Krause Fund Research
Fall 2024

Jazz Pharmaceuticals. (NYSE: JAZZ)

Healthcare

Current Price: $121.65
Target Price: $136.00

Recommendation: BUY

Analysts

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Company Overview:
Jazz Pharmaceuticals is a company specializing in biopharmaceuticals, headquartered in Ireland. They identify, develop, and commercialize products focused on narcolepsy, cancer, pain and psychiatry. By following a patient-focused and science-driven approach they aim to enhance shareholders' value.

Financial snapshot

Stock Performance Highlights	
52 weeks High	$134.17
52 weeks Low	$99.06
Beta Value	0.558
Average Daily Volume (3-month)	682.19k
Share Highlights	
Market Capitalization	$7.11 B
Shares Outstanding	60.45M
Book Value per share	$5.08
EPS	$7.06
P/E Ratio	69.01
Company Performance Highlights	
ROA	3,64%
ROE	13,44%
Sales	3.834B
Other important Ratios	
Current Ratio	2.24
Gross profit margin	88.64%

Source: yahoo finance

Investment Thesis

We recommend a BUY rating for Jazz Pharmaceuticals with a target price of $136.

Investment drivers:

- **Advancement in Biotechnology:** Biotechnology growth is projected to grow over the next ten years, offering expansion and revenue opportunities.
- **Strong market position:** Jazz holds significant market shares, focusing on rare conditions with limited competition, benefiting from orphan drug status, patents, and exclusivity.
- **Diverse Product Portfolio:** Jazz's broad portfolio includes neuroscience and oncology products with 10 products in their pipeline.
- **International market expansion:** Jazz operates in over 100 countries (mainly the United States and Europe), with potential growth in Japan

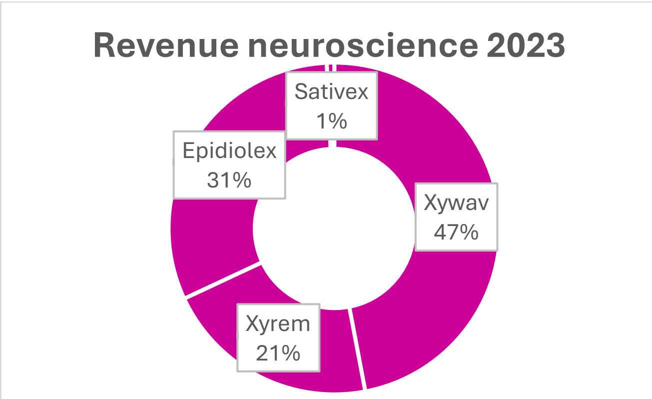
Investment risks:

- **Regulatory risk:** Obtaining FDA approval is time-consuming and uncertain with no guarantee of a portfolio outcome despite significant R&D investment
- **Competitor drug approval:** Xywav and its precursor Xyrem, which contribute 48% of Jazz's revenue (2023)
- **Legal and Litigation issue:** In the past Jazz, faced several litigations, which were costly and time-consuming, potentially impacting its financial resources and reputation

Company overview

Revenue:

Neuroscience:



The company focuses mainly on two sectors: Neuroscience and Oncology, with the majority of its revenue coming from the neuroscience sector. The key revenue driver in this area is called **Xywav**. Xywav was launched in November 2020 to treat cataplexy and excessive daytime sleepiness. In November 2021, the FDA also approved Xywav for the treatment of idiopathic hypersomnia. In the last fiscal year, Xywav generated a revenue of $1.273 billion, accounting for approximately 33% of the revenue. The patent of this drug expires in 2033, while market exclusivity lasts until the end of 2028 for idiopathic hypersomnia 2027 for cataplexy and EDS. The primary markets are the U.S and Canada. This drug contains 92% less sodium compared to Xyrem, making it a healthier lower sodium alternative for patients.

Xyrem, introduced in 2002, was Jazz Pharmaceuticals' initial drug for treating cataplexy and EDS and is considered the precursor of Xyway. The patent for Xyrem expired in 2022, while exclusivity lasts until 2025/2026. Despite Xyrem being largely replaced by Xywav, due to its higher sodium content, it still generated $569.7 million in revenue in 2023. However, Xyrem's revenue has been on a 44% decline due to the shift towards Xywav, which experienced a 32.8% growth rate in the same year.

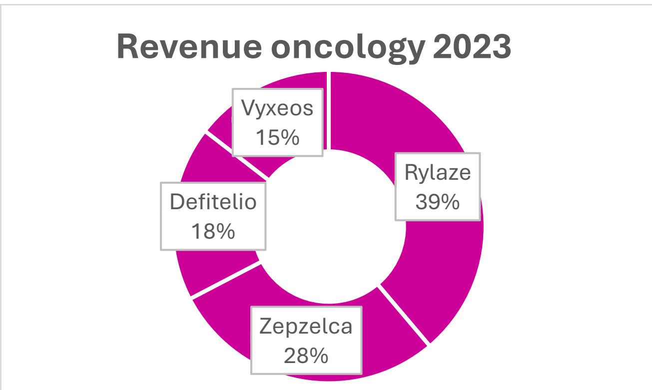
Both of these drugs are treating Narcolepsy, a condition that affects 1 in every 2,000 Americans. With the chronic nature and limited treatment options, it presents a stable market opportunity for Jazz Pharmaceuticals.

The third drug by Jazz Pharmaceuticals in the neurology sector, **Epidiolex**, is used to treat seizures associated with Lennox-Gastaut syndrome (LGS), Dravet syndrome, and tuberous sclerosis complex (TSC). It was launched in the United States in 2018 and is protected by a patent until 2035, ensuring market exclusivity for the next few years. Epidiolex generated a revenue of $845.5 in 2023 and further growth is expected due to market exclusivity.
Epidiolex benefited from its early FDA approval in 2018, which was two years before its competitor Fintepla's approval in 2020. This allowed Jazz Pharmaceuticals to leverage its strong first-mover advantage and gain significant market share early on. Epidiolex holds another advantage due to its approval in treating TSC-associated seizures, unlike Fintepla which only treats Dravet syndrome seizures. The drug has an addressable pool of 120,000 individuals and is the only cannabidiol-based treatment in the epilepsy markets for patients suffering from LGS and Dravet syndrome. Epidiolex is available in the United Kingdom, Germany, Italy, and Spain. Despite the setback in Phase 3 trials to launch their product in Japan, they remain optimistic about the potential launch, as the trials raised no safety concerns.

Sativex a cannabis extract medication, is used to treat spasticity due to multiple sclerosis and cancer pain for patients. It is administered as a mouth spray for patients who do not respond well to other anti-spasticity drugs. Initially approved in the United Kingdom in 2010, Sativex gained approval in 25 other countries over the next few years. However, it has not yet been approved in the United States. In 2023, the drug generated a revenue of $19.6 million, with a growth rate of 16.9%. Sativex and Epidiolex are both cannabis-derived medications developed by Jazz Pharmaceuticals.

Sunosi, a drug used to treat excessive daytime sleepiness with narcolepsy was part of Jazz's portfolio for several years generating $28.8 million in revenue. However, the drug was acquired by Axsome Therapeutics and is no longer contributing to Jazz's overall revenue.

Oncology:



Rylaze is an oncology drug used to treat acute lymphoblastic leukemia or lymphoblastic lymphoma, especially for patients who have developed hypersensitivity to E. coli-derived asparaginase. It got FDA approval in the United States in 2021, followed by approvals in Canada, Europe, and Great Britain. Rylaze has become the top revenue generator for Jazz Pharmaceuticals in the oncology segment with $394 million in revenue in 2023. In 2022 the drug grew by almost 229%, but that growth dropped off a year later to roughly 40%.

Rylaze's only current competitor is **Erwinaze,** which is also distributed by Jazz Pharmaceuticals. However, the two drugs have different manufacturing processes: Erwinaze is made from asparaginase directly derived from Erwinia chrysanthemi, while Rylaze is produced using modified bacteria that have altered with Erwinia chrysanthemi DNA. Over the last few years, Erwinaze couldn't generate revenue as it was largely replaced by Rylaze.

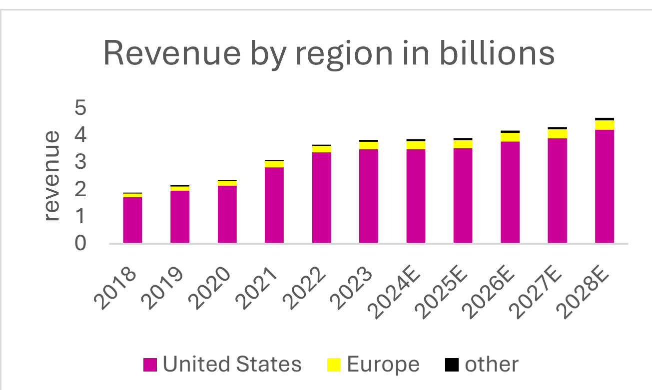
Zepzelca is an oncology drug used to treat adults with metastatic small-cell lung cancer (SCLC) whose disease has progressed on or after platinum-based chemotherapy. It received FDA approval in the United States in 2020 and in Canada the following year. Although Zepzelca was granted accelerated approval by the FDA in 2021, later trials failed to show efficient survival benefits when combined with chemotherapy. Despite considering revoking the accelerated approval, the FDA decided to allow Zepzelca to stay on the market.
Recent data from the IMforte Phase 3 trial shows promising results, and Jazz Pharmaceuticals hopes to get approval to use Zepzelca in combination with Tecentriy from Roche, a global pharmaceutical and healthcare company based in Switzerland, in the first half of 2025. With approximately 30,000 new cases of SCLC each year, this approval could increase further revenue. Zepzelca has patent protection until 2029, while general exclusivity lasts until 2027.
Zepzelca generated the second-largest revenue in the Oncology segment with $289.5 million in 2023. After its 2020 launch, the drug experienced a significant growth of 173% but then stabilized over the last two years roughly at 7-9%. With the potential FDA approval for combination theory in 2025, the growth rate is expected to rise again.

Another drug by Jazz Pharmaceuticals is **Defitelio**, which treats severe veno-occlusive disease (VOD) following hematopoietic stem cell transplantation (HSCT). The patent will expire in 2032, and currently, there is no equivalent version of Defitelio on the market. The drug first generated revenue in 2014, and since then revenue has grown consistently until 2021 to 197.93 million. However, there has been a slight decline in revenue which decreased 1.84% in 2022 and 5.3% in 2023. Defitelio is sold in the United States, Europe, Great Britain, Australia, South Korea, Saudi Arabia, Canada and Brazil.

Vyxeos is a drug in the oncology sector, that received FDA approval in August 2017. It is approved in the United States, Europe, South Korea, Saudi Arabia, and Canada. The patent is set to expire at the end of December 2028, which secures market exclusivity until then. Vyxeos is used to treat newly diagnosed acute myeloid leukemia, which is one of the most common types of leukemia. In 2023, Vyxeos generated a revenue of $147.5 million making it the smallest contributor to the Jazz oncology portfolio.

Growth by geographic region

Jazz generates most of its revenue in the United States with 90.5%. Over the past few years, the company's growth rate has shown significant fluctuation. To forecast the revenue generated in the United States, we applied this percentage to the total revenue figure. A similar approach was taken for Europe and other countries, which account for 7.5% and 2% of the revenue. For simplicity, we assumed these growth rates to remain stable, recognizing that the uncertainty surrounding potential FDA approval already introduces sufficient variability. Attempting to anticipate different growth rates by region would add unnecessary complexity to this analysis.



Expense:

Jazz Pharmaceuticals has five major expense categories, with Selling, General, and administrative expenses being the largest. Following SG&A are Research and Development (R&D) costs, intangible asset amortization, cost of product sales, and then acquired in-process-research and development (IPR&D)

Cost of product sales
The cost of product sales for Jazz Pharmaceuticals includes expenses for manufacturing and distribution cost, the cost of drug substance, royalties due to third parties on product sales, product liability, cargo insurance, FDA user fees, freight, shipping, handling, and storage costs and salaries and related costs of employees involved with the production. In 2023, these costs represented 12% of the total revenue, making it the smallest expense sector among its five main categories. The cost of product sales remained stable at about 435.6 million in 2021, following an increase from $148.9 million in 2020 to $440.7 million in 2021. This increase is due to the GW acquisitions on May 21, 2021, for $7.2 billion aimed at enhancing their neuroscience portfolio.

Selling General& Administrative expenses
In 2023, Jazz Pharmaceuticals Selling General & Administrative expenses amounted to $1.343 billion, which represents the largest cost category for this company. Over the past few years, SG&A has remained relatively high, increasing from $854.2 million in 2020 to $1.451 billion in 2021. The spike in 2021 is most likely due to the acquisition of GM in that year, as well as the impact of the Covid 19- pandemic.
Since 2021, the SG&A expense has grown in proportion to the revenue, prompting the decision to use the average of the last three years to forecast the expense, as the company tends to allocate more funds to SG&A as revenue increases.
A similar trend is observable in advertising expenses, which were $65.4 million in 2019 and $99.6 million in 2020. However, there was a significant increase in 2021 to $161.5 million, followed by a decrease to $108.8 million in 2022 and $92.2 million in 2023. This increase in the advertising expense in 2021 is likely due to the launch of Xyway in November 2020.

