FINANCE REPORT
ORKUVEITA REYKJAVÍKUR
(OR; REYKJAVIK ENERGY)

2016

MARCH, 2017

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1 Summary

Implementation of The Plan, a joint action by OR and its owners, realized significant improvements in OR´s financial position. The Plan included cuts in operations, sale of assets, lowering of financing cost and adjustment of tariffs, among other actions. The financial goals of The Plan were reached in mid-2015, a year and a half ahead of schedule. However, the action plan was still in full effect throughout 2016 with the aim of further strengthening OR´s financial foundation. The results of The Plan have now been manifested and amount to more than ISK 60 billion, which far exceeds the goals set forth in the beginning.

The Board and management of OR established other goals, both financial and nonfinancial, i.e. on environmental matters. All the goals were intended to strengthen OR´s financial health to the utmost, for the benefit of OR´s customers and owners. Much has been accomplished these last few years. Not least OR´s greatly improved access to international financial institutions. OR´s finances have strengthened considerably and can now be compared with other companies in similar sectors. Furthermore, financial risk has been reduced as well as operating risk, yet OR continues to strive for improvements in these areas.

Hedging contracts now cover interest, aluminium price and currency exchange (incl. ISK) with up to five years' maturity. Economic risk due to foreign currency exchange rates has been reduced by ON´s operational currency being in USD as well as by increased hedging.

Financial planning has been overhauled with increased emphasis on goalsetting and by defining values for key financial indicators, in tune with the owner's policy and OR´s overall policy. Decisions were reached to simplify the planning procedures and to adopt the method "Beyond Budgeting"[1]. By adopting this method OR is aiming for a simpler and more independent culture within the company, where decisions are made in a timely manner when needed.

OR still faces challenges and its focus is on reducing risk and improving financial stability.

The purpose of this report is threefold:

- *To improve awareness and knowledge of OR´s financial management and position.*
- *To reflect on what has been done well and what can be improved.*
- *To put in place measurable goals for both the short and the long term.*

These goals are all suited to support OR´s improved financial position.

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[1] www.bbrt.org

2 Requirements for dividend payments

Key indicators of OR´s liquidity are monitored closely. Benchmarking with other companies in similar sectors is important, although no company corresponds exactly to OR, i.e. is in the same country, operating in the same market environment and in the same business sector.

The owners and the Board of Directors decided in November 2015 which financial indicators should determine whether to pay dividends as well as what their values should be in order to do so, both before and after payment of dividends. Thus a common goal of solid financial foundation for OR and a benchmark for paying out dividends was set forth without compromising OR‘s financial strength.

The company‘s position at year-end 2016:

Financial ratios	Goal 2016-2018	Goal 2019 >	OR	Landsvirkjun	HS Orka	HS Veitur	Rarik 2015*	Vattenfall
Current ratio	> 1.0	> 1.0	**0.8**	0.7	0.6	2.5	1.3	1.2
Equity ratio	> 35%	> 40%	**40.4%**	45.4%	66.7%	42.3%	61.7%	20.5%
FFO Interest coverage	> 3.5x	> 3.5x	**4.9x**	4.6x	20.2x	3.6x	4.1x	4.2x
RCF/ net debt	> 11%	> 13%	**15.9%**	10.5%	39.6%	19.8%	19.6%	NA
FFO/ net debt	> 13%	> 17%	**15.9%**	12.0%	39.6%	19.8%	21.8%	22.6%
ROCE			**5.2%**	4.4%	0.8%	6.4%	4.6%	-8.5%
Moody's	Baa	Baa	**Ba2 Stable**	Baa3 Stable	NA	NA	NA	A3 Negative
Fitch Ratings	BBB	BBB	**BB Stable**	NA	NA	NA	NA	BBB+ Stable

**Financial information for 2016 not available.*

The indicators represent the companies´ financial strength and the table above depicts OR´s goal for each indicator. Current ratio describes the company´s strength to service its obligations in the near future and liquidity for the next 12 months. OR´s current ratio has improved and the goal is to keep the current ratio above 1.0. OR was active in the Icelandic bond market in 2016 and issued three tranches of bonds in addition to a short term note. Current ratio has improved and the goal is expected to be reached in 2017. A company´s financial strength is greater as its equity ratio is higher. The interest coverage ratio is indicative of a company´s ability to service interest payments on its debt. OR´s average interest rate on its loan portfolio is favorable and interest payments reflect that, resulting in a high interest coverage ratio. Funds from operations against net debt indicates an entity‘s ability to service its debt. For OR, the indicator has been improving as the company has been focusing on paying off long term debt and increasing cash and cash equivalents.

Rating agencies have expressed their satisfaction with OR´s financial indicators and that the conditions set forth are suitable to keep OR financially sound in the future, both before and after payment of dividends.

3 Liquidity management

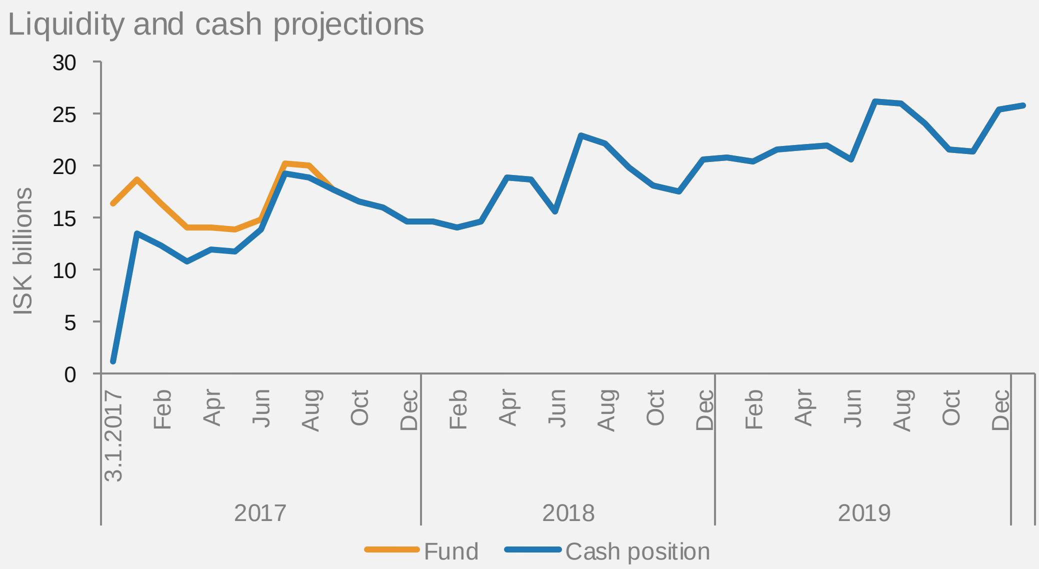
Liquidity management involves investing liquid cash in the short and long term. The aim of liquidity management is to maximize return with regards to risk.

OR has emphazised on short term investments as instalments have been relatively high and will be approximately ISK 13.5 billion annually for the next few years. Refinancing, however, creates an opportunity to look further ahead. A new cash flow projection method has been implemented in conjunction with other financial planning[2]. Financial plans including cash flow projections are now updated quarterly, allowing for a closer observation of the cash position from day to day. This, in turn, creates an opportunity to manage cash position with regard to returns, financing and foreign currency buying. Liquidity management needs to look at all these parameters in conjunction.

OR´s investment framework is considered when decisions on investment opportunities are evaluated. OR´s risk policy is also used in this regard. One of OR´s goals is to maintain a current ratio above one as the ratio shows OR´s capacity to service payments in the next twelve months. The aim is to reach this goal with active liquidity management and improved access to borrowing.

3.1 Cash flow management

Cash flow management follows the flow of funds, in all currencies, on a daily basis. The cash flow report is updated daily, obtaining information from OR´s main financial systems. It is important to monitor actual positions of bank accounts in conjunction with expected inflow and outflow. The ouflow stems from, for example, payments of bills, instalments and hedging. The graph below shows OR´s cash position based on the adopted consolidated budget.



The blue line shows the actual cash position at the beginning of 2017 and the orange line shows actual cash position, including time deposits. The cash flow forecast is based on the adopted budget for 2017 – 2022, including planned borrowing of ISK 29 billion over 4 years.

In addition, OR has at its disposal, unused revolving credit facilities of ISK 9 billion, until the year 2020.

[2] Beyond Budgeting

3.2 Return and investment framework

The goal is to maximize return of OR´s cash and cash equivalents with regards to risk but investments are subject to OR´s needs at any time. The choice of investment options is decided in conjuction with OR´s investment framework adapted by The Risk Committee in 2016. The investment framework was updated in 2016, in accordance with the review of OR´s risk policy.

Goal:

- *To maximize return on cash with respect to currency, type of asset and risk.*

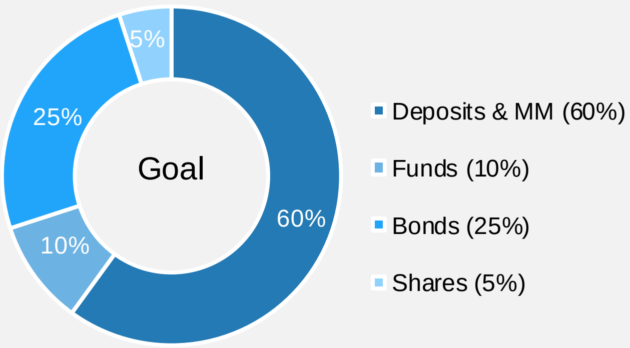
OR´s investment framework lays out the course for managing the asset portfolio in the short and long term. The framework is reviewed every year.

OR´s cash is mainly invested in deposits, time deposits and cash funds. A part of the cash is with asset management funds at financial institutions.

Investment framework:	Goal	Minimum	Maximum
Available within 30 days	*Est. outflow < 30 daga*	*100%*	N/A
Available in foreign currency (including expected inflows and outflows of foreign currency)	*100% < 12 months*	*60% < 12 months*	140% < 12 months
Term deposits and MM	60%	0%	90%
Cash funds	10%	0%	30%
Bonds and bond funds*	25%	10%	70%
Shares and share funds*	5%	0%	15%

* *According to the risk policy, bonds and stocks non-related to the core business shall not exceed 5% of consolidated equity. Currently, OR´s position exceeds this mark.*

Current ratio has been < 1.0 in the past few years and investments have primarily been in deposits and liquid assets. In addition, OR owns a bond and stocks in a company related to OR´s core business. These stocks and bonds are outside the realm of daily cash flow management. The asset type distribution in the portfolio is thus less than is aimed for, according to the investment framework, and the concentration of issuers is greater.



