





THE VALUATION OF REGULATED UTILITIES

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1 CONTEXT

CONTEXT

- A stereotypical utility is a monopoly company (sometimes oligopoly) with steady, regulated profits. It is low risk (no competitors, low cyclicality), low growth, and generally does not require much investment (in mature economic regions at least, the assets last a long time and capacity growth is small).
- So, this kind of company would have a high payout ratio (low retention of profits for re-investment) and would offer investors a steady but low return, mainly delivered through the dividend yield.
- Utilities are also strategic companies for states and governments as they provide services of general interest, such as water distribution, electricity production or waste collection. For this reason, governments may be willing to regulate those activities.
- Regulation may take different form such as:
 - Prohibition or close monitoring of foreign investments;
 - Obligation to serve all customers;
 - Price setting (regulated price) or price cap;
 - Asset disposal / closing.
- Evaluators must take into account this specific context which may affect the financial performance of utilities as well as their ability to invest or finance future development.
- Evaluators must also try to anticipate, as far as it is possible, the evolution of the regulated framework and its impact on valuation.
- The following presentation will focus on regulation impacts faced by EDF (electricity) and Suez (water distribution and waste collection) and how evaluators should take them into account.

FRENCH PRACTICE REGARDING FAIRNESS OPINION

- EDF and Suez valuations were performed in the context of the AMF General Regulation.
- AMF General Regulation states when independent appraisers have to be appointed in the context of public tender offers (art. 261-1), dilutive capital increases (art. 261-2), or voluntarily (art. 261-3) along with general principles regarding independence (art 261-4)
- In the context of EDF and Suez, we acted as independent appraiser appointed pursuant to article 261-1, stating that:

I. - The target company of a takeover bid shall appoint an independent appraiser if the transaction is likely to cause conflicts of interest within its Board of Directors, Supervisory Board or governing body that could impair the objectivity of the reasoned opinion mentioned in Article 231-19 or jeopardise the fair treatment of shareholders or bearers of the financial instruments targeted by the bid

The situations described below, in particular, constitute such cases:

- 1) if the target company is already controlled by the offeror, within the meaning of Article L. 233-3 of the Commercial Code, before the bid is launched; (EDF)
- 2) if the top management of the target company or the persons that control it, within the meaning of Article L. 233-3 of the Commercial Code, have entered into an agreement with the offeror that could compromise their independence:
- 3) if the controlling shareholder, within the meaning of Article L. 233-3 of the Commercial Code, does not tender its securities to a buyback offer launched by the company for its own securities;
- 4) if the offer is related to one or more transactions that could have a significant impact on the price or exchange ratio of the proposed offer; (Suez)
- 5) if the offer pertains to financial instruments in multiple categories and is priced in a way that could jeopardise the fair treatment of shareholders or bearers of the financial instruments targeted by the bid; (EDF)
- 6) if the non-equity financial instruments mentioned in Point 1 of Part II of Article L. 211-1 of the Monetary and Financial Code (Order of 30 July 2009) that give or could give direct or indirect access to the capital or voting rights of the offeror or of a company belonging to the offeror's group are provided as consideration for the takeover of the target company.

II. - The target company shall also appoint an independent appraiser before implementing a squeeze-out, subject to the provisions of Article 237-16. (EDF)

FRENCH PRACTICE REGARDING FAIRNESS OPINION

- The report of the independent appraiser is a long form report, which implies:
 - To find the adequate format according to the global practice of listed companies not to issue forecasts but just a guidance.
 - Not to disclose confidential information
 - To be self explanatory on the valuation
- The related operations were very different from the initiator's perspective:
 - In one case, Veolia wanted to take the control of Suez, its main competitor. The tender offer was hostile and became "friendly". The transaction lead to many antitrust issues, and disposal of key assets as a consequence;
 - In the second case, the tender offer and squeeze out was the legal way chosen by the French state for the nationalisation of EDF.

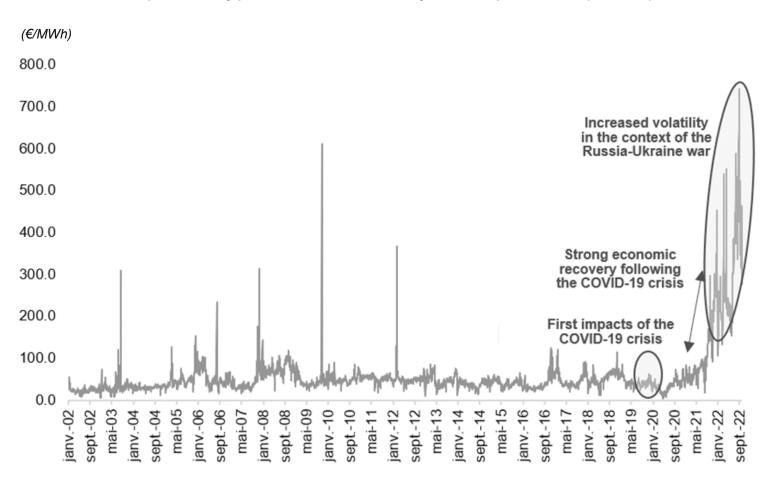
MAIN ISSUES FOR THE VALUATION

Regulation may have an impact on market structure, profitability and investment capacities of regulated utilities. It is as such an exposure risk for the issuer.