Research and Development

Research and Development expenses made up 22.16% of the revenue in 2023, which made it the second-largest expense category, which is typical for companies in the pharmaceutical industry. The R&D expenses totaled $849.658 million in 2023. Over the last few years, R&D expenses grew alongside revenue growth, which is expected since pharma industries heavily rely on R&D expenses and new product innovations. Costs included in R&D are primarily related to clinical studies, outside services, personnel expenses, milestone expenses, and other costs such as milestone payments before FDA approval of products. Clinical study costs consist of services performed by the clinical research organization or at clinical sites, materials, and supplies. Inventory for products that have not yet received FDA approval gets expensed as R&D at the time of production, while inventory for products that have been approved by the FDA is expensed at the time the inventory is packaged for the trial.

Intangible Asset amortization

Intangible asset amortization represents the third largest expense segment for Jazz Pharmaceuticals. The company amortizes its intangible assets on a straight-line basis over the life of the asset which has a range from seven to sixteen years. In 2023, the fair value of acquired intangible assets was $5.64 billion, mostly driven by acquired developed technologies related to Epidiolex and IPR&D. The expense of intangible asset amortization was $608 million in 2023. According to the footnotes in the 10-K filing, the expected intangible asset amortization for the coming years is as follows: $624.651 million for 2024 to 2027, $623.319 million in 2018, and thereafter it will be approximately $2296 million allocated over the remaining forecast period.

Acquired in-process R&D

The expense acquired in-process research and development makes up the smallest of the five major operational costs. In 2023 the expense was 19 million, while in the previous year, it was 444 million. To put this variation into account, our forecast was the average of the expenses between 2018 and 2023. In an asset acquisition, the cost of in-process research and development is expensed, unless the project has an alternative future use

Capital Structure:

Debt

At the end of 2023, Jazz Pharmaceuticals had a total-term debt balance of $5.693 billion. This debt includes several key components, such as 2026 Notes of 993.6 million, secured notes of 1.48 billion, 2024 notes of 573.9 million, and term loans of 2.665 billion. Since the 2024 notes mature in August of 2024, they are not considered long-term debt, which concludes with a long-term debt balance of $5.108 billion. Jazz's long-term debt increased significantly from $1.849 billion in 2020 to $6.019 billion in 2021 due to the acquisition of GW Pharmaceuticals. To finance the acquisition, Jazz raised capital by issuing secured notes of $1.5 billion at a 4.375% interest rate, maturing in 2019. In addition to that they entered a credit agreement in May 2021, which included a 3.1 billion dollar term Loan B, maturing in 2028, a euro 625 million Euro Term Loan B maturing in 2028, and a 500 million credit facility with a five-year term. The total debt-to-equity ratio is 148.75%. We forecast the long-term debt by summing up the non-cash total assets and multiplying it by the average of the long-term debt percentage.

Capital expenditure

There is available information about the capital expenditure in the following years. Over the last few years, the capital expenditure has been relatively low, which is not surprising given that capital expenditure typically represents investments made by the company in physical assets such as property, plant equipment, machinery... Jazz Pharmaceuticals relies on third-party manufacturers and outsources all of its production. In Athlone, Ireland they manufacture Xyway and Xyrem; in Kenz Science Park in the United Kingdom, they produce Epidiolex; and in Villa Guardia, Italy they produce defibrotide drug substances. As of right now they do not own their own commercial manufacturing or packaging capability and rely on third-party suppliers.

Investment

Jazz Pharmaceuticals is considered a small-term investment, with all initial maturities of greater than three months. In 2023, Jazz reported small-term investment and marketable securities totaling $120 million. The investments for the next several years are forecasted by multiplying the previous year's amount by (1+ ROI). The company's property, plant, and equipment (PP&E) is stated at cost less accumulated depreciation, with the straight-line method used for depreciation. The estimated useful lives for various assets are 40 years for buildings, 4 to 20 years for manufacturing equipment and machinery, 3 to 7 years for computer software and equipment, and 5 years for furniture and fixtures. As of 2023, the net PP&E was approximately $169.656 million, and we forecast it by subtracting capital expenditure from the previous year's balance.

payout policy- dividends and repurchases

The company has never paid dividends and appears unlikely to start shortly. Currently, the company is focused on reinvesting all of its earnings into the business to grow further. Since 2024, Jazz has consistently repurchased shares, except in 2021, likely due to the acquisition. The amount spent on share repurchases varied between 42.215 million and 523.672 million. The expected repurchase volume of about 191,371 million and a share price of $121.65, would result in the repurchase of approximately 1,573 million shares.

According to the footnotes of the 10-K filing, in November 2016, the board of directors authorized a share repurchase program of up to 1.5 billion. The program has no expiration date, and the number of shares repurchased depends on factors such as the price of ordinary shares, alternative investment opportunities, and market conditions. Additionally, Jazz Pharmaceuticals offers an employee stock purchase plan, allowing their eligible employee to purchase ordinary shares at a discount of 15% through payroll deductions. The number of shares available for purchase under the Employee Stock Purchase Plan is 175,000 in six months.

SWOT analysis

Strength

Diversified Portfolio

Jazz Pharmaceuticals has a diversified product portfolio, generating revenue across multiple areas. While Xywav accounts for 33% of the company's total revenue, they maintain a strong presence with eight other products contributing to the company's overall revenue. The acquisition of GW in 2021 was a strategic move, gaining more market share in the neuroscience sector and expanding its products in that sector. This diversification allows Jazz to mitigate the risk associated with relying on only one single product.

Strong market shares

Jazz pharmaceuticals hold strong market shares for many of its drugs, and often faces little to no competition. For instance, Rylaze, an oncology drug used to treat acute lymphoblastic leukemia, encounters almost no competition. The only similar drug available is Erwinaze, which is also distributed by Jazz Pharmaceuticals. This lack of competition positions Jazz as the market leader in this specific niche market. Similarly, Defitelio, a drug used to treat severe venous-occlusive disease (VOD), enjoys also a strong market presence since currently there is not an equivalent version of Defitelio on the market.

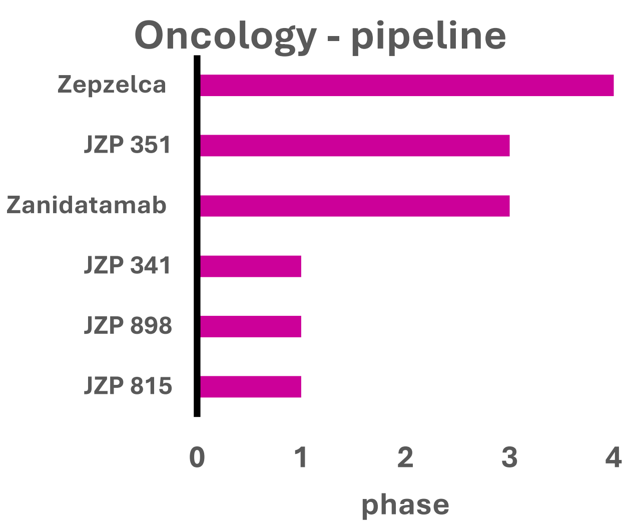
Epidiolex, used to treat TSC-associated seizures also has a strong market share. While Fintepla, a relatively new drug for similar seizure disorders, is a competitor, its later approval gives Epidiolex an advantage. In general Jazz's drugs have strong market shares due to limited competition and their focus on niche markets.

International

Jazz Pharmaceutical operates in multiple international markets, which provides them not only with more growth opportunities but also reduces the risk associated with focusing on a single market. Currently, the majority of its revenue is generated in the United States with $3.49 billion which makes 91% of the whole revenue. Europe follows around with 7%, roughly $269 million and the remaining 2% derives from other countries. The medicine is available in over 100 countries. The main markets, include the United States, Europe, New Zealand, and Australia but Jazz tries to gain approval in Japan. Approval in Japan could enhance the market presence further and could lead to more revenue growth.

Promising Product Pipeline

Oncology:



In the oncology segment, Jazz Pharmaceuticals aims to launch the drug **Zepzelca** (lurbinectedin) in the first half of the upcoming year. The drug has already been approved for small cell lung cancer (SCLC) and is currently undergoing a phase 4/regulatory review for patients with extensive stage SCLC in combination with chemotherapy. With numerous new SCLC cases annually, Zepzelca's successful launch could drive revenue growth.

Additionally, Jazz is developing **Zanidatamab** a promising drug developed by Jazz for treating cancers that express HER2, which is a protein involved in cell division and repair. In some cancers, this protein can be overexpressed and can lead to aggressive tumor growth. Currently, in phase 3 of clinical trials, Zanidatamab is evaluated for the treatment of patients with biliary tract cancer. In May 2024, the FDA granted its priority review, typically reserved for drugs addressing important unmet medical needs. The FDA's Prescription Drug User Fee Act is set for November 29, 2024, for an approval decision.

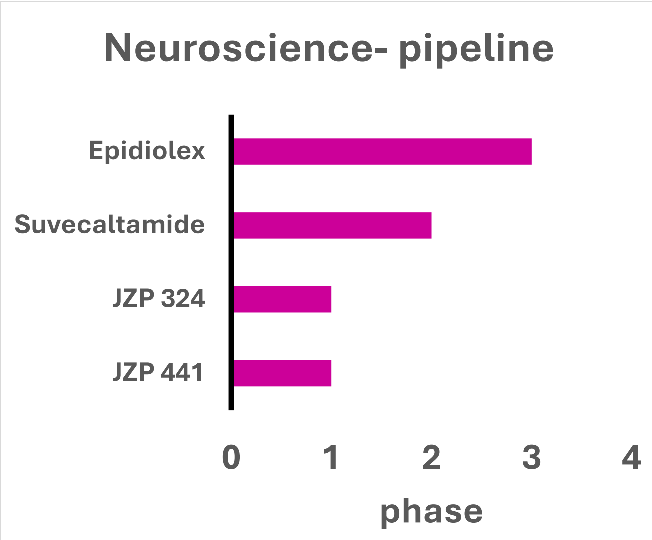
JZP351, also known as Vyxeos, is being explored for patients with high-risk myelodysplastic syndrome, relapsed/acute myeloid leukemia, or hypomethylating agent failure. Jazz is currently conducting five phase 2 and phase 3 trials to assess the efficiency of the product in various age groups.

JZP815 is currently still in phase 1 but is a selective pan RAF-kinase inhibitor that binds RAF proteins and can inhibit MAPK and therefore tumor cell growth. This drug is part of a collaboration with Redx to further expand jazz's oncology pipeline.

JZP 898 is also in phase 1 and treats relapsed and refractory metastatic tumors and non-small cell lung cancer.

JZP 341 is used to treat leukemia and is currently still in phase 1.

Neuroscience:



Suvecaltamide, a drug developed for treating Parkinson's disease tremors, is currently in phase 2 of clinical trials. Although the drug experienced a setback in June 2023, as they did not achieve its endpoint, the company analyzed their data and is confident to successfully adjust their approach. New results from the ongoing Phase 2 trial are expected in the first quarter of 2025.

JZP441 currently in phase 1, is being developed to treat conditions like narcolepsy, idiopathic hypersomnia, and other sleep disorders.

Epidiolex (Cannabidiol) is used for treating seizures and has already established a lot of market share in the United States, UK, Germany, Italy, and Spain. Despite a setback in getting approval in Japan, Jazz Pharmaceuticals stays optimistic about eventually launching their product in Japan, which would bring not only more revenue but would give access to a big market with a lot of opportunities.

JZP 324, currently in phase 1, is designed to address sleep-related issues especially those related to narcolepsy.

The portfolio targets rare conditions.

Jazz Pharmaceuticals focuses on small niche markets, which typically have high-profit margins due to limited competition. For several of Jazz's drugs, there are either no direct competitors or only a few producing similar treatments. The global rare disease market, where Jazz Pharmaceuticals operates, is projected to grow significantly in the coming years driven by an increase in the number of people affected by rare diseases and advancements in treatment options. The market is expected to grow at a CAGR of 8.8% between 2024 and 2034 which could further increase the demand for Jazz's products.
By targeting niche products, Jazz benefits from orphan drug status granted to treatment for rare diseases. An orphan disease is defined in the United States as a disease that affects only 200,000 or fewer people. Incentives provided under the Orphan Drug Act include tax credits for qualified clinical trials or a potential of seven years of market exclusivity after approval.

Weaknesses:

Focus on niche markets.
Jazz Pharmaceuticals focuses on niche markets that only affect a small percentage of the population. For instance, the drug Zepzelca is used to treat small cell lung cancer, but only about 30,000 people are diagnosed with SCLC annually in the United States. While niche markets tend to offer higher profit margins, they also have limited growth potential due to the smaller number of people affected. As with other pharmaceutical companies, Jazz invests heavily in R&D, but the emphasis on innovation is even greater in these small niche markets, which are often riskier due to uncertainty regarding FDA approval.

