



Current Price \$151.31
Target Price \$255-275

Analysts

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Company Overview

General Dynamics (GD) is a top military contractor to the pentagon, with the United States government accounting for over 65% of all sales. The company also offers civilian products and services globally, operating in over 45 countries. Their wide variety of products and services are spread across its five segments categorized as Aerospace, Combat Systems, Information Systems, and Mission Systems, Marine Systems. Roughly 82% of its \$39.35 billion sales in 2019 came from the U.S. government and U.S. commercial customers.

Stock Performance Highlights

52 Week High	\$190.08
52 Week Low	\$100.55
Beta Value	1.196
Average Daily Volume	1.26 m

Share Highlights

Market Capitalization	\$43.416 b
Shares Outstanding	1.21 b
Book Value per share	\$5.08
EPS (2019FY)	\$12.09
P/E Ratio	13.71
Dividend Yield	2.81%
Dividend Payout Ratio	40.53%

Company Performance Highlights

ROA	7.67%
ROE	24.99%
Sales	\$39.35 b

Financial Ratios

Current Ratio	1.23
Debt to Equity	2.26

Investment Thesis

We recommend a buy rating for General Dynamics because its current stock price does not reflect the outlook for the company. We believe this stock is undervalued due to the COVID-19 pandemic and uncertainties surrounding the market.

Drivers of Thesis:

- Cyber security, artificial intelligence, and cloud services are growing like never before with a strong information technology business segment, General Dynamics is well positioned to grow the segment greatly with cutting edge technology and military equipment.
- General Dynamics has positioned itself well with a diverse business segments compared to other defense contractors.

Risks of Thesis:

- Business aircrafts such as the Gulfstream series, demand could decrease because of the pandemic with businesses realizing business travel maybe an unnecessary expense, which would increase backlog and could become costly for General Dynamics.
- Further COVID-19 stimulus may reduce defense spending which would greatly decrease General Dynamic's revenue and companywide growth.

One Year Stock Performance vs. S&P 500

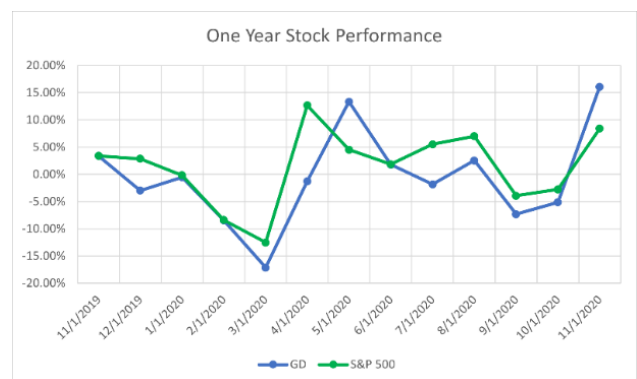


Figure 1: Data from Yahoo Finance¹¹

Executive Summary

As of November 17, 2020, our analyst team is recommending a “BUY” rating for General Dynamics (GD). Companies around the world have had to withstand the coronavirus, the industrial sector being one of the hardest hit victims of this virus. With a vaccine in sight we believe a major bounce back is imminent for the aerospace and defense industry. Our discounted cash flows and economic profit models yield an intrinsic value of \$284.81 per share. In our dividend discount model, we had an intrinsic value of \$255.92. Both prices have influenced our target price range of \$255-\$275 this shows a potential growth from now for between 64%-83% in the stock price of \$151.31 as of November 16, 2020.

Macroeconomic Outlook

Real Gross Domestic Product (GDP)

Real GDP is an inflation adjusted measure of the goods and services produced in a country and represents the health of an economy. A good economy indicates a business can financially grow and improve operations. After the lockdown in the spring, the United States GDP was forecasted to recover and grow, which it did in Q3. News broke out on Pfizer and Moderna vaccines being ready for distribution in late 2020 and early 2021 which are 90 and 94 percent effective. This scientific breakthrough promotes economic recovery as GDP will continue to grow. According to Jan Hatzius, chief economist at Goldman Sachs, with the development of a COVID vaccine, the United States GDP growth in 2021 is projected to be 6.2%²¹. This is a positive correlation for the General Dynamics stock price. GDP is a great indicator for industrials because companies in the industrial sector manufacture products. There is a positive correlation between stock price and GDP for companies in the aerospace and defense industry.

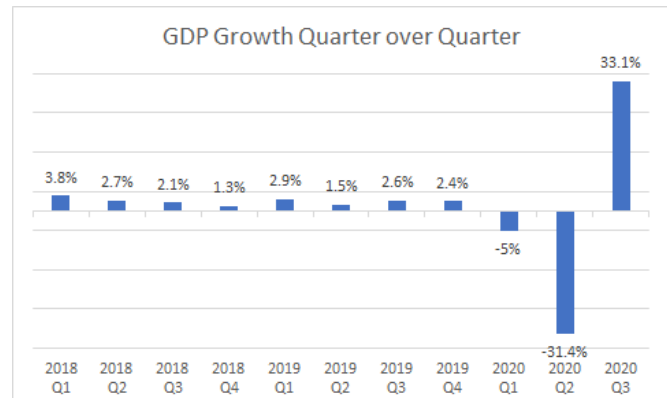


Figure 2: Real GDP Growth²

COVID-19 Implications and Effects

Over the course of the last six to seven months, the COVID-19 pandemic has significantly impacted almost every business in the United States, some more than others. Within the aerospace and defense industry, aerospace has been most significantly impacted due to an extreme reduction in air travel. Companies like Boeing have been hurt the most, with a YTD performance of -38%. The defense market has remained fairly COVID-resistant, as demand is acyclical in regard to normal market factors. Typically, the swings in the defense markets are caused mainly by government spending and foreign conflicts. With the development of successful vaccines hopefully rolling out over the course of the next six months, the effects of COVID should be mitigated.

US Military Defense Spending

United States defense spending is perhaps the most important factor that determines the well being of the aerospace and defense industry. Approximately 66% of General Dynamics revenue comes from government contracts in 2019.⁶ Defense spending is projected to increase by approximately 3% year over year from 2019 through 2025. A change in the oval office will likely not greatly affect defense spending, as we have a republican controlled senate. Raytheon CEO, Gregory Hayes said in an interview with Jim Cramer that it was “ridiculous” to think defense spending will decrease. Hayes went on to say that we may have lost our technological edge to the Chinese, and some cases the Russians, so an

increase in funding will be needed¹. The Biden administration plans on reallocating defense funds towards more cybersecurity and artificial intelligence²². With the combination of previously unprecedented spending by the previous administration and COVID-19 adverse effects on the U.S. economy, we believe growth of the budget will be rather stagnant but will not shrink.

Industrial Production Index

The Industrial Production Index is an economic indicator that measures real monthly output for all facilities located in the United States within the manufacturing, mining, gas and electric utilities industries.⁴ The IPI has begun to rebound since the spring lockdown, but with the recent uptick in COVID-19 cases around the country, a four to six week lockdown seems imminent. For the short term, this will greatly decrease the IPI back to March and April levels. We expect the IPI to hover around a 95 level because of the great potential of a four to six-week national lockdown. Once the outbreak is more contained the IPI will begin to recover once again, but normal levels like the seen before the pandemic won't occur until summer of 2021, when the vaccine should be most readily available to be distributed to people.

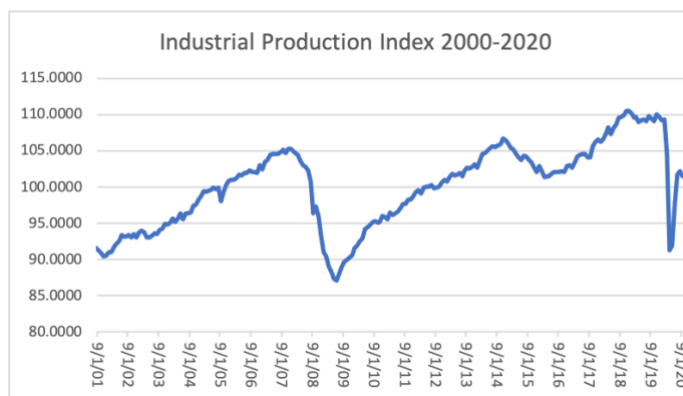


Figure 3: Industrial Production Index⁴

Producer Price Index

The producer price index measures the average change over time in the selling prices received by domestic producers for their output. (BLS)

The PPI is an essential tool used for price adjustments in long-term purchase contracts. The producer price index is currently at 195.9 as of October 2020. It has consistently grown from its low point back in April. This is a positive trend for General Dynamics and the rest of the aerospace and defense sector because their long-term contracts are less likely to be in jeopardy of being revised down.

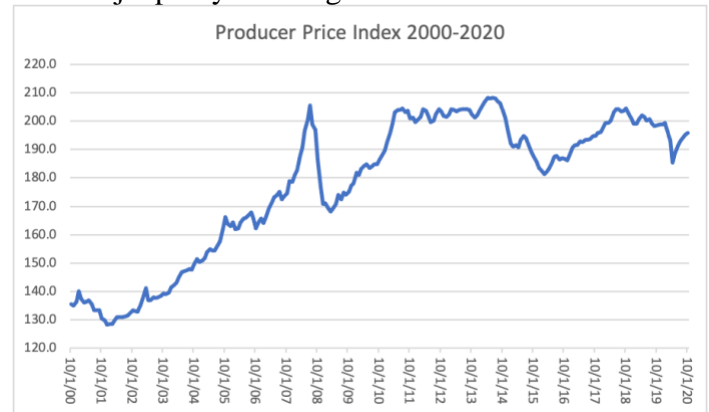


Figure 4: Producer Price Index⁷

Capital Markets Outlook

The capital markets have recovered since March 16, 2020, due to the performance of the tech industry. We are anticipating this momentum to carry into 2021 for a few reasons. First markets perform best when there is split control in the house and presidency like there is now with a Democratic president and Republican senate. According to Forbes on average the S&P 500 had a 13.3% return when the congress and the president are divided in terms of party affiliation¹⁶. JP Morgan claims the market will surge another 11% by early 2021 because of the political landscape shift¹⁷. This is positive news for the aerospace and defense industry as it has been a market laggard. Since March 23, 2020 DFEN ETF which General Dynamics is included in as well as others in the A&D industry has grown by 167%. We expect this superb growth to continue and reach its previous high of around \$60 in a couple of years. We are bullish because of the scientific breakthroughs of vaccines being available by early 2021 for the general public. Additionally, David Kostin of Goldman Sachs forecasts the S&P 500 to climb

to \$4,600 by the end of 2022, which would be the highest value for the S&P ever recorded.

