

FIN42030: Financial Analysis Project Outline [2024/25]

Lecturer: Dr. Lisa Sheenan

Project Deadline: Monday, October 6th 2025, 6pm

Submission Requirements

Your group is required to select, value and write a brief report on a S&P 500 firm.

One person from the group is required to submit the following by Monday, October 6th 2025 at 6pm on Brightspace:

1. Final report of approximately 5,000 words
2. An Excel spreadsheet containing your valuation model
3. Minutes of group meetings (minimum of one) and a brief outline of each member's contribution to the project. This must be agreed upon by all group members and signed by each member.

The guideline length of the report is 5,000 words. Legible font (and font size) should be used. This word limit does not include the appendix, bibliography and minutes/contribution sections.

Other Information

- Grade accounts for 30% of overall module grade
- Use professional judgement (as a team) to make decisions
- All team members must contribute, and the team must agree with the group contributions, in order to receive a grade
- Clearly state and justify any assumptions made
- Marking allocation:
 - Valuation Model: Covered in Lecture 5 and Lecture 6 **40%**
 - Description and Justification of Approach, Interpretation of Results: Linking results to key financial theories and clearly outlining the implications of your results and recommendations **45%**
 - Presentation and referencing: the quality of the presentation, correct computation, clear analysis and expression in your answers. This also applies to the Excel spreadsheet containing your workings and the application of appropriate formulae in the spreadsheet. The quality of sources and consistent referencing (use preferred referencing style) will also receive marks. **15%**

Project Guidance

Performing a Quick Analysis of a Company

This note will explain how to perform an analysis of a company using publicly available information. In practice, a significantly more elaborate exercise (due to the involvement of real money and availability of proprietary databases) should be conducted. Hence, this guide is designed to perform a basic analysis of a company.

Selecting a Company

Your group must select a S&P 500 firm. You should avoid selecting insurance companies, banks, real estate, aviation, exploration companies, conglomerates and utilities (efforts have been taken to remove most of these firms from the list). Any companies which have recently been involved with a major merger or acquisition should be also be excluded in your selection. Each group must select a unique company. Companies are assigned to groups on a first-come first-served basis.

Click [this link](#) and select the firm of your choice. To assign a company to your group, type your group number in Column E to the right of the company's ticker. If a company has already been assigned to another group, **do not** overwrite their group number. The ROIC, WACC and Cost of Equity provided are from 2023 to serve as a starting point. Update these by downloading them from any financial database. Please state the source of your data.

The following describes the steps taken to value General Dynamics [Ticker: GD] in 2009

Obtaining Background Information

It is important to get an understanding of what the company does and the industry that it operates in.

1. Check recent news and announcements on Yahoo Finance. Browse [Yahoo Finance - Stock Market Live, Quotes, Business & Finance News](#) and enter the company ticker.
2. Do a news search on the company's name - this is a good way to find out if the firm has engaged in major transactions or events since Yahoo Finance treats every minor event as a news item.

By the time you complete this exercise, you should be able to write a short paragraph along the following lines:

General Dynamics Corporation (General Dynamics, GD) offers a portfolio of products and services in business aviation; combat vehicle, weapons systems and munitions; shipbuilding design and construction, and information systems, technologies and services. The Company focuses on delivering products and services to military, federal government, commercial and international clients. GD operates through four main business groups: Aerospace, Combat Systems, Marine Systems and Information Systems and Technology. On December 19, 2008, the Company acquired AxleTech International, a manufacturer and supplier to axles, suspensions, brakes and aftermarket parts for heavy-payload vehicles for a variety of military and commercial customers. On November 5, 2008, it acquired Jet Aviation of Zurich. Further acquisitions of

HSI Electric, Inc., a marine and industrial electrical company and ViPs, Inc., an information technology company are made on November 5, 2008 and July 22, 2008 respectively.

Investors Perception

Using Yahoo Finance and other investment websites, you should try to find out how investors perceive the company. For instance, is there any useful information on discussion boards, analysts' forecasts, Reuters, Bloomberg, MarketWatch, SeekingAlpha, etc what would allow you to reach some conclusions about the company?