Competitors:
Jazz has historically faced little competition in narcolepsy treatment since Xywav and Xyrem were the standard of care for treating cataplexy.

Together, these two drugs accounted for 48% of Jazz's total revenue, making them the company's primary revenue driver.
However, Jazz's dominance in this market was challenged when the FDA approved Avadel Pharmaceuticals' Lumryz. Subsequently, Jazz filed a lawsuit against the FDA, arguing that Lumryz's approval violated the Orphan Drug Act by interfering with Xywavs exclusivity period. The FDA claimed that Lumryz is clinically superior due to once-nightly dosing, in contrast to Xywav's requirement of two doses during the night. Clinical superiority allows the FDA to approve a new drug even if it overlaps with another drug's exclusivity period. The District Court of Columbia ruled in favor of the FDA, dismissing Jazz's argument that their exclusivity should remain valid due to Lumryz's higher sodium content and associated health risks. Despite the legal setback, Xywav continues to remain a strong market presence, although its growth rate decreased significantly from 79% in 2022 to 32.8% in 2023. It remains to be seen how the launch of Lumryz will impact Xywav's market share in the long term.

Opportunity

Advancement in Biotechnology
Biotechnology is predicted to grow from a market size value of $1.48 trillion in 2023 to $3.9 trillion by 2031, which is a CAGR rate of 13.9% over the forecasted period driven by advancements in technology. This advancement offers a lot of growth potential for firms operating in this segment. This industry will see a lot of biological processes due to the development of new technologies. Biotechnology is a Research & Development industry that heavily relies on the innovation of new technologies that can lead to more advanced medications and treatment processes.

Oncology growth – fastest growing sector
Research indicates that the number of people affected by cancer will be on an upward in 2050 in almost every part of the world. The need for oncology treatments, such as cancer medicine is expected to increase in the future, highlighting both the growth potential and the large target market available.
The oncology market size is valued at $201.80 billion in 2023 and is expected to grow in the next ten years until 2033 to $668.26 billion.
Additionally, the number of people diagnosed with lung cancer has been increasing. Recent data has shown that the highest ASR (standardized incidence rate) is expected in 2035, with cases rising from 1.31 million in 2012 to 2.17 million in 2035.

Threat

Regulatory risk
The growth of a company in the biotechnology industry and the broader healthcare sector heavily relies on the approval of new drugs and treatments. Before a product comes on the market, it has to undergo approval by the FDA. A company that may not have performed well in the past can experience a significant turnout if it gets FDA approval for an innovative drug. Conversely, the opposite can happen, research, development, and clinical trial expenses can lead to significant losses if FDA denies approval. The financial success of this sector is tied to the decision by the FDA at the end of a costly development process.

Different regulatory approval processes across different countries
While Jazz Pharmaceuticals has successfully established itself in the United States and many European countries, it remains difficult to navigate the approval process in other countries. The FDA approval process in the United States is known to be costly and time-consuming, with a median

review time of approximately 306 days (only the time between the final submission of the drug approval application to the results). The review time for the European Medicines Agency (EMA) approval process takes even longer with a median review time of 383 days. However, in countries such as Japan or other Asian markets, regulatory processes may be even slower and less predictable. This lack of clarity and familiarity may impact Jazz's ability to expand its global presence efficiently, resulting in more costs and longer wait times.

Legal and Litigation issues

Pharmaceutical companies are often involved in litigation over the legitimacy of patents. These processes can be time-consuming and expensive, significantly impacting a company's financial and operational resources. Currently, Jazz Pharmaceuticals faces several litigation matters such as Xyrem Antitrust litigation, GW acquisition Litigation, Avadel Patent litigation, Xywav patent litigation, Alkem patent litigation, Epidiolex Patent litigation, MSP Litigation, and FDA litigation. Lawsuits are not uncommon in the pharmaceutical industry due to the consequences involved. Lawsuits from unexpected side effects of medications can arise additionally, which can add up to a significant amount. These situations can decrease consumer confidence and can damage a firm's reputation, which can result in a loss of market share and finances.

Industry overview

Biotechnology Industry

The Biotechnology Industry is a dynamic subset of the healthcare industry focused on developing therapies to treat unmet medical needs. Biotech companies focus on research-intensive processes and implementing cutting-edge technologies to innovate and help bring new specialized treatments to market. This industry forces companies to operate in a high-risk, high-reward environment, with intense R&D investment, strict regulations, and oversight, & a dependence on intellectual property protections.

Biotechnology is one of the fastest-growing industries in the world, with an expected market size of $4.61 trillion by 2034 and a CAGR of 18.44% by that time too. The high rates of growth are often fueled through key mergers and acquisitions.

Biosimilars

Currently, biologics are one of the fastest growing classes of medications in the United States yet are accounting for a large and growing portion of costs related to health care (31). However, the rise of biosimilars represents a growing trend of offering cost-effective alternatives to the costly biologic therapies currently available. Biosimilars are an almost identical copy of an original biologic that is manufactured by another company. One positive factor is that biosimilar can only be manufactured once the patent on the original biologic expires. But with bills such as the Pathway for Biosimilars Act, which was introduced in 2009, there is an abbreviated approval process to help provide patients with better access. One important fact is the difference between biosimilars and generic drugs, as the latter focuses on small-molecule type drugs while the former focuses on molecularly complex drugs which are much more difficult to replicate. Jazz does not necessarily face a huge threat from biosimilars for several reasons. Their drug portfolio is not saturated with biological drugs, and those that are biologics have lower risk factors due to the niche areas many of them focus on. With many of their drugs

There is a complex manufacturing process involved which increases development costs, which creates a barrier to entry.

Rare Diseases

A growing trend in the biotech industry is a shift away from broader therapeutic areas into smaller niches related to the almost 7,000 rare diseases classified as “Orphan Diseases”. But with the increasing number of government incentives combined with the possibility to corner diseases, it has become all the more enticing. In the United States, the Office of Orphan Products Development offers financial incentives such as tax credits and R&D grants, combined with waivers for regulatory fees. Also, for many of the advanced tr

Is there is a large reduction in patients needed for Phase III trials to a median of 538 participants compared to the standard median of 1,491 participants (32). This then plays into the accelerated development of drugs and with that comes accelerated access to the market. Following approval by the FDA under the label of an Orphan drug, they are allowed up to seven years of market exclusivity in the United States.

Regulations and Pricing

As mentioned previously, many government groups and regulatory bodies are offering incentives and a pathway to approval for Orphan Drugs, yet there are still issues. Although gaining approval by one of the regulatory bodies is very important, it does not guarantee much. Because each different regulatory authority has different standards and processes, there is no guarantee of universal approval. But another shift seen worldwide is a push for greater price transparency, especially in the realm of Orphan Drugs. With expensive biologics and orphan drugs drawing large amounts of scrutiny, many are working to ensure their products are covered by insurers and government programs. Some are also shifting towards value-based pricing models which set prices primarily based on the value of benefits offered to customers.

Mergers and Acquisitions

Mergers and Acquisitions are a crucial part of the biotechnology industry, as they offer the ability for companies to expand their portfolio and capabilities. Different companies have differing outlooks as to how they use M&A to expand. Jazz Pharmaceuticals, with its purchase of GW Pharmaceuticals, helped expand its drug pipeline, but it also helped increase its market share in the epilepsy market. Some companies use M&A to relatively quickly gain access to new technologies or innovations, which are then commonly retooled to speed up development.

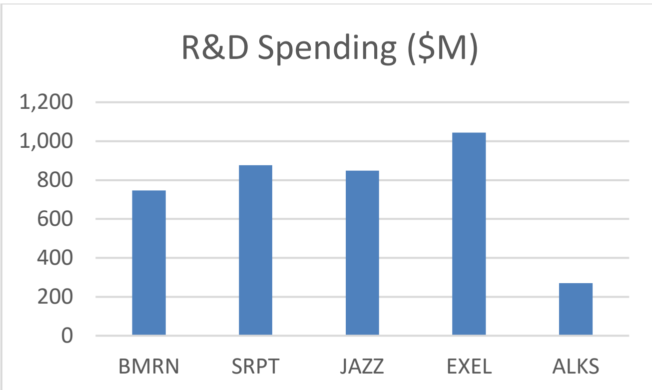
Competition and Peers

The biotech industry is a massive area made up of thousands of companies ranging in size from small-cap and early startups to large-cap companies that have been established for years. Jazz falls in between these two groups, residing in the mid-cap range, in which it is a strong competitor. According to the table below BioMarin Pharmaceutical (BMRN) has the largest market cap, just under $19,000 million. Yet Jazz Pharmaceuticals, which has a market cap of $9,100 million, had the second-highest sales of $3,800 million.

Symbol	Market Cap ($M)	Sales ($M)	Net Income Margin %
BMRN	18,800	2,500	6%
SRPT	9,600	2,000	-30%
JAZZ	9,100	3,800	14.8%
EXEL	7,500	1,600	18%
ALEKS	5,400	1,200	9.5%

<u>Research and Development (R&D) Spending</u>

In the biotechnology industry research and development are one of the most important drivers for growth. How much a company spends on R&D compared to its financials is a strong indicator of its outlook and current strategies. Companies that spend more on R&D are in a better position to expand their market share, yet they face the unpredictability of the drug market and the risks that come with it. Unsurprisingly the company with the highest R&D spending in 2023 was BMRN, with their R&D spending totaling around $1.1 billion. But surprisingly SRPT and JAZZ, who have half of the relative market cap spend almost the same amount around $1 billion.



Drug Pipeline

Unsurprisingly, another factor crucial to succeeding in the biotechnology industry is a strong drug pipeline to continue growth. However the ability to create and refine drugs in their pipeline is fueled by R&D spending. One important factor to note though is that higher R&D spending doesn't always translate to having more drugs in the pipeline. EXEL and JAZZ, who have two of the three largest R&D expenses only currently have 10 drug candidates in their pipeline. EXEL's candidates focus on oncology treatments for solid tumors, while JAZZ's candidates focus on a range of areas from sleep disorders to rare diseases. BMRN has around 25 drug candidates in their pipeline, primarily focusing on the treatment of rare genetic disorders, including gene therapies for hemophilia and MPS I. SRPT has around 20 pipeline drugs with their major focus being on gene therapy and precision medicine treatments, mainly around rare neuromuscular diseases. ALKS has around 15 drugs in their pipeline targeting a wide range of focuses but centralizing around psychiatric and neurological disorders.

Economy overview

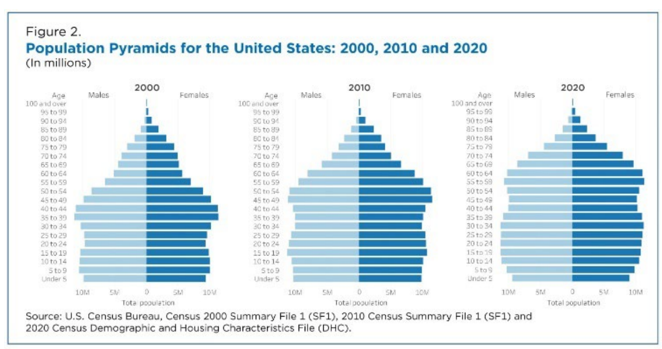
Population Demographics

Relevance

A well-known fact is that the population over 65 years old spends more on healthcare than any other demographic relative to their size. Even though in 2020 they only made up 17% of the population, those over 65 made up more than 37% of the spending on personal health care. More and more adults begin taking prescriptions as they age for a multitude of reasons, from prevention to treatment. But those over 65 are much more likely to be taking a prescription.

Aging Population

There is strong evidence that in the US the population is aging. The median age has increased from 37.2 to 38.8 from 2010 to 2020, also in that time the percentage of Americans over the age of 65 has increased from 13% to 16.8%. Nearly 17% of Americans over 65 made up over 37% of the total personal healthcare spending in the US (34).



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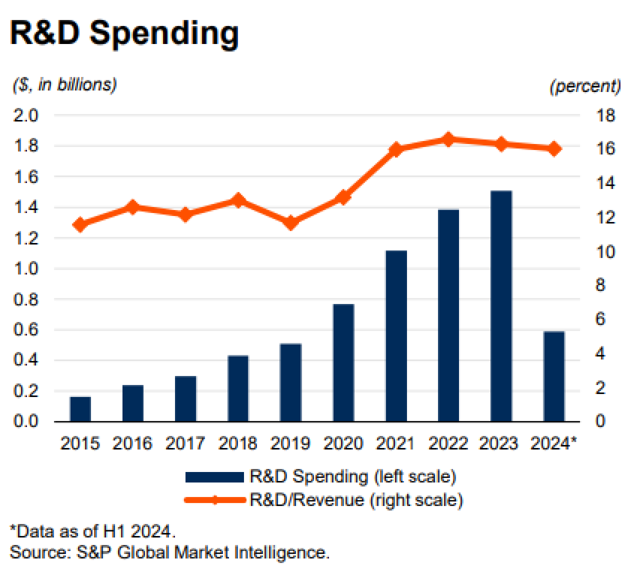
Forecast

We expect that there will be continual growth in the percentage of Americans above the age of 65, which will lead to high healthcare spending. In the larger picture, we also predict that with this growing population, there will also be a growing market for treatments for Orphan Diseases that are more prevalent in an older population.

