

Energy Acquisition and Project Finance - Priorities in the Past and Nowadays

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Abstract

Project financing is a relatively new, yet special branch of financial instruments. It is an important financial tool for projects that can finance large-scale, strategic investments. High leverage is a preferred form of financing, as it can also be a source of expensive, cost-effective projects. Project investment is considered to be a priority area for energy investment, its strategic importance, its secure return and its stable price. The aim of this study is to examine the development of project financing globally and to the EMEA region, with particular emphasis on energy investments, including trends in recent years.

Keywords: *project financing, energy investments, energy demand, energy supply*

Introduction

The energy demand in the globalized world

Our accelerating world faces more and more complex challenges. The unprecedented digitization, the fourth industrial revolution and the evolution of technology require more and more energy. In addition to this, there is an increasing demand for productivity, the demands of the fast fashion industry, and the desire for prosperity, which can only be realized with increasing energy use. Carbon-based and carbon-free sources can cover the growing energy demand. However, it should be noted that carbon-free sources are also not entirely carbon-free, as the raw materials for their physical background are also produced by mining and carbon production.

Table 1. Grouping of energy sources (Source: own calculation, 2019)

Carbon-based energy sources	Carbon-free energy sources
Coal	Wind
Gas	Water (hydro)
Oil	Heat (geothermal)
Wood and other natural resources (biomass)	Solar (solar)
	Nuclear (atom)

According to the report of the International Energy Agency (2018), global electricity consumption may be more than a quarter by 2040 compared to the current value, which is supported by other reports. Emerging regions, including India and China, have a key role to play in this growth. The study by British Petrol (2019) outlines this trend. The worrying part of the process lies in the fact that the largest energy consumers want to cover the majority of their energy needs from conventional sources, with only a very little part dedicated to renewable and carbon free sources. If the scenario outlined is realized, the energy demand covered by carbon-based sources will give an even greater boost to the greenhouse effect.

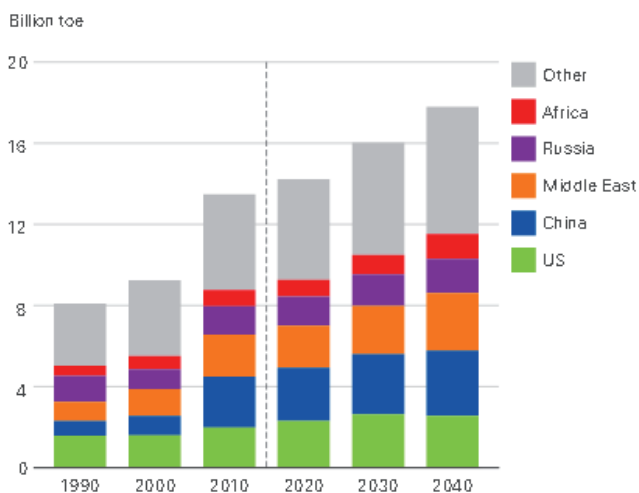


Figure 1. Primary energy consumption till 2040 (British Petrol, 2019)

The vision presented above is also supported by the summary of Portfolio (2014), which also compares the weight of the largest energy consumers in global energy consumption with their population. As you can see, there is a slight difference in energy consumption between China's population and its energy consumption. The same picture is much more contrasting for the US and the EU. The population-based energy consumption of welfare states is much higher than the proportional value of the population, which means that much more energy is wasted than would be justified. In the case of the USA, this is nearly three times higher, and in the case of the EU it is almost twice as high. The same applies to Russia.

However, India shows a rather opposite picture, in that it consumes much less energy than the population would be justified. However, with the break-up of India, this image will change, as there will be a further increase on energy demand. Consequently, the change of attitude in serving the energy demand is vital. It is unacceptable for this demand to be based on carbon-based resources in order to

maintain the viability of our land. In satisfying the need, more emphasis should be placed on carbon-free resource, which are not exclusively renewable. One must not forget the most reliable and most predictable nuclear power plants, which can produce many times more carbon-free renewable energy than other sources.