During the past 12 months, GD's stock price has fallen by 56% and this may be contrasted with a 40% drop in the S&P500. This gap is especially pronounced in the past 3 months - the S&500 and GD is down by 10% and 30% respectively. While GD's defense business is unlikely to depend on the economic cycle, the executive jet market is likely to be quite exposed. Fears about the executive jet market appear to be driving the current underperformance of the stock. Some commentators believe that a P/E multiple of 6.5X, the company is 'stunningly' cheap.¹

Creating Hypotheses

Financial statement analysis is largely a detective expedition. A business context (e.g. acquiring another firm) will generally drive the development of the hypothesis. In our case, we are interested in determining whether General is a good investment proposition. Given our review of investors' perceptions, we might begin by asking: Has the market under-estimated the value of the executive jet business?

Recent Annual Report

Download the most recent annual report of the company from its website. Naturally, you should also seek out additional information.

Read the Annual Report

As you read it, try to understand what drives the company's performance.

Typically, the annual report is divided up into sections, i.e., strategic report, governance report and financial statements. You should read through these sections and determine the following:

1. Identify the nature of the business and the principal segments.

For GD, essentially a defense contractor and executive jets. Defence appear to have a 'lumpy' sales (i.e., it is not granular like detergent industry). Instead, a positive/negative unclear nu- clear sub will have a big impact on revenue. Also, order backlog is a key determinant of future performance since the production process has a long duration. Any annuity-type revenue (e.g. manufacturing and outsourcing) should be established.

¹ <https://seekingalpha.com/article/126903-playing-defense-with-general-northrop-and-raytheon>

2. Identify the principal business risks.

The main business risks for GD are US defense spending, demand for executive jets, commodity prices and its ability to innovate.

3. Read through the Chairman, CEO and CFO reports. Management will explain the main issues that affected performance relative to earlier periods. Hence, this section should reveal some of the main points you need to incorporate into forecasts of future performance.

A review of the MD&A section revealed that performance varies across business segments. Given the nature of the firm's business, there is enough data when one combines backlog information to produce forecasts of future revenue. Significant acquisitions during the period should be incorporated into the forecast. Also, the company issued fixed term debt that could be used to measure the cost of debt. In addition, GD has significant share repurchases during the period. Operating leases are not significant. Pensions and Other post-employment benefits (OPEB) are important for this company.

4. Analyze the financial statements. Use common size, percentage changes and CAGRs to understand what has been happening over the last number of years for the company.

Over the past five years, GD sales have grown at 11.6% per annum. Sales growth in 2008 was 7.6%. One would need to establish whether this was growth by acquisition or organic growth. Operating income has increased at 17% per year. As a result, profit margins went up from 10.2% to 11.4% in 2008. Interest is a small percentage of income and therefore, GD does not have excessive debt. Tax rate appears to be at around 31%. Discontinued operations do not appear to be very significant. Net income has grown by 19% whereas EPS has grown by 19.35% over the period, while EPS growth in 2008 was 21%. The difference in these growth rates suggests that share buybacks are significant. Net profit margins have improved from 6.3% in 2004 to 8.5% in 2008, which is encouraging. Operating cash flow increased by 14% per annum over the period (i.e. slower than income growth) but there was a 6% increase in 2008. Hence, seek to understand why it has changed in 2008. Investing activities consumed \$3bn in cash - this may be due to acquisitions. Check that this is not CapEx later on. Dividends have increased at 18% per year; 21% in 2008. Backlog has increased at 16% per year and 58% in 2008 - analyze why. Interestingly, the company also reports its version of ROIC.

IMPORTANT RESOURCES: Preparing a Valuation

Once you understand the company, you can begin to prepare a valuation model. You have several sources of information to help you build your model:

- Excel Valuation Template uploaded on Brightspace - help you get started with building your model and basics instructions to guide you through the process
- Topic 5 Lecture Slides
- McKinsey - Koller, Goedhart & Wessels - Valuation, Chapter 10, 11 & 13. This e-book is available for free through UCD library website.
- Damodaran - Investment Valuation : Tools and Techniques for Determining the Value of Any Asset. You can access the softcopy of the book through UCD library website.

After developing the model, you should then try to establish how changes in your assumptions will affect the valuation.

Writing a report

Next, you can write a report with your understanding of the company and what drives its value. A good report should also include sensitivity analysis on some of the parameters in your valuation. Bonus marks will be awarded for testing the sensitivity of your model. An example for GD is presented in the next section.