Fed Funds, 10-Year Treasury, and CPI

Current Rates
Fed Funds: 5.25%-5.50%
10-Yr Treasury:4.426%
CPI:3.2%

Relevance
Mergers and Acquisitions & Research and Development are two of the most important factors in determining if a biotechnology company is successful. Many companies are influenced in their spending in these areas based on Fed Fund rates and risk-free rates available. With current rates relatively high it makes spending on M&A and R&D more costly, making it harder for companies to gain financing for increases in either of those two areas.



Forecast
We believe that the Fed Funds Rate will continue to come down over the next months and years. With that also we see the risk-free rate decreasing. We do expect inflation to increase in this upcoming time frame too. But with rates decreasing it will likely stimulate the biotech industry into again increasing R&D spending, but also it is likely to increase the likelihood of M&A.

Unemployment Rates

Current Rate 4.1%

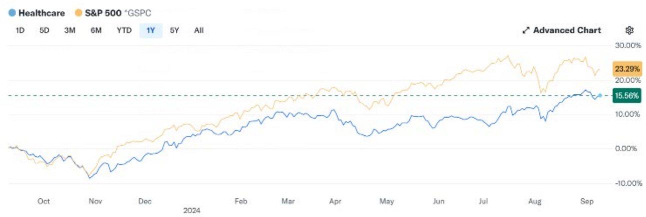
Relevance
A crucial part of employment in the US is the access it provides to employer healthcare. This employer healthcare tends to have better benefits and rates when compared to many other healthcare options. And with more people covered under insurance, it increases the likelihood of gaining approval for Orphan Disease treatments.

Forecast
We predict that unemployment will continue to increase both in the short term and long term. We believe it will continue to 4.5%, and possibly have a large increase if economic growth potential stutters.

Capital Markets

Current Performance
S&P 500: 23.29%
S&P Healthcare:15.56%

Relevance
In the past year, the S&P Healthcare Index has not performed as well as the standard S&P 500 over the same amount of time. This is due to some contraction still being felt as the economy moves out of Covid-19 era expectations. But market performance as a whole was very strong, with healthcare performance still strong relative to previous expectations. We also believe that the biotech industry is ripe for investment, due to the aging population and increased spending by the government on healthcare expenditures.



<u>Forecast</u>

Expectations currently predict that the global biotechnology market will reach a size of $775 billion by 2025. We forecast that growth will be even stronger than expected. We predict that AI will begin to play a large role in biotechnology development and the understanding of different Orphan Diseases. Also, as technology advances, we are predicting the number of areas that biotech companies can target will continue to grow.

Valuation discussion

<u>Valuation Methodology.</u>

DCF/EP

<u>Key inputs:</u>
WAAC: 6.28%
Cost of equity: 7.36%
CV Year ROIC: 7.08%
CV growth of NOPLAT: 2.44%

<u>Non-operating adjustments:</u>

We made the following non-operating adjustment to get to a total non-operating adjustment of -4922800 84 in thousand
add: Excess cash, marketable securities, and other non-operating assets
Less: current portion of long-term debt, long-term debt, operating lease liability, other non-operating liability, ESOP.

After that, we arrived at a share price of $136,03 which we evaluated as a good representation of the company’s value.

Relative Valuation analysis

In our relative valuation analysis, we included the following companies: Amgen Inc., Eli Lilly and Company, Anneal Pharmaceuticals, Alkermes, Bausch Health Companies Inc., and Teva Pharmaceutical Industries Limited. However, we excluded certain peers of Jazz Pharmaceuticals peers that had negative EPS for 2024E, as they were identified as outliers. Our forecast for the stock price based on the 2024 EPS came out as negative $9.78, which is an unrealistic value. Similarly, the forecast for 2025 EPS resulted in a P/R of 947.3, which is also not a reliable estimate. The primary issue comes from the negative EPS 2024E for Jazz, which leads to an extremely high negative P/E ratio of -230.7 for 2024. Since these values are not a reasonable representation of the company’s actual value and do not align with the other forecasts, we decided not to place much weight on this relative valuation approach. Instead, we have chosen to focus on the DCF_EP model to forecast the stock price, as it provides a more accurate reflection of the company’s value.

DDM Model

Our Dividend Discount Model gave us an implied stock price of $7.74 as of today. However, we don’t believe this is an accurate representation of Jazz Pharmaceuticals’ stock price, as the company does not pay dividends. Instead, Jazz primarily reinvests its earnings to achieve further growth, with a strong focus on Research and development, which is a key driver of future growth for pharmaceutical companies.

Revenue assumptions:

Neuroscience:
Xywav has exclusivity until 2028, with its patent expiring five years later in 2033. However, with the loss in the recent lawsuit regarding the launch of Lumryz, the growth rate is anticipated to decline in 2024 due to this launch. After that, the growth rate is expected to stabilize for the following years, since the market shares have already been established by then. Once Xywav loses exclusivity in 2028, a significant decline in revenue is expected, with a projected negative growth of roughly 6%.

Xyrem's exclusivity expired in 2022 and was replaced by Xywav, a drug containing 92% less sodium. The drug's growth rate declined by 44% in 2023, and it is expected that this decline will continue in the coming years until it no longer generates revenue by 2027.

Epidiolex has patent protection until 2039, while its exclusivity expires between 2025 and 2027. A competitive drug, Fintepla, has been approved because it can treat a broader range of seizures. However, due to this competition, the growth rate is expected to decline to 2% until 2028. Currently, Jazz aims for a launch in Japan, despite setbacks experienced during phase 3 of their trial. Nevertheless, the management stays optimistic and a launch in 2028 seems reasonable and possible. That would boost the growth rate to 17%, followed by a decline in the following years.

Sativex
Sativex doesn't have approval in the United States, and it is difficult to determine how likely it is to achieve approval there in the future. Sativex has patent protection until 2035. The drug experienced a decline from 32% in 2022 to 17% in 2023, and a further decline is to be expected, with no revenue anticipated by 2032.

Suvecaltamide is currently in phase 2, with new results expected in the first quarter of 2025. Assuming a two- to three-year period of Phase 3 and a regulatory review of one to two years, a potential launch could be possible in 2029. In the United States, there are approximately 1 million people with Parkinson's disease, with 700,000 to 800,000 having a tremor. The average annual cost of Parkinson's disease treatment is $14,000. A reasonable assumption is that 50,000 of the 700,000 tremor patients would use the medications. By calculating this number with the average price of $14,000, the potential revenue would be $700 million. In the early years, the growth rate is not expected to be as substantial as the drug establishes itself in the market. However, its growth rate is projected to reach 15% by 2033.

Oncology

Rylaze currently does not have any direct competitors. It experienced a peak revenue growth rate of 229% in 2022, which dropped to 40% in 2023. The growth rate is expected to continue decreasing, turning negative by 2030. Without patent protection or exclusivity, there is a high likelihood that another company will introduce a company drug, potentially capturing market share, even within the niche market.

Zepzelca is already on the market but aims to gain approval in combination with chemotherapy. It is currently in phase 4/ regulatory phase and hopes to launch in 2025. Before the launch in 2025, the growth rate is expected to be 5% in 2024. Depending on the exact timing of the 2025 launch, a significant spike is not yet expected in 2025. In 2026 the growth rate is projected to be 24% followed by a decline thereafter.

Defitelio has been on the market since 2015, but in recent years, it has experienced a negative growth rate. Therefore, a further decline in growth is expected in the coming years, with projected revenue of $6.672 million in 2033

Vyxeos has patent protection until 2032. The growth rates varied over the last few years with a 10.7% increase in 2021, a decline of 5% in 202, and a positive growth of 15.25% in 2023. The anticipated growth rates over the forecast period are positive until 2029, after which a decline is expected. Following the patent expiration in 2032, a further drop in growth to negative 48% is projected.

JZP 351 is being investigated for patients with high-risk myelodysplastic syndrome, relapsed/acute myeloid leukemia, or hypomethylating agent failure. Currently in phase 2/3, a launch in 2029 appears likely. The price of similar products ranges between $150,000 and $200,000 per treatment. Annually there are usually between 1,500-2,000 cases for high-risk myelodysplastic, 5,000 cases for myeloid leukemia, and 750-1,000 with failed HMA treatments. In 2029, assuming 900 cases are treated at an average price of $175,000, the revenue would be approximately $157.500 million. The growth rate is projected to decrease after its peak in 2030.

Zanidatamab is currently in phase 3, but the FDA granted priority review for them. On the 29th of November 2024, they plan to make the approval decisions. In the United States, approximately 26,380 new cases of gastric and gastroesophageal cancers are diagnosed, with an 18% mean (range of 4.4% to 53.4%) being HER2-positive, which equates to roughly 4,750 eligible patients. If approved, Zanidatamab would be the first HER2-targeted treatment specially approved for this cancer type. Given the price for other HER2 biologics prices, the annual price for this drug is expected to be $50,000- $100,000.
Even though Zanidatamab will have competitors such as Herceptin and Perjeta, as these are not specifically for this cancer type, a market share of 30-50% seems reasonable. While it is uncertain whether the FDA will approve Zanidatamab immediately at the end of 2024, or request more data, a launch in 2026 seems likely. The projected revenue in 2025 is $142.5 million calculated by multiplying $75,000 by 40% of the estimated 4759 eligible patients. After reaching its peak growth rate of 24% in 2027, a decline in growth is anticipated.

The drugs currently in phase 1 for oncology and neuroscience are difficult to forecast due to the uncertainty of FDA approval and ongoing development. Given Jazz's heavy investment in R&D and the presence of several drugs in their pipeline in Phase 1, it's likely that one of these drugs will launch in 2031. Therefore, we projected revenue of approximately $300 million in 2031, with an increase of $100 million in the next two years.

R&D
To forecast future R&D, we took the average of the last three years' R&D as a percentage of revenue, which is 18.21%, and multiplied it by the previous year's revenues. Although specific details on how much Jazz Pharmaceuticals plans to allocate to R&D are not available, using the historical average seems reasonable for our forecast

SG&A
Since 2021, the SG&A expenses have grown in proportion to the revenue, prompting the decision to use the average of the last three years as a percentage of the revenue to forecast the expense, as the company tends to allocate more funds to SG&A as revenue increases.

Cost of Goods sold
To forecast the COGS, we decided to take the average % of revenue of the last three years (2021-2023) and multiply it with the COGS of the previous year.

Cost of Equity
We calculated the cost of equity by using the Capital Asset Pricing Model (CAPM). For the

risk-free rate, we referred to the 10-year Treasury Bond yield as of November 17^{th}, 2024, when the U.S. stock market closed. For our beta, we used the average of the 2-year weekly beta provided by Bloomberg which was 0.56. The equity risk premium was based on the 1928-2023 geometric average over the 10-year Treasury, which equaled 5.26%. This resulted in a calculated cost of equity of 7.22%, which we used for the calculation of our weighted average cost of capital (WACC).

Cost of debt

To determine the cost of debt, we first looked up the YTM on the company's 10-year corporate bonds, which provided us with a pre-tax cost of debt of 5.65%. With a risk-free rate of 4.43%, we calculated an implied default premium of 1.22% for the bond.
Next, we applied the pre-tax cost of debt of 5.65% to the marginal tax rate of 14%, which resulted in an after-tax cost of debt of 4.87%.

WACC

We calculated our WACC by determining both the cost of equity and the cost of debt we found out in previous calculations. To find the market value of equity, we multiplied the total shares outstanding (62.255 million) by the current stock price of $121.64, resulting in a market value of equity of approximately $7.67 billion. To calculate the market value of debt, we added up the short-term debt, the current portion of long-term debt, long-term debt, and the present value of operating leases, giving us a total market value of debt of approximately $6.72 billion. By adding the MV of total debt and equity, we got to a MV of the firm of about $14.30 billion. We then calculated the market value weights by dividing the market values of equity and debt by the total market value of the firm. This resulted in a weight of 52.97% for equity and 47.03% for debt. Finally, we multiplied these weights by their costs and added them together, which gave us a WAAC of 10.6%

Sensitivity analysis

Risk-free rate vs. marginal tax rate

risk-free rate (columns) / marginal tax rate (rows)

$ 136,03	4,126%	4,226%	4,326%	4,426%	4,526%	4,626%	4,726%
10,80%	142,44	139,27	136,20	133,21	130,31	127,48	124,74
11,80%	143,47	140,27	137,16	134,14	131,20	128,35	125,58
12,80%	144,52	141,28	138,13	135,08	132,11	129,23	126,43
13,80%	145,58	142,30	139,12	136,03	133,04	130,12	127,29
14,80%	146,65	143,34	140,12	137,00	133,97	131,02	128,16
15,80%	147,74	144,39	141,13	137,98	134,91	131,94	129,04
16,80%	148,84	145,45	142,16	138,97	135,87	132,86	129,94

The risk-free rate is a crucial component in calculating the Weighted Average Cost of Capital (WACC). A higher WACC compared to the Return on Invested Capital (ROIC), indicates that the company does not generate any economic profit. Therefore, the company needs to minimize its WACC. In our analysis we thought including the marginal tax rate would be interesting, considering for companies under the Orphan Drug Acts tax breaks can be imposed on the product. In our analysis, we observed that a 3% decrease in the tax rate leads to an approximately $3 decrease in the stock price, while the risk-free rate introduced more variability. A 0.3% change in the risk-free rate can affect the stock price by approximately $3 as well.