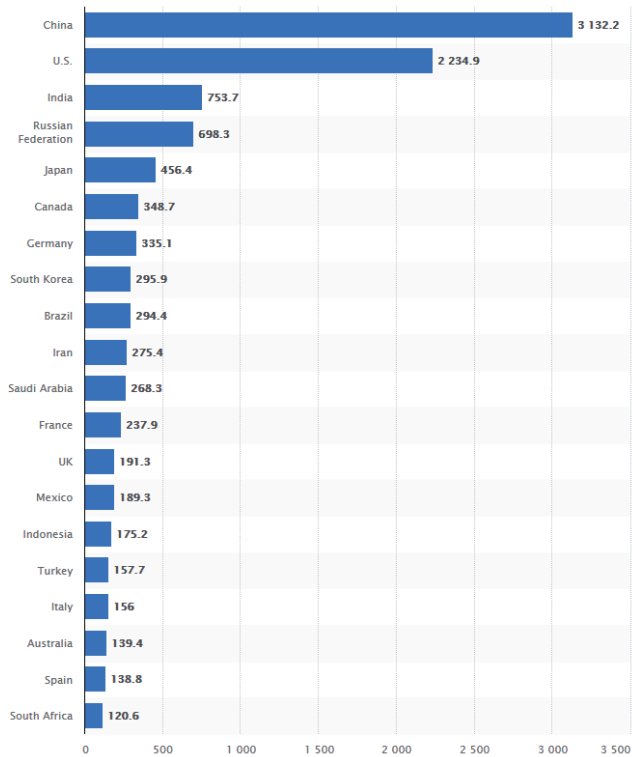


Figure 2. Top 20 countries in primary energy consumption in 2017, in million metric tonnes of oil equivalent (Statista, 2017)

As described above, it can be said that the energy sector is a prosperous sector, whether it is a traditional or renewable energy investment. It is therefore no coincidence that many investors have focused on marketable and increasingly demanding energy. Although investments are costly, they are limited by a number of technical parameters but there is always a guaranteed market for the finished products. Thus, it is an attractive field for financiers, which has led to project financing as a structured credit product. Between 2005 and 2015, energy investments doubled (Steffen, 2017) in spite of their very high cost. This provides evidence for what was described earlier.

1.2. Project financing as a financial supporter of large investments

Project financing, as a structural financial loan product, is different from the conventional loan products in terms of several dimensions. The point of this type of financing is best described by the following two standard studies by Newitt and Fabozzi (1997) and by Yescombe (2008):

- “The financing of a given economic entity, which is considered by the creditor as its cash flow and revenue, serves as the source to pay the credit back, its assets being the collateral.” (Newitt & Fabozzi, 1997)
- “Project financing is the method of long-term crediting of larger projects where the granting of loans is carried out entirely based on the cash-flow of the project.” (Yescombe, 2008)

Project finance, as a debt financing, is able to carry out large projects with high leverage. The priority areas of project financing are summarized by Fight (2006) as being:

- the energy sector,
- the oil and gas industries,
- mining,
- construction of motorways,
- telecommunication,
- other projects (paper production, chemical industry, construction of hospitals, schools, airports and prisons).

The financing of immovable property needs to be added to this list since it also represents a significant proportion within the market of project financing. Often, loans are so substantial that they cannot be financed by only one bank. A project that is not financed individually but collectively is said to receive a “syndicated loan”. Syndicated loans are such special loans where the money is provided by a group of two or more creditors in the form of a loan agreement. Syndicated lending is situated between the classic and the market-based lending. The loan providers are connected to each other on market terms and they raise the amount requested by the borrower as one single creditor.

Based on the abovementioned definitions, the inherent characteristics of project financing can be brought together as follows:

- it is given to an entity created for a specific project (SPV = Special Purpose Vehicle), which has a special economic and financial relationship with the sponsor/owner;
- funding is through employing high leverage (which can even be 80-90% in certain cases);
- due to the separate project company, the amount of the loan is not directly

charged to the balance sheet of the sponsor/owner and it does not have a negative effect on its creditworthiness;

- in the case of non-resource loans, the loan cannot be covered by the property of the sponsor/owner but only by the cash-flow of the project¹;
- the transaction is practically based on two main actors: the sponsor and the financial institutes, which are mainly the credit provider banks and the bond issuers;
- the provider of the loan capital does not become the owner of the project company;
- because of the above characteristics, the loan asset would have an incredibly high risk, and this risk can only be reduced by a competent and trained consultant basis.