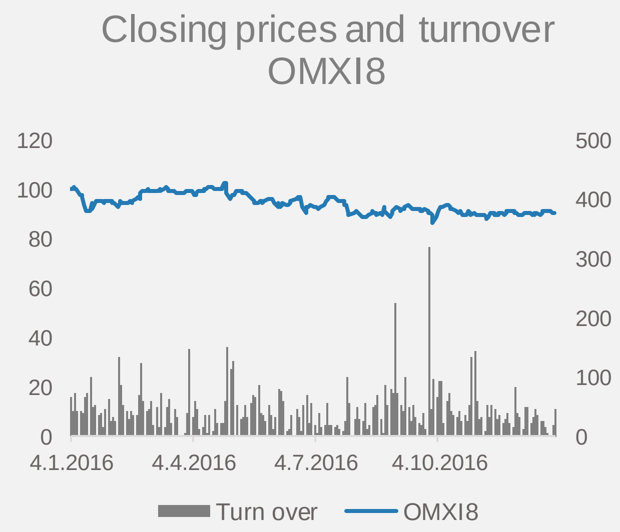
At year-end 2016, the current ratio was 0.8 and the cash position was strong. Treasury will review OR´s investment framework focusing on the maturity of bonds considered for investment. In monitoring counterparty- and issuer risk, a comparison is made between local financial institutions OR is doing business with. (Presented in Addendum A).

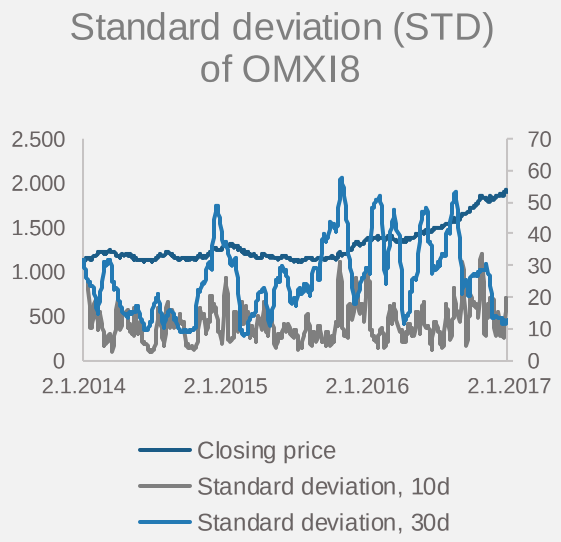
Goal for 2017, considering risk and the investment framework:

- *Maximize return on cash with regard to currency, asset type and risk.*

Circumstances and prospects

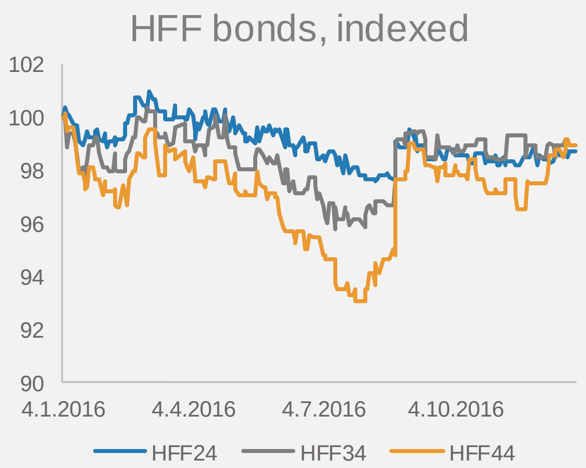
The graphs below show developments in both the stock and bond markets in Iceland. Common approach is to consider the market turnover, volatility (standard deviation) and price. Results in the past do not guarantee or forecast results in the future but are indicative of fluctuations.

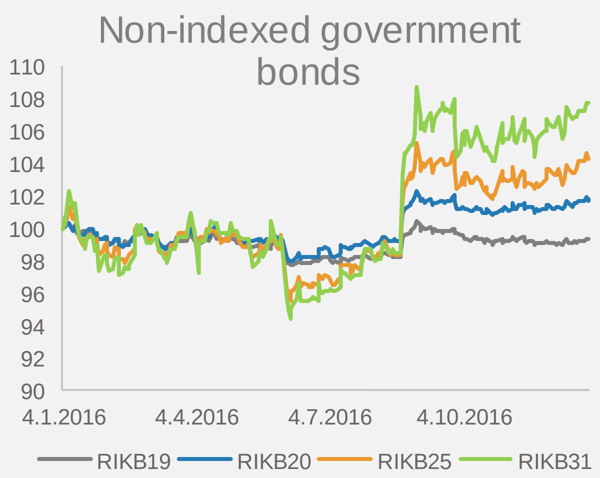




Sourcer: http://www.nasdaqomxnordic.com/

In 2016 the OMXI8 went down by 9.4% mainly due to the lowering of the market price of one of the two largest companies trading on the Icelandic Stock Exchange. When looking at the OMXI8 it is also important to keep in mind that companies which report in foreign currency weigh quite large in the index. These companies are affected by the ISK, which strengthened considerably in 2016. Overall volume in the market increased by 40% between 2015 and 2016. In August 2016, The Central Bank lowered the key interest rate unexpectedly, which resulted in a spike in the yield on government bonds, but in the first few months of 2016, yields had been relatively low. Yield on indexed and non-indexed goverment bonds therefore increased substantially in the last two quarters of 2016.





Source: http://www.nasdaqomxnordic.com/

3.3 Foreign currency purchases

Goal:
- *Expected inflow of foreign currency as a percentage of expected outflow of foreign currency should be 100%*

In 2016 OR was an active buyer in the foreign exchange market and bought foreign currency to meet outflow for the year but also to maintain the level of expected outflows at 100%. About half of Magma bond was paid in 2016 or roughly ISK 4 billion, or 36 million USD, which reduced OR´s need for foreign currency at year-end. With the strenghtening of the ISK, the percentage of foreign currency in deposits has reduced considerably. OR´s foreign exchange in- and outflows are further discussed in Chapter 5.2.1. on currency risk.

OR´s Treasury Department monitors the FX-market closely as well as economic indicators related to OR´s funding currencies. The department continues to look for the most favorable terms on foreign currency.

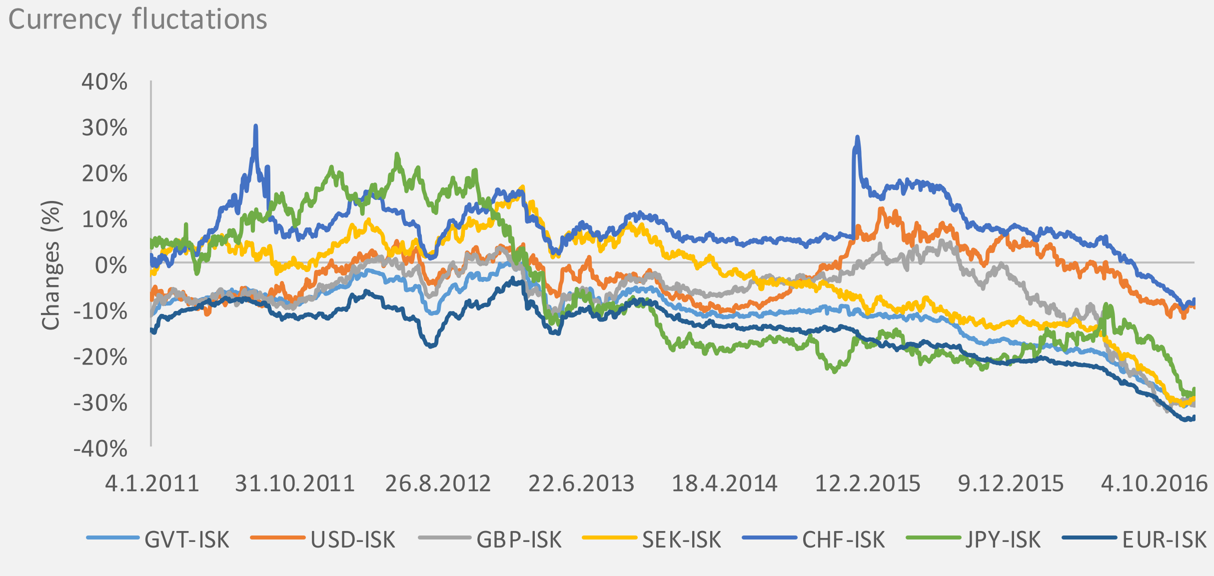
Around 62.6% of OR´s loans are in foreign currencies but that percentage was 73.3% in 2015. This shows that there has been quite a success in lowering foreign debt but 85.9% of OR´s revenues are in ISK. Therefore it is important that the company is active in the foreign exchange market. Payments of loans in foreign currency have been quite high in recent years but OR has actively been taking measures to reduce foreign currency debt. On that note, in 2017, foreign currency loan payments are 73% of next year´s payments.

Goal for foreign currency purchases in 2017:

- *That expected inflow of foreign currency as a percentage of expected outflow should be 100%, 60% at minimum and 140% maximum.*

Circumstances and outlook

In 2016, inflows of foreign exchange increased, volume in foreign exchange markets grew and the foreign currency reserves at the Central Bank increased quite considerably. The Central Bank bought foreign currency with the aim of increasing its foreign currency reserves as a measure to respond to the lifting of capital controls. Yet, despite extensive buying of foreign currency, the ISK strenghtened by 18.4% in 2016. The Icelandic Central Bank bought foreign currency for ISK 386 billion in 2016.



Source: The Central Bank og Iceland, website : www.sedlabanki.is

4 Financing

One of the main functions of Treasury, planning and analysis is to source favorable financing for OR. Since 2011, OR has emphasized strengthening its relationship with domestic and international financial institutions. The company regularly updates its current and potential financial clients and publishes material on OR´s financial position, OR´s policy and progress of the Plan. This work has been successfull beyond expectations.

Goal:

- *Net Debt / EBITDA < 5.0*
- *Current Ratio > 1.0*
- *Ensure financing and financing plan for the next 5 years.*

OR´s funding opportunities are steadily increasing and new opportunities and solutions are constantly being sought. OR´s scope for borrowing, credit lines and hedging have all improved.

As mentioned before, The Plan has been more successful than anticipated and OR´s financial position has improved considerably. OR´s cash at year-end 2016 was ISK 16.4 billion, including cash and cash equivalents, term deposits and marketable securities. OR established a platform for bonds and short term notes in 2016 and issued three tranches of bonds with different maturities; indexed annuity bonds maturing in 2046, indexed annuity bonds maturing in 2024 and coupon bonds maturing in 2022. Additionally, OR issued a short term note for 9 months, maturing on March 30th 2016. New funding amounted to ISK 8 billion in 2016, in addition to a change in terms of a bond owned by Lífeyrissjodur Verslunarmanna, which matured in December 2016. A part of the bond was extended until 2018 and a part of it was refinanced with a new tranche in a bond issued by OR, OR090546. An agreement was made with the European Investment Bank (EIB) of a revolving loan amounting to EUR 70 million. The loan from the EIB has not been withdrawn.

