	37.4	27.4	0.7	0.2	0.2	0.7
Total Debt/(EBITDA-CAPEX)	NA	NA	0,7x	0,3x	0,3x	0,7x
Net Debt/(EBITDA-CAPEX)	NM	NM	0,6x	0,1x	0,1x	0,5x
Altman Z Score						
Aidhan Z Score	3,77	4,24	5,26	7,7	7,8	5,15
	3,77	.,2 .	3,20	,,,	7,0	3,13
Growth Over Prior Year						
Total Revenue	17,0%	17,2%	1,8%	3,1%	(0,0%)	(4,7%)
Gross Profit	22,8%	15,6%	(2,9%)	2,3%	(4,4%)	(14,5)
EBITDA	24,5%	20,6%	(5,9%)	4,6%	0,1%	(10,3)
EBITA	26,4%	20,9%	(5,9%)	4,7%	(2,5%)	(14,7)
EBIT	27,1%	21,3%	(6,0%)	4,7%	(1,4%)	(13,9)
Earnings from Cont. Ops.	26,8%	22,1%	(7,5%)	2,5%	(8,1%)	(23,6)
Net Income	26,8%	22,1%	(7,5%)	2,5%	(8,1%)	(23,6)
Normalized Net Income	27,8%	21,6%	(7,5%)	2,7%	(0,1%)	(15,5)
Diluted EPS before Extra	NA	NA	(7,5%)	2,5%	(8,1%)	(23,6)
Accounts Receivable	12,4%	02.70/	1 10/	(45.0)	20.40/	42.40/
	32,4%	92,7% 75,1%	1,1% (46,8)	(45,0) (48,9)	30,4% 368,0%	42,4% 62,1%
Inventory Net PP&E	2,6%	12,8%	9,9%	1,8%	(3,5%)	(3,9%)
Total Assets	6,9%	4,8%	3,2%	6,4%	(0,8%)	8,1%
Total Assets	0,770	7,070	3,270	0,470	(0,070)	0,170
Tangible Book Value	9,8%	9,4%	(50,8)	66,3%	(4,4%)	(15,6)
Common Equity	13,4%	8,0%	(44,9)	46,8%	(5,3%)	(11,5)
Cash from Ops.	53,1%	(3,5%)	5,9%	13,8%	(14,8)	(22,7)
Capital Expenditures	(6,6%)	16,7%	(5,2%)	(32,1)	13,8%	92,0%
Levered Free Cash Flow	NA	21,1%	43,6%	15,2%	(16,6)	(65,6)
Unlevered Free Cash Flow	NA	21,1%	44,6%	17,1%	(17,1)	(63,8)
Dividend per Share	NA	NA	NA	NA	(8,1%)	(8,1%)
Compound Annual Growth Rate Over Two Years						
Total Revenue	NA	17,1%	9,3%	2,4%	1,5%	(1,1%)
Gross Profit	NA	19,2%	6,0%	(0,3%)	(1,1%)	(6,6%)
EBITDA	NA	22,5%	6,5%	(0,8%)	2,3%	(2,6%)
EBITA	NA	23,7%	6,7%	(0,7%)	1,1%	(3,9%)
EBIT	NA	24,2%	6,8%	(0,8%)	1,6%	(3,8%)
Earnings from Cont. Ops.	NA NA	24,4%	6,3%	(2,6%)	(2,9%)	(9,3%)
Net Income	NA NA	24,4%	6,3%	(2,6%)	(2,9%)	(9,3%)
Normalized Net Income Diluted EPS before Extra	NA NA	24,6% NA	6,1% NA	(2,5%)	1,3%	(4,4%)
Diluted EFS before Extra	INA	INA	INA	(2,6%)	(2,9%)	(9,3%)
Accounts Receivable	NA	47,2%	39,6%	(25,4)	(15,3)	77,8%
Inventory	NA	52,3%	(3,4%)	(47,9)	54,6%	84,6%
Net PP&E	NA	7,6%	11,3%	5,8%	(0,9%)	(4,6%)
Total Assets	NA	5,8%	4,0%	4,8%	2,8%	3,5%
m "11 P 1 V 1	•••	0 551	(2.5.=)	(0.55)	0.5.4.5.	/4 /
Tangible Book Value	NA NA	9,6%	(26,7)	(9,6%)	26,1%	(4,4%)
Common Equity	NA NA	10,6%	(22,9)	(10,1)	17,9%	(3,8%)
Cash from Ops.	NA NA	21,5%	1,1%	9,7%	(1,5%)	(12,5)
Capital Expenditures	NA NA	4,4%	5,2%	(19,8)	(12,1)	16,1%
Levered Free Cash Flow	NA NA	NA NA	31,9%	28,6%	(2,0%)	NM NM
Unlevered Free Cash Flow Dividend per Share	NA NA	NA NA	32,3% NA	30,2% NA	(1,5%) NA	NM NA
Dividend her share	INA	INA	INA	INA	INA	INA
Compound Annual Growth Rate Over Three						
Years	NT A	N.T.A	11.00/	7.00/	1 (0/	0.10/
Total Revenue	NA NA	NA NA	11,8%	7,2%	1,6%	0,1%
Gross Profit	NA NA	NA NA	11,3%	4,7%	(1,7%)	(3,5%)
EBITDA	NA NA	NA NA	12,2%	5,9%	(0,5%)	(2,0%)
EBITA	NA	NA	12,9%	6,0%	(1,3%)	(3,4%)