Industry Analysis

Aerospace and Defense Overview

The aerospace and defense industry is comprised of two main markets. The first being aerospace, in which firms design, manufacture, and sell many types of commercial and defense aircrafts. The defense market focuses on meeting weapons, mission and combat system, and marine system needs of the US government. These needs include land, sea, and air products and services. Major competitors to General Dynamics include Raytheon, Lockheed Martin, Northrup Grumman, Huntington Ingalls, and Textron. General Dynamics competes with many of these firm for long-term US government contracts, which make up the majority of each of their revenue streams.²⁰ These companies are all considered manufacturing defense firms which means their performance directly correlates with defense spending.

In addition to defense manufacturing, some of these firms, including General Dynamics, participate in information technology services and mission systems. These include intelligence, communication systems, and commercial consulting in some capacity. General Dynamics has found very recent success in information technology and mission systems, as this segment has seen almost a 50 percent increase in revenue from 2015-2019. Companies that are primarily defense service related tend to work on more short-term deals rather than long-term. Due to this fact, defense service focused firms are more threatened by cuts in defense spending. The relatively recent trends of higher concerns regarding cybersecurity have fueled major growth in this industry. With no comprehensive solution to cybersecurity in the near future, these firms are likely to continue to experience growth.

Porter's 5 Forces Analysis

Competitive Rivalry: Low to Moderate

While competition is intense, there is generally a low number of competing firms compared to other industries due to high barriers to entry. In the commercial airspace segment, Boeing and Airbus dominate the market for both single-aisle and wide-body commercial jets that make up the large majority of the global commercial fleet value. However, General Dynamics is a leader in smaller business jets through their Gulfstream business. While there is a somewhat large number of competitors in the defense market, the majority of the time only two to three firms are capable of competing on specific subsets of major contracts.⁹

Threat of New Entrants: Low

There are very high barriers to entry within this industry due to capital intensity, webs of regulation, and long lead times. A new entrant in the aerospace and defense industry would have to take on years of losses before it would have a shot at turning a profit. In addition, new entrants in this industry can be easily undercut by well-established large firms which have much lower costs through scaled production.

Bargaining Power of Suppliers: Low to Moderate

Major aircraft manufacturers offer two engine options for their new planes, which reduce dependance on a single engine supplier. The avionics manufacturing industry is also less concentrated than the aircraft manufacturing industry, which gives the large manufacturers more bargaining power. The defense market is very similar to the aerospace market, however, for some specialty parts there is only one supplier which gives the suppliers bargaining power.⁹

Bargaining Power of Buyers: Moderate

Commercial aerospace customers, airlines mainly, are much more fragmented than their suppliers, giving the segment reasonably strong pricing power. However, aircraft manufactures typically offer airlines discounts

as purchase incentives to maintain brand loyalty. In addition, switching aircraft manufacturers means retraining crews which can be costly for the airline. Also, Boeing and Airbus have multi-year backlogs of aircraft orders, meaning that switching a supplier generally cannot be done in the near-term. As for the defense market, the US government is the largest and source of revenue which gives them substantial pricing power. Declining defense budgets can be a negative catalyst for the market, but long-term contracts help to reduce this risk.⁹

Threat of Substitutes: Low

Development of new commercial aircraft, military aircraft, and weapon systems all involve very long lead times which makes it difficult to substitute these products without serious capital and technology.⁹

Company Analysis

Company Overview

General Dynamics is a large US aerospace and defense contractor. General Dynamics revenue business segments include: Aerospace and Defense, Marine Systems, Information Technology and Mission Systems, and Combat Systems. General Dynamics leading revenue streams are marine systems and Information Technology and Mission Systems. General Dynamics owns the rights to all five shipyards in the United States along with Huntington Ingalls giving the company an advantage in the marine industry. The revenue decomposition for 2019 is shown in figure 5 below.

Revenue Stream	Revenue (Millions)	Revenue as a Percent
Aerospace	\$9,801	24.91%
Combat Systems	\$7,007	17.81%
Information Technology and Mission Systems	\$13,359	33.95%
Marine Systems	\$9,183	23.34%
Total	\$39,350	100.00%

Figure 5: From General Dynamics 10-K⁶

Aerospace

The aerospace division of General Dynamics is based in Savannah, GA, named Gulfstream. The jets Gulfstream produces are a part of the G series (500, 550, 600, 650, and 700), and are mostly used as private jets and for business travel. Making up almost 25% of revenue in 2019 this is a critical revenue segment for the company. The segment experienced 15% growth in 2019 attributed to FAA contracts and the G700 aircraft. Customer deliveries are on track for 2022. COVID-19 will slow growth at first for this segment however with positive news about vaccines coming out every couple days, the segment should be able to maintain a steady growth rate after 2022.⁵

Combat Systems

Combat Systems of General Dynamics accounted for about 18% of the companies 2019 revenue. This division’s revenue has contracted by 26.7% since 2010. General Dynamics products in this field include M1 Abrams tanks, Stryker wheeled vehicles, lightly armored vehicles, and armored fighting vehicles. Customers for this segment include the United States, Canada, United Kingdom, Middle East and Northern African countries. This revenue segment of the company benefits from a strong positive operating leverage according to the GD Q3 presentation.⁵

Information Technology and Mission Systems

The Information Technology and Mission Systems segment of General Dynamics brings in the greatest percentage of revenue. Within this segment, products offered include artificial intelligence, cyber security, cloud technology and many others. General Dynamics was behind its competition, so in 2018 the company acquired CRSA for \$9.6 billion, to bolster its IT business segment as well as diversify its revenue streams.¹⁹ This segment has room to grow with cyber security and artificial intelligence being two huge services offered in the future. Two weeks ago, GD was awarded a \$4.4 billion contract from the department of

defense. News broke out that President elect, Joe Biden’s, administration does not want to cut defense but rather reallocate to more cyber security to protect the United States from the likes of Russia, China, and Iran.¹²

Marine Systems

General Dynamics marine systems are made up of three subsidiaries. The firm builds ships for the navy such as battleships, submarines, and carriers, as well as commercial cargo ships. News that broke on November 5, 2020, was GD was awarded a \$9.4 billion submarine contract with the US Navy. This segment has maintained steady growth of about 5% per year over the past five years. In October, Secretary of Defense Mark Espner, was quoted saying the United States needs 500 more ships to be added to its fleet by 2045 to counter China. The plan is to add more submarines which is great news for GD which is the main producer of submarines for the United States Navy. Loren Thompson, an aerospace and defense senior contributor at Forbes, believes there will be an increase in demand for Columbia submarines which is a subsidiary of General Dynamics.¹³ This is because Joe Biden has been nuclear deterrent his throughout his political career, as he believes the best way to go for nuclear defense is being able to retaliate instead of a show of force. This is perfect for the Columbia submarine because they are the central part to this plan according to Thompson.

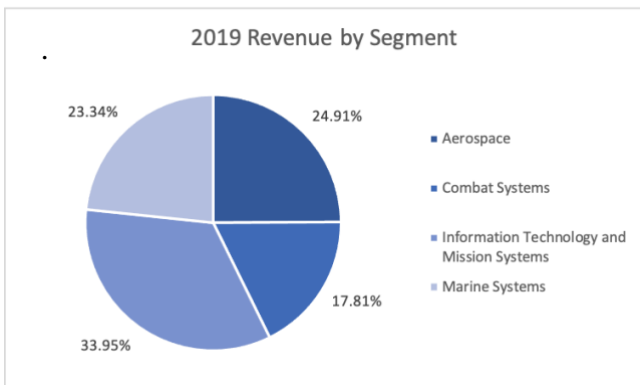


Figure 6: General Dynamics 10-K⁶

Revenue: Geographics and Customer Classification

The US is the main market in which General Dynamics pulls their revenue from, accounting for around 82% of all sales in 2019. The remaining 18% is split halfway down the middle between foreign commercial and government.

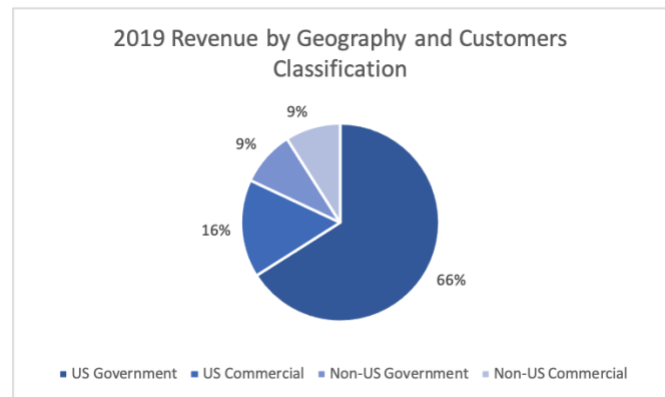


Figure 7: From General Dynamics 10-K⁶

SWOT Analysis

Strengths

General Dynamics has strong free cash flows compared to competitors, which provides resources to expand new projects. General Dynamics is the leading ship builder for the United States Navy¹⁸, with a fleet that needs replacement, this segment of General Dynamics is an enormous strength. General Dynamics has built a great reputation with customers, which helps in landing major defense contracts.

Weaknesses

A glaring weakness of General Dynamics is its reliance on government contracts for revenue. In 2019 almost 66% of revenue was from the United States government. The market is very competitive between the top five aerospace and defense companies which makes market share difficult to gain. Another weakness of this company is the need for constant innovation. The United States military will want the best product on the market, leading to intense competition between competitors.

Opportunities

General Dynamics has major opportunities with growing militaries of India and China as tensions between both countries rise. With cyber-attacks becoming ever more increasing from other countries, General Dynamics has an opportunity to offer cyber security for the US government and corporations. Ransomware attacks, phishing, and spoofing attacks have all increased greatly within the past couple of years. Finally the company has invested in an online platform making it easier to reach customers.

Threats

A major threat to General Dynamic's success is if government spending decreases. General Dynamics is in a highly competitive industry and they are the smaller of the big players in the industry. A bigger company such as Lockheed Martin or Northrop Grumman would be better off to outlast General Dynamics because of their larger market share.

Backlog

General Dynamics backlog is the remaining value of work that they have estimated through the firm contracts, which include both funded and unfunded components. It is important to look at backlog because a serious buildup of it can be costly for the firm. In addition, large unfunded backlog can have serious effects on the company's financial health if those with contracts decide to not pay or back out. As you can see in the histogram below, both the aerospace and combat systems segments have a healthy backlog with almost all of it being funded. Information technology and mission systems has about two-thirds funded backlog. Marine systems has the largest backlog, weighing more heavily on unfunded. This is most likely due to huge submarine contracts general dynamics has won over the course of the last few years. Relative to other competing firms in the aerospace and defense segment, General Dynamics has one of the healthier backlogs.