Beta vs. equity risk premium

equity risk premium (columns) / beta (rows)

136,03	5,11%	5,16%	5,21%	5,26%	5,31%	5,36%	5,41%
0,483	151,24	150,40	149,56	148,74	147,91	147,10	146,29
0,508	146,86	146,01	145,17	144,33	143,50	142,68	141,86
0,533	142,65	141,80	140,95	140,10	139,27	138,43	137,61
0,558	138,61	137,74	136,88	136,03	135,19	134,35	133,53
0,583	134,71	133,84	132,97	132,12	131,27	130,43	129,60
0,608	130,95	130,07	129,21	128,35	127,50	126,65	125,81
0,633	127,33	126,45	125,58	124,71	123,86	123,01	122,17

Beta and equity risk premiums are also important metrics in calculating the Weighted Average Cost of Capital (WACC). In healthcare, where demand is less tied to economic conditions, companies tend to have a lower beta. This stability is shown in our finding, where a decrease of 0.1 in beta leads to a significant $13 increase in our stock price, demonstrating that the stock price is quite sensitive to changes in beta. In contrast, a 0.15% reduction of the equity risk premium only decreases the stock price by $3.

SG&A % of Sales and R&D % of Sales

R&D% of Sales; rows: SG&A % of sales

136,03	15,21%	16,21%	17,21%	18,21%	19,21%	20,21%	21,21%
37,22%	234,66	218,24	201,81	185,34	168,97	152,55	136,13
38,22%	218,24	201,81	185,39	168,92	152,55	136,13	119,71
39,22%	201,81	185,39	168,97	152,49	136,13	119,71	103,28
40,22%	185,36	168,93	152,51	136,03	119,67	103,25	86,82
41,22%	168,97	152,55	136,13	119,65	103,28	86,86	70,44
42,22%	152,55	136,13	119,71	103,23	86,86	70,44	54,02
43,22%	136,13	119,71	103,28	86,81	70,44	54,02	37,60

Considering the emphasis on R&D expenses for companies operating in the Biotech industry, we found it important to include the R&D % of sales in our sensitivity analysis, in addition to the SG&A % of sales. SG&A represents the largest expense sector in our company. A 3% decrease in our SG&A % of r sales leads to an increase in the stock price of almost $50. The same decrease of 3% in our R&D % of sales also leads to a $50 increase in our stock price. That shows that both SG&A and R&D reduction have the same impact on the stock price.

Normal cash percentage and CV growth of NOPLAT

normal cash percentage; rows: CV growth of NOPLA`

136,03	13,37%	14,37%	15,37%	16,37%	17,73%	18,73%	19,73%
1,24%	133,03	132,02	131,02	130,01	128,64	127,64	126,63
1,64%	134,87	133,80	132,74	131,67	130,22	129,16	128,09
2,04%	137,06	135,92	134,79	133,65	132,11	130,97	129,83
2,44%	139,70	138,48	137,26	136,04	134,38	133,16	131,93
2,84%	142,97	141,64	140,31	138,98	137,18	135,85	134,52
3,24%	147,08	145,62	144,16	142,70	140,72	139,26	137,80
3,64%	152,45	150,81	149,18	147,55	145,32	143,69	142,06

We predict NOPLAT to grow at the rate of the inflation rate. While drug volumes typically increase with population growth or the number of people affected by the disease, we chose to base our forecast solely on inflation for simplicity. The normal cash percentage can vary between companies, so we determined ours by calculating cash as a percentage of total revenue to identify a trend. Although the percentage fluctuated, we decided to use an average of 16% as our normal cash percentage, with any cash above this considered excess. In our sensitivity analysis, we found that a 3% decrease in the normal cash percentage leads to a $3 increase in the stock price, while a 1.24% decrease in the CV growth of NOPLAT results in a stock price drop of approximately $6.50.

Growth % and COGS as a % of Sales

Depreciation %; rows: COGS % of sales

135,96	16,2%	17,2%	18,2%	19,2%	20,2%	21,2%	22,2%
10,46%	185,22	185,22	185,22	185,22	185,22	185,22	185,22
11,46%	168,80	168,80	168,80	168,80	168,80	168,80	168,80
12,46%	152,38	152,38	152,38	152,38	152,38	152,38	152,38
13,46%	135,96	135,96	135,96	135,96	135,96	135,96	135,96
14,46%	119,53	119,53	119,53	119,53	119,53	119,53	119,53
15,56%	101,47	101,47	101,47	101,47	101,47	101,47	101,47
16,67%	83,24	83,24	83,24	83,24	83,24	83,24	83,24

An important factor in determining whether a company can maintain strong margins relies on the amount spent on COGS related to total sales. But we also realized that an accelerated growth rate can negate some impacts of a COGS as % of sales. We see that decreasing COGS as a percentage of sales and increasing Revenue growth both increase the stock price.

WACC and after the cost of debt

after tax cost of debt; rows: WAAC

135,96	3,67%	4,07%	4,47%	4,87%	5,27%	5,67%	6,07%
4,78%	255,96	260,12	264,27	268,42	272,56	276,68	280,80
5,28%	198,54	201,98	205,42	208,85	212,27	215,68	219,09
5,78%	158,24	161,18	164,11	167,03	169,96	172,87	175,78
6,28%	128,37	130,94	133,49	136,05	138,60	141,14	143,68
6,78%	105,34	107,61	109,88	112,15	114,42	116,67	118,93
7,28%	87,02	89,07	91,11	93,15	95,19	97,22	99,25
7,78%	72,10	73,96	75,82	77,68	79,53	81,38	83,22

Since WACC is the average cost of capital, we also find it important to add WACC into our sensitivity analysis. We could see that a decrease of only 1.5% changes the stock price by over $120 dollars. While a change in the after-tax cost of debt of 1.2% only changes the stock price by a little bit more than $12.

conclusion

Based on our assumptions and forecast, we believe investing in Jazz Pharmaceuticals presents a promising and profitable opportunity. The products in their pipeline have the potential to generate substantial revenue, especially with the benefits of the Orphan Drug Act, exclusivity, and patent protections, which provide significant protection against competition. Once FDA approval is obtained, the company can leverage this opportunity and drive revenue growth. Additionally, the biotechnology and oncology sectors are projected to experience significant growth, further enhancing Jazz's potential. However, it is important to acknowledge that there is always uncertainty regarding gaining FDA approval which is already a long and complex process. Despite the potential, there is always a risk that substantial R&D investments may not yield sufficient outcome. Therefore, while the forecast seems promising, the risks also need to be considered.

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Important Disclaimer

Jazz Pharmaceuticals

Revenue Decomposition

(All numbers in thousands)

Fiscal Years Ending Dec. 31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Xywav 3/15/33	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,264.00	$ 535,297.00	$ 958,425.00	$ 1,272,977.00
Xyrem 3/15/33	$ 569,113.00	$ 778,584.00	$ 955,187.00	$ 1,107,616.00	$ 1,186,699.00	$ 1,404,866.00	$ 1,642,525.00	$ 1,741,758.00	$ 1,265,830.00	$ 1,020,453.00	$ 569,730.00
Epidiolex 4/26/39 - phase 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 463,645.00	$ 736,398.00	$ 845,468.00
Sativex 2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,707.00	$ 16,825.00	$ 19,668.00
Sunosi 9/5/37	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,714.00	$ 28,333.00	$ 57,914.00	$ 28,844.00	$ -
Suvecaltamide - phase 2	-	$ -	-	-	-	-	-	-	-	-	-
total Neuroscience revenue with forecast of each drug	**$ 569,113.00**	**$ 778,584.00**	**$ 955,187.00**	**$ 1,107,616.00**	**$ 1,186,699.00**	**$ 1,404,866.00**	**$ 1,646,239.00**	**$ 1,785,355.00**	**$ 2,335,393.00**	**$ 2,760,945.00**	**$ 2,707,843.00**
Rylaze 7/30/29	-	-	-	-	-	-	$ -	$ -	$ 85,629.00	$ 281,659.00	$ 394,226.00
Zepzelca 12/13/29	-	-	-	-	-	$ -	$ -	$ 90,380.00	$ 246,808.00	$ 269,912.00	$ 289,533.00
Defitelio 6/22/32	$ -	$ 70,537.00	$ 70,731.00	$ 108,952.00	$ 133,650.00	$ 149,448.00	$ 172,938.00	$ 195,842.00	$ 197,931.00	$ 194,290.00	$ 184,000.00
Vyxeos 10/15/32			$ -	$ -	$ 33,790.00	$ 100,835.00	$ 121,407.00	$ 121,105.00	$ 134,060.00	$ 127,980.00	$ 147,495.00
Erwinaze	$ 174,251.00	$ 199,665.00	$ 203,261.00	$ 200,678.00	$ 197,340.00	$ 174,739.00	$ 177,465.00	$ 147,136.00	$ 69,382.00	$ -	$ -
JZP 351- phase 3											
Zanidatamab - phase 3											
total oncology revenue, with forecast of each drug	**$ 174,251.00**	**$ 270,202.00**	**$ 273,992.00**	**$ 309,630.00**	**$ 364,780.00**	**$ 425,022.00**	**$ 471,810.00**	**$ 554,463.00**	**$ 733,810.00**	**$ 873,841.00**	**$ 1,015,254.00**
Long Term Stage 1 Drugs											
Psychiatry	$ 49,226.00	$ 40,879.00	-	-	-	-	-	-	-	-	-
Prialt	$ 27,103.00	$ 26,421.00	$ 26,440.00	$ 29,120.00	-	-	-	-	-	-	-
Other	$ 45,705.00	$ 46,630.00	$ 61,200.00	$ 30,895.00	$ 49,920.00	$ 39,585.00	$ 17,552.00	$ 6,842.00	$ 9,798.00	$ 6,643.00	$ 13,846.00
Product Sales, net	$ 865,398.00	$ 1,162,716.00	$ 1,316,819.00	$ 1,477,261.00	$ 1,601,399.00	$ 1,869,473.00	$ 2,135,601.00	$ 2,346,660.00	$ 3,079,001.00	$ 3,641,429.00	$ 3,736,943.00
High-sodium oxybate AG royalty Revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 75,918.00
Royaly and Contract	$ 7,025.00	$ 10,159.00	$ 7,984.00	$ 10,712.00	$ 17,294.00	$ 21,449.00	$ 26,160.00	$ 16,907.00	$ 15,237.00	$ 17,945.00	$ 21,343.00
total revenue	872,423.00	1,172,875.00	1,324,803.00	1,487,973.00	$ 1,618,693.00	$ 1,890,922.00	$ 2,161,761.00	$ 2,363,567.00	$ 3,094,238.00	$ 3,659,374.00	$ 3,834,204.00
Growth Rates											
Xywav	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3406.92%	79.05%	32.82%
Xyrem	0.00%	36.81%	22.68%	15.96%	7.14%	18.38%	16.92%	6.04%	-27.32%	-19.38%	-44.17%
Epidiolex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	58.83%	14.81%
Sativex	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	32.41%	16.90%
Sunosi	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	662.87%	104.40%	-50.20%	-100.00% -
Suvecaltamide											
Total Neuroscience Revenue											
	0.00%	0.00%	0.00%	0.00%							
Rylaze								0.00%	0.00%	228.93%	39.97%
Zepzelca	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	173.08%	9.36%	7.27%
Defitelio	0.00%	0.00%	0.28%	54.04%	22.67%	11.82%	15.72%	13.24%	1.07%	-1.84%	-5.30%
Vyxeos	0.00%	0.00%	0.00%	0.00%	0.00%	198.42%	20.40%	-0.25%	10.70%	-4.54%	15.25%
Erwinaze	0.00%	14.58%	1.80%	-1.27%	-1.66%	-11.45%	1.56%	-17.09%	-52.84%	-100.00%	-
Zanidatamab											
JZP 351											
Total Oncology Revenue											