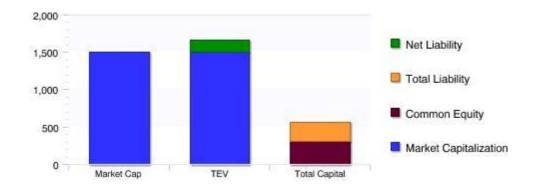
EBIT	NA	NA	13,1%	6,1%	(1,0%)	(3,2%)
Earnings from Cont. Ops.	NA	NA	12,7%	5,0%	(4,5%)	(7,8%)
Net Income	NA	NA	12,7%	5,0%	(4,5%)	(7,8%)
Normalized Net Income	NA	NA	12,9%	4,9%	(1,7%)	(4,6%)
Diluted EPS before Extra	NA	NA	NA	NA	(4,5%)	(7,8%)
						` ` `
Accounts Receivable	NA	NA	29,9%	2,3%	(10,2)	27,1%
Inventory	NA	NA	7,3%	(21,9)	8,4%	34,8%
Net PP&E	NA	NA	8,4%	8,1%	2,6%	(1,2%)
Total Assets	NA	NA	4,9%	4,8%	2,9%	0,8%
Tangible Book Value	NA	NA	(16,1)	(3,7%)	(7,9%)	40,1%
Common Equity	NA	NA	(12,3)	(4,4%)	(8,5%)	20,0%
Cash from Ops.	NA	NA	16,1%	5,1%	0,9%	(3,7%)
Capital Expenditures	NA	NA	1,1%	(9,1%)	(9,8%)	1,1%
Levered Free Cash Flow	NA	NA	NA	26,1%	11,3%	NA
Unlevered Free Cash Flow	NA	NA	NA	27,1%	12,0%	NA
Dividend per Share	NA	NA	NA	NA	NA	NA
Compound Annual Growth Rate Over Five Years						
Total Revenue	NA	NA	NA	NA	7,6%	NA
Gross Profit	NA	NA	NA	NA	6,2%	NA
EBITDA	NA	NA	NA	NA	8,2%	NA
EBITA	NA	NA	NA	NA	8,0%	NA
EBIT	NA	NA	NA	NA	8,4%	NA
Earnings from Cont. Ops.	NA	NA	NA	NA	6,2%	NA
Net Income	NA	NA	NA	NA	6,2%	NA
Normalized Net Income	NA	NA	NA	NA	8,1%	NA
Diluted EPS before Extra	NA	NA	NA	NA	NA	NA
Accounts Receivable	NA	NA	NA	NA	9,5%	NA
Inventory	NA	NA	NA	NA	24,1%	NA
Net PP&E	NA	NA	NA	NA	4,6%	NA
Total Assets	NA	NA	NA	NA	4,1%	NA
Tangible Book Value	NA	NA	NA	NA	(1,3%)	NA
Common Equity	NA	NA	NA	NA	(1,3%)	NA
Cash from Ops.	NA	NA	NA	NA	8,7%	NA
Capital Expenditures	NA	NA	NA	NA	(4,4%)	NA
Levered Free Cash Flow	NA	NA	NA	NA	NA	NA
Unlevered Free Cash Flow	NA	NA	NA	NA	NA	NA
Dividend per Share	NA	NA	NA	NA	NA	NA