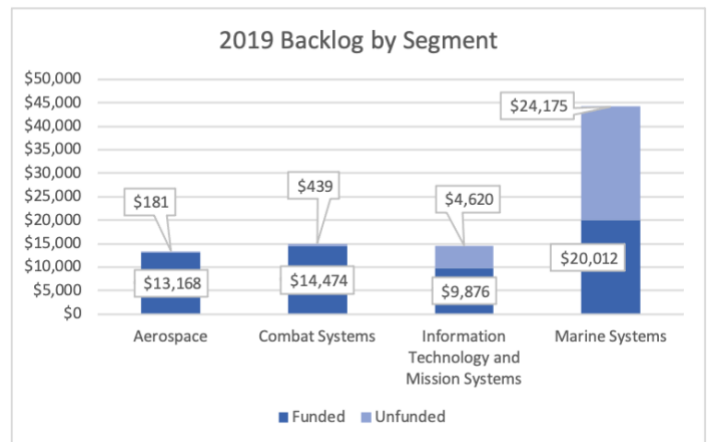


Figure 8: From General Dynamics 10-K⁶

Suppliers and Raw Materials

General Dynamics relies heavily on its suppliers and subcontractors for raw materials, components, and subsystems. This can be rather risky due to both price fluctuations and capacity constraints, putting pressure on costs. In addition, General Dynamics sometimes relies on only one or two sources of a supply, which if disrupted, could impact their ability to meet customer needs. However, the firm mitigates these risks well by entering long-term agreements with suppliers as well as leveraging company-wide agreements to achieve economies of scale. General Dynamics has not experienced any difficulty in obtaining materials, components, or supplies that are necessary for their business and do not see any in the future.⁶

Catalysts for Growth and Change

Defense Spending: Defense spending forecasted to grow over the next five years. Though General Dynamics generates most of its revenue through US defense spending, US government contracts are not always fully funded at inception, and any funding is subject to disruption or delay. Defense budgets are a result of months and months of policy changes and can be delayed or changed depending on the current political climate.¹⁰

Technology Adaptation: General Dynamics has shown its ability to adapt new advanced technologies and innovate to grow its share in the market. Many of the products and services that General Dynamics offers involve very complex

technologies and engineering and their continued future success depends on their ability to continuously improve or develop new products and technologies to meet their customers increasing needs.¹⁰

Increasing Cybersecurity Threats: General Dynamics faces various cybersecurity threats to their information technology infrastructure through attempts to gain access to their classified information, denial-of-service attacks, terrorist acts, etc.¹⁰ Any success of these attacks or threats could negatively impact their business or cause disruptions.

Properties

General Dynamics conducts its operations at numerous locations around the globe, primarily in the United States, utilizing both company-owned and leased facilities as well as a few government-owned facilities. By floor space, their operating locations are divided as follows; 43.32% in company owned facilities, 45.28% in leased facilities, and 11.41% in government owned facilities.

Regulatory Matters

US government contracts are governed by The Federal Acquisition Regulation (FAR) and the Cost Accounting Standards (CAS). The FAR mandates uniform policies and procedures of government acquisitions and purchased services. For non-US regulatory matters, General Dynamics foreign operations are subject to the applicable government regulations as well as U.S. policies and regulations. One of the biggest regulatory matters General Dynamics faces aside from US defense manufacturing contracts is their commercial aerospace segment. General Dynamics is subject to multiple countries aviation agencies regulations including the FAA (US), the CAA (Israel), the EASA (EU), and the CAAC (China). For an aircraft to be sold in a certain country, it must adhere to all regulations of that country. In addition, General Dynamics is subject to a variety of federal, state, local, and foreign environmental laws and regulations.

Major Stockholders

The major stockholders are Longview Asset Management, Vanguard Group, Newport Trust Co., and Capital Research Global Investors, making up 11.23%, 7.37%, 6.78%, and 5.77% respectively.¹¹ Roughly 6.6% of shares are insider controlled.

Valuation

Revenue Decomposition

In our revenue decomposition of General Dynamics, we separated total revenue across four different segments as they do in their 10-K. These segments are Aerospace, Combat Systems, Information Technology and Mission Systems, and Marine Systems. The total revenue across each of the four segments was created using current projections from General Dynamics latest 10-Q, historical revenue growth over the last seven years, and general estimates provided by FactSet. We believe these revenue estimates to be accurate as they are a combination of various insights from both inside and outside sources. In addition, General Dynamics historical revenue growth has remained relatively constant, with few large jumps or falls, meaning that including historical data helps to maintain accurate forecasts.

Revenue estimates for 2020 differ slightly from assumptions for years 2021-2025 due to the effects of COVID-19. We identified the impact of COVID-19 on each of the segments and factored this into our 2020 revenue estimates as well as anticipated segment recovery through 2025.

Segmented Revenue Forecast Assumptions

Aerospace: COVID has had a significant impact on the aerospace segment due to reduced or deferred aircraft delivery. However, General Dynamics has reduced production rates to match this expected decline in efforts to reduce risk and match demand. Revenue will

decline significantly in 2020 and remain relatively low through 2021 but is expected to bounce back relatively quickly 2023 through 2025.

Combat Systems: The combat systems segment has remained fairly COVID-resistant, as General Dynamics still projects growth in 2020 from 2019. Continuation of orders of international military vehicles, weapon systems, and munitions will fuel consistent growth over the next 5 years.

Information Technology and Mission Systems: This segment has been the fastest growing segment over the last 5 years, as General Dynamics has put a large focus on growing this segment in both government and commercial markets. However, COVID has impacted this segment heavily this year due to the closure of customer sites. In General Dynamics latest 10Q, they estimate segment revenue of 8.1 billion. While this is a very large decrease from 2019, people and business have found ways to reopen despite COVID, which means a relatively rapid recovery to pre-COVID segment revenue which we estimate to be by 2022. After recovery, we estimate lower and more constant growth through 2025. Mission systems seems to pick up some of the slack from the decrease in IT, as General Dynamics estimates mission systems revenue of 4.1 billion in 2020. Its IT segment was awarded two very large contracts in 2019, \$2 billion and \$325 million, both with base periods of 5 years. In addition, two weeks ago, General Dynamics was awarded a \$4.4 billion dollar contract with a base period of 10 years.

Marine Systems: Very similar to combat systems, the marine system segment has been affected by COVID very little, if not at all, with General Dynamics projecting 2020 revenue of \$9.6 billion. Consistent contracts, orders, and need for ship repairs fuels steady growth over the next 5 years. In addition, two weeks ago General Dynamics was awarded a massive \$9.4 billion dollar submarine contract, however this contract is still in the works due

to the presidential election and COVID spending related issues. The US Navy has stated they need the first submarine from this contract in the water and patrolling by 2031.⁸

Key Assumptions

Our model is driven by our revenue decomposition because General Dynamics is a revenue driven company. As we uncovered in our common size balance sheet and income statement, most accounts remain relatively consistent over the years as a percentage of sales.

Expenses

We forecasted out products and services expense as a historical average percentage of sales. General Dynamics has retained a relatively constant ratio of COGS to sales historically. This follows the corresponding increase in product and service revenue year-by-year.

For our depreciation expense, we began by forecasting accumulated depreciation using a historical percentage of gross PPE, then we subtracted the beginning accumulated depreciation from the ending accumulated depreciation to give us each year's depreciation expense.

To calculate our amortization expense, we reduced the value of our intangible asset on a schedule provided in General Dynamics 10-K. The difference in the value from the previous year to the current year is our amortization expense.

Tax Rate

The tax rate for General Dynamics we chose to use for our forecast is an average of the last five-years of historical tax rates. This gives us a rate of right around 24%. We believe this to a fair assumption as the 2017 corporate tax cuts lowered taxes paid in 2018 and 2019, however the new president has vowed to raise corporate taxes which is why we factored in 2015-2017 tax rates.

Shares Outstanding and Dividends

As of 2019 FYE, General Dynamics had 289.61 million shares outstanding, recorded an EPS of \$12.09, and paying a dividend of \$4.08 per share. Historically, General Dynamics has been a leader in the industry when it comes to dividends, boasting an impressive record of 29 consecutive years are dividends paid. The firm has had very healthy EPS growth to match their dividend record. We believe this trend will continue and set grew our EPS by the historical average of the last seven years of growth. For our shares outstanding, we factored in ESOP data regarding shares outstanding, time to maturity, and average strike price, in addition to consistent share repurchases each year, to forecast our shares outstanding.

Property, Plant and Equipment

Our property, plant and equipment is a function of our forecasted capital expenditures. We grew our capital expenditures by a geometric average increase in historical capex which worked out to be around 1%. We then added the current year capex to the previous year PPE to get to our current year gross PPE. From here we subtract our current year accumulated depreciation to get our PPE, net.

Debt

For short-term debt & current portion of long-term debt, we forecasted it to increase as a percentage of total sales since historically that accounts ratio to total sales remains relatively constant. As for our long-term debt account, we forecasted it as a percentage of total assets minus cash and cash equivalents. We believe with the current favorable interest rate environment, General Dynamics will be incentivized to expand its operations, the resulting increase in long-term debt corresponds to its increase in operating assets.

Beta, Risk Free Rate, Equity Risk Premium, and Cost of Debt

For our beta, we decided to use the five-year weekly raw beta calculated on Bloomberg which is 1.196.

We chose to use the 10-year treasury from November 13th, 2020 as our risk-free-rate since that was the last trading day and we believe that 10 years is a long enough period for our estimates. The equity risk premium we decided to use is from the Damodaran website, which factors in changes in the market. This is crucial as current market conditions are extremely volatile largely in part due to uncertainties surrounding COVID-19 and the 2020 presidential election. Using our beta, risk-free-rate, and equity risk premium, we calculate the cost of equity to be 7.20% for General Dynamics. As for our pre-tax cost of debt, we decided to use the yield to maturity on General Dynamics 2030 corporate bond. This is a 10-year bond which matches our risk-free-rate horizon. We once again believe this is a long enough period to validate our estimates.

WACC

In order to estimate our WACC, we first had to calculate our market value of equity and our market value of debt which gives us the market value of the firm. We calculated a market value of equity of 42.21 billion and a market value of debt of 13.66 billion. Combining those two values, we end up with a market value of the firm of 55.86 billion.

From here, we can calculate our WACC from our previously defined cost of equity of 7.20% and our after-tax cost of debt of 1.19%. Using the market value weights of equity and debt, we come to an estimated WACC of 5.73%.