Example of EDF:

- In France, the market of electricity production and supply is largely dominated by EDF, which is the sole company operating nuclear power plants and benefit from a quasi-monopoly regarding the supply of electricity to customers (through Enedis).
- In return, EDF is subject to regulated electricity prices (TRV) covering two types of users: residential customers, who represent 90.8% of end consumption at the regulated rate (in TWh), and non-residential customers (local authorities, small businesses, and professionals), which represent 9.2% of consumption at the regulated rate (in TWh).
- Regulated prices are set by the government and reviewed periodically according to a calculation method. However, the government has the possibility to limit the regulated price increase despite the calculation method in order to protect consumers against price increases, which was done in 2022.
- EDF also must sell a substantial part on its nuclear production (100 TWh) to its competitors at a fixed price of €42.0/MWh which may be substantially lower than the market price, as observed in 2022. This mechanism, called ARENH, is intended to enable competition, and stimulate innovation.
- Early 2022, due to the exceptional circumstances observed on the electricity market. French government decided an additional allocation of up to 20 TWh of electricity sold at regulated rates for 2022 (ARENH +).
- In 2022, EDF experiences a nuclear production shortfall and is thus unable to serve its competitors through ARENH + mechanism with its own production. Consequently, EDF is forced to buy back electricity on the market at *spot* price and sell it back at €42.0/MWh to its competitors.
- As of today, due to these circumstances, EDF has to deal with an open position on this very volatile market.
- Considering that *spot* prices are substantially above €42.0/MWh, ARENH + mechanism should generate significant losses for EDF in FY2022 (related claim is €8.34 bn).

Wholesale spot electricity prices in France from January 2002 to September 2022 (in €/MWh)



- The ARENH mechanism will end on December 31, 2025.
- From a valuation perspective, the difficulty is to anticipate what new regulation for the period beginning on January 1, 2026, and what could be the form of this regulation.
- Long term hypothesis and regulation framework are complex to define and have a significant impact on the valuation results.
- Hence, it is crucial to understand the different scenarios that could be implemented for EDF, and the intentions of the regulator (the French state) whose priority objective is to ensure stable prices to households and businesses in the current market conditions.
- On this basis, a scenario in which all volumes produced from 2026 onwards would be sold at market price is not realistic as this would lead to
 potentially unsustainable prices for consumers in periods of high market prices, like we are currently knowing (or conversely for EDF in the event
 of adverse price scenarios).
- Consequently, the central assumption to our work was a fixed selling price for nuclear base electricity, intended to guarantee that the full cost of EDF's existing nuclear facilities is covered, to protect the Group downward fluctuations in market prices, and protect customers against upward fluctuations in market prices.
- Such assumption structures the valuation and must be appreciated carefully and well documented, even if such information is by its nature, strictly confidential.
- In addition, in the specific context of EDF, new regulation applicable to the sale nuclear energy in France will be considered as a state aid, and will have to be negotiated between the French government and the European Commission.
- The final regulation will then depends on the outcome of the discussions between the French government and the European Commission.
- The European Commission's agreement will be required before any regulation is implemented.

- In addition to existing regulation, energy utilities face the risk of a price cap in the short term in order to limit their profit in the current market conditions characterized by high prices volatility.
- The price cap, encouraged by the European Commission, should be factored in the valuation as it may have a significant impact on profitability.
- Over the long term, regulation may prevent utilities from having enough financial resources to ensure their development and thus impact their valuation.

- Market and analysts are informed about regulations risks and should factor their potential adverse consequences when taking investment decisions.
- More generally, it is not possible to value utilities facing regulations without factoring in the regulations that apply to the business activities in question.

CLAIM AGAINST A REGULATORY DECISION

- In some specific cases, regulated companies may intend to obtain the cancellation of a regulatory decision considered as not legal compliant and/or too highly detrimental.
- In this case, the amount of the claim can be taken into account in the valuation, after having reviewed, in conjunction with the company and its legal advisors, the terms of the claim for compensation.
- As mentioned earlier, French government announced on January 13, 2022 the allocation of a maximum additional 20 TWh of electricity sold at regulated prices for 2022 under the ARENH mechanism for the year 2022 in order to limit the increase of electricity prices for households and businesses.
- EDF considered this additional allocation as illegal and highly detrimental considering the announcement date (early 2022).
- Hence, EDF brought legal proceedings seeking the cancellation of this decision, as well as a claim for compensation against the French government, for a loss that is estimated at €8.34 billion.
- In the absence of information concerning the probability of success of the litigation and the claim, and in consideration of the uncertainty inherent to these proceedings, the entire amount of the compensation claim was included in the sensitivity analyses of the valuation.