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E									
Xywav 3/15/33	$ 1,444,828.90	$ 1,557,525.55	$ 1,679,012.54	$ 1,809,975.52	$ 1,951,153.61	$ 1,834,084.39	$ 1,724,039.33	$ 1,615,424.85	$ 1,508,806.81	$ 1,409,225.56									
Xyrem 3/15/33	$ 381,719.10	$ 221,397.08	$ 115,126.48	$ -	$ -	$ -	$ -	$ -	$ -	$ -									
Epidiolex 4/26/39 - phase 3	$ 896,196.08	$ 941,005.88	$ 978,646.12	$ 998,219.04	$ 1,167,916.28	$ 1,319,745.40	$ 1,412,127.57	$ 1,482,733.95	$ 1,542,043.31	$ 1,603,725.04									
Sativex 2035	$ 21,241.44	$ 22,728.34	$ 23,864.76	$ 24,342.05	$ 23,611.79	$ 17,944.96	$ 9,331.38	$ 3,732.55	-	-									
Sunosi 9/5/37	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -									
Suvecaltamide - phase 2	-	-	-	-	-	$ 700,000.00	$ 721,000.00	$ 772,912.00	$ 851,749.02	$ 979,511.38									
total Neuroscience revenue with forecast of each drug	**$ 2,743,985.52**	**$ 2,742,656.85**	**$ 2,796,649.90**	**$ 2,832,536.61**	**$ 3,142,681.68**	**$ 3,871,774.75**	**$ 3,866,498.28**	**$ 3,874,803.36**	**$ 3,902,599.15**	**$ 3,992,461.98**									
Rylaze 7/30/29	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00	$ 394,226.00									
Zepzelca 12/13/29	$ 298,218.99	$ 342,951.84	$ 425,260.28	$ 496,704.01	$ 517,565.58	$ 533,092.54	$ 542,688.21	$ 510,126.92	$ 455,033.21										
Defitelio 6/22/32	$ 172,960.00	$ 157,393.60	$ 141,339.45	$ 125,226.76	$ 107,194.10	$ 75,035.87	$ 48,923.39	$ 29,843.27	$ 15,518.50	$ 6,672.95									
Vyxeos 10/15/32	$ 158,114.64	$ 167,601.52	$ 175,646.39	$ 183,023.54	$ 188,514.25	$ 182,858.82	$ 169,692.98	$ 134,057.46	$ 69,709.88	$ 36,249.14									
Erwinaze	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -									
JZP 351- phase 3						$ 157,500.00	$ 219,870.00	$ 283,192.56	$ 318,874.82	$ 328,441.07									
Zanidatamab - phase 3			$ 142,500.00	$ 176,700.00	$ 204,265.20	$ 226,325.84	$ 239,905.39	$ 251,420.85	$ 257,454.95	$ 263,633.87									
total oncology revenue, with forecast of each drug	**$ 1,023,519.63**	**$ 1,062,172.96**	**$ 1,278,972.12**	**$ 1,375,880.30**	**$ 1,411,765.12**	**$ 1,569,039.07**	**$ 1,615,305.97**	**$ 1,602,867.05**	**$ 1,510,817.36**	**$ 1,029,223.03**									
Long Term Stage 1 Drugs								**$ 300,000.00**	**$ 400,000.00**	**$ 500,000.00**									
Psychiatry	-	-	-	-	-	-	-	-	-	-									
Prialt	-	-	-	-	-	-	-	-	-	-									
Other	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13	$ 21,885.13									
Product Sales, net	$ 3,767,505.15	$ 3,804,829.81	$ 4,075,622.02	$ 4,208,416.92	$ 4,554,446.80	$ 5,440,813.82	$ 5,481,804.25	$ 5,777,670.41	$ 5,813,416.50	$ 5,521,685.01									
High-sodium oxybate AG royalty Revenue	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00	$ 75,918.00									
Royaly and Contract	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88	$ 18,380.88									
total revenue	$ 3,861,804.02	$ 3,899,128.68	$ 4,169,920.90	$ 4,302,715.79	$ 4,648,745.68	$ 5,535,112.70	$ 5,576,103.13	$ 5,871,969.28	$ 5,907,715.38	$ 5,615,983.89									
Growth Rates																			
Xywav	13.50%	7.80%	7.80%	7.80%	7.80%	-6.00%	-6.00%	-6.30%	-6.60%	-6.60%	8.10%	4.68%	4.68%	4.68%	-3.60%	-3.60%	-3.78%	-3.96%	-3.96%
Xyrem	-33.00%	-42.00%	-48.00%	-	-	-	-	-	-	-	-19.80%	-28.80%							
Epidiolex	6.00%	5.00%	4.00%	2.00%	17.00%	13.00%	7.00%	5.00%	4.00%	4.00%	4%	2%	1%	10%	8%	4%	3%	2%	2%
Sativex	8.00%	7.00%	5.00%	2.00%	-3.00%	-24.00%	-48.00%	-60.00%	-	-	5%	3%	1%	-2%	-14%	-29%	-36%		
Sunosi	-	-	-	-	-	-	-	-	-		-	-	-	-		#VALUE!	-	-	
Suvecaltamide							3.00%	7.20%	10.20%	15.00%						1.80%	4.32%	6.12%	9.00%
Total Neuroscience Revenue	-5.50%	-22.20%	-31.20%	11.80%	21.80%	-17.00%	-44.00%	-54.10%	7.60%	12.40%									
Rylaze	14.40%	10.20%	6.00%	3.60%	1.20%	0.00%	-6.00%	-18.00%	-42.00%	-54.00%	8.64%	3.60%	2.16%	0.72%	0.00%	-3.60%	-10.80%	-25.20%	-32.40%
Zepzelca	3.00%	15.00%	24.00%	16.80%	4.20%	3.00%	1.80%	-6.00%	-10.80%	-36.00%	1.80%	14.40%	10.08%	2.52%	1.80%	1.08%	-3.60%	-6.48%	-21.60%
Defitelio	-6.00%	-9.00%	-10.20%	-11.40%	-14.40%	-30.00%	-34.80%	-39.00%	-48.00%	-57.00%	-3.60%	-6.12%	-6.84%	-8.64%	-18.00%	-20.88%	-23.40%	-28.80%	-34.20%
Vyxeos	7.20%	6.00%	4.80%	4.20%	3.00%	-3.00%	-7.20%	-21.00%	-48.00%	-48.00%	4.32%	2.88%	2.52%	1.80%	-1.80%	-4.32%	-12.60%	-28.80%	-28.80%
Erwinaze	-	-	-	-	-	-	-	-	-	-	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Zanidatamab				24.00%	15.60%	10.80%	6.00%	4.80%	2.40%	2.40%	0.00%	0.00%	14.40%	9.36%	6.48%	3.60%	2.88%	1.44%	1.44%
JZP 351							39.60%	28.80%	12.60%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.76%	17.28%	7.56%	1.80%
Total Oncology Revenue	18.60%	22.20%	24.60%	37.20%	9.60%	-19.20%	-0.60%	-50.40%	-133.80%	-189.60%									

Jazz Pharmaceuticals

Balance Sheet

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cash & cash equivalents	$ 684,042.00	$ 988,785.00	$ 365,963.00	$ 386,035.00	$ 309,622.00	$ 637,344.00	$ 1,057,769.00	$ 591,448.00	$ 881,482.00	$ 1,506,310.00
Investment & marketable securities	$ -	$ -	$ 60,000.00	$ 215,000.00	$ 515,000.00	$ 440,000.00	$ 1,075,000.00	$ -	$ -	$ 120,000.00
Accounts receivable, net	$ 186,371.00	$ 209,685.00	$ 234,244.00	$ 224,129.00	$ 263,838.00	$ 355,987.00	$ 396,490.00	$ 563,360.00	$ 651,493.00	$ 705,794.00
Inventories	$ 30,037.00	$ 19,451.00	$ 34,051.00	$ 43,245.00	$ 52,956.00	$ 78,608.00	$ 95,396.00	$ 1,072,721.00	$ 714,061.00	$ 597,039.00
Prepaid expenses	$ 12,800.00	$ 20,699.00	$ 24,501.00	$ 23,182.00	$ 25,017.00	$ 39,434.00	$ 62,422.00	$ 131,413.00	$ 91,912.00	$ 185,476.00
Other current assets (operating)	$ 21,322.00	$ 19,047.00	$ 29,310.00	$ 76,686.00	$ 67,572.00	$ 78,895.00	$ 152,491.00	$ 252,392.00	$ 267,192.00	$ 320,809.00
Total current assets	**$ 1,015,845.00**	**$ 1,257,667.00**	**$ 748,069.00**	**$ 968,277.00**	**$ 1,234,005.00**	**$ 1,630,268.00**	**$ 2,839,568.00**	**$ 2,611,334.00**	**$ 2,606,140.00**	**$ 3,435,428.00**
Property, plant & equipment, net	$ 58,363.00	$ 85,572.00	$ 107,490.00	$ 170,080.00	$ 200,358.00	$ 131,506.00	$ 127,935.00	$ 256,837.00	$ 228,050.00	$ 169,646.00
Operating lease assets	$ -	$ -	$ -	$ -	$ -	$ 139,385.00	$ 129,169.00	$ 86,586.00	$ 73,326.00	$ 65,340.00
Intangible assets, net	$ 1,437,435.00	$ 1,185,606.00	$ 3,012,001.00	$ 2,979,127.00	$ 2,731,334.00	$ 2,440,977.00	$ 2,195,051.00	$ 7,152,328.00	$ 5,794,437.00	$ 5,418,039.00
Goodwill	$ 702,713.00	$ 657,139.00	$ 893,810.00	$ 947,537.00	$ 927,630.00	$ 920,018.00	$ 958,303.00	$ 1,827,609.00	$ 1,692,662.00	$ 1,753,130.00
Deferred tax assets, net	$ 75,494.00	$ 122,863.00	$ 15,060.00	$ 34,559.00	$ 57,879.00	$ 221,403.00	$ 254,916.00	$ 311,103.00	$ 376,247.00	$ 477,834.00
Deferred financing costs	$ 33,174.00	$ 23,268.00	$ 9,737.00	$ 7,673.00	$ 9,589.00	$ 7,426.00	$ 5,238.00	$ 12,029.00	$ 9,254.00	$ 6,478.00
Other non-current assets (non-operating)	$ 15,931.00	$ 27,548.00	$ 14,060.00	$ 16,419.00	$ 42,696.00	$ 47,914.00	$ 25,721.00	$ 40,813.00	$ 55,139.00	$ 67,464.00
total long-term assets	**$ 2,323,110.00**	**$ 2,101,996.00**	**$ 4,052,158.00**	**$ 4,155,395.00**	**$ 3,969,486.00**	**$ 3,908,629.00**	**$ 3,696,333.00**	**$ 9,687,305.00**	**$ 8,229,115.00**	**$ 7,957,931.00**
Total assets	**$ 3,338,955.00**	**$ 3,359,663.00**	**$ 4,800,227.00**	**$ 5,123,672.00**	**$ 5,203,491.00**	**$ 5,538,897.00**	**$ 6,535,901.00**	**$ 12,298,639.00**	**$ 10,835,255.00**	**$ 11,393,359.00**
liabilities:										
Accounts payable	$ 25,126.00	$ 21,807.00	$ 22,415.00	$ 24,368.00	$ 40,602.00	$ 47,545.00	$ 26,945.00	$ 100,298.00	$ 90,758.00	$ 102,750.00
Accrued liabilities	$ 164,091.00	$ 164,070.00	$ 193,268.00	$ 198,779.00	$ 264,887.00	$ 267,873.00	$ 352,732.00	$ 666,304.00	$ 803,255.00	$ 793,914.00
Current portion of long-term debt	$ 9,428.00	$ 37,587.00	$ 36,094.00	$ 40,605.00	$ 33,387.00	$ 33,387.00	$ 246,322.00	$ 31,000.00	$ 31,000.00	$ 604,954.00
Income taxes payable	$ 7,588.00	$ 1,808.00	$ 4,506.00	$ 21,577.00	$ 1,197.00	$ 10,965.00	$ 25,200.00	$ 9,608.00	$ 7,717.00	$ 35,074.00
Deferred revenue	$ 1,138.00	$ 1,370.00	$ 1,123.00	$ 8,618.00	$ 5,414.00	$ 4,720.00	$ 2,546.00	$ 2,093.00	$ 463.00	$ -
Total current liabilities	**$ 216,801.00**	**$ 226,642.00**	**$ 257,406.00**	**$ 293,947.00**	**$ 345,487.00**	**$ 364,490.00**	**$ 653,745.00**	**$ 809,303.00**	**$ 933,193.00**	**$ 1,536,692.00**
deferred revenue non-current	$ 4,499.00	$ 3,721.00	$ 2,601.00	$ 16,115.00	$ 9,581.00	$ 4,861.00	$ 2,315.00	$ 463.00	$ -	$ -
Long-term debt, less current portion	$ 1,333,000.00	$ 1,166,916.00	$ 1,993,531.00	$ 1,540,433.00	$ 1,563,025.00	$ 1,573,870.00	$ 1,848,516.00	$ 6,018,943.00	$ 5,693,341.00	$ 5,107,988.00
Operating lease liabilities, less current portion	$ -	$ -	$ -	$ -	$ -	$ 151,226.00	$ 140,035.00	$ 87,200.00	$ 71,838.00	$ 59,225.00
Deferred tax liabilities, net	$ 375,054.00	$ 294,485.00	$ 556,733.00	$ 383,472.00	$ 309,097.00	$ 224,095.00	$ 130,397.00	$ 1,300,541.00	$ 944,337.00	$ 847,706.00
Other non-current liabilities (non operating)	$ 38,393.00	$ 69,253.00	$ 112,617.00	$ 176,608.00	$ 218,879.00	$ 109,374.00	$ 101,148.00	$ 116,998.00	$ 106,812.00	$ 104,751.00
total long term liabilities	**$ 1,750,946.00**	**$ 1,534,375.00**	**$ 2,665,482.00**	**$ 2,116,628.00**	**$ 2,100,582.00**	**$ 2,063,426.00**	**$ 2,222,411.00**	**$ 7,524,145.00**	**$ 6,816,328.00**	**$ 6,119,670.00**
total liabilities	**$ 1,967,747.00**	**$ 1,761,017.00**	**$ 2,922,888.00**	**$ 2,410,575.00**	**$ 2,446,069.00**	**$ 2,427,916.00**	**$ 2,876,156.00**	**$ 8,333,448.00**	**$ 7,749,521.00**	**$ 7,656,362.00**
shareholders equity:										
common equity	$ 1,458,537.00	$ 1,563,432.00	$ 1,665,765.00	$ 1,936,019.00	$ 2,114,163.00	$ 2,266,559.00	$ 2,634,203.00	$ 3,535,325.00	$ 3,477,657.00	$ 3,700,488.00
Accumulated other comprehensive income (loss)	$ (122,097.00)	$ (267,472.00)	$ (317,333.00)	$ (140,878.00)	$ (197,791.00)	$ (223,393.00)	$ (134,352.00)	$ (400,360.00)	$ (1,125,509.00)	$ (842,147.00)
Retained earnings (accumulated deficit)	$ 34,704.00	$ 302,686.00	$ 528,907.00	$ 917,956.00	$ 841,050.00	$ 1,067,815.00	$ 1,159,894.00	$ 830,226.00	$ 733,586.00	$ 878,656.00
Total shareholders' equity	**$ 1,371,208.00**	**$ 1,598,646.00**	**$ 1,877,339.00**	**$ 2,713,097.00**	**$ 2,757,422.00**	**$ 3,110,981.00**	**$ 3,659,745.00**	**$ 3,965,191.00**	**$ 3,085,734.00**	**$ 3,736,997.00**

