

BWX TECHNOLOGIES INC.

REPORT

SUNRIT SARKAR

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Quantitative Analyst Intern

OVERVIEW

This report undertakes a comprehensive exploration of the investment potential in BWX Technologies Inc. through a quantitative as well as a qualitative review of its historical performance. The report begins with an introduction to the company, followed by a detailed presentation of the quantitative analysis. Subsequently, it examines BWX Technologies Inc.'s business strategy and its global impact. Finally, the report concludes by evaluating whether BWX Technologies Inc. is a secure investment option. This structured approach aims to provide stakeholders with a well-rounded perspective for informed decision-making regarding investment opportunities in BWX Technologies Inc.

INTRODUCTION

BWX Technologies Inc. (BWXT), a Fortune 1000 and Defense News Top 100 manufacturing and engineering innovator, is a prominent supplier of nuclear components and fuel to the U.S. government. Established in 1867, the company specializes in advanced nuclear technologies, notably naval nuclear reactors for submarines and aircraft carriers. BWXT also delivers essential services including commercial nuclear power plant components, medical isotopes, and nuclear waste management. With its headquarters in Lynchburg, Virginia, BWXT operates across various locations in the United States and Canada, employing over 6,600 professionals^[1]. Renowned for its innovation and reliability in the nuclear sector, BWXT plays a pivotal role in both national defense and civilian nuclear applications globally.

HISTORICAL QUANTITATIVE OVERVIEW

BWXT has experienced sustained share price growth since 2022, continuing into the present.



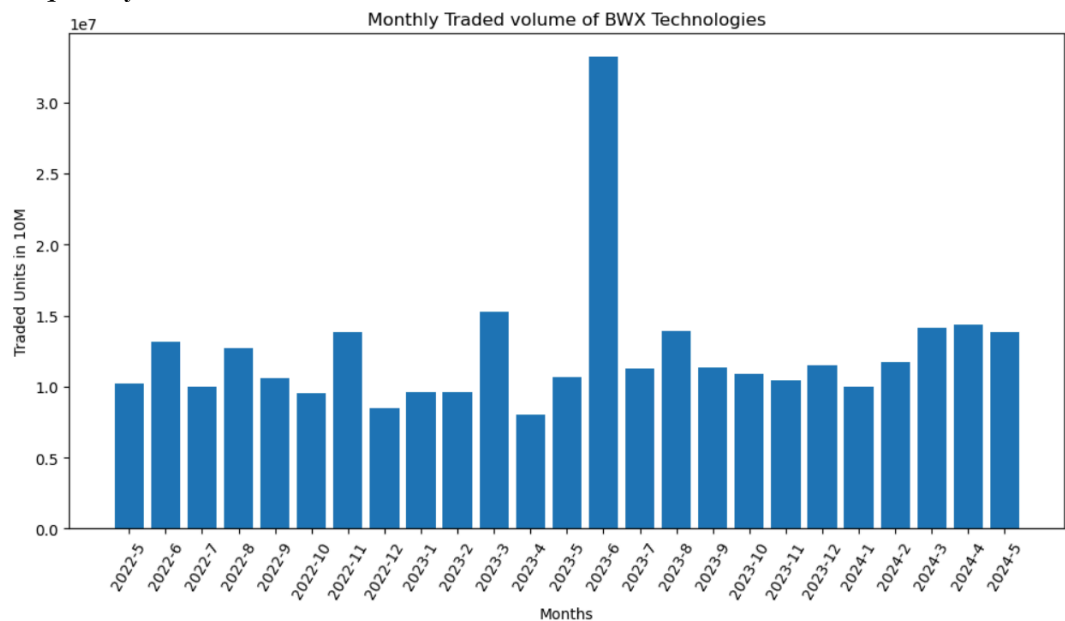
The share price of BWXT at NYSE

The monthly overview of BWXT's share price has shown notable positive gains.



The share price of BWXT with one month overview

The monthly trading volume trend for BWXT indicates consistent activity despite moderate liquidity.



We present the stock movement of BWXT using Bollinger Bands visualization[[Appendix](#)], revealing a stable investment opportunity with price movements consistently contained within the upper and lower bands.