NOPLAT and EPS Growth Rates

We believe that our NOPLAT will grow relatively well over the course of the next five years before plateauing in 2025 and beyond.

Our EPS growth trend is relatively similar to our NOPLAT growth trend. We expect a decrease in EPS for 2020 due to decreased revenues resulting from COVID-19. After 2020, we expect significant EPS growth through 2025, primarily due to our analysis of the historical EPS growth which has impressive increases year over year.

Discounted Cash Flow and Economic Profit Models

Our completed DCF and EP models gave us an implied price as of today of \$283.67. This is an extremely optimistic estimate, as it's 87% higher than what General Dynamics is currently trading at. This estimate is fueled by our optimistic revenue estimates. We believe the stock price has been significantly hindered due to COVID-19, and we see General Dynamics prevailing through the pandemic well as a vaccine is in sight. In addition, if we assume our forecast is correct regarding the increases in net earnings, we can look at the trading price in 2018, when GD performed very well, with it hovering between \$190-230.

Dividend Discount Model

One of the main reasons we believe General Dynamics to be a good investment is the historical strength of their EPS and dividends. In using the DDM for our the valuation, we arrived at an intrinsic stock price of \$255.92. Similar to our DCF and EP models, this price is very optimistic at 69% higher than its current trading price. Historically, General Dynamics has had very healthy EPS and dividend growth, and we believe this will continue, with the exception of our 2020 estimate due to COVID-19 implications.

Relative Valuation

Implied Relative Value	
P/E (EPS 2020)	\$197.51
P/E (EPS 2021)	186.97
PEG (EPS 2020)	206.32
PEG (EPS 2021)	141.93

For our relative valuation, we used five competing firms that we think are the closest to matching up with General Dynamics. These firms are Lockheed Martin, Raytheon, Textron, Huntington Ingalls, and Northrup Grumman. These firms are all defense focused which is why we believe they line up the closest with General Dynamics. While General Dynamics competes with some primarily aerospace companies in a smaller capacity, like Boeing and Airbus, they don't compete in the defense sector where General Dynamics generates the majority of their revenue so we left them out.

Sensitivity Analysis

Beta vs. Equity Risk Premium

	Beta						
	0.90	1.00	1.10	1.20	1.30	1.40	1.50
\$ 283.67	431.29	380.06	338.36	305.03	274.58	249.63	228.07
5.05%	421.32	371.13	330.28	297.63	267.79	243.35	222.21
5.15%	411.74	362.56	322.52	290.51	261.27	237.30	216.58
5.25%	402.52	354.31	315.06	283.67	254.99	231.49	211.16
5.35%	393.66	346.38	307.88	277.09	248.95	225.89	205.95
5.45%	385.12	338.73	300.96	270.74	243.13	220.50	200.92
5.55%	376.89	331.37	294.29	264.63	237.52	215.30	196.07
5.65%							

Comparing beta and equity risk premium gives us an idea of how our price will change relative to changes in the market. Both beta and the equity risk premium will change relative to market activity. It's important to look at this comparison because this can change our target price regardless of what's happening inside the firm. We used the equity risk premium estimated on the Damodaran site as we believe it's accurate. Our beta is a weekly five year data from Bloomberg. This table shows us that changes in our beta and the equity risk

premium can produce massive swings in our target price.

Capital Expenditure Growth vs. Pre-Tax Cost of Debt

		Capital Expenditures Growth						
Pre-Tax Cost of Debt	283.67	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%
0.75%	294.60	294.59	294.57	294.55	294.54	294.52	294.51	
1.00%	291.20	291.19	291.17	291.16	291.14	291.13	291.11	
1.25%	287.88	287.86	287.85	287.83	287.82	287.80	287.78	
1.57%	283.72	283.70	283.69	283.67	283.66	283.64	283.63	
1.75%	281.43	281.41	281.40	281.38	281.37	281.35	281.33	
2.00%	278.30	278.29	278.27	278.25	278.24	278.22	278.21	
2.25%	275.24	275.22	275.20	275.19	275.17	275.16	275.14	

We created this table comparing capital expenditure growth and the pre-tax cost of debt because we grow our gross PPE as a function of the growth in our capital expenditures, and pre-tax cost of debt is a large factor in determining operating and interest costs. General Dynamics, as well as other companies in the aerospace and defense industry, are capital intensive which means that changes in the cost of debt can significantly affect how the firm operates and performs. The table shows that the higher the capital expenditure growth and pre-tax cost of debt, the lower the target price.

WACC vs. CV Growth of NOPLAT

		WACC						
CV Growth of NOPLAT	283.67	5.43%	5.53%	5.63%	5.73%	5.83%	5.93%	6.03%
0.25%	271.04	264.28	257.77	251.50	245.46	239.63	234.01	
0.50%	282.27	274.97	267.95	261.21	254.72	248.47	242.45	
0.75%	294.70	286.78	279.18	271.89	264.90	258.17	251.70	
1.00%	308.53	299.89	291.62	283.71	276.13	268.85	261.87	
1.25%	324.02	314.53	305.49	296.84	288.58	280.68	273.10	
1.50%	341.48	331.00	321.03	311.53	302.48	293.83	285.57	
1.75%	361.30	349.63	338.57	328.06	318.07	308.56	299.50	

We decided to test these variables because both key components in the valuation and impact our ultimate target price in the DCF and EP model. The table show that a low cost of capital along with a lower CV growth of NOPLAT will give us the lowest implied price as of today. In the opposite direction, a higher cost of capital and a higher CV growth of NOPLAT will give us the highest implied price.

WACC vs. CV ROIC

		WACC						
CV ROIC	283.67	5.43%	5.53%	5.63%	5.73%	5.83%	5.93%	6.03%
24.30%	308.32	299.69	291.43	283.52	275.94	268.67	261.69	
24.40%	308.38	299.74	291.48	283.57	275.99	268.72	261.74	
24.50%	308.44	299.80	291.53	283.62	276.04	268.77	261.79	
24.68%	308.53	299.89	291.63	283.71	276.13	268.85	261.87	
24.80%	308.60	299.96	291.69	283.77	276.19	268.91	261.93	
24.90%	308.65	300.01	291.74	283.82	276.23	268.96	261.97	
25.00%	308.71	300.06	291.79	283.87	276.28	269.01	262.02	

Finally, we decided to test the WACC versus our CV ROIC because both are major components in our DCF and EP models which calculate the firm value. The results show that we will have the highest implied price as of today will increase when both the cost of capital and CV ROIC are at their lowest and vice versa.

Important Disclaimer

This report was created by students enrolled in the Security Analysis class at the University of Iowa. The report was originally created to offer an internal investment recommendation for the University of Iowa Krause Fund and its advisory board. The report also provides potential employers and other interested parties an example of the students' skills, knowledge and abilities. Members of the Krause Fund are not registered investment advisors, brokers or officially licensed financial professionals. The investment advice contained in this report does not represent an offer or solicitation to buy or sell any of the securities mentioned. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Krause Fund may hold a financial interest in the companies mentioned in this report.

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General Dynamics Corp.

Revenue Decomposition

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Aerospace	\$ 8,129	\$ 8,455	\$ 9,801	\$ 8,415	\$ 8,585	\$ 9,175	\$ 9,837	\$ 10,279	\$ 10,485
Combat Systems	\$ 5,949	\$ 6,241	\$ 7,007	\$ 7,168	\$ 7,383	\$ 7,602	\$ 7,793	\$ 7,972	\$ 8,149
Information Technology and Mission Systems	\$ 8,891	\$ 12,995	\$ 13,359	\$ 13,000	\$ 13,195	\$ 13,591	\$ 13,863	\$ 14,140	\$ 14,423
Marine Systems	\$ 8,004	\$ 8,502	\$ 9,183	\$ 9,671	\$ 10,156	\$ 10,511	\$ 10,722	\$ 10,936	\$ 11,155
Total	\$ 30,973	\$ 36,193	\$ 39,350	\$ 38,254	\$ 39,319	\$ 40,880	\$ 42,213	\$ 43,327	\$ 44,211
Percent of total Revenue:									
Aerospace	26.25%	23.36%	24.91%	22.00%	21.83%	22.44%	23.30%	23.72%	23.72%
Combat Systems	19.21%	17.24%	17.81%	18.74%	18.78%	18.60%	18.46%	18.40%	18.43%
Technology	28.71%	35.90%	33.95%	33.98%	33.56%	33.25%	32.84%	32.64%	32.62%
Marine Systems	25.84%	23.49%	23.34%	25.28%	25.83%	25.71%	25.40%	25.24%	25.23%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Growth in Revenue:									
Aerospace	4.02%	4.01%	15.92%	-14.14%	2.02%	6.87%	7.21%	4.50%	2.00%
Combat systems	7.58%	4.91%	12.27%	2.30%	3.00%	2.97%	2.50%	2.30%	2.22%
Information Technology and Mission Systems	-2.77%	46.16%	2.80%	-2.69%	1.50%	3.00%	2.00%	2.00%	2.00%
Marine Systems	-0.84%	6.22%	8.01%	5.31%	5.01%	3.50%	2.00%	2.00%	2.00%
Total	1.35%	16.85%	8.72%	-2.78%	2.78%	3.97%	3.26%	2.64%	2.04%

General Dynamics Corp.