Appendix D. Key Statistics

12	12	12	12	LTM ²	12	12	12
month	month	month	month	12	months	month	month
S	S	S	S			S	S
				S			Dec-
					2015E		31-
2011A	2012A	2013A	2014A			2016E	2017E
USD	USD	USD	USD		USD	USD	USD
						_	682,08
17,2%	1,8%	3,1%	(0,0%)	(4,7%)	(6,19%)	0,16%	4,54%
					_	_	-
733,0	703,2	700,6	566,9	505,0			
60,9%	58,1%	57,6%	55,1%	51,8%	-	-	-
1							
701,9	652,7	664,9	563,6	512,5	329,57	334,31	347,56
58,3%	53,9%	54,7%	54,8%	52,6%	50,59%		
						51,24	50,96
						%	%
558,3	518,2	528,7	441,5	392,2	239,14	251,78	247,84
46,4%	42,8%	43,5%	42,9%	40,2%	36,71%	,	/
						38,59	36,34
						%	%
					_	_	
450.3	411.3	410.8	319.6	272.1	_	_	_
37,4%	34,0%	33,8%	31,1%	27,9%	-	-	-
450.3	411.2	410.0	210.6	272.1	170 22	101 22	202.12
						191,22	202,13
37,470	34,070	33,070	31,170	27,270	27,3770	29 31	29,63
							%
			,	1,36	0,92	,	0,96
NA NA	(7,5%)	2,5%	(8,1%)	(22 60/	(14.520/	3,98%	0,56%
				(23,0%)	(14,52%)		
				,	,		
Tion	Tiup	Tiup	Hab	Hab	Hab	Hab	Tiup
USD	USD	USD	USD	USD	USD	USD	USD
0,007	0,007	0,006	0,005	0,005	0,004	0,004	0,004
	month s Dec- 31- 2011A USD 1 204,1 17,2% 733,0 60,9% 701,9 58,3% 450,3 37,4% 450,3 37,4% USD USD	month month s Dec- 31- 31- 2011A 2012A USD USD 1 204,1 1 210,7 17,2% 1,8% 701,9 652,7 58,3% 53,9% 46,4% 42,8% 450,3 411,3 37,4% 34,0% 450,3 411,3 37,4% 34,0% USD USD	month month month S Dec- Jec- 31- 31- 31- 2011A 2012A 2013A USD USD USD 1 204,1 1 210,7 1 215,6 17,2% 1,8% 3,1% 701,9 652,7 664,9 58,3% 53,9% 54,7% 46,4% 42,8% 43,5% 450,3 411,3 410,8 37,4% 34,0% 33,8% 450,3 411,3 410,8 37,4% 34,0% 33,8% USD USD USD	month month month month S Dec- 31- 2011A Dec- 31- 2012A Dec- 31- 2013A 31- 2014A USD USD USD USD 1 204,1 1 210,7 1 215,6 1 028,8 17,2% 1,8% 3,1% (0,0%) 733,0 703,2 700,6 566,9 60,9% 58,1% 57,6% 55,1% 701,9 652,7 664,9 563,6 58,3% 53,9% 54,7% 54,8% 46,4% 42,8% 43,5% 42,9% 450,3 411,3 410,8 319,6 37,4% 34,0% 33,8% 31,1% 450,3 411,3 410,8 319,6 37,4% 34,0% 33,8% 31,1% USD USD USD USD	month month month month s s month s	month s s s s s month to to to to to to to	month s S S S S S S S S S S S S S S S S S S