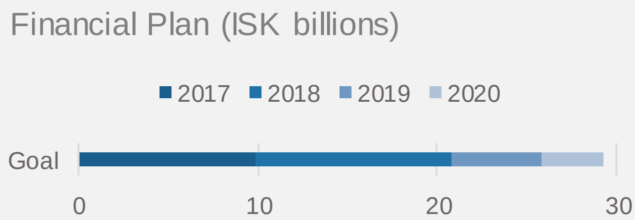
In order to reach goals of a strong liquidity position and a stronger current ratio, the budget from November 2016 forecasts financing of ISK 9.9 billion in 2017, in addition to ISK 19.4 billion in 2018-2020. The financing is considered necessary due to the need to finance new investments and to strengthen OR´s liquidity position. Budgeted borrowing is revaluated in conjunction with reviews of OR´s Borrowing Plan which is a part of OR´s continuous budgeting[3].

OR has presented a goal for borrowing in line with the budgets for 2017-2022, allowing for necessary changes. The budget is reviewed and revised quarterly, thus the borrowing plan can change. However, the position of the company is well monitored at any given time as well as market conditions. Both domestic and international borrowing is planned as follows:

ISK billions	2017	2018	2019	2020	Total
Borrowing of OR consolidated	9.875	10.875	5.000	3.500	**29.250**

OR´s borrowing opportunities are:

- *Loans from institutional banks i.e. NIB, EIB and CEB.*
- *Issuing bonds domestically.*
- *Loans from commercial banks, domestic or foreign.*
- *Issuing bonds abroad.*



[3] Beyond Budgeting

The process of evaluating most favorable terms and types of borrowing is underway, both for this year and the following five years. Every new borrowing executed requires an evaluation of the loan portfolio considering parameters such as currency, interest rate, maturity and risk.

OR´s Board of Directors has approved the issuing of bonds from October 2016 to year-end 2017 for a total amount up to ISK 16 billion. Within that framework, financing of ISK 5 billion has already been completed in the form of bonds and a bank loan. OR will focus on domestic borrowing in 2017 as well as looking into foreign borrowing. OR´s borrowing platform established in 2016 makes financing in the domestic financial market easier, quicker and more cost effective. Furthermore, it provides more options when it comes to financing in the short and long term.

Discussions with more international banks about long term borrowing are well underway and more international and domestic financial institutions have demonstrated interest in OR, when it comes to lending.

OR´s financial report for 2016 shows that net interest bearing debt / EBITDA = 6.0 but the goal for 2016 was to reach < 6.0.

Future goals to reach stronger financial health involve:

- *Net interest bearing debt/EBITDA < 5.0*
- *Current ratio > 1.0*

4.1.1 Instalment patterns and interest terms

OR has worked towards deleveraging by paying down its debt.

Goal:
- *Decrease debt ratio*
- *Keep interest coverage > 3.5*
- *Positive interest rate differential*

Since The Plan was launched, OR has paid ISK 69.8 billion in instalments.

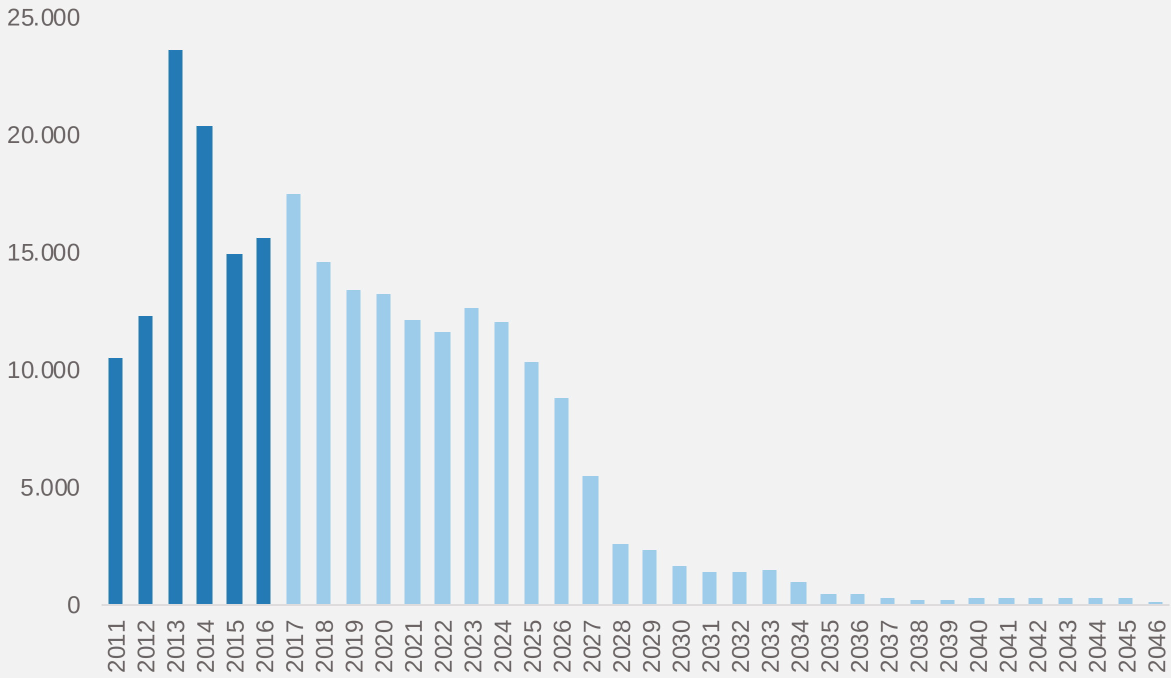
The weighted average interest rate on OR´s current loan portfolio is 1.97%. This rate is very favorable both in an historical context and in comparison with financing terms in Iceland today. Contrary to low interest rates in Europe, the high Icelandic base rate pushes up interest rates in Iceland. OR has focused on fixing interest rates in foreign currencies in order to reduce risk.

OR´s interest coverage was 4.9 at year-end 2016 indicating a good capacity to service debt. This compares favorably to benchmark firms as can be seen in Chapter 2. OR aims at maintaining an interest coverage > 3.5.

OR´s equity ratio is 40.4% but as presented in the table for key ratios, the aim is to keep it above 35% after paying dividends for the period 2016-2018 and 40% after the year 2019.

For the next five years OR plans to annually pay down debt by ISK 13.5 billion, on average.

(ISK millions)

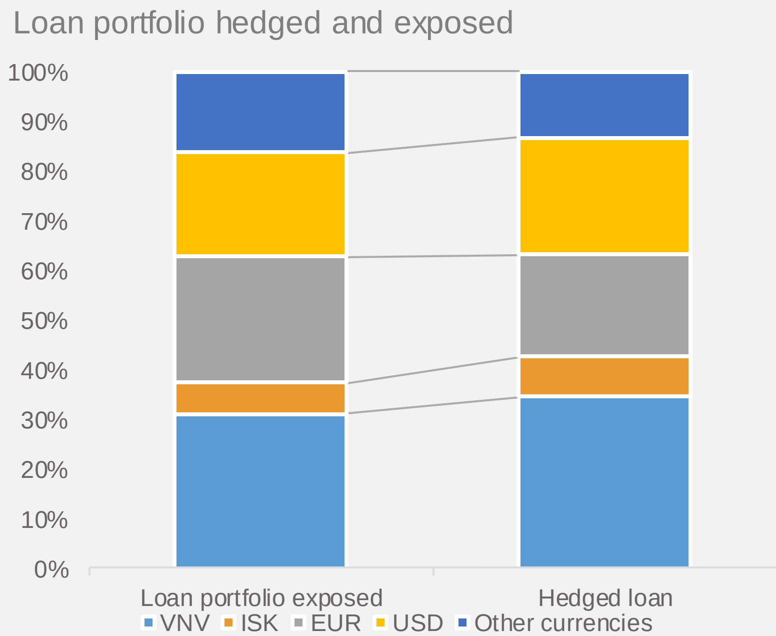


Loan instalments for 2016 were close to ISK 20 billion but will be about ISK 15 billion a year in the next two years. After that period, instalments decrease in conjunction with lower interest bearing debt, as presented in the above picture.

OR´s existing hedging contracts reduce the imbalance between currencies in its loan portolio. Effects of the loans´ currency fluctuations and effect of interest rates are also fixed for the next five years.

This chart displays the effect of currency hedging on the loan portfolio. The first column shows the state of the portfolio without hedging. The column on the right shows how the risk hedging contracts reduce the weight of other currencies than the USD and CPI-indexed ISK (VNV).

See more details in Chapter 5.2.1. on currency risk.



5 Risk management

OR´s Board of directors has adopted a risk policy which is reviewed and updated annually. The Board´s policy aims at increasing risk awareness throughout OR in all its operations. This supports responsible and efficient decision making and management. The risk policy reflects the Board´s vision and main goals. The policy also details the main risks in OR´s operations. Furthermore, the policy defines the main risk categories, methodologies in risk identification and goals in risk management from day to day. One of the main pillars of the risk policy is to keep track of the risk elements weighing heavily in this context, measuring their effect and maintaining them within acceptable boundaries, set forth by OR´s Board of directors.

At year-end 2016, the Board approved to narrow the minimum hedging boundaries of interest rate risk, aluminum price risk and foreign currency risk.

RISKS IN ORKUVEITA REYKJAVIKUR OPERATIONS

Risk	**Core risk**	**Market risk**	**Liquidity risk**	**Counterparty risk**	**Operational risk**
Definition	**Always connected to OR's core business** *Risk connected to electricity, and sewage and fiber network* *Risk due to power production and sales* *Competition in core business.*	**The effect of market fluctuation on OR's financial status** *Foreign exchange rates* *Foreign and local interest rates.* *CPI* *Interest spread* *Aluminium price*	**OR's ability to pay debts and seize opportunities** *Operating expenses* *Amortizations* *Investments* *Asset portfolio*	**Effect from possible defaults from OR's customers** *Size of individual customers* *Consolidated risk of customers* *Collection and resource recovery*	**Effect from crisis and unpredictable damage on OR's finance.** *Breakdowns in distribution-, control- or monitoring systems* *Errors and fraud* *Regulatory and legal actions* *Natural disasters*
Goal	***Core risk is linked to OR´s core business***	***Financial risk shall be managed***			***Reduce operational risk***

OR aims to reduce the effects of fluctuations in risk factors and strives towards guaranteeing stable prices of OR´s products in the future, by applying effective financial risk management. The Department of Risk Management both leads the risk control management and assumes the role of a consultant when evaluating OR´s financial and operational risks.

The department leads monthly meetings of the Risk Committee. This is where decisions on appropriate measures are taken and where information is presented on significant changes affecting the development of risk factors and how they impact OR.