Income Statement (in millions except for per share amounts)

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Revenue									
Products Revenue	19016	20149	23130	23454	24107	25064	25881	26564	27106
Services Revenue	11957	16044	16220	14800	15212	15816	16332	16763	17105
Total Revenues	30973	36193	39350	38254	39319	40880	42213	43327	44211
Operating Costs & Expenses:									
Products costs	14799	15894	18569	18432	18945	19697	20339	20876	21302
Services costs	9987	13584	13722	12533	12882	13394	13831	14196	14485
General & administrative (G&A)	2010	2258	2411	2423	2490	2589	2674	2744	2800
Total Operating Costs & Expenses	26796	31736	34702	33388	34318	35680	36844	37816	38587
Operating Earnings (loss)	4177	4457	4648	4866	5002	5200	5370	5511	5624
Interest expense	117	374	472	410	219	228	235	241	246
Interest income	14	18	12	17	17	18	19	19	19
Other income (expense), net	3	-16	14	10	10	10	11	11	11
Earnings (loss) from continuing operations before income taxes	4077	4085	4202	4482	4809	5000	5163	5300	5408
Provision (credit) for income taxes, net	1165	727	718	766	822	855	883	906	925
Earnings (loss) from continuing operations	2912	3358	3484	3716	3987	4145	4281	4393	4483
Discontinued operations, net of tax	0	-13	0	0	0	0	0	0	0
Net earnings (loss)	2912	3345	3484	3716	3987	4145	4281	4393	4483
Earnings Per Share:									
Shares outstanding	296.896	288.698	289.61	278.95	269.11	260.03	251.66	243.95	236.87
EPS	\$ 9.73	\$ 11.33	\$ 12.09	\$ 11.04	\$ 12.00	\$ 13.64	\$ 15.01	\$ 15.96	\$ 16.74
Dividends per share	\$ 3.36	\$ 3.72	\$ 4.08	\$ 4.47	\$ 4.91	\$ 5.38	\$ 5.90	\$ 6.48	\$ 7.10

General Dynamics Corp.
Balance Sheet (in millions)

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
ASSETS									
Current Assets:									
Cash & equivalents	2983	963	902	2513	1756	3876	4375	5246	5981
Accounts receivable	3617	3759	3544	3445	5544	4234	4871	4999	5101
Unbilled Receivables / Contracts in Progress	5240	6576	7857	6336	6512	6771	6992	7176	7323
Inventories	5303	5977	6306	6332	6509	6767	6988	7172	7319
Other current assets	1185	914	1171	1019	1048	1089	1125	1155	1178
Total Current Assets	18328	18189	19780	19646	21369	22737	24350	25748	26901
Noncurrent Assets:									
Property, plant & equipment, net	3517	4348	4475	5190	5903	6615	7324	8030	8733
Intangible assets, net	702	2585	2315	2051	1831	1639	1462	1298	1198
Goodwill	11914	19594	19677	19677	19677	19677	19677	19677	19677
Other assets	585	692	2594	1709	1757	1827	1886	1936	1975
Total noncurrent assets	16718	27219	29061	28627	29168	29757	30349	30941	31584
Total Assets	35046	45408	48841	48273	50537	52494	54699	56689	58484
LIABILITIES AND SHAREHOLDERS' EQUITY									
Current Liabilities:									
Short-term debt & current portion of long-term de	2	973	2920	1033	1062	1104	1140	1170	1194
Accounts payable	3207	3179	3162	3072	3157	3282	3389	3479	3550
Customer Advances and Deposits (Deferred Rev	6992	7270	7148	7622	7834	8145	8411	8633	8809
Deferred Income Taxes	0	0	0	545	560	582	601	617	629
Salaries and Wages	786	952	941	915	941	978	1010	1037	1058
Workers' Compensation	320	244	306	420	432	449	463	476	485
Retirement Benefits	295	272	296	348	357	371	384	394	402
Operating Lease Liability	0	0	252		0	0	0	0	0
Fair Value of Cash Flow Hedges	180	141	32	335	345	359	370	380	388
Other current liabilities	1317	1708	1744	1709	1835	1842	1846	1872	1880
Total Current Liabilities	13099	14739	16801	15998	16523	17112	17614	18057	18395
Noncurrent Liabilities:									
Total long-term debt	3980	11444	9010	8600	9168	9138	9458	9669	9868
Retirement Benefits	4408	4422	5172	5020	5160	5365	5540	5686	5802
Operating Lease Liability	0	0	1251	1288	1325	1364	1404	1445	1487
Customer Deposits on Commerical Contracts (De	814	726	709	740	761	791	817	838	856
Deferred Income Taxes	244	577	481	261	268	279	288	296	302
Other Liabilities	1066	1768	1840	1461	1502	1561	1612	1655	1689
Total noncurrent liabilities	10512	18937	18463	17371	18184	18498	19119	19588	20003
Total Liabilities	23611	33676	35264	33369	34707	35610	36733	37645	38397
Shareholders' Equity:									
Common Stock (+Surplus)	3,354	3,428	3,521	4,224	4,328	4,481	4,612	4,721	4,807
Retained earnings (accumulated deficit)	26,444	29,326	31,633	34,101	36,767	39,513	42,307	45,121	47,922
Treasury stock	-15,543	-17,244	-17,358	-19,202	-21,046	-22,890	-24,735	-26,579	-28,423
Accumulated other comprehensive income (loss)	-2,820	-3,778	-4,219	-4,219	-4,219	-4,219	-4,219	-4,219	-4,219
Total Shareholders' Equity	11,435	11,732	13,577	14,904	15,830	16,884	17,965	19,044	20,087
Total Liabilities and Shareholders' Equity	35,046	45,408	48,841	48,273	50,537	52,494	54,699	56,689	58,484

General Dynamics Corp.

Historical Cash Flow Statement (in millions)

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019
Cash Flow from Operating Activities:							
Net Earnings	\$ 2,357	\$ 2,533	\$ 2,965	\$ 2,955	\$ 2,912	\$ 3,345	\$ 3,484
Adjustments to reconcile net earnings to net cash from operating activities:							
Depreciation of PPE	\$ 393	\$ 375	\$ 366	\$ 366	\$ 362	\$ 493	\$ 466
Amortization of intangible and finance lease right-of-use assets	\$ 163	\$ 121	\$ 116	\$ 88	\$ 79	\$ 270	\$ 363
Equity-based compensation	\$ 120	\$ 128	\$ 110	\$ 100	\$ 123	\$ 140	\$ 133
Deferred income tax provision	\$ 129	\$ 136	\$ 167	\$ 376	\$ 401	\$ (3)	\$ 92
Discontinued operations, net of tax	\$ 129	\$ 140	\$ -	\$ 107	\$ -	\$ 13	\$ -
(Increase) Decrease in Assets, net of effects of business acquisitions:							
Accounts Receivables	\$ (205)	\$ 330	\$ 604	\$ (161)	\$ (195)	\$ 417	\$ 176
Contracts in process (unbilled receivables)	\$ 177	\$ 281	\$ 231	\$ (1,033)	\$ (987)	\$ (800)	\$ (1,303)
Inventories	\$ (200)	\$ (303)	\$ (156)	\$ (154)	\$ (182)	\$ (591)	\$ (376)
Other current assets	\$ -	\$ -	\$ -	\$ -	\$ 207	\$ 310	\$ 8
Increase (decrease) in liabilities, net of effects of business acquisitions:							
Accounts payable	\$ (223)	\$ (161)	\$ (89)	\$ 567	\$ 657	\$ (197)	\$ 6
Customer advances and deposits	\$ 330	\$ 691	\$ (1,756)	\$ (825)	\$ 264	\$ 36	\$ (105)
Other, net	\$ 110	\$ (214)	\$ 101	\$ (158)	\$ 238	\$ (285)	\$ 37
Net cash provided by operating activities	\$ 3,106	\$ 3,828	\$ 2,499	\$ 2,198	\$ 3,879	\$ 3,148	\$ 2,981
Cash flows from investing activities:							
Maturities held to maturity securities	\$ -	\$ -	\$ 500	\$ -	\$ -	\$ -	\$ -
Purchases of held to maturity securities	\$ -	\$ (500)	\$ -	\$ -	\$ -	\$ -	\$ -
capital expenditures	\$ (436)	\$ (521)	\$ (569)	\$ (392)	\$ (428)	\$ (690)	\$ (987)
Business acquisitions	\$ -	\$ -	\$ -	\$ -	\$ (399)	\$ (10,099)	\$ (19)
purchases of available for sale security	\$ (135)	\$ (136)	\$ (123)	\$ -	\$ -	\$ -	\$ -
Sales of available for sale securities	\$ 99	\$ 135	\$ 122	\$ -	\$ -	\$ -	\$ -
maturities of available for sale securities	\$ 14	\$ 4	\$ 6	\$ -	\$ -	\$ -	\$ -
proceed from sale of asset	\$ 104	\$ 102	\$ 291	\$ 9	\$ 50	\$ 562	\$ 14
other, net	\$ (9)	\$ (186)	\$ (27)	\$ (43)	\$ (14)	\$ (7)	\$ (2)
Net Cash Provided by (used in) investing activities	\$ (363)	\$ (1,102)	\$ 200	\$ (426)	\$ (791)	\$ (10,234)	\$ (994)
Cash flows from financing activities							
Dividends paid	\$ (591)	\$ (822)	\$ (873)	\$ (911)	\$ (986)	\$ (1,075)	\$ (1,152)
Proceeds from (repayment of) commercial paper	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 851	\$ (850)
Purchases of common stock	\$ (740)	\$ (3,382)	\$ (3,233)	\$ (1,996)	\$ (1,558)	\$ (1,769)	\$ (231)
Proceeds from fixed rate notes	\$ -	\$ -	\$ -	\$ 992	\$ 985	\$ 6,461	\$ -
Proceeds from floating rate notes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000	\$ -
Repayments of fixed rate notes	\$ -	\$ -	\$ 268	\$ (500)	\$ (900)	\$ -	\$ -
Other, net	\$ 23	\$ 82	\$ 79	\$ (46)	\$ (103)	\$ (68)	\$ 236
Repayment of CSRA accounts receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (450)	\$ -
Net cash provided by (used in) financing activities	\$ (725)	\$ (3,575)	\$ (4,259)	\$ (2,169)	\$ (2,562)	\$ 4,950	\$ (1,997)
Net cash used by discontinued operations	\$ (9)	\$ 36	\$ (43)	\$ (54)	\$ (40)	\$ (20)	\$ (51)
Net increase (decrease) in cash	\$ 2,005	\$ 647	\$ (1,603)	\$ (451)	\$ 649	\$ (2,020)	\$ (61)
Cash at beginning of year	\$ 3,296	\$ 5,301	\$ 4,388	\$ 2,785	\$ 2,334	\$ 2,983	\$ 963
Cash at the end of year	\$ 5,301	\$ 4,388	\$ 2,785	\$ 2,334	\$ 2,983	\$ 963	\$ 902

General Dynamics Corp.