ANTITRUST

- Regulated activities that are not in a monopolistic situation may face antitrust issues.
- The takeover of Suez by Veolia in 2021 pointed out some of these issues :
 - Suez and Veolia were the two major players in the water distribution and waste collection sector in France, and also had a dominant position in waste collection in the UK;
 - To complete the transaction, remedies were asked to Veolia by the antitrust authorities, mostly by the European Commission and the Competition & Market Authority in the UK;
 - Veolia was finally asked to divest Suez activities in France and in the UK.
- The valuation has to take into account those exit from the perimeter for their estimated market price.

- Some of the common used valuation method are not able to fully capture the impact of regulation.
- For example, the peers approach may be difficult to implement considering the difficulty to identify listed company subject to similar regulation. Generally, regulation differs from one country to another making it difficult to compare forecasts on a consistent basis.
- For EDF, this method did not seem to be appropriate as it did not address the specific nature of its various activities, in particular the exposure to the market price during the ARENH period and the potential introduction of a regulated price from 2026 onwards for existing nuclear power in France, the extension of the life of existing nuclear power in France, the phase-out of nuclear operations in France and the United Kingdom, and the future flows of facilities that are currently under construction (Flamanville 3 and Hinkley Point C EPRs).

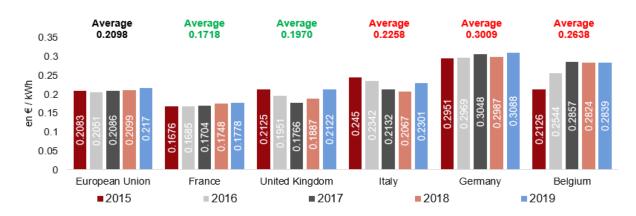
EDF's main competitors on its markets in Europe



Same comments apply for the precedent transaction method.

 In this context, the DCF method seems to be the most appropriate as it is able to capture the specificities of the regulation and its evolution over time.

Changes in the average annual electricity regulated prices of the main European markets between 2015 and 2019



Source: Eurostat

- Regarding Suez or EDF, sum-of-the-parts valuation (SOTP) method based on DCF was implemented.
- This method involves valuing separately a group's different businesses and appears to be the most appropriate to the valuation of groups operating in various business sectors and geographical regions.
- This method allows each of the group's assets to be valued using criteria appropriate to its growth prospects, as well as its specific profile and risks, which can be assessed by reference to the nature of the business and its location.
- It is important to notice that SOTP is performed in consideration of the existing perimeter of the company and assumes no change in the group structure. For EDF, the approach did not consider the sale of each group activity separately and values resulting from this valuation work do not correspond to sale prices including control premiums and any synergies that could be paid for by a buyer, because such a scenario was adverse to the strategy, and would suppose, if applied, to consider related disynergies that would occur in such context.
- On the contrary, for Suez we had to take into account the consequences of the disposal of assets required by the antitrust authorities, and its consequences.

| | Sum of the part (DCF) | This method assesses the intrinsic value of the Company Free Cash Flows are discounted using a weighted average cost of capital, which is the sum of the weighted average cost of equity and the after-tax cost of debt | ✓ Application of differentiated valuation parameters adapted to each business plan, depending on the outlook of the business the geographies concerned, the level of maturity of the business and the associated risks ✓ Enable to capture the full value of the group |
|---------------------------------|-----------------------|---|--|
| Main valuation Methodologies | Trading peers | Selection of a peers sample Determine an average EV/EBITDA or EV/EBIT multiple based on the EV and EBITDA or EBIT estimated of the peers Apply the average multiple to the estimated EBITDA or EBIT of the Company to determine the EV of the Company | Difficulties in establishing relevant samples of comparable for some of the group activities Difficulty to capture the impact of regulation, the volatility of forecasts and the future flows of facilities that are currently under construction Consistency of estimates |
| | Transaction precedent | Selection of a transaction precedent sample Determine an average EV/EBITDA or EV/EBIT multiple based on the transactions multiples Apply the average multiple to the estimated EBITDA or EBIT of the Company to determine the EV of the Company | Difficulties in establishing relevant samples of comparable for some of the group activities Difficulty to capture the impact of regulation Consistency of the data from transactions analysed |

4 CONCLUSION

CONCLUSION

- Each context of valuation is specific, and in some cases "unique".
- This is somehow the case when you have to consider the regulation, which is imposed by government or regulatory body to utilities.
- Regulation may take different form and is subject to evolution over time, in order to be adapted to the objectives of the regulator.
- Regulation has an impact on profitability and investment capacities of regulated utilities. In certain circumstances, regulatory policies may even be highly detrimental, or opportunistic, depending on the market prices of energy.
- Market and analysts are informed about regulation risks and should factor their potential adverse consequences when taking investment decisions.
- More generally, it is not possible to value utilities facing regulations without factoring in the regulations that apply to the business activities in question.

Thank you for your attention



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