Corporate and financial strategy are replete with all sorts of optionalities that mirror managerial flexibility and the dynamic nature of business decisions. Especially in strategic alliances, options and option-like provisions are used to align the partner’s incentives, overcome potential conflicts of interest, and break stalemates between the parties in case of deadlock over corporate decisions. A case in point is the acquisition of QVC by Liberty Media, the minority partner in the joint venture.

The case is set during the first half of 2003 when Vivendi Universal’s decision to dispose of its entertainment asset disposal program to reduce its debt load and the acquisition of Hughes Electronics, owners of directTV, by Rupert Murdoch’s News Corporation brought M&A in the media and entertainment sector back to life. John Malone, the CEO and controlling shareholder of Media Liberty (NYSE: L) who has been for a long time in the midst of every important transaction in the industry and a strategic trendsetter in cable and entertainment, has triggered the exit procedure in his company’s QVC joint venture with Comcast (NASDAQ: CMCSA).

In order to find an equitable and fair solution in case one or both parents wanted to terminate the joint venture, QVC’s Stockholders’ Agreement contained a “Russian Roulette” termination clause. Also called a “shoot-out provision,” such clauses allow one party to name a price and the other party then decides to buy out the partner or sell its own stake at this price. In terms of financial options, this mechanism amounts to a double chooser’s option where one party chooses the price and the other one the nature of the option (call or put). Such provisions have been shown to reduce or eliminate opportunistic behavior by the partners (what type?), lead to the efficient allocation of the assets (the party that most values them acquires the assets), and induce truthful revelation of each partner’s valuation of the jointly owned and operated assets.

Note that write-ups and presentations espouse the different perspectives of each parent firm. Here are the details:

- **Write-ups** (parent firm’s advisors) consist of executive memos to Comcast’s and Liberty Media’s senior management (e.g., from the senior investment banker to John Malone or Brian Roberts advising on the transaction) outlining the strategic pitfalls, bidding and valuation strategy, and desired outcome on the basis of your analysis.

- **Presentations** (to the boards of the respective ) consist of valuation, bid submissions, and an analysis of the strategic implications of the exit procedure.

To gain a better understanding how the market assesses the unwinding of QVC joint venture you might want to carry out simple event studies of the various events and look at their impact on shareholder wealth. As a reminder, a typical event study proceeds as follows:

2. Identify important announcements in the exit and acquisition process and determine the precise announcement date from the case materials or news wires, company websites, etc.

3. Collect and organize the required stock market data into date-matched continuously compounded returns.

4. Estimate a market model of stock returns analogous to the CAPM $R_{it} = \beta_{0i} + \beta_{1i}R_{mt} + \epsilon_{it}$ where $R_{it} = \log \frac{P_t}{P_{t-1}}$ is the firm’s continuously compounded daily return and $R_{mt}$ is the continuously compounded return of an appropriate market index such as the S&P 500.\(^1\) Use at least 180 data points but stop 50 days before each announcement under investigation. If you have closely grouped event dates, do not reestimate the market model.

5. What is the price reaction of L and CMCSA stock prices around (1) the initial triggering of the exit process (“liquidity event”), (2) the announcement of the acquisition terms, (3) the completion of the transaction, and (4) the announcement of competing bid by SAP. Present your findings in a table containing the event, its date, the event’s $CAR_i (-1,0)$ and $CAR_i (-1,1)$, their respective statistical significance, and their wealth effects $W_i (-1,0)$ and $W_i (-1,1)$ for all three firms.

(a) Identify the precise dates corresponding to the various events.