Forecasted Cash Flow Statement (in millions)

Fiscal Years Ending Dec. 31	2020E	2021E	2022E	2023E	2024E	2025E
Cash flows from operating activities						
Net Income	\$ 3,716	\$ 3,987	\$ 4,145	\$ 4,281	\$ 4,393	\$ 4,483
Adjustments to reconcile net earnings to net cash from operating activities						
Depreciation of PPE	\$ 242	\$ 253	\$ 264	\$ 276	\$ 289	\$ 302
Amortization of Intangibles	\$ 264	\$ 220	\$ 192	\$ 177	\$ 164	\$ 100
Deferred Income Tax Provision	\$ (220)	\$ 7	\$ 11	\$ 9	\$ 8	\$ 6
Change in Working Capital Accounts						
Increase in Accounts Receivables	\$ 99	\$ (2,099)	\$ 1,311	\$ (637)	\$ (128)	\$ (102)
Increase in Unbilled Receivables / Contracts in progress	\$ 1,521	\$ (176)	\$ (258)	\$ (221)	\$ (184)	\$ (146)
Increase in Inventories	\$ (26)	\$ (176)	\$ (258)	\$ (221)	\$ (184)	\$ (146)
Increase in Other current assets	\$ 152	\$ (28)	\$ (42)	\$ (36)	\$ (30)	\$ (24)
Increase in other assets	\$ 885	\$ (48)	\$ (70)	\$ (60)	\$ (50)	\$ (40)
Increase in Accounts Payable	\$ (90)	\$ 86	\$ 125	\$ 107	\$ 89	\$ 71
Increase in Salaries and Wages Payable	\$ (26)	\$ 25	\$ 37	\$ 32	\$ 27	\$ 21
Increase in Workers Compensation Payable	\$ 114	\$ 12	\$ 17	\$ 15	\$ 12	\$ 10
Deferred income taxes	\$ 545	\$ 15	\$ 22	\$ 19	\$ 16	\$ 13
Operating current leases liability	\$ (252)	\$ -	\$ -	\$ -	\$ -	\$ -
Other current Liabilities	\$ (35)	\$ 126	\$ 7	\$ 4	\$ 27	\$ 7
Other liabilities	\$ (379)	\$ 41	\$ 60	\$ 51	\$ 43	\$ 34
Current Retirement benefits	\$ 52	\$ 10	\$ 14	\$ 12	\$ 10	\$ 8
Current customer deposits	\$ 474	\$ 212	\$ 311	\$ 266	\$ 222	\$ 176
Long-term lease liability	\$ 37	\$ 38	\$ 39	\$ 40	\$ 41	\$ 42
Long-term customer deposits	\$ 31	\$ 21	\$ 30	\$ 26	\$ 22	\$ 17
Long-term retirement benefits	\$ (152)	\$ 140	\$ 205	\$ 175	\$ 146	\$ 116
Net Cash from Operating Activities	\$ 6,949	\$ 2,664	\$ 6,162	\$ 4,315	\$ 4,931	\$ 4,948
Cash flows from investing activities						
Capital Expenditures	\$ (956)	\$ (966)	\$ (976)	\$ (985)	\$ (995)	\$ (1,005)
Cash flow hedges	\$ 303	\$ 9	\$ 14	\$ 12	\$ 10	\$ 8
Net cash used for investing activities	\$ (653)	\$ (957)	\$ (962)	\$ (974)	\$ (985)	\$ (997)
Cash flows from financing activities						
Short-term debt	\$ (1,887)	\$ 29	\$ 42	\$ 36	\$ 30	\$ 24
Long-term debt	\$ (410)	\$ 568	\$ (31)	\$ 321	\$ 210	\$ 199
Payment of Dividends	\$ (1,248)	\$ (1,321)	\$ (1,400)	\$ (1,486)	\$ (1,580)	\$ (1,682)
Repurchase of Treasury stock	\$ (1,844)	\$ (1,844)	\$ (1,844)	\$ (1,844)	\$ (1,844)	\$ (1,844)
Change in Common Stock	\$ 703	\$ 104	\$ 153	\$ 130	\$ 109	\$ 86
Cash used in financing/investing activities	\$ (4,686)	\$ (2,464)	\$ (3,080)	\$ (2,843)	\$ (3,074)	\$ (3,217)
Cash at beginning of year	\$ 902	\$ 2,513	\$ 1,756	\$ 3,876	\$ 4,375	\$ 5,246
Net increase (decrease) in cash	\$ 1,611	\$ (757)	\$ 2,120	\$ 499	\$ 871	\$ 734
Cash at the end of year	\$ 2,513	\$ 1,756	\$ 3,876	\$ 4,375	\$ 5,246	\$ 5,981

General Dynamics Corp.

Common Size Income Statement

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Revenue									
Products Revenue	61.40%	55.67%	58.78%	61.31%	61.31%	61.31%	61.31%	61.31%	61.31%
Services Revenue	38.60%	44.33%	41.22%	38.69%	38.69%	38.69%	38.69%	38.69%	38.69%
Total Revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Operating Costs & Expenses:									
Products costs	47.78%	43.91%	47.19%	48.18%	48.18%	48.18%	48.18%	48.18%	48.18%
Services costs	32.24%	37.53%	34.87%	32.76%	32.76%	32.76%	32.76%	32.76%	32.76%
General & administrative (G&A)	6.49%	6.24%	6.13%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%
Total Operating Costs & Expenses	86.51%	87.69%	88.19%	87.28%	87.28%	87.28%	87.28%	87.28%	87.28%
Operating Earnings (loss)	13.49%	12.31%	11.81%	12.37%	12.71%	13.21%	13.65%	14.01%	14.29%
Interest expense	0.38%	1.03%	1.20%	1.04%	0.56%	0.58%	0.60%	0.61%	0.63%
Interest income	0.05%	0.05%	0.03%	0.04%	0.04%	0.05%	0.05%	0.05%	0.05%
Other income (expense), net	0.01%	-0.04%	0.04%	0.02%	0.02%	0.03%	0.03%	0.03%	0.03%
Earnings (loss) from continuing operations before income taxes	13.16%	11.29%	10.68%	11.39%	12.22%	12.71%	13.12%	13.47%	13.74%
Provision (credit) for income taxes, net	3.76%	2.01%	1.82%	1.95%	2.09%	2.17%	2.24%	2.30%	2.35%
Earnings (loss) from continuing operations	9.40%	9.28%	8.85%	9.44%	10.13%	10.53%	10.88%	11.17%	11.39%
Discontinued operations, net of tax	0.00%	-0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net earnings (loss)	9.40%	9.24%	8.85%	9.44%	10.13%	10.53%	10.88%	11.17%	11.39%
Earnings Per Share:									
Shares outstanding	296.90	288.70	289.61	278.95	269.11	260.03	251.66	243.95	236.87
EPS	\$ 9.73	\$ 11.33	\$ 12.09	\$ 11.04	\$ 12.00	\$ 13.64	\$ 15.01	\$ 15.96	\$ 16.74
Dividends per share	\$ 3.36	\$ 3.72	\$ 4.08	\$ 4.47	\$ 4.91	\$ 5.38	\$ 5.90	\$ 6.48	\$ 7.10

General Dynamics Corp.
Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
ASSETS									
Current Assets:									
Cash & equivalents	9.63%	2.66%	2.29%	6.39%	4.46%	9.85%	11.12%	13.33%	15.20%
Accounts receivable	11.68%	10.39%	9.01%	8.76%	14.09%	10.76%	12.38%	12.70%	12.96%
Unbilled Receivables / Contracts in Progress	16.92%	18.17%	19.97%	16.10%	16.55%	17.21%	17.77%	18.24%	18.61%
Inventories	17.12%	16.51%	16.03%	16.09%	16.54%	17.20%	17.76%	18.23%	18.60%
Other current assets	3.83%	2.53%	2.98%	2.59%	2.66%	2.77%	2.86%	2.93%	2.99%
Total Current Assets	59.17%	50.26%	50.27%	49.93%	54.31%	57.78%	61.88%	65.43%	68.36%
Noncurrent Assets:									
Property, plant & equipment, net	11.36%	12.01%	11.37%	13.19%	15.00%	16.81%	18.61%	20.41%	22.19%
Intangible assets, net	2.27%	7.14%	5.88%	5.21%	4.65%	4.17%	3.72%	3.30%	3.04%
Goodwill	38.47%	54.14%	50.01%	50.01%	50.01%	50.01%	50.01%	50.01%	50.01%
Other assets	1.89%	1.91%	6.59%	4.34%	4.46%	4.64%	4.79%	4.92%	5.02%
Total noncurrent assets	53.98%	75.21%	73.85%	72.75%	74.12%	75.62%	77.13%	78.63%	80.26%
Total assets	113.15%	125.46%	124.12%	122.68%	128.43%	133.40%	139.01%	144.06%	148.63%
LIABILITIES AND SHAREHOLDERS' EQUITY									
Current Liabilities:									
Short-term debt & current portion of long-term debt	0.01%	2.69%	7.42%	2.63%	2.70%	2.81%	2.90%	2.97%	3.03%
Accounts payable	10.35%	8.78%	8.04%	7.81%	8.02%	8.34%	8.61%	8.84%	9.02%
Customer Advances and Deposits (Deferred Revenue)	22.57%	20.09%	18.17%	19.37%	19.91%	20.70%	21.37%	21.94%	22.39%
Deferred Income Taxes	0.00%	0.00%	0.00%	1.38%	1.42%	1.48%	1.53%	1.57%	1.60%
Salaries and Wages	2.54%	2.63%	2.39%	2.33%	2.39%	2.49%	2.57%	2.63%	2.69%
Workers' Compensation	1.03%	0.67%	0.78%	1.07%	1.10%	1.14%	1.18%	1.21%	1.23%
Retirement Benefits	0.95%	0.75%	0.75%	0.88%	0.91%	0.94%	0.97%	1.00%	1.02%
Operating Lease Liability	0.00%	0.00%	0.64%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fair Value of Cash Flow Hedges	0.58%	0.39%	0.08%	0.85%	0.88%	0.91%	0.94%	0.97%	0.99%
Other current liabilities	4.25%	4.72%	4.43%	4.34%	4.66%	4.68%	4.69%	4.76%	4.78%
Total Current Liabilities	42.29%	40.72%	42.70%	40.66%	41.99%	43.49%	44.76%	45.89%	46.75%
Noncurrent Liabilities:									
Total long-term debt	12.85%	31.62%	22.90%	21.86%	23.30%	23.22%	24.04%	24.57%	25.08%
Retirement Benefits	14.23%	12.22%	13.14%	12.76%	13.11%	13.63%	14.08%	14.45%	14.74%
Operating Lease Liability	0.00%	0.00%	3.18%	3.27%	3.37%	3.47%	3.57%	3.67%	3.78%
Customer Deposits on Commerical Contracts (Deferred Revenue)	2.63%	2.01%	1.80%	1.88%	1.93%	2.01%	2.08%	2.13%	2.17%
Deferred Income Taxes	0.79%	1.59%	1.22%	0.66%	0.68%	0.71%	0.73%	0.75%	0.77%
Other Liabilities	3.44%	4.88%	4.68%	3.71%	3.82%	3.97%	4.10%	4.21%	4.29%
Total noncurrent liabilities	33.94%	52.32%	46.92%	44.14%	46.21%	47.01%	48.59%	49.78%	50.83%
Shareholders' Equity:									
Surplus	10.83%	9.47%	8.95%	10.74%	11.00%	11.39%	11.72%	12.00%	12.22%
Retained earnings (accumulated deficit)	85.38%	81.03%	80.39%	86.66%	93.44%	100.41%	107.52%	114.67%	121.78%
Treasury stock	-50.18%	-47.64%	-44.11%	-48.80%	-53.48%	-58.17%	-62.86%	-67.54%	-72.23%
Accumulated other comprehensive income (loss)	-9.10%	-10.44%	-10.72%	-10.72%	-10.72%	-10.72%	-10.72%	-10.72%	-10.72%
Total Shareholders' Equity	36.92%	32.42%	34.50%	37.88%	40.23%	42.91%	45.66%	48.40%	51.05%
Total Liabilities and Shareholders' Equity	113.15%	125.46%	124.12%	122.68%	128.43%	133.40%	139.01%	144.06%	148.63%

General Dynamics Corp.