Currency	USD
Share Price as of Sep-28-2015	\$7,48
Shares Out.	200,0
Market Capitalization**	1 496,9

- Cash & Short Term Investments	83,0
+ Total Debt	253,2
+ Pref. Equity	1
+ Total Minority Interest	1
= Total Enterprise Value (TEV)	1 667,2
Book Value of Common Equity	313,4
+ Pref. Equity	1
+ Total Minority Interest	1
+ Total Debt	253,2
= Total Capital	566,6



For the Fiscal Period Ending	12 months Dec-31- 2014A	LTM 12 months Jun-30- 2015A	12 months Dec-31- 2015E	12 months Dec-31- 2016E	12 months Dec-31- 2017E
TEV/Total Revenue	1,5x	1,7x	1,85x	1,84x	1,76x
TEV/EBITDA	2,8x	3,3x	3,65x	3,60x	3,46x
TEV/EBIT	3,5x	4,3x	5,03x	4,78x	4,85x
P/Diluted EPS Before Extra	4,8x	5,5x	5,60x	5,38x	5,35x
P/BV	3,0x	4,8x	3,33x	3,08x	3,03x
Price/Tang BV	3,5x	6,3x	-	-	-

Appendix E. Cash Flow

For the Fiscal Period Ending	12 months Dec-31- 2010	12 months Dec-31- 2011	12 months Dec-31- 2012	12 months Dec-31- 2013	12 months Dec-31- 2014	LTM 12 months Jun-30- 2015
Currency	USD	USD	USD	USD	USD	USD
Net Income	371,7	450,3	411,3	410,8	319,6	272,1
Depreciation & Amort.	113,5	134,1	125,1	126,7	119,4	117,6
Amort. of Goodwill and Intangibles	9,2	9,5	9,3	9,5	2,8	2,7
Depreciation & Amort., Total	122,7	143,6	134,5	136,2	122,2	120,3
Other Amortization	10,2	10,6	17,1	13,7	16,0	15,6
(Gain) Loss From Sale Of Assets	1,7	0,9	0,9	0,5	-	-
Asset Writedown & Restructuring Costs	-	-	-	-	20,2	19,8
Provision & Write-off of Bad debts Other Operating	2,2	1,8	2,9	4,8	5,4	5,3
Activities Change in Acc.	5,4	(7,3)	0,6	7,3	(5,1)	(12,0)
Receivable Change In Inventories	23,8	(32,5)	(5,1)	28,3	(27,2)	(26,6)
Change in Acc. Payable	(1,7)	(5,3)	5,7	3,1	(10,1)	(9,9)
Change in Unearned Rev.	25,9	(6,5)	0,7	19,3	13,2	12,9
Change in Inc. Taxes	9,8	(0,1)	(7,8)	8,7	8,0	7,9
Change in Other Net	4,3	(1,7)	(1,0)	3,9	(4,8)	(4,7)
Operating Assets Cash from Ops.	(3,1) 572,8	(5,5) 548,3	13,6 573,3	(0,9) 635,4	0,9 458,3	(18,8) 381,9
Capital Expenditure	(142,8)	(165,3)	(154,7)	(102,4)	(98,6)	(136,0)
Cash Acquisitions Divestitures	-	-	-	-	-	-
Sale (Purchase) of Intangible assets	(49,1)	(18,6)	(11,4)	(9,8)	(10,0)	(9,8)
Invest. in Marketable & Equity Securt. Net (Inc.) Dec. in Loans	-	-	-	-	-	-
Originated/Sold Other Investing Activities						
Cash from Investing	(191,9)	(183,9)	(166,2)	(112,2)	(108,7)	(145,9)
Short Term Debt Issued	-	-	355,2	174,3	72,4	
Long-Term Debt Issued Total Debt Issued	-	-	-	-	-	-