(b) Compute daily abnormal returns around the announcement date $AR_{it} = R_{it} - \hat{R}_{it}$ from, say, 5 days prior to the announcement/event to 5 days after, i.e., $t = -5, -4, \ldots, -1, 0, 1, \ldots, 5$. Given that you estimated a market model by regression methods, you need to use the corresponding market returns around the announcement date to derive predicted normal returns $\hat{R}_{it} = \hat{\beta}_{0i} + \hat{\beta}_{1i}R_{mt}$. On the basis of your parameter estimates $\hat{\beta}_{0i}, \hat{\beta}_{1i}$, plug in the market return realization $R_{mt}$ to obtain the predicted normal return $\hat{R}_{it}$, and, finally, calculate the abnormal return as $AR_{it} = R_{it} - \hat{R}_{it}$.

(c) Fix an event window around the announcement date, e.g., from 2 days prior to 2 days after the announcement, say, and calculate the cumulative abnormal return $CAR_i (-2,2)$ by adding up the abnormal returns: $CAR_i (-2,2) = \sum_{t=-2}^{2} AR_{it}$. You are also asked to repeat this procedure for the two and three day windows from one day before to one day after the announcement, i.e., $CAR_i (-1,0)$ and $CAR_i (-1,1)$.

(d) Finally, to see the total shareholder wealth effect you compute cumulative abnormal wealth created by multiplying the appropriate $CAR$ with the company’s market capitalization $K_{i-11}$ on $t = -11$, i.e., the eve of the event window around the announcement date: $W_i (\tau_1, \tau_2) = CAR_i (\tau_1, \tau_2) \cdot K_{i-11}$.

6. Assess the statistical significance of $AR$ and each $CAR$ by calculating the standard error of the CARs and their statistical significance ($p$ values).

7. Finally, to see the total shareholder wealth effect you compute cumulative abnormal wealth created by multiplying the appropriate CAR with the company’s market capitalization $K_{i-11}$ on $t = -11$, the eve of the event window around the announcement date: $W_i (\tau_1, \tau_2) = CAR_i (\tau_1, \tau_2) \cdot K_{i-11}$.

The following questions are meant to assist you in your group discussions and guide your analysis.

\(^1\)Carefully motivate your choice of index for the market model on the basis of the supplied data.
1. Analyze Comcast’s and Liberty Media’s rational to run QVC as a joint venture. What does each parent company bring to the table? What are the complementarities in assets or expertise between the parents that could lead to the realization of synergy gains in the joint operation of QVC? What are the dangers in such corporate cooperation and how was control allocated between the partners?

   (a) Identify Liberty Media’s and Comcast’s respective strengths and weaknesses and research their (recent) corporate history.
   (b) Analyze QVC’s current and past performance. What are its strengths and weaknesses? Its competitive position within its segment?
   (c) What changes in the home-shopping sector, the cable, satellite, and media industries, or the parent firm’s strategy might have led Liberty Media to trigger the exist provision?

2. Carefully investigate the “liquidity event” and exit provision in the QVC Stockholders’ Agreement. Why did the parties specify such a cumbersome termination process and what could its ultimate objective have been? What are the links to bidding and financial options?

   (a) Draw an event tree and describe the various actions the parties can take to highlight the nature of the strategic interaction. Who has what right when? Why? Does the termination procedure give
   (b) What purpose, if any, does the long valuation process play? How should each parent proceed in naming its price? What are the dangers of “low-balling” the partner or, conversely, overbidding?
   (c) What are the incentives for each party under the terms of the exit provision? How could they best achieve their respective objectives, be it as seller or buyer? What could go wrong from a potential seller’s perspective? A potential buyer’s?
   (d) Analyze the payment terms. Why specify the mode of payment up-front in the stockholders’ agreement? Why include such a brought array of instruments? Considering each instrument (cash, stock, or the three-year FRN priced at LIBOR + 150) alone and determine

3. Value the three companies. For QVC, conduct a stand-alone valuation, i.e., derive the joint venture’s intrinsic value before any synergy considerations, growth opportunities, or restructuring gains. As a preliminary step, you obviously need to calculate and carefully document the appropriate costs of capital for Liberty, Comcast, and QVC.