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:

Risk-Free Rate	0.80%
Beta	1.196
Equity Risk Premium	5.35%
Cost of Equity	7.20%

Cost of Debt:

Risk-Free Rate	0.80%
Implied Default Premium	0.77%
Pre-Tax Cost of Debt	1.57%
Marginal Tax Rate	24%
After-Tax Cost of Debt	1.19%

Market Value of Common Equity:

Total Shares Outstanding	278,948,366
Current Stock Price	\$151.31
MV of Equity	42,207.68

MV Weights

75.55%

Market Value of Debt:

Short-Term Debt & Current Portion of LTD	2920
Long-Term Debt	9010
PV of Operating Leases	1727
MV of Total Debt	13,657.13

24.45%

Market Value of the Firm

55,864.80

100.00%

Estimated WACC

5.73%

General Dynamics Corp.*Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

Key Inputs:

CV Growth of NOPLAT	1.00%
CV Year ROIC	25.01%
WACC	5.73%
Cost of Equity	7.20%

<i>Fiscal Years Ending Dec. 31</i>	2020E	2021E	2022E	2023E	2024E	2025E
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DCF Model:

Free Cash Flow (FCF)	4952	2719	3297	3117	3393	3624
Continuing Value (CV)						108812
PV of FCF	4684	2432	2789	2494	2568	82353

Value of Operating Assets:	97320
Non-Operating Adjustments	
Less: ESOP	-284
Less: PV of operating lease	-1903
Less: Retirement Obligations	-5368
Less: Workers Compensation Obligati	-420
Less: Long-term debt	-9633
Value of Equity	79712
Shares Outstanding	289.6
Intrinsic Value of Last FYE	\$ 275.24
Implied Price as of Today	\$ 284.81

EP Model:

Economic Profit (EP)	3575	3831	3942	4030	4068	4133
Continuing Value (CV)						87376
PV of EP	3381	3427	3335	3225	3079	66129

Total PV of EP	82575
Invested Capital (last FYE)	14745
Value of Operating Assets:	97320
Non-Operating Adjustments	
Less: ESOP	-284
Less: PV of operating lease	-1903
Less: Retirement Obligations	-5389
Less: Workers Compensation Obligati	-422
Less: Long-term debt	-9652
Value of Equity	79670
Shares Outstanding	289.6
Intrinsic Value of Last FYE	\$ 275.09
Implied Price as of Today	\$ 284.66

General Dynamics Corp.*Dividend Discount Model (DDM) or Fundamental P/E Valuation Model***Fiscal Years Ending Dec. 31****2020E****2021E****2022E****2023E****2024E****2025E**

EPS \$ 11.04 \$ 12.00 \$ 13.64 \$ 15.01 \$ 15.96 \$ 16.74

Key Assumptions

CV growth of EPS 2.50%

CV Year ROE 24%

Cost of Equity 7.20%

Future Cash Flows

P/E Multiple (CV Year) 19.07

EPS (CV Year) \$ 16.74

Future Stock Price \$ 319.16

Dividends Per Share \$ 4.47 \$ 4.91 \$ 5.38 \$ 5.90 \$ 6.48 \$ 7.10

Discounted Cash Flows \$ 4.17 \$ 4.27 \$ 4.37 \$ 4.47 \$ 4.57 \$ 225.46

Intrinsic Value as of Last FYE \$ 247.32

Implied Price as of Today \$ 255.92

General Dynamics Corp.

Relative Valuation Models

Ticker	Company	Price	EPS		P/E 20	P/E 21	Est. 5yr		
			2020E	2021E			EPS gr.	PEG 20	PEG 21
LMT	Lockheed Martin	\$371.28	\$24.54	\$26.20	15.13	14.17	0.144	105.07	98.41
RTX	Raytheon Technologies	\$67.89	\$2.51	\$3.53	27.05	19.23	-0.012	(2,253.98)	(1,602.69)
TXT	Textron Inc	\$43.89	\$1.90	\$2.69	23.10	16.32	0.105	220.00	155.39
HII	Huntington Ingalls Indust	\$161.54	\$15.60	\$10.59	10.36	15.25	0.141	73.44	108.18
NOC	Northrup Grumman	\$314.51	\$22.76	\$24.32	13.82	12.93	0.063	219.34	205.27
			Average		17.89	15.58		(327.23)	(207.09)
GD	General Dynamics Corp.	\$151.31	\$ 11.04	\$ 12.00	13.7	12.6	5.71%	240.0	220.8

Implied Relative Value:

P/E (EPS20)	\$	197.51
P/E (EPS21)	\$	186.97
PEG (EPS20)	\$	206.32
PEG (EPS21)	\$	141.93

General Dynamics Corp.*Key Management Ratios*

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
Liquidity Ratios:									
current ratio= current assets/current liabilities	1.40	1.23	1.18	1.23	1.29	1.33	1.38	1.43	1.46
quick ratio= current assets - inventory/ current liabilities	0.99	0.83	0.80	0.83	0.90	0.93	0.99	1.03	1.06
cash ratio= cash/current liabilities	0.23	0.07	0.05	0.16	0.11	0.23	0.25	0.29	0.33
Asset-Management Ratios:									
asset turnover= net sales/ average total assets	0.88	0.80	0.81	0.79	0.78	0.78	0.77	0.76	0.76
inventory turnover= cogs/average inventory									
receivable turnover= net sales/average Accounts Receivables	8.56	9.63	11.10	11.10	7.09	9.66	8.67	8.67	8.67
Financial Leverage Ratios:									
Debt Ratio= total liabilities/total assets	0.67	0.74	0.72	0.69	0.69	0.68	0.67	0.66	0.66
Equity Ratio= total shareholders equity/total assets	0.33	0.26	0.28	0.31	0.31	0.32	0.33	0.34	0.34
debt to equity ratio= total liabilities/total shareholders equity	2.06	2.87	2.60	2.24	2.19	2.11	2.04	1.98	1.91
Profitability Ratios:									
EBITA Margin = EBITA/net sales	12.12%	10.26%	9.77%	11.48%	11.60%	11.69%	11.74%	11.78%	11.92%
return on assets= net income/average total assets	8.31%	7.37%	7.13%	7.70%	7.89%	7.90%	7.83%	7.75%	7.67%
return on equity= net income/ total shareholders equity	25.5%	28.5%	25.7%	24.9%	25.2%	24.6%	23.8%	23.1%	22.3%
Payout Policy Ratios:									
Dividend Payout Ratio (Dividend/EPS)	0.35	0.33	0.34	0.41	0.41	0.39	0.39	0.41	0.42
Total Payout Ratio ((Divs. + Repurchases)/NI)	0.87	0.85	0.40	0.83	0.79	0.78	0.78	0.78	0.79

General Dynamics Corp.*Valuation of Options Granted under ESOP*

Current Stock Price	\$151.31
Risk Free Rate	0.80%
Current Dividend Yield	2.96%
Annualized St. Dev. of Stock Returns	11.14%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range	9,767,749	161.54	6.40	\$ 29.06	\$ 283,850,786
Total	9,767,749	\$ 161.54	6.40	\$ 12.67	\$ 283,850,786

General Dynamics Corp.*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Number of Options Outstanding (shares):	9,767,749
Average Time to Maturity (years):	6.40
Expected Annual Number of Options Exercised:	1,526,211

Current Average Strike Price:	\$ 161.54
Cost of Equity:	7.20%
Current Stock Price:	\$151.31

<i>Fiscal Years Ending Dec. 31</i>	2020E	2021E	2022E	2023E	2024E	2025E
Increase in Shares Outstanding:	1,526,211	1,526,211	1,526,211	1,526,211	1,526,211	1,526,211
Average Strike Price:	\$ 161.54	\$ 161.54	\$ 161.54	\$ 161.54	\$ 161.54	\$ 161.54
Increase in Common Stock Account:	246,544,090	246,544,090	246,544,090	246,544,090	246,544,090	246,544,090
Change in Treasury Stock	1,844,142,857	1,844,142,857	1,844,142,857	1,844,142,857	1,844,142,857	1,844,142,857
Expected Price of Repurchased Shares:	\$ 151.31	\$ 162.20	\$ 173.88	\$ 186.40	\$ 199.81	\$ 214.20
Number of Shares Repurchased:	12,187,845	11,369,407	10,605,929	9,893,719	9,229,336	8,609,568
Shares Outstanding (beginning of the year)	289,610,000	278,948,366	269,105,169	260,025,451	251,657,943	243,954,817
Plus: Shares Issued Through ESOP	1,526,211	1,526,211	1,526,211	1,526,211	1,526,211	1,526,211
Less: Shares Repurchased in Treasury	12,187,845	11,369,407	10,605,929	9,893,719	9,229,336	8,609,568
Shares Outstanding (end of the year)	278,948,366	269,105,169	260,025,451	251,657,943	243,954,817	236,871,460

General Dynamics Corp.