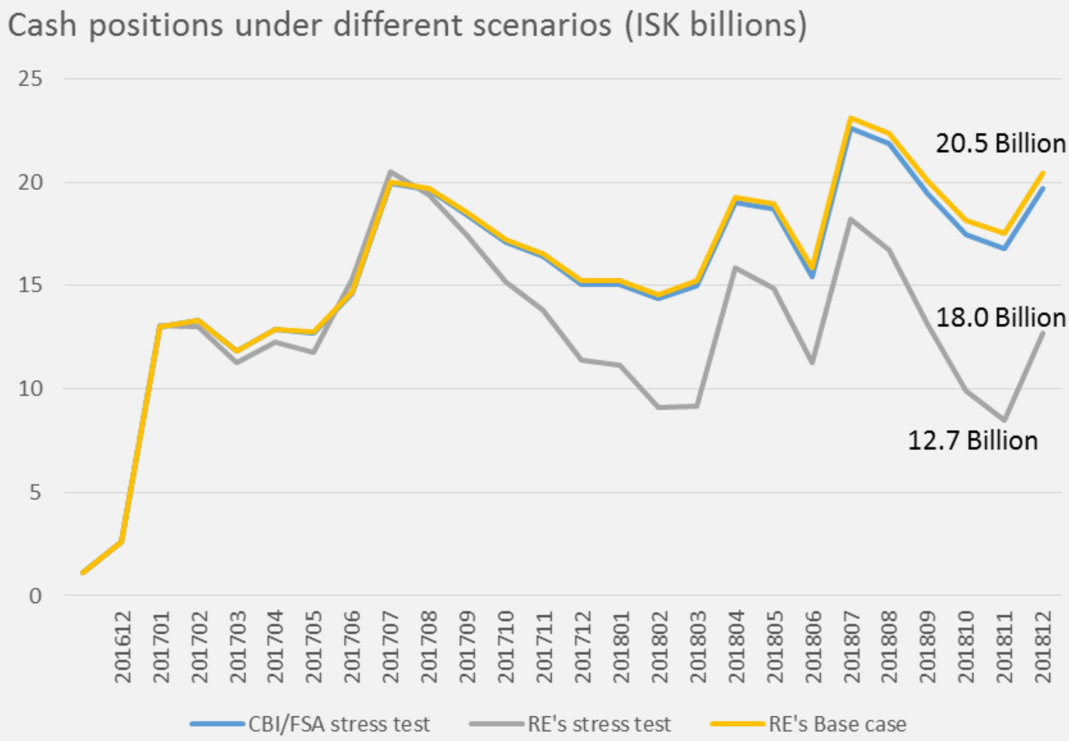
5.1 Stress test

Stress tests on expected cash flow are performed regularly for at least 24 months looking forward. The assumptions of the stress test state a 70% devaluation of the ISK and aluminum prices drop to 1,300 $/mt or around 23% during the first six months of the test period. Information from independent analysts of the aluminum markets assume that most aluminum smelters worldwide will be operated at a loss at the assumed price level of the stress test. Therefore, one would expect a reduction in aluminum production which, in turn, will bring on upward price pressure, assuming other parameters to be constant. The test also assumes that foreign interest rates will rise considerably or around 3% and inflation will rise by 30% over a 24 month period. The stress test is rigorous as the devaluation of the ISK is assumed to be simililar as it was between end of year 2007 and 2008, in the midst of in the financial crisis.

The table below shows the results of OR´s stress test compared to the stress test of Central Bank of Iceland (CBI) for the domestic banking system. It is important to note that the stress test from the CBI assumes lower inflation and not as much devaluation of the ISK, compared to OR´s stress test

	OR's stress test assumptions (accumulated)			
	TWI	CPI	Aluminium	Interest rate rise
12M change	71%	21%	-23%	1,50%
24M change	71% (275)	30% (569)	-23% (1300 USD)	3,00%
	CBI/FSA stress test assumptions (accumulated)			
12M change	4%	2,6%	0%	--
24M change	10% (177)	4,8% (469)	0%	--

The graph below shows the expected cash balance for the next two years from year-end 2016. The stress test and the basic scenario assume borrowing of ISK 20.8 billion, ISK 30.0 billion of investments as well as long term loan repayments of ISK 31.0 billion. This is in line with OR´s borrowing and investment projections for the year, which are expected to be realized. The basic scenario is based on price levels, currencies and aluminum prices at the beginning of the stress test and on forward interest rates. The expected cash balance following 24 months of OR´s stress test is lowered by ISK 7.8 billion, thus going down to ISK 12.7 billion.



Results indicate that OR is well positioned to withstand considerably adverse conditions on domestic and international markets regardless of additional hedging actions. In the event of diminished access to financial markets, this would require a re-evaluation of the investment plan. In addition to a strong cash balance to counter potential negative developments in OR´s operating environment, the company has access to credit facilities for ISK 8.5 billion with the three largest domestic banks.

5.2 Market risk

Market risk is defined as the risk of changes in international markets i.e. FX changes, aluminum price changes and interest rate changes having a detrimental effect on a company's balance sheet and income statement. Hedging against these risks may vary in cost and the net benefits of hedging need to be evaluated in each instance, given the cost of hedging.

Goal:

- *To mitigate possible financial loss for the company caused by changes on aluminum market price, foreign exchange rates, change in interest rates or by operating accidents.*

5.2.1 Currency risk

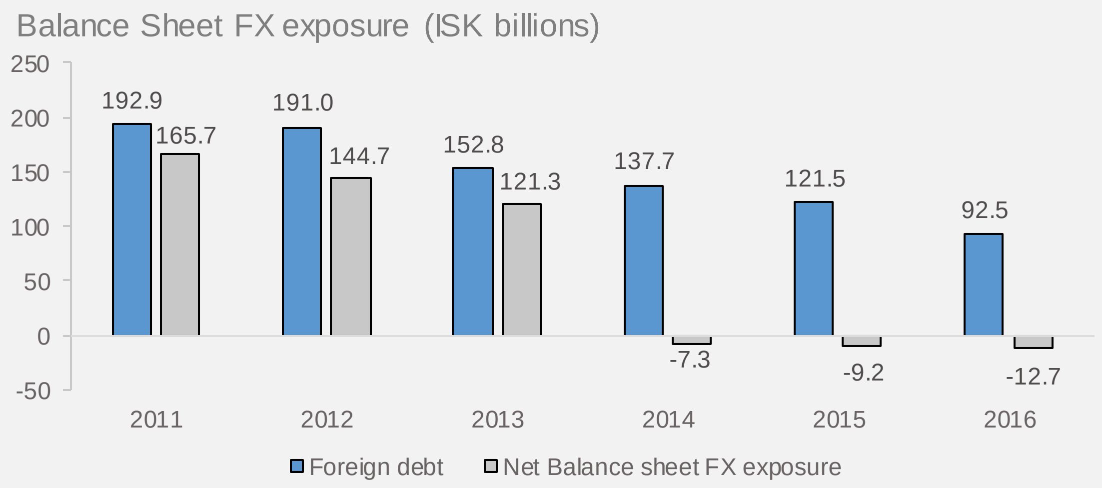
Even before the financial crisis in 2008, currency risk has been OR's greatest risk factor. Imbalance between foreign currency debt and OR's assets – nearly all in ISK – was greatly affected when OR's debt doubled in local currency due to the devaluation of the ISK. Currency distribution of OR's revenue was and is quite different from the currency distribution of debt. Thus revenue did not increase in conjunction with debt payments.

Economic risk - currency

The unbundling of OR on January 1st 2014 created the subsidiary ON Power (ON). ON´s operational currency is USD. Therefore, OR´s consolidated balance sheet after unbundling better reflects that OR has a revenue stream in foreign currency against loans.

Breakdown of foreign exchange balance by currencies shows that OR consolidated now holds assets in ISK and USD and debt is mostly in USD, EUR and CHF resulting in currency imbalances on OR´s balance sheet.

Currency imbalance limits according to Risk Policy is 20% of equity. At the end of 2013 this ratio was 179% but negative 10% at the end of 2016. OR has set foward a goal within the risk policy of securing foreign currency equivalent to the outflow for the next 12 months. This is done in order to secure that FX fluctuations have limited effect on OR´s finances in the short term and to allow for increased flexibility in the event of challenging developments.



Cash flow risk - currency

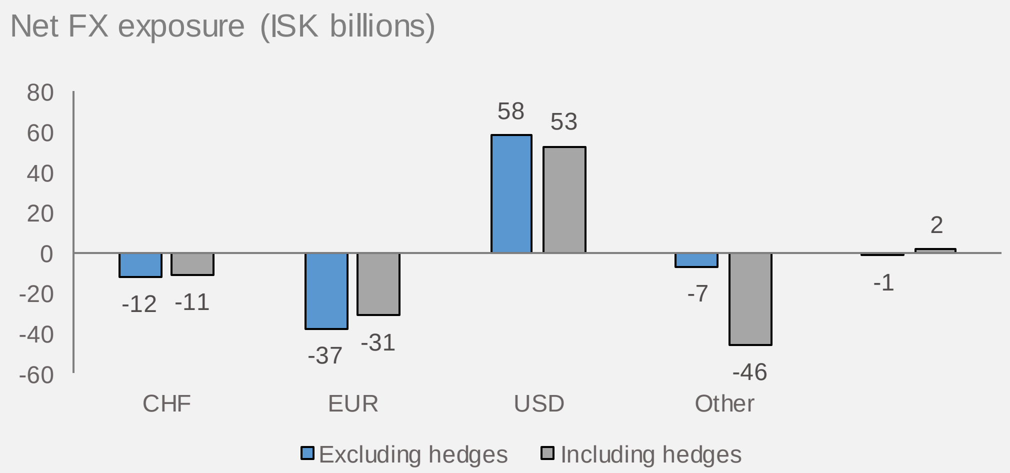
In order to reduce risk in cash flow and balance sheet, hedging contracts have been made with domestic banks where foreign debt is swapped into ISK for up to five years. Since 2013, OR has swapped cash flow in EUR for both indexed and non-indexed ISK, with the longest contract maturing in 2018.