   (a) Would a multiples, DCF, or NAV valuation technique be more appropriate? What valuation technique is most appropriate for Liberty given that L resembles more a holding company than? How similar is it to an open-end or closed-end mutual fund? Explain why or why not comparable transactions and comparable companies’ valuations may not be the best method to use.
   (b) What is the value of Liberty Media and Comcast, respectively, without any acquisition-related benefits and costs on a stand-alone basis? Fully document your analysis and assumptions. From a bidding perspective, what does the intrinsic value correspond to?
   (c) How would the stand-alone value of the parent firms affect their choices of payment mix?
4. Carry out a full real-options analysis of synergies and other growth or disposal options created through the deal.

(a) What possible synergies exist between each parent and their joint venture and where are they expected to come from? Are they realistic and what would be a good benchmark to judge them? What are the growth options? Would any of the parents just acquire just a “cash cow” or are there operational synergies?

(b) Analyze the expected synergies, their nature, origin, and unlocking costs on the basis of the supplied information for each parent. What is their present value, their net present value? Carefully document your sources and assumptions. Study the relationship between the current value of these assets $V_0$, estimates of the cost to unlock them $K$, and the implied synergy or growth option premia $c_0$.

(c) Which party stands to gain more from an acquisition from a pure synergy and growth opportunity point of view?

5. Determine which parent companies should hold or divest its QVC shares taking into account not only QVC’s situation but also L’s and CMCSA’s recent performance. Under what scenario does each alternative make sense? Which scenario is most likely in your opinion?

(a) Having valued both the three companies and possible gains from an acquisition, which parent should acquire the joint venture and at what price? Take into account not only the narrow question of value but also whether the parent can afford to bid for QVC and any other strategic considerations.

(b) How much should this parent bid for QVC and how should it structure its payment? What is the relationship between the value of the synergy or growth options and the acquisition premium? You should take into consideration that an acquirer only had to pay a premium (if any) on the part How should it proceed in naming its price and what are its fallback position in case it finds itself on the wrong side of the transaction?

(c) Determine the economic setting of the auction that effectively takes place under the terms of the stockholders’ agreement. Make sure to understand how the auction’s format and type (what are good assumptions about the participants' underlying values?) influences the behavior of seller and bidders. How does the distribution of information affect bidding behavior and the likely price?

(d) How might the existence of parent-specific gains from the transaction exacerbate typical problems in bidding for assets? Could the fact that each parent owns a sizeable stake in the target affect its bidding behavior and, if so, how?

6. Use the supplied market data to analyze the market reaction to the unwinding of the joint venture. Identify key dates (announcement of the liquidity event, price discovery, Liberty Media’s decision to bid for Vivendi Universal Entertainment, completion of the acquisition) and carry out an event study of the stock-price reaction for Liberty and Comcast.

7. Follow up on the acquisition and find out what happened to the three firms after the acquisition. How well is L doing? CMCSA? Where is the acquirer in terms of identifying, analyzing, and unlocking synergies? What does the market think of the integration effort and how well has the combined entity performed? Who, in your opinion, won and who lost in the deal?
Groups 1, 3, 5, 7

You work for John Malone (Liberty Media) and have to come up with a valuation and bidding strategy for QVC. Should L be a buyer or seller? If so, at what price? How should they proceed to reach the desired outcome and what are the various strategic considerations that went into the formulation of a coherent plan?

Groups 2, 4, 6, 8

As a managing director of the investment bank advising Comcast, you are to lay out the strategic options to your client regarding the unwinding of the QVC joint venture. What are CMCSA long term interests and needs? What type of deal should they be aiming for?

Please note the following ground rules for the case write-ups:

- the maximal group size is 5; every group member gets the same grade
- at most 2 pages of analysis and 6 pages of technical appendices;
- show your work, staple the pages together and be professional;
- late write-ups will not be accepted for any reason; they are due at the beginning of class for which the discussion is scheduled;
- graded write-ups will be available a week later.