From a corporate aspect, project financing is a form of funding with many advantages. It is definitely a benefit that it implies an off-balance-sheet financing with the use of exceptionally high leverage, as a result of which the borrowed large amount is not charged directly to the balance sheet of the project owner (because it only appears on the consolidated accounts). Hence, it will not degrade its creditworthiness (Yescombe, 2008) since the loan is granted to a project company created specifically for the project's purposes. According to Esty (2007), this legally independent entity established to carry out the project is funded through the equity given by one or more sponsors, and from other sources intended for the project. Moreover, the loan does not even have to be guaranteed by the owner of the project company since, in line with the agreement with the bank (Nádasdy et al., 2011), the transaction can either be a non-recourse or a limited recourse funding (obviously, sustaining the right of full recourse is also possible). Such credits are mostly covered by the signed contracts (including, but not limited to: independent contractor contracts, supplier contracts, sales contracts and management contracts)², pursuant to which the providers of funds are able to determine the relevance and justification of the project. It is another benefit that in most cases, project financing produces a better capital allocation than conventional corporate financing (John & John, 1991) because, due to the deeper monitoring and stricter terms it, by definition, filters out the uncertain or unjustified projects.

The reimbursement of the loans is ensured by the cash-flow derived from the operation of the project which removes further burdens from the shoulders of

- 1 Project financing can be divided into three main groups regarding the right of recourse:
 - non-recourse financing, where the sponsor/owner is not liable for the obligations of the project company;
 - full-recourse financing, where they take full responsibility;
 - limited-recourse financing, where the liability of the sponsor/owner is only limited.
- 2 There are guarantees other than contracts such as (including but not limited to) liens, rights to options, guarantee rights, commitments and various assignments.

the project owner, contrary to the conventional corporate financing. The banks participating in project financing – due to the large credit needs of the project and the major information asymmetry at the initial phase – usually grant the loans in a syndicate and not on their own, in view of the large exposure restrictions and the client risks. The lead arranger banks³ become internal participants in the project, because, along with the sponsors, they are present right from the early planning stage and would later involve the rest of the partners (banks) in the financing (Gatti et al., 2008). The lead arrangers can therefore have a better understanding of the background of the project and can familiarize themselves with the contracts on which they will base their financing decision. The loans – if they cannot cover the planned resources – can be supplemented by project bonds, while other forms of financing (lease financing, supplier financing, mezzanine financing) are tertiary in the course of the transaction. The creditors and funders must take into account the long-duration risk, the interest rate risk and the exchange rate risk, but the market- and operating risks have a significant effect too (Szalai, 2011). The bigger project financing transactions often cross the borders because of the volume, complexity and capital needs of the projects. Moreover, to ensure the informed decisions of the banks and to reduce the risks they face, it is necessary to involve external consultants as well, who can be (inter alia) legal, financial, sectoral or insurance experts (Kónya, 2009). These consultants (provided that the project itself has international aspects too) are employees of bigger international consultancy firms with years of experience in similar projects⁴.

Project financing, just like any other kind of financing, can only be successful in countries where the economy is transparent, the contracts are respected and where one does not have to expect market failures that could potentially upset the budget balance or even cancel the project (Ahmed, 1999).

Material and Method

Our secondary research was based on the annual data tables issued and maintained by Project Finance International, operated by Thomson Reuters. In terms of data, the data of the last five years that were closed in 2014-2018 was analysed, thus eliminating the distorting effect of the crisis and the ensuing downturn. The total project funding values from the data using nominal values, distributions, and chain and base ratios are intended to be analysed. The PFI data tables collect and analyse the data of all relevant project financing areas by region but within the framework of this study, only the EMEA area, including energy, oil and gas projects were focused upon.