Sample Report

General Dynamics - Sample Valuation Report

Recommendation: Buy

Basis for Conclusions

General Dynamics is currently trading at \$38 per share. We believe that the fair value of the share is \$63 per share, offering an upside potential of 66%. Therefore, GD is well positioned to benefit from any upswing in US equities. We also believe that downside risks are low. Using extreme scenarios of no future profits from its executive jet division and no increase in the US defense spending result in a valuation of \$41.25.

About the Company

General Dynamics Corporation (GD) offers a portfolio of products and services in business aviation; combat vehicles, weapons systems and munitions; shipbuilding design and construction, and information systems, technologies and services. The Company focuses on delivering products and services to military, federal government, commercial and international customers. General Dynamics operates through four business groups: Aerospace, Combat Systems, Marine Systems, and Information Systems and Technology.

Our review of the 10-K suggests that it may be understood as two core business - defense contracting and executive jet manufacture. Defense contracting accounts for 81% of sales and 73% of operating profits. Executive aviation is 19% of revenue but 27% of operating profits. Executive aviation is likely to be very sensitive to global economic conditions as a downturn in economic activity is likely to adversely impact discretionary spending on these luxury items. On the other hand, defense contracting is primarily driven by US expenditure on these items. Continuing hostilities in west Asia are likely to benefit demand for GD's products while long term investments in submarines and other similar items are likely to also benefit GD. Naturally, GD is exposed to any decline in US defense spending or the cancellation of long term programmes (especially sub- marines).

Accounting Analysis

Most of GD's business consists of long term contracts and the company provides ample data on its order backlog and long term contract accounting. Most of the contracts appear to allow GD to recoup market price changes. A serious evaluation of the company would involve a careful

examination of these contracts and their impact on revenues over the next two decades. Given the 'lumpy' nature of these contracts, cancellations are likely to have a material impact on GD's profitability. However, the scope of this assignment did not permit a careful analysis of these revenue streams.

Key analysis issues:

1. Revenues: GD receives substantial amounts of revenue in advance and this finances its work in progress. We were concerned by the trade-in options that it offers on executive jets but as far as could establish, this is not a serious exposure. However, if these were material, one would be concerned that customers might return jets if they encountered economic difficulty. We were also comforted by the fact that GD does not offer finance to its executive jet customers.
2. Special Items: GD does not have material restructuring charges, discontinued operations or other one off items that would affect our valuation. The company did make a significant acquisition during the year, but given the overall scale of GD, we do not believe that this requires separate analysis.
3. Leases: GD has some operating leases, but they do not have a material impact on its profitability or financial position.
4. Off Balance Sheet Issues and Investments: GD does not have significant investments in other enterprises or a dependence on off-balance sheet entities. As such, it generates significant cash flows and has engaged in significant share repurchases rather than investing in marketable securities or other enterprises. While it has engaged in mergers and acquisitions and has 11.5Bn of goodwill, this has occurred through time and there does not appear to be a significant large exposure. Nevertheless, it did make an acquisition in 2008 that increased goodwill by 2.5 Bn and a careful review of this acquisition is warranted.
5. Solvency and Liquidity: GD's business model involves receiving cash in advance from customers, therefore it has a low exposure to liquidity issues. In addition, it has a low level of debt. Its financial strength is probably best captured by a significant issuance of debt in December 2008 at a time when credit markets were in turmoil. In addition, the company has 1.5Bn of cash.

Our review suggests that GD is a conservative company. We do not believe that its collapse is imminent or that it pursues aggressive accounting practices.

Valuation

Using a WACC of 10.1%, we concluded that GD is worth \$63 per share. To better understand downsides to our forecast, we constructed worst case scenarios. They were:

- Executive Jet Implosion: If we assume that demand for executive jets ceases once the current order book is fulfilled, our valuation decreases by \$9. If we further assume that the order backlog is completely cancelled, our valuation would decrease by a further \$2.25.
- Defense Spending Cuts: Our valuation assumes that defense spending will increase by 4.75% in nominal terms. If defense spending failed to increase (i.e. 0% growth in nominal terms) the downside to our valuation would be a further \$10.54.

In this section, it will be good to highlight the assumptions of your model (i.e. key value drivers) and the basis of using them.

Conclusions and Action

In the absence of major corporate news, we believe that GD is a good buy if it trades below \$40. It is well capitalized and at \$40, it would appear that market participants are fully discounting the value of the executive jet business and significant declines in defense spending. The company is well positioned to benefit from any positive news flow on executive jets/defense spending and