The Bollinger Bands visualization of BWXT

We also extracted the financial data other than the stock price from the financial statements of BWXT. [[19](#)]

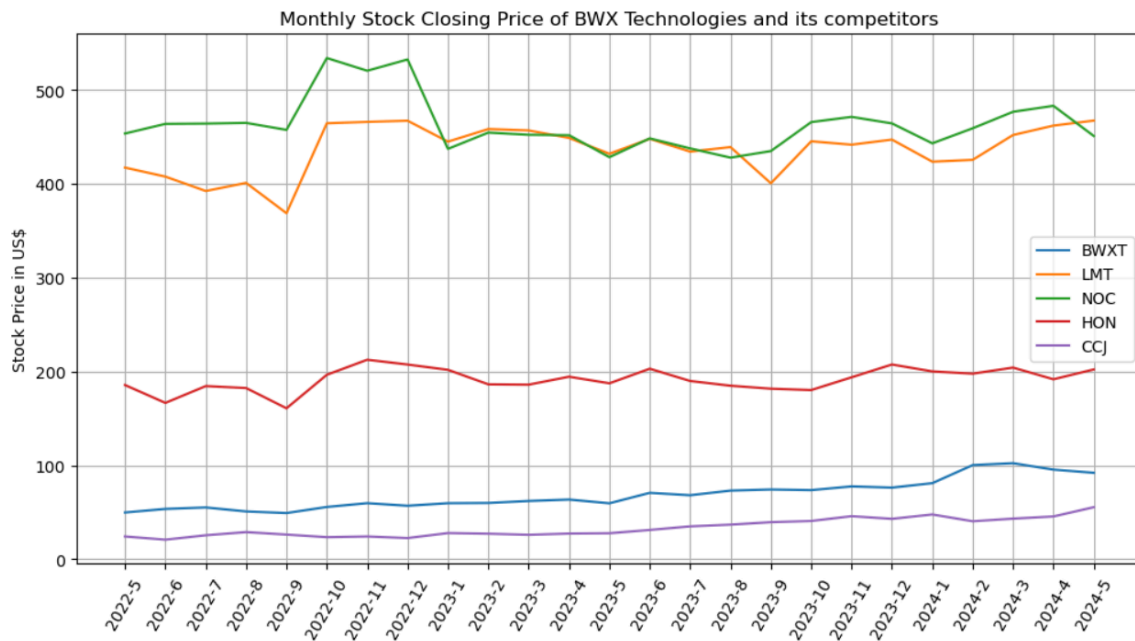


The summary of Income statements of BWXT

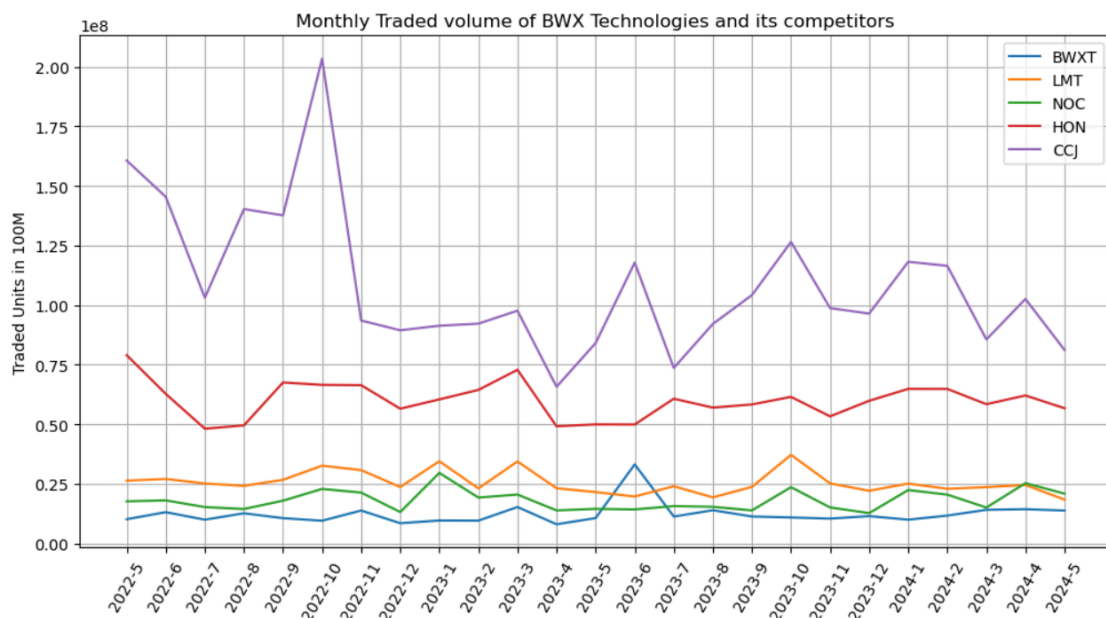
Competitors are an integral part of the performance analysis of a company, especially the ones operating in the same or highly correlated domains, guiding strategic positioning and benchmark. BWXT has some industry leaders as competitors:

- Lockheed Martin (LMT)[2]
- Northrop Grumman Corporations (NOC)[3]
- Honeywell International Inc. (HON)[4]
- Cameco Corporations (CCJ)[5]

We present the monthly stock price comparison of BWXT with its competitors. It is observed that BWXT has the second most affordable stock above Cameco, but this also represents how BWXT is not people's first choice in this domain



We also present the monthly traded volume for these companies. Again we would observe BWXT is one of the least liquid stocks in the domain, indicating the market sentiments.