			355,2	174,3	72,4	70,9
Short Term Debt Repaid	-	-	(33,3)	(333,1)	(71,0)	-
Long-Term Debt Repaid	-	-	-	-	-	-
Total Debt Repaid	-	-	(33,3)	(333,1)	(71,0)	(69,5)
Common Dividends Paid	(255.7)	(390,6)	(717.6)	(261.9)	(242.2)	(551.0)
Total Dividends Paid	(355,7)	(390,6)	(717,6) (717,6)	(261,8) (261,8)	(243,3) (243,3)	(551,0) (551,0)
Total Dividends Paid	(355,7)	(390,6)	(717,6)	(261,8)	(347,7)	(653,2)
Special Dividend Paid	-	-	-	-	(104,4)	(102,2)
Other Financing Activities	-	-	-	-	-	471,4
Cash from Financing	(355,7)	(390,6)	(395,7)	(420,5)	(346,3)	(180,5)
Foreign Exchange Rate Adj.	-	-	-	-	-	1,6
Net Change in Cash	25,2	(26,2)	11,5	102,6	3,3	57,2
Supplemental Items						
Cash Interest Paid	NA	NA	0,3	14,2	8,3	8,1
Cash Taxes Paid	NA	120,2	106,9	97,7	96,8	94,7
Levered Free Cash Flow	215,8	259,3	367,8	412,8	291,3	155,3
Unlevered Free Cash Flow	215,8	259,3	370,5	422,6	296,6	165,5
Change in Net Working Capital	15,1	59,9	(61,2)	(54,5)	8,8	69,7
Net Debt Issued	NA	NA	321,9	(158,8)	1,4	1,3
Filing Date	дек-12- 2012	май-02- 2013	апр-30- 2014	апр-30- 2015	апр-30- 2015	июл-17- 2015
Restatement Type	NCA	NC	NC	NC	O	O
Calculation Type	REP	REP	REP	REP	REP	LTM
Currency	USD	USD	USD	USD	USD	USD
Exchange Rate	0,007	0,007	0,007	0,006	0,005	0,005
Conversion Method	Н	Н	Н	Н	Н	Н

Appendix G.

