

# Case: Big Yellow Bus

Bain, Round 1

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## Problem statement narrative

Your client is a private equity fund considering the acquisition of Big Yellow Bus Co, one of the leading manufacturers of school buses in the US. The client has engaged Bain to help determine whether or not to proceed with the investment.

## Overview for interviewer

This is a classic go/no-go investment case which should use a command & control format if the candidate does not hit the right path quickly. The candidate should first develop a framework, which will ideally include assessing the market, the company, and the transaction. As part of the market discussion the case tests the candidate's math with a market sizing question. After this point the case should move on to the competitive landscape, which will test the candidate's business intuition. Exhibit 1 should be provided to the candidate when the case moves to this juncture.

Case Type: Investment (Go/No-Go)

## Information to be provided upon request

- BYB is the #1 player in the market by revenue, #2 by volume.
- There are only 3 competitors in the market with relatively equal share but BYB was the clear leader 5 years ago.
- BYB's prices are 20% higher than its competitors
- The market has a fairly steady long-term 3% growth rate driven by GDP / population growth.
- Market growth has been 6% over the last two years as local towns rush to buy buses prior to new emissions regulations coming into place.
- The customers are almost exclusively local cities and towns in the US.

# Potential Issue Tree & Approach to Solving the Case

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## Key elements of analysis to solve the case

| Market  | Company  | Transaction  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• How sizable is the market for school busses?</li> <li>• What is the growth potential?</li> <li>• What does the competitive landscape look like?</li> </ul>   | <ul style="list-style-type: none"> <li>• How does BYB stack up relative to peers?</li> <li>• How is the financial performance?</li> <li>• How do BYB's trends look relative to peers?</li> <li>• Is the company well-positioned?</li> <li>• How effective is management?</li> </ul>  | <ul style="list-style-type: none"> <li>• What is the likely pricing? Will it meet our client's return hurdles?</li> <li>• Can the transaction be financed?</li> <li>• Why are we the right buyer?</li> </ul>   |
| Possible follow-up and guidance to interviewer  | Possible follow-up and guidance to interviewer   | Possible follow-up and guidance to interviewer   |
| <ul style="list-style-type: none"> <li>• Have the candidate size the market (see next slide).</li> <li>• After sizing the market talk about growth potential (hopefully candidate addresses it directly). Talk through the recent growth acceleration and whether it is likely to persist.</li> </ul> | <ul style="list-style-type: none"> <li>• As part of competitive landscape discussion reveal the Market Financial Summary and wait for the candidate's reactions.</li> <li>• If necessary direct the discussion to reveal that:                         <ul style="list-style-type: none"> <li>• BYB is the high-price option</li> <li>• Competitors have considerable procurement advantage given ownership</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Case will not focus here, although consider whether the private equity fund owns similar businesses that might have overlapping needs (such as other heavy equipment / auto manufacturing companies in the portfolio).</li> <li>• Assume pricing can be attained at reasonable levels – focus on strategic strengths / weaknesses.</li> </ul> |

# Question 1 – Market Sizing

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## Math Question

How large is the market for school busses in the US? Follow-up: Is the market attractive?

### Overall approach, good shortcuts & solution

|                                     |               |
|-------------------------------------|---------------|
| US Population                       | ~320M people  |
| Life Expectancy                     | ~80 years     |
| People per Decade                   | ~40M people   |
| School Age Commuters<br>(~15 years) | ~60M children |
| % Taking Buses                      | 33%           |
| School-Age Children Taking Buses    | ~20M children |
| Children per Bus                    | ~50           |
| Buses Required                      | 400K buses    |
| Average Life of Bus                 | 10 years      |
| Buses Sold per Year                 | 40K buses     |

### Information to provide up front

If candidate begins down the wrong path, redirect to population proxy. This is meant to test basic math skills.

### Provide information if asked

Candidate can make his own assumptions or ask for inputs.

- ~33% of schoolchildren take buses to school
- ~50 students ride each bus
- Ancillary busing needs (sporting events, field trips, etc) are absorbed almost entirely by the normal fleet

#### Attractive market?

- Market growth is traditionally GDP/population-driven at 3% per year; last 2 years have seen 6% growth
  - Pull-through demand ahead of changing emissions regulation

## Exhibit 1 – Competitive Landscape in US Bus Market

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|                              | Big Yellow Bus Co | Competitor A | Competitor B |
|------------------------------|-------------------|--------------|--------------|
| <u>Market Share Analysis</u> |                   |              |              |
| Market Share (\$)            | 38%               | 34%          | 28%          |
| Market Share (units)         | 34%               | 36%          | 30%          |
|                              |                   |              |              |
| <u>Margin Analysis</u>       |                   |              |              |
| Revenue                      | 100%              | 100%         | 100%         |
| Gross Margin                 | 25%               | 35%          | 36%          |
| Operating Margin             | 15%               | 25%          | 26%          |

## Question 2 - Competitive Landscape

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### What does the Competitive Landscape Data imply?

There are two major takeaways:

- 1) BYB's share of revenue is higher than its share of volume
  - Why? Its prices are higher than peers by 20%
    - Does this matter? – YES
    - Commodity product and highly price-sensitive customer (local cities & towns)
    - 5 years ago BYB's market share was 60%
      - Low-cost competitors are gaining share...
- 2) BYB's cost structure is high relative to peers
  - Why?
    - Gross margin is the big differentiator
      - Candidate should address COGS for bus company
        - Materials, labor are largest (not just commodity metals – specialty machinery components)
        - BYB has significant materials procurement disadvantage
        - Competitor A & B are not stand-alone firms – they are owned by large industrial trucking firms with some chassis and engine overlap

## Sample Recommendation

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|                |   |
|----------------|---|
| Recommendation | We do not recommend proceeding with the investment of BYB. Even if pricing of transaction is attractive BYB is in a difficult competitive position. BYB is losing share to two lower-cost competitors with significant built-in cost advantages given their ownership structures. Further, cost is the biggest driver in the market as buses become increasingly commoditized and local cities & towns become more price sensitive in the face of budget deficits. Overall, not an attractive investment. |
| Risks          | Economic decline / immigration patterns could actually accelerate demand beyond 3% growth going forward, but even in this case BYB is still at a cost disadvantage.   |
| Next Steps     | Make sure PE fund does not own related portfolio companies that might allow for procurement synergies with BYB along the lines of what is achieved by competition. Assuming there are none, move on.  |