Goal:

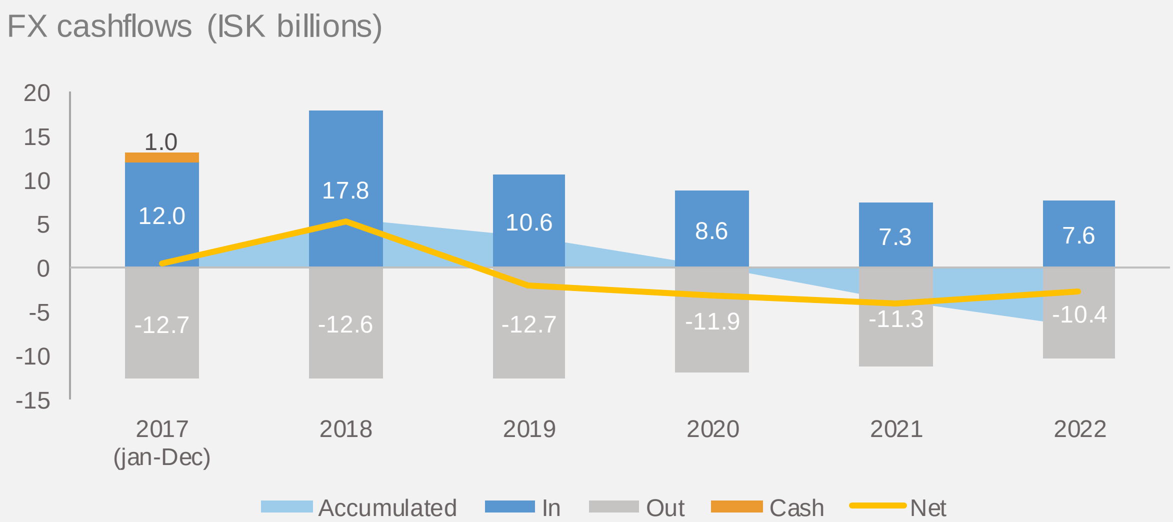
- *Currency imbalance shall not exceed 20% of OR´s equity.*
- *Further reduce imbalance between currencies in cash flow and OR´s balance sheet.*

In order to diminish imbalances between foreign currencies, currency swaps exchanging debt in various currencies for USD have been executed. This was done in response to revenues in other currencies than the ISK being solely in USD, whereas foreign currency debt is in various currencies, although mostly in EUR and CHF.

The aim is to further reduce the risk of cross currency fluctuations affecting the balance sheet. Furthermore, OR aims to reduce debt in EUR and CHF as there are no assets or revenue generation against debt in these currencies.



At year-end 2016 the cash position, in addition to the expected inflow against expected outflow for the following year, is positive and expected inflow of foreign currency is enough to cover expected outflow until year-end 2019-2020. Expected inflow of foreign currency is for example linked to aluminum price, currency fluctuations and financing in foreign currencies.



5.2.2 Aluminium price risk

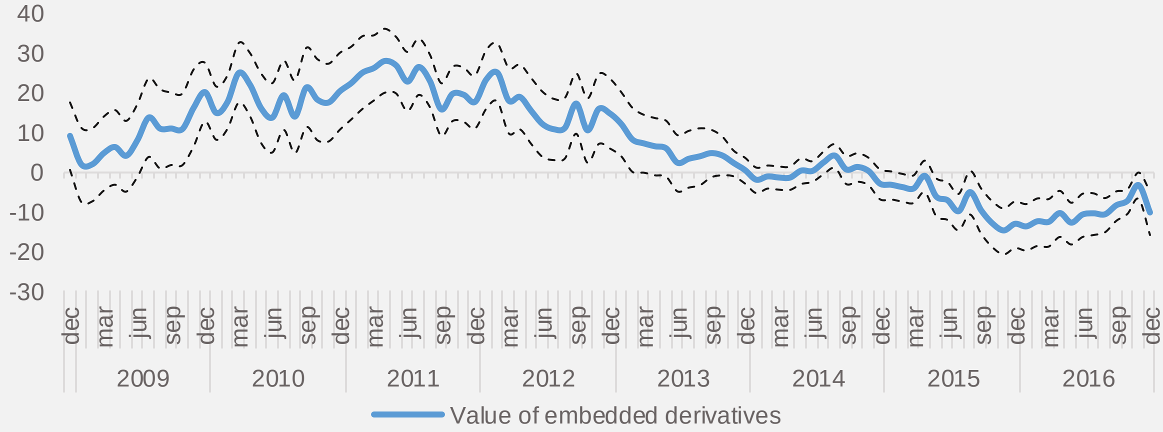
Around 14.1% of OR's revenue in 2016 was linked to the price of aluminium. The revenue stems from long term contracts on the delivery of electricity. These contracts are assessed at fair value and are accounted for on the balance sheet. OR also holds a bond which is partially linked to aluminium prices. When negotiating the contract for electricity delivery to the heavy industry sector, OR took on the market risk associated with fluctuations in aluminium prices even though prices of commodities have little to none effects on the operations of power plants. On the other hand, OR's counterparty in this contract is more reliable than otherwise whereas the likelihood of default is less and their risk of aluminium price fluctiations is, in part, limited. Counterparty risk is detailed further in chapter 5.3.

Economic risk – aluminium prices

Due to the linkage of aluminium prices in the long term electricity sales contracts, an embedded derivative is accounted for on the balance sheet. Its value can fluctuate quite substantially. The value of the derivate is the difference between present values of expected future cash flows, calculated according to forward aluminium prices on the settlement day, versus forward aluminium prices on the day of the contract. Thus the price of aluminium, interest rate changes and FX changes all affect the value of the derivative. It is very difficult to hedge against this risk as hedging contracts for aluminium prices can only be bought for a few years ahead, whereas the embedded derivatives in electricity sales contracts are calculated for the lifespan of these contracts. The longest contract today matures at year-end 2036. Due to the fact that several contracts on electricity delivery mature in the next few years, both the value and fluctuations of embedded derivatives are expected to diminish as the contract period progresses.

The graph below shows that the value of the embedded derivatives from year-end 2008 (continuous line) has fluctuated considerably over the period. The broken lines show 12 months moving standard deviation for the embedded derivative, both up and down. The narrowing between the lines indicates that fluctuations of value have diminished. Factors that affect value are the contractual obligation to deliver electricity at given time, aluminium price, interest rates and the exchange rate of USD against the ISK.

Value of embedded derivatives in electricity contracts (ISK billions)



The table to the right shows how the value of the embedded derivatives changes when aluminium prices fluctuate by 10% up and down while the interest rates applied in the pricing are both increased and decreased by 1%. It is apparent that the effect of interest rate changes are insignificant compared to the effect of changes in aluminium prices. The sensitivity analysis is based on the value of the embedded derivatives, in ISK million, on December 31st 2016.

		Aluminum Price		
		-10%	0%	10%
Interest	-1%	-5.618	-445	4.727
	0%	-4.890	0	4.890
	+1%	-4.216	416	5.049

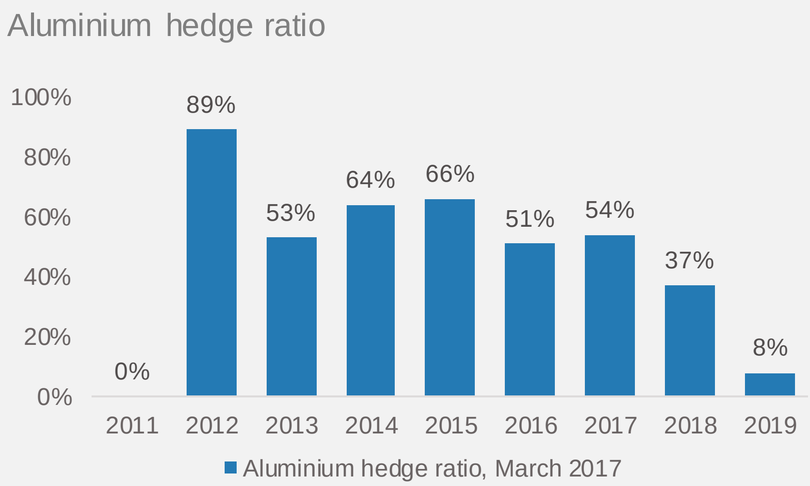
Cash flow risk – aluminium prices

About 14.1% of OR´s revenue is linked to the price of aluminium. To mitigate effects of fluctuating aluminium prices on its revenue, OR has entered into hedging contracts with foreign banks. Finding counterparties has turned out to be successful and now OR can hedge against aluminium price fluctuations for up to five years ahead. OR´s risk committee has adopted a criteria for upper and lower boundaries of the hedging ratio for aluminium going forward.

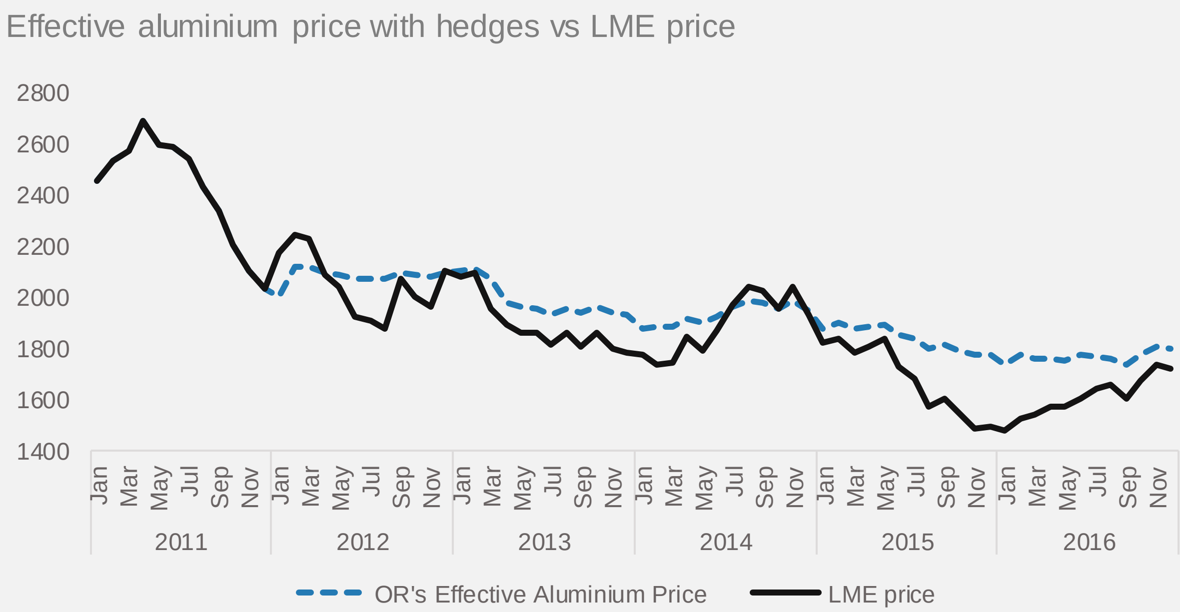
Goal:
Keep hedge ratios at every point in time within approved upper and lower limits.

By doing this, an explicit strategy has been put in place when it comes to hedging against aluminium price fluctuations. The purpose of hedging is to reduce fluctuations and increase the predictability of OR´s cash flow.

In 2012 OR began hedging against aluminium price fluctuations. Counterparties in aluminium price hedging are Goldman Sachs, the Dutch Bank ING and in 2016 OR also began doing business with Deutsche Bank. Initially contracts were only for one year but gradually the length of hedges have increased as is shown in the graph below which demonstrates aluminium hedge ratios.