Present Value of Operating Lease Obligations

Fiscal Years Ending Dec. 31	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Year 1				239.0	216.0	210.0	220.0	241.0	258.0	297.0	302.0
Year 2				170.5	158.0	156.5	157.5	169.5	181.5	215.0	236.5
Year 3				170.5	158.0	156.5	157.5	169.5	181.5	215.0	236.5
Year 4				94.0	95.5	86.0	90.0	82.0	106.0	132.0	149.5
Year 5				94.0	95.5	86.0	90.0	82.0	106.0	132.0	149.5
Thereafter				331.0	373.0	383.0	322.0	443.0	526.0	698.0	790.0
Total Minimum Payments				1099.0	1096.0	1078.0	1037.0	1187.0	1359.0	1689.0	1864.0
Less: Cumulative Interest				64.8	69.2	70.2	62.1	80.8	93.6	121.9	136.9
PV of Minimum Payments				1034.2	1026.8	1007.8	974.9	1106.2	1265.4	1567.1	1727.1
Implied Interest in Year 1 Payment		0.0	0.0	0.0	16.2	16.1	15.8	15.3	17.4	19.9	24.6
Pre-Tax Cost of Debt	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%	1.57%
Years Implied by Year 6 Payment				3.5	3.9	4.5	3.6	5.4	5.0	5.3	5.3
Expected Obligation in Year 6 & Beyond				94	95.5	86	90	82	106	132	149.5
Present Value of Lease Payments											
PV of Year 1				235.3	212.7	206.8	216.6	237.3	254.0	292.4	297.3
PV of Year 2				165.3	153.2	151.7	152.7	164.3	175.9	208.4	229.2
PV of Year 3				162.7	150.8	149.4	150.3	161.8	173.2	205.2	225.7
PV of Year 4				88.3	89.7	80.8	84.6	77.0	99.6	124.0	140.5
PV of Year 5				87.0	88.3	79.6	83.3	75.9	98.1	122.1	138.3
PV of 6 & beyond				295.6	332.2	339.6	287.5	390.0	464.6	615.0	696.1
Capitalized PV of Payments				1034.2	1026.8	1007.8	974.9	1106.2	1265.4	1567.1	1727.1

General Dynamics Corp.
Value Driver Estimation

Fiscal Years Ending Dec. 31	2017	2018	2019	2020E	2021E	2022E	2023E	2024E	2025E
NOPLAT:									
Total Revenue	\$ 30,973.00	\$ 36,193.00	\$ 39,350.00	\$ 38,254.16	\$ 39,319.21	\$ 40,879.80	\$ 42,213.42	\$ 43,326.98	\$ 44,211.06
Product Costs	\$ (14,799.00)	\$ (15,894.00)	\$ (18,569.00)	\$ (18,431.71)	\$ (18,944.87)	\$ (19,696.80)	\$ (20,339.37)	\$ (20,875.91)	\$ (21,301.88)
Service Costs	\$ (9,987.00)	\$ (13,584.00)	\$ (13,722.00)	\$ (12,533.50)	\$ (12,882.44)	\$ (13,393.75)	\$ (13,830.70)	\$ (14,195.54)	\$ (14,485.20)
General and Administrative Costs (G&A)	\$ (2,010.00)	\$ (2,258.00)	\$ (2,411.00)	\$ (2,422.92)	\$ (2,490.38)	\$ (2,589.22)	\$ (2,673.69)	\$ (2,744.22)	\$ (2,800.22)
Depreciation of PPE	\$ (362.00)	\$ (493.00)	\$ (466.00)	\$ (241.56)	\$ (252.59)	\$ (264.14)	\$ (276.21)	\$ (288.83)	\$ (302.03)
Amortization of Intangible Assets	\$ (79.00)	\$ (270.00)	\$ (363.00)	\$ (264.00)	\$ (220.00)	\$ (192.00)	\$ (177.00)	\$ (164.00)	\$ (100.00)
Interest on PV of Operating Leases	\$ 17.37	\$ 19.87	\$ 24.60	\$ 29.88	\$ 32.94	\$ 36.30	\$ 40.00	\$ 44.09	\$ 48.59
EBITA	\$ 3,753.37	\$ 3,713.87	\$ 3,843.60	\$ 4,390.36	\$ 4,561.85	\$ 4,780.18	\$ 4,956.46	\$ 5,102.57	\$ 5,270.33
Less Adjusted Taxes									
Tax Shield on Interest Expense	\$ 28.08	\$ 89.76	\$ 113.28	\$ 98.40	\$ 52.60	\$ 54.68	\$ 56.47	\$ 57.96	\$ 59.14
Tax on Interest Income	\$ (3.36)	\$ (4.32)	\$ (2.88)	\$ (4.04)	\$ (4.15)	\$ (4.32)	\$ (4.46)	\$ (4.58)	\$ (4.67)
Tax on Other Operating Income	\$ (0.72)	\$ 3.84	\$ (3.36)	\$ (2.29)	\$ (2.35)	\$ (2.44)	\$ (2.52)	\$ (2.59)	\$ (2.64)
Tax Shield on Interest on PV of Operating Leases	\$ 4.17	\$ 4.77	\$ 5.90	\$ 7.17	\$ 7.90	\$ 8.71	\$ 9.60	\$ 10.58	\$ 11.66
Total Adjusted Taxes	\$ 28.17	\$ 94.05	\$ 112.94	\$ 99.24	\$ 54.00	\$ 56.63	\$ 59.09	\$ 61.37	\$ 63.49
Plus Changes in Deferred Taxes	\$ 401.00	\$ (3.00)	\$ 92.00	\$ 128.36	\$ 137.73	\$ 143.19	\$ 147.87	\$ 151.77	\$ 154.86
NOPLAT	\$ 4,126.20	\$ 3,616.82	\$ 3,822.66	\$ 4,419.48	\$ 4,645.58	\$ 4,866.74	\$ 5,045.24	\$ 5,192.96	\$ 5,361.70
		-12.35%	5.69%	15.61%	5.12%	4.76%	3.67%	2.93%	3.25%
Invested Capital (IC):									
NOWC:									
Normal Cash (Cash & Cash Equivalents)	\$ 2,983.00	\$ 963.00	\$ 902.00	\$ 2,512.69	\$ 1,755.80	\$ 3,875.86	\$ 4,374.77	\$ 5,246.10	\$ 5,980.57
Accounts Receivable	\$ 3,617.00	\$ 3,759.00	\$ 3,544.00	\$ 3,445.30	\$ 5,544.34	\$ 4,233.82	\$ 4,870.58	\$ 4,999.07	\$ 5,101.07
Unbilled Receivables / Contracts in Progress	\$ 5,240.00	\$ 6,576.00	\$ 7,857.00	\$ 6,335.92	\$ 6,512.32	\$ 6,770.79	\$ 6,991.68	\$ 7,176.11	\$ 7,322.54
Inventories	\$ 5,303.00	\$ 5,977.00	\$ 6,306.00	\$ 6,332.47	\$ 6,508.77	\$ 6,767.11	\$ 6,987.87	\$ 7,172.21	\$ 7,318.55
Other Current Assets	\$ 1,185.00	\$ 914.00	\$ 1,171.00	\$ 1,019.44	\$ 1,047.83	\$ 1,089.41	\$ 1,124.95	\$ 1,154.63	\$ 1,178.19
Accounts Payable	\$ (3,207.00)	\$ (3,179.00)	\$ (3,162.00)	\$ (3,071.59)	\$ (3,157.10)	\$ (3,282.41)	\$ (3,389.49)	\$ (3,478.91)	\$ (3,549.89)
Accrued Expenses (Salaries, Workers' Comp., Retirement)	\$ (1,401.00)	\$ (1,468.00)	\$ (1,543.00)	\$ (1,682.86)	\$ (1,729.71)	\$ (1,798.37)	\$ (1,857.03)	\$ (1,906.02)	\$ (1,944.91)
Deferred Revenue	\$ (6,992.00)	\$ (7,270.00)	\$ (7,148.00)	\$ (7,622.14)	\$ (7,834.35)	\$ (8,145.30)	\$ (8,411.02)	\$ (8,632.90)	\$ (8,809.05)
Other Current Liabilities	\$ (1,317.00)	\$ (1,708.00)	\$ (1,744.00)	\$ (1,708.88)	\$ (1,835.10)	\$ (1,841.79)	\$ (1,845.81)	\$ (1,872.49)	\$ (1,879.89)
NOWC:	\$ 5,411.00	\$ 4,564.00	\$ 6,183.00	\$ 5,560.36	\$ 6,812.79	\$ 7,669.13	\$ 8,846.50	\$ 9,857.81	\$ 10,717.17
Plus Net PPE	\$ 3,517.00	\$ 4,348.00	\$ 4,475.00	\$ 5,189.80	\$ 5,903.12	\$ 6,614.56	\$ 7,323.68	\$ 8,030.04	\$ 8,733.15
Plus Net Intangible Assets	\$ 702.00	\$ 2,585.00	\$ 2,315.00	\$ 2,051.00	\$ 1,831.00	\$ 1,639.00	\$ 1,462.00	\$ 1,298.00	\$ 1,198.00
Plus Capitalized PV of Operating Leases	\$ 1,265.43	\$ 1,567.13	\$ 1,727.13	\$ 1,903.45	\$ 2,097.78	\$ 2,311.95	\$ 2,547.98	\$ 2,808.11	\$ 3,094.80
Plus Other Assets	\$ 585.00	\$ 692.00	\$ 2,594.00	\$ 1,709.24	\$ 1,756.83	\$ 1,826.55	\$ 1,886.14	\$ 1,935.90	\$ 1,975.40
Less Long Term Deferred Revenue	\$ (814.00)	\$ (726.00)	\$ (709.00)	\$ (740.24)	\$ (760.85)	\$ (791.05)	\$ (816.85)	\$ (838.40)	\$ (855.51)
Less Other Liabilities	\$ (1,066.00)	\$ (1,768.00)	\$ (1,840.00)	\$ (1,461.03)	\$ (1,501.71)	\$ (1,561.32)	\$ (1,612.25)	\$ (1,654.78)	\$ (1,688.55)
Invested Capital (IC):	\$ 9,600.43	\$ 11,262.13	\$ 14,745.13	\$ 14,212.58	\$ 16,138.96	\$ 17,708.84	\$ 19,637.20	\$ 21,436.68	\$ 23,174.46
Free Cash Flow (FCF):									
NOPLAT	4,126	3,617	3,823	4,419	4,646	4,867	5,045	5,193	5,362
Change in IC	(1,169)	1,662	3,483	(533)	1,926	1,570	1,928	1,799	1,738
FCF	5,295	1,955	340	4,952	2,719	3,297	3,117	3,393	3,624
Return on Invested Capital (ROIC):									
NOPLAT	4,126	3,617	3,823	4,419	4,646	4,867	5,045	5,193	5,362
Begin. IC	10,769	9,600	11,262	14,745	14,213	16,139	17,709	19,637	21,437
ROIC	38.31%	37.67%	33.94%	29.97%	32.69%	30.16%	28.49%	26.44%	25.01%
Economic Profit (EP):									
Begin. IC	10,769	9,600	11,262	14,745	14,213	16,139	17,709	19,637	21,437
x (ROIC - WACC)	0.33	0.32	0.28	0.24	0.27	0.24	0.23	0.21	0.19
EP	3,509	3,067	3,177	3,575	3,831	3,942	4,030	4,068	4,133