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash & cash equivalents	$ 1,087,162.24	$ 1,180,223.62	$ 3,110,468.56	$ 3,168,508.70	$ 7,171,284.84	$ 6,421,375.08	$ 8,555,184.30	$ 11,066,825.74	$ 14,026,543.59	$ 17,498,952.87
Investment & marketable securities	$ 124,704.00	$ 129,592.40	$ 134,672.42	$ 139,951.58	$ 145,437.68	$ 151,138.84	$ 157,063.48	$ 163,220.37	$ 169,618.61	$ 176,267.65
Accounts receivable, net	$ 771,781.42	$ 886,093.31	$ 1,017,336.44	$ 1,168,018.55	$ 1,341,018.84	$ 1,539,642.96	$ 1,767,686.16	$ 2,029,505.83	$ 2,330,104.74	$ 2,675,226.67
Inventories	$ 681,668.84	$ 782,633.76	$ 898,553.05	$ 1,031,641.64	$ 1,184,442.56	$ 1,359,875.48	$ 1,561,292.54	$ 1,792,542.35	$ 2,058,043.58	$ 2,362,869.34
Prepaid expenses	$ 141,406.91	$ 162,351.30	$ 186,397.85	$ 214,006.05	$ 245,703.41	$ 282,095.61	$ 323,878.01	$ 371,848.99	$ 426,925.16	$ 490,158.90
Other current assets (operating)	$ 298,698.19	$ 342,939.67	$ 393,733.95	$ 452,051.60	$ 519,006.92	$ 595,879.29	$ 684,137.55	$ 785,468.13	$ 901,807.23	$ 1,035,377.81
Total current assets	**$ 3,105,421.58**	**$ 3,483,834.05**	**$ 5,741,162.26**	**$ 6,174,178.10**	**$ 10,606,894.25**	**$ 10,350,007.26**	**$ 13,049,242.05**	**$ 16,209,411.42**	**$ 19,913,042.90**	**$ 24,238,853.25**
Property, plant & equipment, net	$ 159,009.60	$ 151,555.54	$ 147,122.22	$ 145,608.33	$ 146,970.54	$ 151,222.39	$ 158,434.29	$ 168,734.68	$ 182,312.22	$ 199,419.30
Operating lease assets	$ 61,243.34	$ 58,372.37	$ 56,664.85	$ 56,081.77	$ 56,606.43	$ 58,244.05	$ 61,021.75	$ 64,989.00	$ 70,218.46	$ 76,807.34
Intangible assets, net	$ 4,807,087.59	$ 4,198,165.28	$ 3,591,572.62	$ 2,987,654.65	$ 2,388,139.55	$ 1,956,245.94	$ 1,528,400.24	$ 1,105,202.00	$ 687,339.57	$ 275,603.26
Goodwill	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00	$ 1,753,130.00
Deferred tax assets, net	$ 482,448.07	$ 497,995.02	$ 525,909.46	$ 560,397.67	$ 612,096.33	$ 674,160.56	$ 762,830.34	$ 869,990.93	$ 998,329.28	$ 1,150,898.26
Deferred financing costs	$ 8,085.00	$ 8,216.80	$ 8,812.56	$ 8,169.27	$ 7,952.33	$ 8,247.19	$ 8,279.63	$ 8,292.20	$ 8,188.12	$ 8,191.89
Other non-current assets (non-operating)	$ 70,108.59	$ 72,856.85	$ 75,712.83	$ 78,680.78	$ 81,765.06	$ 84,970.25	$ 88,301.09	$ 91,762.49	$ 95,359.58	$ 99,097.68
total long-term assets	**$ 7,341,112.18**	**$ 6,740,291.85**	**$ 6,158,924.54**	**$ 5,589,722.48**	**$ 5,046,660.24**	**$ 4,686,220.39**	**$ 4,360,397.35**	**$ 4,062,101.29**	**$ 3,794,877.23**	**$ 3,563,147.73**
Total assets	**$ 10,446,533.76**	**$ 10,224,125.90**	**$ 11,900,086.80**	**$ 11,763,900.58**	**$ 15,653,554.50**	**$ 15,036,227.65**	**$ 17,409,639.40**	**$ 20,271,512.71**	**$ 23,707,920.13**	**$ 27,802,000.98**
liabilities:										
Accounts payable	$ 103,368.46	$ 118,678.81	$ 136,256.84	$ 156,438.43	$ 179,609.21	$ 206,211.91	$ 236,754.85	$ 271,821.64	$ 312,082.32	$ 358,306.19
Accrued liabilities	$ 805,634.02	$ 924,959.97	$ 1,061,959.80	$ 1,219,251.28	$ 1,399,839.88	$ 1,607,176.23	$ 1,845,222.08	$ 2,118,525.93	$ 2,432,309.99	$ 2,792,569.98
Current portion of long-term debt	$ 606,000.00	$ 31,000.00	$ 1,031,000.00	$ 31,000.00	$ 2,598,500.00	$ 300,000.00	$ 300,000.00	$ 300,000.00	$ 300,000.00	$ 300,000.00
Income taxes payable	$ 5,841.89	$ 19,684.06	$ 35,342.59	$ 43,665.68	$ 65,455.90	$ 78,579.79	$ 112,265.20	$ 135,676.48	$ 162,489.75	$ 193,168.25
Deferred revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total current liabilities	**$ 1,520,844.37**	**$ 1,094,322.84**	**$ 2,264,559.24**	**$ 1,450,355.40**	**$ 4,243,404.98**	**$ 2,191,967.93**	**$ 2,494,242.13**	**$ 2,826,024.05**	**$ 3,206,882.07**	**$ 3,644,044.42**
deferred revenue non-current	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Long-term debt, less current portion	$ 4,070,998.57	$ 3,933,780.50	$ 3,823,175.86	$ 3,738,694.20	$ 3,689,489.99	$ 3,747,158.91	$ 3,851,377.62	$ 4,003,716.20	$ 4,211,059.46	$ 4,481,464.80
Operating lease liabilities, less current portion	$ 63,192.73	$ 60,230.38	$ 58,468.51	$ 57,866.87	$ 58,408.23	$ 60,097.98	$ 62,964.10	$ 67,057.62	$ 72,453.53	$ 79,252.14
Deferred tax liabilities, net	$ 864,063.99	$ 919,181.71	$ 1,018,145.18	$ 1,140,414.30	$ 1,323,698.61	$ 1,543,731.39	$ 1,858,087.34	$ 2,237,997.65	$ 2,692,988.32	$ 3,233,882.45
Other non-current liabilities (non operating)	$ 108,857.24	$ 113,124.44	$ 117,558.92	$ 122,167.23	$ 126,956.19	$ 131,932.87	$ 137,104.64	$ 142,479.14	$ 148,064.32	$ 153,868.44
total long term liabilities	**$ 5,107,112.53**	**$ 5,026,317.04**	**$ 5,017,348.48**	**$ 5,059,142.60**	**$ 5,198,553.02**	**$ 5,482,921.15**	**$ 5,909,533.69**	**$ 6,451,250.62**	**$ 7,124,565.64**	**$ 7,948,467.83**
total liabilities	**$ 6,627,956.90**	**$ 6,120,639.88**	**$ 7,281,907.71**	**$ 6,509,498.00**	**$ 9,441,958.01**	**$ 7,674,889.08**	**$ 8,403,775.82**	**$ 9,277,274.66**	**$ 10,331,447.71**	**$ 11,592,512.25**
shareholders equity:										
common equity	$ 3,700,581.77	$ 3,700,675.54	$ 3,700,769.30	$ 3,700,863.07	$ 3,700,872.45	$ 3,700,872.45	$ 3,700,872.45	$ 3,700,872.45	$ 3,700,872.45	$ 3,700,872.45
Accumulated other comprehensive income (loss)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)	$ (842,147.00)
Retained earnings (accumulated deficit)	$ 960,142.09	$ 1,244,957.48	$ 1,759,556.78	$ 2,395,686.51	$ 3,352,871.04	$ 4,502,613.12	$ 6,147,138.13	$ 8,135,512.59	$ 10,517,746.98	$ 13,350,763.27
Total shareholders' equity	**$ 3,818,576.86**	**$ 4,103,486.02**	**$ 4,618,179.09**	**$ 5,254,402.58**	**$ 6,211,596.49**	**$ 7,361,338.57**	**$ 9,005,863.58**	**$ 10,994,238.04**	**$ 13,376,472.43**	**$ 16,209,488.72**