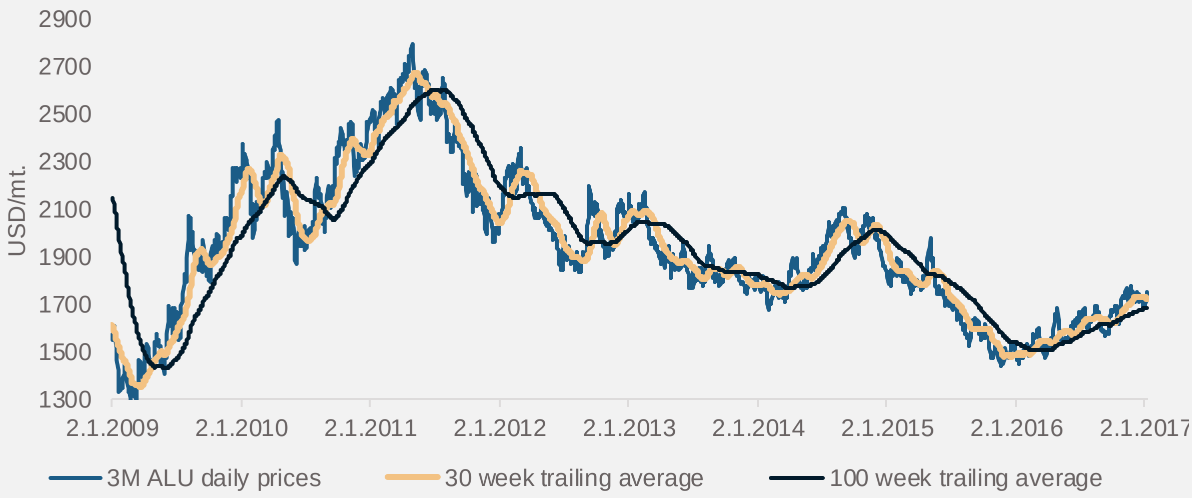
The graph below illustrates the effect of hedging against changing aluminium prices since the beginning of active hedging. On one hand, the graph shows the market price and on the other hanad, the effective price for OR, taking into account hedge ratios and levels. The graph clearly shows the decline in market price for aluminium from the beginning of 2011. Due to hedging, the effective aluminium price has neither fluctuated as much nor decreased as much as market prices.



Developments and prospects

Aluminium prices have dropped during the last 4-5 years ever since the maximum price of 2,800 $/mt. was reached in May 2011, down to approximately 1,500 $/mt. in February 2016. In the beginning of 2014, it seemed as though aluminium prices were starting to rise, yet those increases were reversed. The year 2016 can be distinguished by slow but steady increase in aluminium prices, mainly due to positive economic conditions in the global economy. In this context, it is important to emphasize that demand for aluminium in China was almost the same as China´s domestic aluminium production but analysts had forecasted a substantial overproduction. Due to environmental considerations and air pollution in the vicinity of Beijing in North China, plans are being made to reduce refinery- and aluminium production in certain regions at the end of 2017, which should lead to an increase in aluminium price going forward.

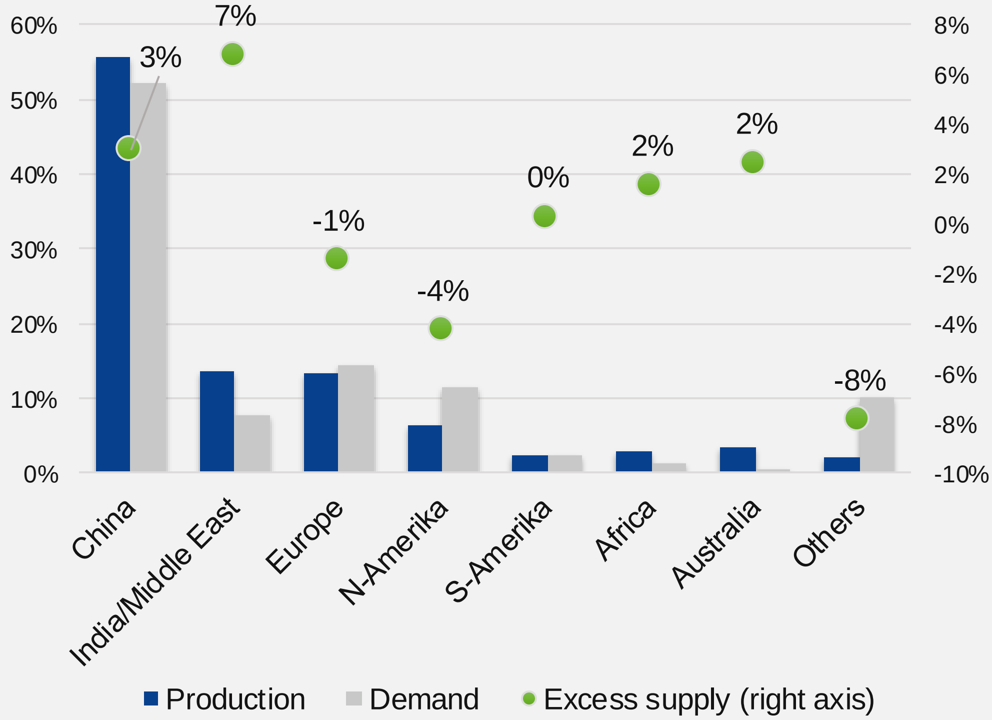
LME aluminum prices and trailing averages



The graph above shows the daily quotes for three months forwards, moving 100 weeks average aluminium prices and 30 weeks moving average. The declining trend which started in late 2014 until year-end 2015 came to an end but the year 2016 can be charachterized by slow but steady increase in aluminium price.

The graph below displays that in 2017 it is estimated that roughly 70% of the world´s aluminium production is in China (56%), India (4.5%) and the Middle East (10%) but the abovementioned areas only use about 60% of total aluminium production worldwide.

Aluminium global demand and supply 2017 (estimate)



Source: CRU

5.2.3 Interest rate risk

Most of OR´s foreign loans have a floating rate with various benchmarks i.e. LIBOR, STIBOR, EURIBOR og REIBOR. For the purpose of hedging interest rate risk and favorable market conditions, OR has swapped a considerable part of its loan portfolio for fixed interest rates with interest rate and currency swap contracts. Interest rates also affect the estimates of some of OR´s assets and liabilities accounted for at fair value according to IFRS.

Economic risk - interest

Economic risk related to interest rates consists of the effect interest rates have on fair value of OR´s financial assets and obligations. Bonds, hedging contracts and embedded derivatives of electricity sales contracts are examples of items accounted for at fair value. These may be assessed to have either positive or negative value. The table below shows the effect of 1% nominal interest rate changes on fair value of OR´s assets/obligations in ISK millions.

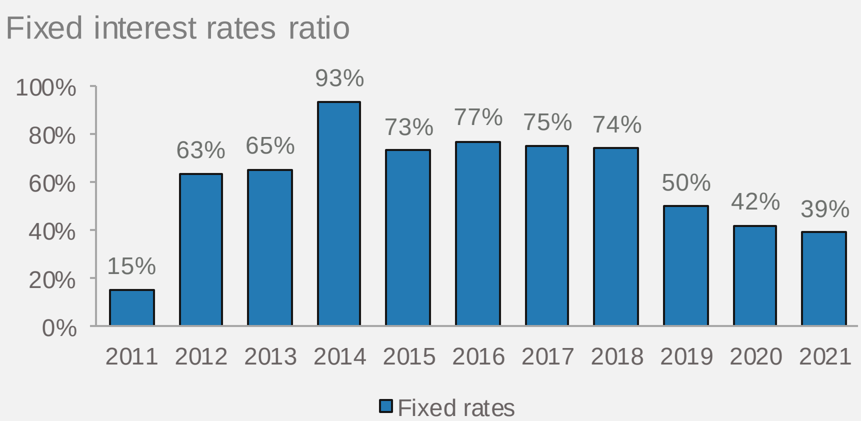
Sensitivity of financial assets at fair value in OR‘s balance sheet. 31.12.2016 ISK billions.

	Interest increase +1%	Interest decrease -1%
Embedded derivatives	416.454	-445.384
Other financial assets	-49.722	50.822
Hedge contracts	1,146.055	-1,195.792
Total	**1,512.787**	**-1,590.354**

Note that debt is accounted for at amortized cost and not fair value. Therefore, interest rate changes do not affect fair value of debt directly. On the other hand, OR is obliged to account for hedging contracts at fair value resulting in risk being expressed on the balance sheet due to changes in their fair value. If debt would be accounted for at fair value, the fair value changes of the hedging contracts would be offset by fair value changes of debt.

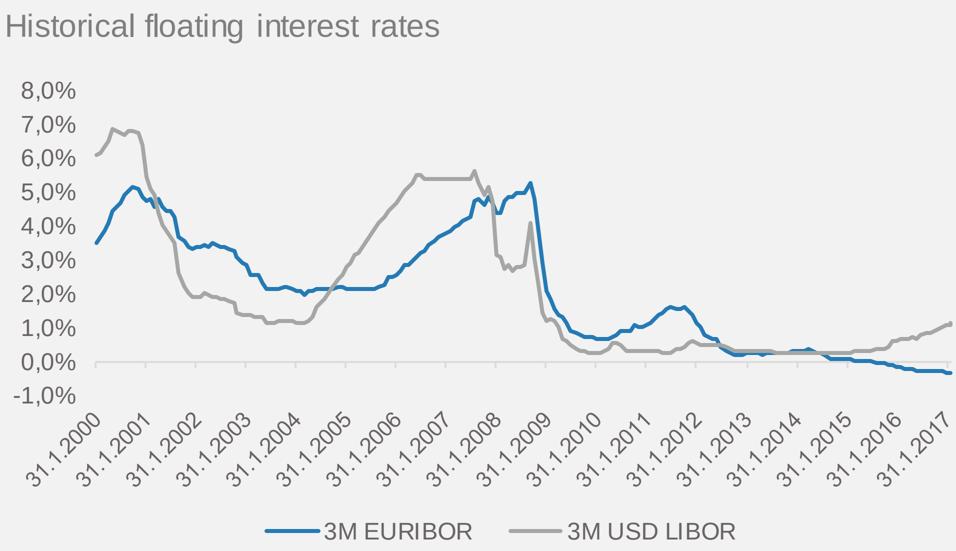
Cahs flow risk - interest

A large part of OR´s loans carry floating interest rates. In order to reduce payment fluctuations and improve predictability of cash flow for the next few years, OR has entered into SWAP agreements, exchanging floating interest rates for fixed interest rates. Many of these SWAP-contracts also include currency SWAPs in order to reduce the effect of OR´s currency imbalance on cash flow.



Developments and prospects

The graph below shows how interest rates in international financial markets have dropped considerably since the financial crash of 2008 i.e. due to interventions of the world's central banks in their effort to improve economic growth. The graph shows the development of 3-month interbank interest rates in EUR and USD. As interest rates are at a historical low, OR has seized the opportunity to lock in interest rates for up to five years. Following the presidential elections in the United States last year, USD interest rates have increased considerably and further increases in interest rates in the US are expected. EUR interest rates have increased, partly in line with increases in USD interest rates, but economic indicators suggest that economic recovery will be slower in the Eurozone. Furthermore, there is still a looming uncertainty about continuing membership of France, Greece and Italy in the European Union, which has an impact on Euro interest rates in the medium term.