3 The lead arranger financial institutes are called MLAs (Mandated Lead Arranger) but the names 'lead bank', 'lead arranger', or 'lead manager' are also widely used.

4 There are legal and financial consultants in every project financing case. Without them, the transaction cannot go forward at all or only with a huge risk.

Results

Project financing as a form of credit is a special type of loan tailored to large-scale investments. Project funding is sensitive to the world's financial movements because of its high cost requirements, high interest costs and long payback times. The risk-sensitivity of financiers in many cases, in turn, encourages them to restrain their placement activities in order to achieve the highest profit. If they can put other types of credit at a lower risk, with a shorter return, then they group their resources there. Global project financing volume has also been very hectic over the past five years. In 2015 and 2016, a 15% drop was observed, followed by another 3% drop in 2017 compared to the previous year. The reason for this is the downturn in global economic activity and the impact of the South American crisis. By 2018, the value rose by 23%, driven by the growth in global demand. This image is also displayed in terms of base ratios. Based on 2014, there is a 7% drop in those years, followed by a 12% drop, which can be seen as a major downturn at global level. In 2018, the volume was only 8% higher than the base value.

The situation in the EMEA region is similar but still more hectic. Compared to the previous year, it also showed an increase in 2015 and 2016 but in 2017, there was a decline of nearly 30% due to the economic and social crisis in the Middle East and in Africa. Financiers avoid troubled areas even if there are many resources available. Due to the economic and political risks of project financing, the regions are considered as a target to be avoided due to insufficient level of collateral. Compared to the base year, significant increases can be seen in the examined years (14% and 30%) until 2017, where the financing volume of the EMEA region accounted for 89% of the 2014 value. This region had already set for the following year but it was only able to go up to the 2015 level.

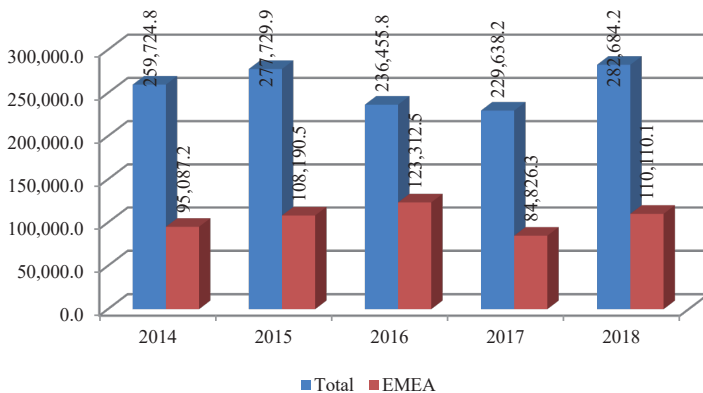


Figure 3. The total project financing volume at global level and in the EMEA region, million USD
(Source: own compilation, based on Project Finance International, 2015-2019)

The financing of energy projects shall now be examined in detail. Although the global and EMEA project funding volume in all areas was hectic in the years under review, project finance for energy investments has progressed steadily. The area was able to grow every year (27, 4, 11 and 12%), which is also the case with base values. Based on the base value, the weight of the energy sector is even more prominent. Compared to 2014, it was able to grow by 27%, 33%, 47% and 65% year-on-year, that is, the global project finance volume of the global energy sector closed at 165% at the end of the five-year period under review. The trend shown supports the findings in the literature that the increase in energy demand induces marketable investments.