	USD/KZT	Oil Price	Bonds	CDS
07.10.2015	243,722	51,22	3,02%	3,09%
06.10.2015	243,722	51,47	3,09%	3.04%
05.10.2015	243,722	48,49	3,21%	3,03%
04.10.2015	243,722	47,41	3,39%	2,91%
03.10.2015	243,722	47,41	3,33%	2,91%
02.10.2015	243,722	47,41	3,41%	3,04%
01.10.2015	243,722	47,19	3,51%	3,05%
30.09.2015	243,722	47,13	3,35%	3,06%
29.09.2015	243,722	46,46	3,19%	3,09%
28.09.2015	243,722	45,86	3,24%	3,19%
27.09.2015	243,722	46,67	3,15%	3,20%
26.09.2015	243,722	46,67	3,14%	3,07%
25.09.2015	243,722	46,67	2,99%	3,42%
24.09.2015	243,722	46,59	2,97%	3,30%
23.09.2015	243,722	45,92	3,01%	3,21%
22.09.2015	243,722	47,22	2,94%	3,21%
21.09.2015	243,722	46,93	3,01%	3,15%
20.09.2015	243,722	46,15	3,11%	3,08%
19.09.2015	243,722	46,15	3,05%	2,98%
18.09.2015	243,722	46,15	3,00%	2,99%
17.09.2015	243,722	47,61	2,94%	3,05%
16.09.2015	243,722	47,95	3,01%	3,06%
15.09.2015	243,722	46,12	3,07%	3,12%
14.09.2015	243,722	45,52	3,08%	3,09%
13.09.2015	243,722	47,41	3,09%	3,07%
12.09.2015	243,722	47,41	3,20%	3,02%
11.09.2015	243,722	47,41	3,11%	3,01%
10.09.2015	243,722	48,08	3,10%	3,07%
09.09.2015	243,722	46,49	3,12%	3,04%
08.09.2015	243,722	48,24	3,13%	3,13%
07.09.2015	243,722	46,9	3,53%	3,06%
06.09.2015	243,722	48,68	3,58%	3,22%
05.09.2015	243,722	48,68	3,82%	3,24%
04.09.2015	243,722	48,68	3,55%	3,11%
03.09.2015	243,722	49,97	3,77%	3,26%
02.09.2015	243,722	49,7	3,50%	3,29%
01.09.2015	243,722	47,56	3,33%	3,43%
31.08.2015	243,722	51,28	3,32%	3,09%
30.08.2015	243,722	48,27	3,22%	3,33%
29.08.2015	243,722	48,27	3,16%	3,04%
28.08.2015	243,722	48,27	3,23%	2,97%

Appendix I

					Frequency: Monthly
	Dividend yield	Earnings			observation_date TB3MS
15.июн	2,09%	15.июн	94,63	-6%	15.июн 0,02%
Mar 31, 2015	1,96%	Mar 31, 2015	100,17	-2%	Mar 31, 2015 0,02%
Feb 28, 2015	1,94%	Feb 28, 2015	101,81	-1%	Feb 28, 2015 0,02%
Jan 31, 2015	1,97%	Jan 31, 2015	103,29	-1%	Jan 31, 2015 0,03%
Dec 31, 2014	1,92%	Dec 31, 2014	103,84	-1%	Dec 31, 2014 0,02%
Nov 30, 2014	1,91%	Nov 30, 2014	104,48	-1%	Nov 30, 2014 0,03%
Oct 31, 2014	2,00%	Oct 31, 2014	105,13	-1%	Oct 31, 2014 0,03%
Sep 30, 2014	1,93%	Sep 30, 2014	106,09	1%	Sep 30, 2014 0,02%
Aug 31, 2014	1,94%	Aug 31, 2014	105,22	1%	Aug 31, 2014 0,02%
Jul 31, 2014	1,91%	Jul 31, 2014	104,1	1%	Jul 31, 2014 0,02%
Jun 30, 2014	1,92%	Jun 30, 2014	103,11	1%	Jun 30, 2014 0,03%
May 31, 2014	1,96%	May 31, 2014	102,54	0%	May 31, 2014 0,03%
Apr 30, 2014	1,96%	Apr 30, 2014	102,14	0%	Apr 30, 2014 0,04%
Mar 31, 2014	1,94%	Mar 31, 2014	101,71	0%	Mar 31, 2014 0,03%
Feb 28, 2014	1,97%	Feb 28, 2014	102,15	0%	Feb 28, 2014 0,03%
Jan 31, 2014	1,94%	Jan 31, 2014	102,31	0%	Jan 31, 2014 0,05%