5.2.4 Consumer price risk

Risk due to changes in the Consumer Price Index (CPI) stems from imbalance between CPI-indexed assets and obligations. The imbalance may give rise to negative effect of price increases on OR´s operations and on its balance sheet. Part of OR´s debt is CPI-indexed and thus price changes will affect debt servicing going forward. There is an offsetting effect from the indexation of a large part of OR´s revenue.

Economic risk - indexation

Evaluating economic risk due to changes in the CPI to a substantial degree is quite difficult. Part of local debt is linked to CPI but evaluating assets is more difficult. Properties, plants and equipment are reassessed regularly and correlation with CPI is significant.

Cash flow risk - indexation

Evaluating effects of indexation on cash flow is easier than evaluating the effects on the balance sheet. Part of OR´s tariffs are updated regularly taking into account changes in CPI and the cash flow for servicing index linked debt is strictly correlated to CPI. On the other hand, the effect of price changes on OR´s operating costs is not as evident.

5.2.5 Stocks and bonds risk

Risk relating to financial assets such as stocks, bonds and other securities on OR´s Statement of Financial Position consists of a few assets of different sizes. Stock- and bond risk is related to securities on OR´s balance sheet but the assets are few and differ in size. In the cash flow statement there is primarily a single bond owned by OR that can affect the financial position of the company. The bond matured in December 2016 but the principal, including accrued expenses, amounted to USD 72 million. Towards the end of 2016, changes were made in the conditions of the bond where the borrower paid OR USD 36 million and the maturity of the remainder of the loan was extended until April 2018, at a considerably higher interest rate. Built in the bond, there is a linkage with the development of aluminium price with a floor and cap and the bond is furthermore guaranteed with stocks in HS Orka.

5.3 Counterparty risk

Goal:

- *Reduce consumers´ consolidation and increase number of smaller customers.*

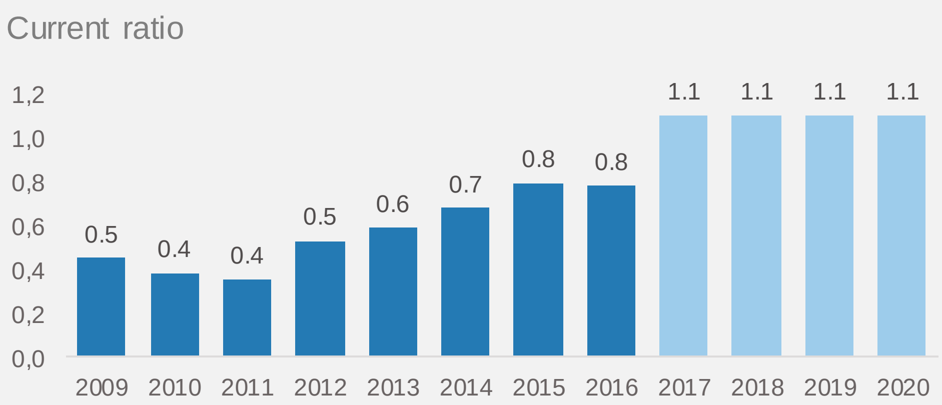
Counterparty risk addresses the risk of delinquency on behalf of contractual party or ordinary consumers. OR´s most significant counterparty is Nordural Grundartangi. Other counterparties are significantly smaller in comparison. In light of low aluminium prices The Department of Risk Management analysed Nordural´s financial strength. The results point towards Nordural being among the most cost efficient aluminium producers internationally and financially strong in spite of low aluminium prices. From OR´s perspective it is desirable to increase the number of counterparties and to diversify counterparty risk

5.4 Liquidity risk

Goal:

- *Current ratio > 1.0*
- *Cash ratio above 100% for all periods from 1 month to 3 years*
- *Cash ratio above 100% after stress test for the following 12 months*

A strong liquidity position is the single best defence against adverse developments. Strong liquidity also improves access to financial markets, improves credit rating and rates. OR has in recent years and months greatly improved liquidity positions. Current ratio has been improving along with lighter payments for loan servicing and better liquidity as can be seen in the graph below. It is preferable in any company´s operations to keep current assets at a level able to service short term debt, even though the cash flow is stable. OR´s aim is to keep current ratio above one at all times next year. Furthermore, OR is committed to keep cash ratio as defined in OR´s Risk Policy[4] above 100% for all periods from one month up to three years and even above 100% after the stress test for the following 12 months. Expected cash ratios are closely monitored on a regular basis and published in the monthly risk report.



[4] *Ratio of cash is the sum of cash and budgeted revenue against expenses incl. installments and interest payments. The results are presented as ratios. Where 100% means that cash plus operating income is sufficient to meet all expenses for the designated period.*

The importance of a strong liquidity position is not to be underestimated in light of the cash flow risk described in previous chapters.

The significance of active liquidity management has increased along with improved liquidity. Making informed decisions based on the valuations of risk and returns is imperative especially regarding stocks and securities. To support these decisions a framework for investments has been adapted including investments in liquid assets. The framework also limits authority for investing in risky financial vehicles. A more detailed description on liquidity management is to be found in Chapter 3.

5.5 Core risk

Core risk is the risk related to OR´s core activities. Core risk is shaped by OR´s long term policy and outside the daily management of risk but is meaningful for policy making in the future.

5.6 Operating risk

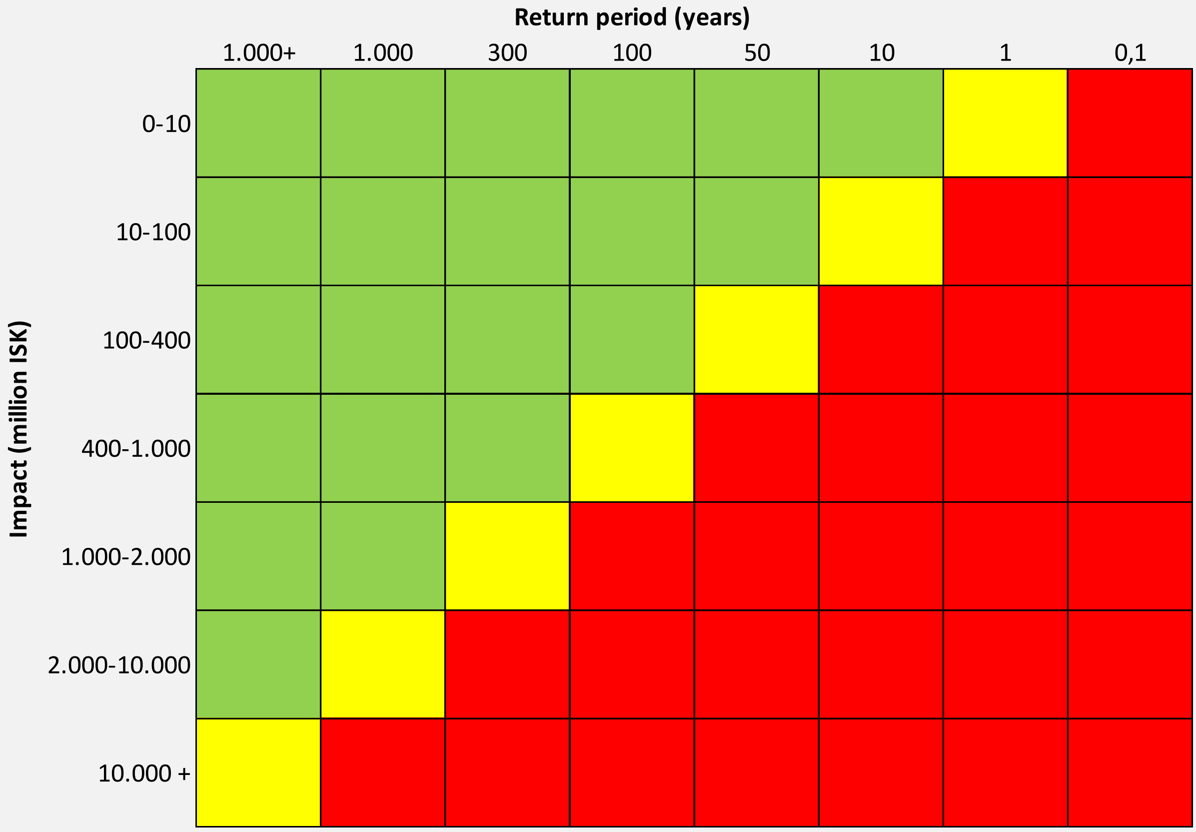
Management of OR continued to work on the assessment and management of OR´s operating risk in 2016. Managers of subsidiaries within the OR group are supervisors of their entity´s risk and OR´s CEO is responsible for managing operational risk of the parent company

Goal:

- *Analyze and treat at least 10% of incidents in the red area.*

Since 2015 efforts have been made to address and reduce known operating risks. The Risk Committee decides at its meetings how to manage specific risk cases and whether a review of estimates thereof is needed. In 2016 the company´s engineers conducted a scenario analysis, among other things, of the possible development of the steam reservoir at Hellisheidi plant and surrounding areas and meetings were held with affiliates of ON Power concerning the largest risk cases in the operations of ON Power. At the utility subsidiary, possible threats concerning water resources in the Western part of Iceland were analysed and treated. At the meetings of the Risk Committee, there are generally about 1-3 risk cases that are discussed, chosen based on risk assessment – first red and then yellow.

The operating risk is presented in a risk matrix for each entity within the group. Each case is ranked in accordance to the magnitude of financial impact and frequency of occurrence. The cases are placed within the risk matrix with regard to possible impact (loss) and the probability of occurrence. All risks are then consolidated into one matrix for the whole group. Below is the setup of OR´s operational risk matrix.



5.7 Insurance

OR´s insurance policies cover loss of plant and equipment along with liability claims against OR. ON´s geothermal plants are insured with foreign re-insurers and the distribution system is insured with the Icelandic Catastrophe Insurance. Auction for asset- and liabilities insurance was conducted at the end of 2016. Four domestic insurance companies participated in the auction but a contract was made with the company that had the best and most cost effective offer, Sjóvá. The contract is for four years. Furthermore, an important milestone was reached in these negotiations as the contract has a clause which stipulates a discount of insurance premiums, which encourages OR to do even better when it comes to prevention.

Goal:

- *Lowering insurance cost by 5% without increasing risk.*

OR has up to this point not insured against loss of revenue but 2016 the feasibility of such insurance for certain circumstances was explored. It was not considered feasible to insure against loss of revenue at this point in time but the evaluation especially applies to certain risk cases with ON.