Using the Geometric Brownian analysis[[Appendix](#)], we observe a 73%+ chance of the stock price going above 10% of present price in the span of a year.

We have presented the pros and cons of BWXT from a quantitative standpoint in this section. While being affordable and having a bullish trend, it is also not very liquid and has competitors of high value. One explanation of its illiquid nature despite bullish trends can be given as investors want to hold shares hoping prices to rise.

QUALITATIVE OVERVIEW

MISSION

To provide safe and effective nuclear solutions for global security, clean energy, environmental restoration, nuclear medicine and space exploration[[6](#)]

CORE VALUES

- **People** – Treatment of every member with dignity and respect while embracing diversity, teamwork, candor and accountability.
- **Innovation** – Encouragement for innovation to open new markets and to improve products, processes and business results.
- **Responsibility** – Dedication towards the highest safety, security, ethical and environmental standards.
- **Excellence** – Commitment towards delivering products and services of the very highest quality to their customers and other stakeholders.

SIGNIFICANT EVENTS IN THE PAST 2 YEARS

- Announced in **Dec '22**, under a \$37 million award from Idaho National Laboratory (INL), BWXT will manufacture a core for Project Pele, TRISO fuel for additional reactors, and coated particle fuel for NASA. INL oversees the contract, providing technical support. BWXT's Lynchburg, Virginia facility, the sole licensed private U.S. HEU processor, will fabricate TRISO fuel.[[7](#)]
- Announced in **April '23**, Nuclear Fuel Services, Inc. (NFS), a BWXT subsidiary, has been awarded a \$428 million contract by the National Nuclear Security Administration (NNSA) for HEU purification and conversion services. The five-year contract emphasizes establishing a specialized process line for conversion and purification operations.[[8](#)]
- Announced in **April '23**, BWXT is awarded a contract with an estimated value of up to \$45 billion over a 10-year ordering period from the U.S. Department of Energy

(DOE) for environmental management operations at the Hanford Site in Washington, alongside subsidiaries of Amentum and Fluor.[\[9\]](#)

- Announced in **July '23**, BWXT Advanced Technologies LLC, collaborating with a team led by Lockheed Martin, will finalize the design of a nuclear reactor, manufacture its hardware and fuel, assemble components, and deliver the fueled reactor as a subsystem for integration into DARPA's DRACO program.[\[10\]](#)
- In **Sept '23**, BWXT announced a two-phase, two-year contract with the Wyoming Energy Authority to assess the viability of deploying small-scale nuclear reactors in the state as a source of resilient and reliable energy to augment existing power generation resources.[\[11\]](#)
- Announced in **Oct '23**, BWXT subsidiary Nuclear Fuel Services, Inc., will manufacture and deliver fuel for the Naval Reactors Program under a \$300 million U.S. Naval Nuclear Propulsion Program contract, supporting various U.S. Navy submarines and aircraft carriers, including future Columbia-class submarines.[\[12\]](#)
- In **April '24**, BWXT, with Rolls-Royce, announced securing funding for Phase 2 of the UK Space Agency's International Bilateral Fund (IBF). This supports collaborative research on fission nuclear systems for space power missions, benefitting both the UK and U.S. space nuclear development programs.[\[13\]](#)
- In **June '24**, BWXT announced a contract award from DOE/NNSA for management and operations of the Pantex Plant. Initially spanning five years, the contract includes potential for three additional five-year option periods, totaling approximately \$30 billion over 20 years.[\[14\]](#)

MAJOR STAKEHOLDERS

As of March end, 2024, BWXT has 92.25% of total shares under institutional ownership [\[15\]](#)

Owner	Shares Held	Change (Shares)	% change
BlackRock Inc.	9,407,667	-45,437	-0.481%
Vanguard Group Inc.	8,735,898	58,680	0.676%
Wellington Management Group LLP	4,246,986	-584,585	-12.099%
William Blair Investment Management, LLC	4,005,417	-629,470	-13.581%
T. Rowe Price Investment Management, Inc.	3,814,716	259,910	7.312%
State Street Corp	3,485,525	-89,777	-2.511%
Boston Partners	2,378,109	-233,884	-8.954%

New quantitative investment players like Hudson River Trading and Trexquant LLP have also bought maiden stakes in this company.

This section provides a comprehensive review of BWXT, emphasizing its prominent role in the nuclear energy sector and substantial presence in U.S. military contracts. The company's expertise extends to providing nuclear fuel essential for efficient space programs, securing contracts in this specialized domain. Operating in the high-risk nuclear energy sector, where safety is paramount due to potentially catastrophic consequences, BWXT demonstrates a strong commitment to safety as a core value.