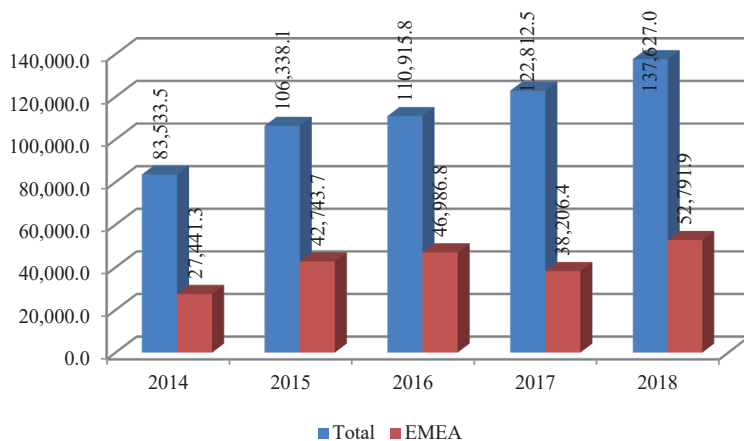


Figure 4. The total value of energy project financing at global level and in the EMEA region, million USD (Source: own compilation, based on Project Finance International, 2015-2019)

It is worth taking a look at the proportion of project-financed energy investments within the total project funding value. The proportional role of the area can also be seen on the basis of the proportions as they (based on the values of recent years) account for almost half of the global value (more than half in 2017). Within the global value, there is a clear upward trend up to 2017, which is not the case for the EMEA region. The rate is also lower and growth is slower, but there are clearly high energy investments here as well.

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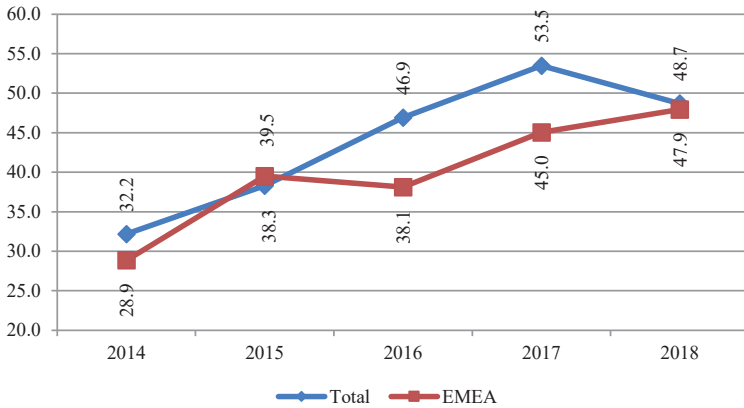


Figure 5. Share of energy project financing in total project financing at global level and in the EMEA region, % (Source: own compilation, based on Project Finance International, 2015-2019)

Summary

If the project financing of energy-producing areas as a whole is discerned, it can be said that it is clearly a target area that is perfectly illustrated by the millions of dollars pumped by financiers to one of the areas. Increasing and growing energy demand also requires more energy generating units, so the return on projects is practically guaranteed. The EMEA region, which also includes Europe, accounts for nearly 40% of the global project funding, which is why it is definitely worthy of attention. Energy and oil and gas investments with a solid return will remain high on the agenda in the future, so it is likely that many more investors will be attracted outside the banks. For the credit syndicates, the terrain is secured; it is up to the consumer to reduce or increase energy consumption. Innovative technologies can help a lot but the best thing is to be self-restrained because unused energy is the best energy.

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Bio-notes

Dr Ágnes Csiszárík-Kocsir is Associate Professor of Finances at the Óbuda University, and Head of the Institute of Economics and Social Sciences. She was awarded a doctorate in Management and Business Administration which she continued to research as a postdoctoral scholar. Her research fields are SME financing, project management practice and financial literacy. She is a visiting professor in Romania and, as from this year, also Poland. She has more than 250 national and international publications, articles as well as conference proceedings.

Dr Csiszárík-Kocsir has helped in organizing more than 30 conferences, and is a member of the editorial boards in 5 national and international journals. Ferenc Molnár has worked as a Renewable Energy Production Manager at MVM Group (Hungarian Power Company) for the past 32 years and is responsible for the preparation and implementation of power plant investments. He graduated as electrical engineer and an economist and has commenced his Ph.D. studies at Óbuda Universities Doctoral School for Safety and Security Sciences. He was the project manager of Paks Nuclear Power Plant working on time extension and currently works as project manager of the two biggest Hungarian photovoltaic power plants. His main research interest is the technical and economical aspect of carbon free energy sources.