In 2016 a successful reduction of insurance premiums was achieved, the main steps were:

- *When renewing insurance for power plants a general reduction of insurance premiums was achieved in line with goals set forward for 2016.*
- *Following an auction for asset- and liability insurance, a considerable reduction of insurance premiums was achieved, in excess of goals for 2016.*

6 Credit rating

Credit rating is important to companies doing business on international markets. Credit rating is acquired in order to give lenders an independent objective view of OR´s financial position and its prospects. A solid credit rating improves OR´s credibility, borrowing terms, interest rates in swaps, accessibility to capital and reputation.

Goal:

- *Change outlook from stable to positive with Moody's.*
- *Change outlook at Fitch Ratings from stable to positive.*
- *Increase rating at Reitun.*

The following firms have expressed opinion on OR´s credit rating:

- *Moody´s ratings since 2007 - an official rating was presented in September 2016*
- *Fitch Ratings since December 2014 - an official rating was presented in February 2017.*
- *Reitun's ratings since 2010 - an official rating for the Icelandic market was presented in March 2016.*

The rating of The Government of Iceland has significant effect on the ratings for Icelandic firms as their rating cannot be better than The Icelandic State´s. In January 2017, the international rating agency Standard and Poor improved The Icelandic State´s credit rating from BBB+ to A-. The credit rating of The City of Reykjavik and OR´s connection to The City also affects OR´s credit rating.

	Orkuveita Reykjavíkur			The Icelandic state	
Rating agencies	Moody's	Fitch Ratings	Reitun	Moody's	Fitch Ratings
Long term	Ba2	BB	iAA3	A3	BBB+
Short term				P-2	F-2
Outlook	Stable	Stable	Stable	Stable	Positive
Issue date	Sep 2016	Feb 2017	Mars 2016	Sep 2016	Jan 2017

Comparison of the ratings of Moody´s and Fitch, when taking into account the owners' guarantee- observing the rating scale of each agency – shows that their basic rating for OR is even.

Moody's credit rating

OR was in Moody´s second category in 2007 but following of the crash of the Icelandic banks in 2008, OR´s rating went down first to A1 and to Ba1 in 2009. Because of heavy debt burden, lack of liquidity and risk related to aluminium prices and currency fluctuations, the rating was lowered to B1 in July 2011.

The progression of Moody´s credit rating is as follows:

Date	Jan'07	Jul'08	Oct'08	Dec'08	Nov'09	Apr'10	Dec'13	Dec'14	Dec'15	Sep'16
Rating	AA2	AA2	A1	Baa1	Ba1	Ba1	B1	B1	Ba3	Ba2
Outlook	*Stable*	*Negative*	*Stable*	*Negative*	*Stabler*	*Negative*	*Stable*	*Positive*	*Stable*	*Stable*

Due to lower risk, better key values and a stronger financial position, Moody´s credit rating for OR improved from Ba3 to Ba2 in September 2016. An improved rating reflects progress at OR with regard to a stronger financial- and liquidity position. This is in line with improved conditions and outlook for the Icelandic economy and overall market conditions in Iceland. OR´s strong financial position is the result of effective execution of OR´s five-year plan, which was approved by the Board in March 2011. OR has achieved all its goals, increased revenue, reduced cost and postponed particular investments. OR reached The Plan‘s aims a year ahead of schedule, planned for December 2016. Moody´s expects that OR will maintain its financial strength going forward as well as a strong liquidity position.

Positive effects on credit rating:

- *Icelandic economy grows stronger and improved market conditions*
- *OR continuous hedge against fluctuations in both commodity and financial markets*
- *OR maintains an open access to financial markets, especially access to borrowing*
- *FFO/Debt continues to be over 10% going forward*
- *No change in owners guarantees (support).*

Negative effects on credit rating:

- *Liquidity or access to short term borrowing deteriorates.*
- *OR ceases to have access to borrowing in domestic or international markets.*
- *The stability of the ISK.*

Fitch Ratings credit rating

Fitch Rating´s first rating was presented in February 2015. Fitch´s rating is the same as Moody´s.

The progression of Fitch´s rating is as follows:

Date	Feb'15	Dec'15	Feb'17
Rating	BB-	BB-	BB
Outlook	Stable	Stable	Stable

Reasons for a better credit rating are twofold and can be explained by an overall success in running the company and favorable developments in OR´s operating environment. Furthermore, lower debt and a success in following and completing The Plan, with better results than expected, as well as continued support by OR´s owners are also factors in this regard. External factors affecting the credit rating are improved economic conditions in iceland and the strengthening of the ISK.

The rating is mainly based on:

- *The operations being restricted to the Icelandic market.*
- *Aluminium price risk resulting in price risk affecting EBITDA.*
- *Effect of currency risk on cash flow.*
- *Risk due to high indebtedness.*
- *Secure revenue.*
- *Scope for rates increase.*
- *Strong FFO interest coverage.*
- *Compared to other countries in Europe the regulatory framework for concessionary industry in Iceland is considered effective.*

Positive effects on credit rating going forward:

- *Continued linkage with changes in price levels*
- *Continued results exceeding plans leading to FFO interest coverage > 5.7x*
- *Increased support from owners consisting in unconditional guarantees and postponement of dividends*
- *The financial conditions adapted by OR´s Board which must be fulfilled before payment of dividends can take place*
- *Liquidity´s continuous improvement.*

Negative effects on credit rating going forward:

- *Restrictions on raising of tariffs, increased investment.*
- *Reduced support from owners, i.e. payment of dividends.*
- *Market risk steming from the stability of the ISK against USD and GBP.*
- *A politically appointed board leading to adverse decisions on tariffs or investments, thus ignoring the well-being of OR*
- *Decisions on tariffs and investment are not solely at the discretion of OR but are subject to actions of the government.*

Reitun's credit rating

The progression of Reitun´s credit rating is as follows:

Date	Nov'10	Nov'11	Jun'12	Oct'13	Dec'13	Jun'14	Jan'15	May'15	Mar'16
Rating	i.BBB1	i.BBB1	i.BBB1	i.BBB1	i.BBB1	i.A3	i.A3	i.A1	i.AA3
Outlook	*Stable*	*Stable*	*Stable*	*Positive*	*Positive*	*Stable*	*Positive*	*Stable*	*Stable*

Reitun is an Icelandic credit rating agency. Their rating´s point of departure is the rating of the most secure domestic borrower and risk assessment as evaluated by local investors. The credit rating of the most secure domestic borrower is i.AAA for The Icelandic State.

Prerogatives for improvement:

- *Improved financial position*
- *Debt decreases, thus improving debt ratio and diminishing risk*
- *Stronger liquidity ratio*
- *Reduced market risk*

Prerogatives for deterioration:

- *OR loses lines of credit*
- *Unexpected adverse incidences in general operations or considerable adverse changes in the economy/market.*

Summary

There is considerable likelihood for improvement of OR´s credit rating over the next quarters and years. During the years 2011-2016, the total results of The Plan was ISK 8.9 billion, exceeding the goals for this period. This reflects the good and synchronous success that the company has achieved in recent years.

The credit rating agencies agree that OR has shown improved operations, improved liquidity and reduced financial risk.

OR´s difficult financial position not withstanding - the bank crash of 2008 doubling the foreign debt in ISK - OR has never been delinquent and has never had to result to the owner's guarantees.

7 Appendix A: Commercial banks benchmark ratios

The strength of commercial banks and counter party risk is valued according to the benchmarks below. The following evaluation of key ratios is based on OR´s counter party financial reports.

	Landsbanki	**Íslandsbanki**	**Arion Bank**	**KVIKA**
	2016 ISKm	2016 ISKm	2016 ISKm	2016 ISKm
Equity ratio (CAR - Tier 1 ratio)	30.2%	25.2%	27.1%	20.6%
Ratio of risky assets, weighted (RWA)	75.3%	67.2%	72.7%	81.7%
Equity ratio	22.6%	17.0%	20.4%	12.4%
ROE	6.6%	10.2%	10.5%	34.7%
LCR (min 70%)	128.0%	187.0%	171.0%	152.0%
LCR - FX (min 100%)	743.0%	331.0%	263.0%	*NA*
State ownership	98.2%	100.0%	13.0%	0.0%
Lending	873.825	705.485	792.538	26.015
Equity	251.231	178.925	211.384	7.397
Credit rating S&P	BBB Positive	BBB Positive	BBB Positive	*NA*

A more detailed description of the key ratios is presented below:

Measures and ratios	**Definitions**
Equity ratio (CAR - Tier 1 ratio)	*Measures a bank's equity ratio as a percentage of its risk weighted assets. (E. CAR = Capital Adequacy Ratio). The minimum by law is 8% but extra requirements are placed on each bank.*
Risk Weighted Assets (RWA)	*Risk weighted assets as a proportion of total assets. (E. RWA = Risk Weighted Assets).*
CAR (Capital Adequacy Ratio)	*Equity / Total Assets*
ROE	*Return On Equity (e. return on equity = net income/ equity)*
LCR (min 70%)	*Banks' high quality liquid assets in foreign currency denominations to meet adverse developments within 30 days (E. LCR = Liquidity Coverage Ratio).*
LCR - FX (min 100%)	*Banks' high quality cash or cash equivalents in foreign currency to meet current obligations in adverse situations within 30 days (E. LCR = Liquidity Coverage Ratio).*
The Icelandic State's Ownership	*The Icelandic State's ownership skews the picture.*
Loans	*Loans outstanding (E. assets).*
Equity	*Total Equity*
S&P's Rating	*Standard and Poors´ credit rating.*

8 Appendix B: ratios

Below are detailed explanations of measures and ratios used to establish OR´s financial strength and for bench marking with other firms in the energy sector.

Ratios	Goal 2016 - 2018	Goal 2019 >	Formula	Definitions
Current ratio	> 1.0	> 1.0	Current assets/ Short Term obligations	Indicates an entity´s ability to service its obligations in the near future and liquidity for the next twelve months.
Equity ratio	> 35%	> 40%	Equity / (Equity + Debt)	An entity is in general stronger the higher this ratio is.
FFO interest coverage	> 3.5	> 3.5	(FFO + interest payments) / interest payments	An entity´s ability to pay instalments. Moody‘s Measurement.
RCF / Net debt	> 11%	> 13%	FFO - dividends/ net debt	Measures the debt ratio of an entity, measuring risk considering dividend payments. Moody's Measurement.
FFO / Net debt	> 13%	> 17%	FFO/Net debt	Measures the debt ratio of an entity, measuring an entity´s financial risk. Moody‘s Measurement.
Dividend ratio	≤ 50%	≤ 50%	Dividends/ Net earnings	Measures dividends proportion of earnings for the period.

Definitions:

FFO = Funds from operations

Net debt = Interest bearing debt

EBITDA = Earnings before interest, taxes, depreciation and amortization

RCF = Funds from operations - dividends