	Growth in	earnings	Long-term dividend yield	T-Bills	GGM	
15.июн	94,63	-6%	2,09%	0,02%	Mar 31, 2015	3,39%
Mar 31, 2015	100,17	-4%	1,96%	0,02%	Dec 31, 2014	3,97%
Dec 31, 2014	103,84	-2%	1,92%	0,02%	Sep 30, 2014	4,65%
Sep 30, 2014	106,09	3%	1,93%	0,02%	Jun 30, 2014	5,51%
Jun 30, 2014	103,11	1%	1,92%	0,03%	Mar 31, 2014	22,46%
Mar 31, 2014	101,71	-1%	1,94%	0,03%	Dec 31, 2013	26,21%
Dec 31, 2013	102,46	7%	1,94%	0,05%	Sep 30, 2013	26,31%
Sep 30, 2013	96,05	3%	2,04%	0,07%	Jun 30, 2013	23,21%
Jun 30, 2013	92,82	3%	2,06%	0,04%	Mar 31, 2013	19,40%
Mar 31, 2013	89,8	0%	2,07%	0,04%	Dec 31, 2012	18,77%
Dec 31, 2012	89,79	1%	2,20%	0,10%	Sep 30, 2012	17,79%
Sep 30, 2012	89,08	-2%	2,05%	0,09%	Jun 30, 2012	17,35%
Jun 30, 2012	91,31	-1%	2,14%	0,10%	Mar 31, 2012	16,48%
Mar 31, 2012	91,98	2%	1,97%	0,09%	Dec 31, 2012	15,91%
Dec 31, 2012	89,79	-2%	2,20%	0,10%	Sep 30, 2011	16,10%
Sep 30, 2011	91,36	3%	2,15%	0,01%	Jun 30, 2011	15,91%
Jun 30, 2011	88,55	2%	1,89%	0,02%	Mar 31, 2011	16,00%

Appendix J

	Inflati	Dividend	P/E	Change		GD			20 year	20 Year
	on	yield	ratio			P			BONDS	TIPS
Oct 14, 2015	0,20%	2,09%	20,12	0,1085 4	Mar 31, 2015	16, 3	0,1 %	201 5	2,49%	0,96%
Jan 1, 2014	1,62%	1,92%	18,15	0,0657 66	Dec 31, 2014	16, 29	2,3 %	201	2,20%	0,50%
Jan 1, 2013	1,46%	1,94%	17,03	0,1452 59	Dec 31, 2013	15, 92	3,2	201	3,52%	1,17%
Jan 1, 2012	2,07%	2,20%	14,87	0,0877	Dec 31, 2012	15, 43	1,6	201	2,68%	0,20%
Jan 1, 2011	3,16%	2,13%	16,3	0,2125	Dec 31, 2011	15, 19	1,7 %	201	2,70%	0,51%
Jan 1, 2010	1,64%	1,83%	20,7	0,7080 81	Dec 31, 2010	14, 94	2,8 %	201	4,28%	1,70%
Jan 1, 2009	0,36%	2,02%	70,91	2,3042 87	Dec 31, 2009	14, 54	0,3	200 9	4,50%	2,00%
Jan 1, 2008	3,84%	3,23%	21,46	0,2361 75	Dec 31, 2008	14, 58	2,7	200 8	3,46%	2,46%
Jan 1, 2007	2,85%	1,87%	17,36	0,0392 92	Dec 31, 2007	14, 99	1,8	200 7	4,35%	1,81%
Jan 1, 2006	3,23%	1,76%	18,07	0,2050 15	Dec 31, 2006	14, 72	2,4 %	200 6	4,95%	2,42%
Jan 1, 2005	3,39%	1,76%	22,73	0,1370 69	Dec 31, 2005	14, 37	3,0	200 5	4,65%	2,05%
Jan 1, 2004	2,66%	1,62%	19,99		Dec 31, 2004	13, 95		200 4	4,77%	1,98%

	Inflation	GDP growth	expected growth in P/E ratio	Expected div yield	T-Bonds 10 years
2015	1,52%	2,5%		3,01%	2,06%
2014	1,69%	2,7%		2,93%	2,86%
2013	2,32%	2,4%		3,07%	1,91%
2012	2,48%	1,6%		3,17%	1,97%
2011	2,18%	2,2%		2,98%	3,39%
2010	2,54%	1,2%		2,93%	3,73%