A notable concern is the significant divestment observed among BWXT's primary stakeholders, with seven of the top ten investors selling portions of their stakes in the last quarter. This activity coincided with a decline in share price around April '24, also resulting in the recent increase in volatility, as indicated by the widening Bollinger Bands. Further investigation is necessary to ascertain the reasons behind actions taken by investors such as BlackRock, Boston Partners, and Franklin Templeton, shedding light on their strategic motivations and market perceptions affecting BWXT's stock performance.

CONCLUSION

BWXT has bright prospects in the dynamic and relatively new domain of nuclear energy, especially with it extending into uncharted realms of space and medical research. Historically BWXT has had a strong bullish nature for the past 2 years, along with the geometric brownian prediction of 73%+ chance of 10% or more returns, this seems like a safe bet.

But the divestment in the last quarter from major investors poses a question. Also, the company has a lot of government contracts, with more than 70% of their revenue generated from government operations. The company has been awarded a multitude of contracts under the Biden administration, it is to be seen how it fares under the other counterpart in case a Republican government is formed at the end of the year. It is also to be kept in mind that a Republican government would mean a more rigorous military policy, which could prove beneficial for BWXT.

All in all, from this analysis, we would rate BWXT as a **moderate buy** share and a **definite hold** share for now. We would also quote ratings from some reputed firms on BWXT:

- WSJ Markets: Buy/Hold [\[16\]](#)
- Yahoo Finance: Buy [\[17\]](#)
- Barron's : Buy/Hold [\[18\]](#)

REFERENCES

- [0] Competitors information: [GlobalData](#), [Comparably](#)
- [1] [FAQs](#) on BWX Technologies Inc.
- [2] [Lockheed Martin](#) official website
- [3] [Northrop Grumman](#) official website
- [4] [Honeywell International](#) official website
- [5] [Cameco](#) official website
- [6] [Corporate Purpose](#) of BWX Technologies Inc.
- [7] [TRISO fuel deal](#) official announcement
- [8] [Uranium Conversion](#) contract official announcement
- [9] [Environment Management](#) contract for Handford site announcement
- [10] [DARPA fuel and engine](#) contract announcement
- [11] [Wyoming microreactor evaluation](#) contract announcement
- [12] [Naval Reactor fuel](#) contract announcement
- [13] [UKSA Space reactor development](#) project announcement
- [14] [NNSA Plantex plant management](#) contract announcement
- [15] [Institutional Holdings](#) list of BWXT at NASDAQ
- [16] [WSJ ratings](#) for BWX Technologies Inc.
- [17] [Yahoo Finance ratings](#) for BWX Technologies Inc.
- [18] [Barron's ratings](#) for BWX Technologies Inc.
- [19] [Earnings Release](#) announcements from BWX Technologies Inc.

APPENDIX (suggested by Justin Busca)

Bollinger Bands

Bollinger Bands, a key technical analysis tool, is used to assess price volatility and potential breakouts. By employing statistical methods around a central moving average, they assist traders in assessing price movements and potential trends, enhancing decision-making processes in dynamic market environments.

The centerline, usually a moving average, is flanked by upper and lower bands determined by standard deviations. Widening bands signal higher volatility, while narrowing bands indicate lower volatility. The breaches of the bands are often interpreted by traders as potential signals for trend reversals or continuation. This method helps assess price levels relative to recent trading activity and is widely utilized in financial markets to guide trading strategies and risk management decisions with a focus on understanding market dynamics and potential future price movements.

For this specific projection, we employed the following metrics:

Middle_band : The data of moving average for 20 days.

Upper_band : The data of moving average + 1.96 times the standard deviation in closing price of the data for 20 days.

Lower_band : The data of moving average - 1.96 times the standard deviation in closing price of the data for 20 days.

Geometric Brownian Motion

Geometric Brownian Motion (GBM) is a mathematical model used to describe the stochastic process of continuous-time movements in asset prices, such as stocks. Derived from the physical phenomena of Brownian motion, it assumes that the logarithm of the asset's price follows a Brownian motion with drift (average growth rate) and volatility (standard deviation of returns) parameters. GBM is foundational in option pricing theory (Black-Scholes model) and is widely applied in finance to simulate and understand the random fluctuations of asset prices over time.

The geometric Brownian SDE is given by:

$$dS_t = \mu dt + \sigma dW_t$$

Here, S_t denotes the stock price at time t , μ and σ denote the drift and volatility coefficients respectively. W_t is the Brownian process at time t .

Upon solving this stochastic differential equation (SDE), it is determined that the price of the stock follows a log-normal distribution. Thus,

$$\log(S_t) \sim N(\log(S_0) + (\mu - \sigma^2/2)*t, \sigma^2 t)$$

The μ and σ may be calculated as the mean and standard deviation of the log returns. Plugging S_0 as the stock price on the last day of the data, the probability of reaching a particular price at a given duration of time can be calculated.