Jazz

Income Statement

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total revenues	**$ 1,172,875.00**	**$ 1,324,803.00**	**$ 1,487,973.00**	**$ 1,618,693.00**	**$ 1,890,922.00**	**$ 2,161,761.00**	**$ 2,363,567.00**	**$ 3,094,238.00**	**$ 3,659,374.00**	**$ 3,834,204.00**
Cost of product sales (excluding amortization of a	$ 117,418.00	$ 102,526.00	$ 105,386.00	$ 110,188.00	$ 121,544.00	$ 127,930.00	$ 148,917.00	$ 440,760.00	$ 540,517.00	$ 435,577.00
depreciation	$ 7,097.00	$ 9,894.00	$ 11,786.00	$ 13,089.00	$ 15,233.00	$ 15,342.00	$ 18,673.00	$ 26,714.00	$ 30,302.00	$ 30,412.00
gross margin	**$ 1,055,457.00**	**$ 1,222,277.00**	**$ 1,382,587.00**	**$ 1,508,505.00**	**$ 1,769,378.00**	**$ 2,033,831.00**	**$ 2,214,650.00**	**$ 2,653,478.00**	**$ 3,118,857.00**	**$ 3,398,627.00**
Selling, general & administrative	$ 406,114.00	$ 449,119.00	$ 502,892.00	$ 544,156.00	$ 683,530.00	$ 736,942.00	$ 854,233.00	$ 1,451,683.00	$ 1,416,967.00	$ 1,343,105.00
Research & development	$ 85,181.00	$ 135,253.00	$ 162,297.00	$ 198,442.00	$ 226,616.00	$ 299,726.00	$ 335,375.00	$ 505,748.00	$ 590,453.00	$ 849,658.00
Impairment charge	$ 39,365.00	$ 31,523.00	$ -	$ -	$ 42,896.00	$ -	$ 136,139.00	$ -	$ 133,648.00	$ -
Acquired in-process research & development exp	$ 202,626.00	$ -	$ 23,750.00	$ 85,000.00	$ -	$ 109,975.00	$ 251,250.00	$ -	$ 444,148.00	$ 19,000.00
EBITA	**$ 322,171.00**	**$ 606,382.00**	**$ 693,648.00**	**$ 680,907.00**	**$ 816,336.00**	**$ 887,188.00**	**$ 637,653.00**	**$ 696,047.00**	**$ 533,641.00**	**$ 1,186,864.00**
intangible asset amortization	$ 126,584.00	$ 98,162.00	$ 101,994.00	$ 152,065.00	$ 201,498.00	$ 354,814.00	$ 259,580.00	$ 525,769.00	$ 599,169.00	$ 608,284.00
EBIT	**$ 195,587.00**	**$ 508,220.00**	**$ 591,654.00**	**$ 528,842.00**	**$ 614,838.00**	**$ 532,374.00**	**$ 378,073.00**	**$ 170,278.00**	**$ (65,528.00)**	**$ 578,580.00**
Interest income (expense), net	$ (52,713.00)	$ (56,917.00)	$ (61,942.00)	$ (77,756.00)	$ (77,075.00)	$ (72,261.00)	$ (99,707.00)	$ (278,766.00)	$ (288,242.00)	$ (289,438.00)
Foreign currency gain (loss)	$ 8,683.00	$ 1,445.00	$ 3,372.00	$ (9,969.00)	$ (6,875.00)	$ (5,811.00)	$ (3,271.00)	$ (4,350.00)	$ (19,014.00)	$ 8,787.00
earnings before tax	**$ 151,557.00**	**$ 452,748.00**	**$ 533,084.00**	**$ 441,117.00**	**$ 530,888.00**	**$ 454,302.00**	**$ 275,095.00**	**$ (112,838.00)**	**$ (372,784.00)**	**$ 297,929.00**
Income tax expense (benefit)	$ 94,231.00	$ 106,399.00	$ 135,236.00	$ (47,740.00)	$ 80,162.00	$ (73,154.00)	$ 33,517.00	$ 216,116.00	$ (158,645.00)	$ (119,912.00)
Equity in income (loss) of investees	$ -	$ -	$ (379.00)	$ (1,009.00)	$ (2,203.00)	$ (4,089.00)	$ (2,962.00)	$ (714.00)	$ (9,921.00)	$ (3,009.00)
Net income (loss)	**$ 57,326.00**	**$ 329,534.00**	**$ 396,831.00**	**$ 487,848.00**	**$ 447,098.00**	**$ 523,367.00**	**$ 238,616.00**	**$ (329,668.00)**	**$ (224,060.00)**	**$ 414,832.00**
dividends	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Weighted average shares outstanding - basic	$ 59,746.00	$ 61,232.00	$ 60,500.00	$ 60,018.00	$ 59,976.00	$ 56,749.00	$ 55,712.00	$ 59,694.00	$ 62,539.00	$ 63,291.00

Jazz Pharmaceuticals

Historical Cash Flow Statement

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
operating acitivities										
Net income (loss)	**$ 57,326.00**	**$ 329,534.00**	**$ 396,831.00**	**$ 487,848.00**	**$ 447,098.00**	**$ 523,367.00**	**$ 238,616.00**	**$ (329,668.00)**	**$ (224,060.00)**	**$ 414,832.00**
Intangible asset amortization	$ 126,584.00	$ 98,162.00	$ 101,994.00	$ 152,065.00	$ 201,498.00	$ 354,814.00	$ 259,580.00	$ 525,769.00	$ 599,169.00	$ 608,284.00
Acquisition accounting inventory fair value step-up adjustment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 223,085.00	$ 273,392.00	$ 151,446.00
Share-based compensation	$ 69,638.00	$ 91,550.00	$ 98,771.00	$ 106,900.00	$ 102,441.00	$ 110,563.00	$ 120,998.00	$ 189,006.00	$ 221,996.00	$ 226,841.00
Impairment charge	$ 39,365.00	$ 31,523.00	$ -	$ -	$ 42,896.00	$ -	$ 136,139.00	$ -	$ 133,648.00	$ 61,014.00
Depreciation	$ 7,097.00	$ 9,894.00	$ 11,786.00	$ 13,089.00	$ 15,233.00	$ 15,342.00	$ 18,673.00	$ 26,714.00	$ 30,302.00	$ 30,412.00
Acquired in-process research & development	$ 202,626.00	$ -	$ 23,750.00	$ 85,000.00	$ -	$ 109,975.00	$ 251,250.00	$ -	$ 444,148.00	$ 19,000.00
Distributions from equity method investees	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,438.00	$ -	$ -	$ -
Non-cash interest expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 92,655.00	$ 37,973.00	$ 22,378.00
Loss (gain) on disposal of property & equipment	$ 24.00	$ 172.00	$ 47.00	$ 473.00	$ 655.00	$ -	$ -	$ -	$ -	$ -
Loss (gain) on disposal of assets	$ -	$ -	$ -	$ -	$ -	$ 21.00	$ -	$ -	$ -	$ -
Excess tax benefit from share-based compensation	$ (1,841.00)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Acquisition accounting inventory fair value step-up	$ 10,477.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Deferred tax expense (benefit)	$ (43,423.00)	$ (61,209.00)	$ (41,163.00)	$ (225,591.00)	$ (88,815.00)	$ (236,610.00)	$ (136,937.00)	$ 69,198.00	$ (292,251.00)	$ (260,217.00)
Loss (gain) on disposal of a business	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 37,704.00	$ -
Provision for losses on accounts receivable & inventory	$ 2,493.00	$ 4,062.00	$ 2,209.00	$ 2,190.00	$ 4,728.00	$ 6,668.00	$ 15,000.00	$ 19,668.00	$ 14,537.00	$ 11,113.00
Loss (gain) on extinguishment & modification of debt	$ -	$ 16,815.00	$ 638.00	$ -	$ 1,425.00	$ -	$ 5,089.00	$ -	$ -	$ -
Amortization of debt discount & deferred financing costs	$ -	$ 22,738.00	$ 22,133.00	$ 30,026.00	$ 43,960.00	$ 46,396.00	$ 56,659.00	$ -	$ -	$ -
Other non-cash transactions	$ 1,739.00	$ (5,187.00)	$ (3,741.00)	$ 14,321.00	$ 4,499.00	$ (4,051.00)	$ 14,580.00	$ 10,032.00	$ (14,486.00)	$ 11,343.00
Accounts receivable	$ (55,041.00)	$ (24,841.00)	$ (25,603.00)	$ 12,278.00	$ (40,132.00)	$ (92,326.00)	$ (38,647.00)	$ (92,735.00)	$ (90,135.00)	$ (51,883.00)
Inventories	$ (7,630.00)	$ 6,271.00	$ (17,024.00)	$ (8,667.00)	$ (18,512.00)	$ (32,790.00)	$ (30,537.00)	$ (48,861.00)	$ (49,642.00)	$ (13,420.00)
Prepaid expenses & other current assets	$ 11,936.00	$ 3,720.00	$ (15,700.00)	$ (26,874.00)	$ 6,697.00	$ (25,650.00)	$ (98,042.00)	$ (83,320.00)	$ 35,788.00	$ (126,179.00)
Other non-current assets	$ (8,891.00)	$ (11,722.00)	$ 267.00	$ 119.00	$ (320.00)	$ (14,830.00)	$ 21,913.00	$ 817.00	$ (24,038.00)	$ (15,884.00)
Operating lease assets	$ -	$ -	$ -	$ -	$ -	$ 14,148.00	$ 12,366.00	$ 15,583.00	$ 14,769.00	$ 14,948.00
Accounts payable	$ (37,966.00)	$ (2,280.00)	$ 361.00	$ 214.00	$ 17,040.00	$ 4,770.00	$ (18,935.00)	$ 57,021.00	$ (11,225.00)	$ 9,603.00
Accrued liabilities	$ 20,997.00	$ 2,986.00	$ 10,134.00	$ (6,578.00)	$ 71,208.00	$ (5,565.00)	$ 79,477.00	$ 142,355.00	$ 165,991.00	$ (23,245.00)
Income taxes payable	$ 8,634.00	$ (6,271.00)	$ 2,962.00	$ 16,331.00	$ (19,735.00)	$ 10,056.00	$ 13,038.00	$ (15,524.00)	$ (1,692.00)	$ 25,220.00
Deferred revenue	$ (1,203.00)	$ (536.00)	$ (1,315.00)	$ 21,009.00	$ (7,497.00)	$ (5,414.00)	$ (4,720.00)	$ (2,305.00)	$ (2,093.00)	$ -
Acquired in-process research & development	$ (14,900.00)	-	-	-	$ -	$ -	$ -	$ -	$ -	$ -
Other non-current liabilities	$ 17,724.00	$ 26,562.00	$ 23,199.00	$ 18,934.00	$ 14,537.00	$ 3,561.00	$ (8,967.00)	$ (4,946.00)	$ (11,396.00)	$ (6,171.00)
Operating lease liabilities, less current portion	-	-	-	-	-	$ (6,044.00)	$ (12,383.00)	$ (16,037.00)	$ (16,422.00)	$ (16,965.00)
Liability under government settlement	-	-	-	-	-	-	-	-	-	$ (463.00)
Net cash flows from operating activities	**$ 405,765.00**	**$ 531,943.00**	**$ 590,536.00**	**$ 693,087.00**	**$ 798,904.00**	**$ 776,401.00**	**$ 899,648.00**	**$ 778,507.00**	**$ 1,271,977.00**	**$ 1,092,007.00**
investing acitivities										
Acquisition of investments	-	-	$ (65,275.00)	$ (385,000.00)	$ (1,165,915.00)	$ (917,100.00)	$ (2,397,675.00)	$ (26,819.00)	$ (61,036.00)	$ (390,100.00)
Acquisition of a business, net of cash acquired	-	-	-	-	-	-	-	$ (6,234,792.00)	-	-
Proceeds from maturity of investments	-	-	-	$ 230,000.00	$ 855,000.00	$ 985,000.00	$ 1,755,000.00	$ 1,095,000.00	$ 60,000.00	-
Proceeds from sale of a business	-	-	-	-	-	-	-	-	$ 53,000.00	-
Acquired in-process research & development	$ (202,626.00)	-	$ (23,750.00)	$ (85,000.00)	-	$ (61,700.00)	$ (251,250.00)	-	$ (444,148.00)	$ (19,000.00)
Purchases of property, plant & equipment	$ (36,347.00)	$ (35,958.00)	$ (7,832.00)	$ (28,950.00)	$ (20,370.00)	$ (40,135.00)	$ (15,004.00)	$ (27,641.00)	$ (29,046.00)	$ (23,962.00)
Asset acquisition, net of cash acquired	-	-	-	-	-	$ (55,074.00)	-	-	-	-
Acquisitions, net of cash acquired	$ (828,676.00)	-	$ (1,502,443.00)	-	-	-	-	-	-	-
Net proceeds from sale of business	-	$ 33,703.00	-	-	-	-	-	-	-	-
Acquisition of intangible assets	-	-	$ (150,000.00)	-	$ (111,100.00)	$ (80,500.00)	$ (113,000.00)	$ (17,891.00)	$ (25,000.00)	-
Net proceeds from sale of assets	-	-	-	-	$ 47,898.00	$ 14,209.00	$ 14,259.00	-	-	-
Decrease (increase) in restricted cash	-	-	-	-	-	-	-	-	-	$ 270,000.00
Net cash flows from investing activities	**$ (1,067,649.00)**	**$ (2,255.00)**	**$ (1,749,300.00)**	**$ (268,950.00)**	**$ (394,487.00)**	**$ (155,300.00)**	**$ (1,007,670.00)**	**$ (5,212,143.00)**	**$ (446,230.00)**	**$ (163,062.00)**
financing acitivities										
Net proceeds from issuance of borrowings under credit agreement	-	-	-	-	-	-	-	$ 3,719,930.00	-	-
Net proceeds from issuance of senior secured notes, due 2029	-	-	-	-	-	-	-	$ 1,471,533.00	-	-
Net proceeds from issuance of exchangeable senior notes	-	-	-	-	-	-	$ 981,381.00	-	-	-
Net proceeds from revolving credit facility	-	-	-	-	-	-	$ 500,000.00	-	-	-
Proceeds from issuance of long-term debt, net	$ 1,194,385.00	$ 898,642.00	$ 994,647.00	-	-	-	-	-	-	-
Proceeds from employee stock purchases, exercise of stock options & warrants	$ 58,487.00	$ 40,523.00	$ 24,174.00	-	-	-	-	-	-	-
Proceeds from employee equity incentive & purchase plans	-	-	-	$ 31,824.00	$ 93,337.00	$ 57,831.00	$ 99,681.00	$ 135,261.00	$ 98,020.00	$ 46,459.00
Share repurchases	$ (42,215.00)	$ (61,553.00)	$ (278,296.00)	$ (98,799.00)	$ (523,672.00)	$ (301,450.00)	$ (146,537.00)	-	$ (54.00)	$ (269,761.00)
Payment of contingent consideration	$ (35,100.00)	-	-	-	-	-	-	-	-	-
Payment of employee withholding taxes upon exercise of share-based awards	$ (18,030.00)	$ (26,102.00)	$ (21,234.00)	$ (18,589.00)	$ (17,925.00)	$ (16,739.00)	$ (16,877.00)	$ (35,602.00)	$ (45,443.00)	$ (50,952.00)
Excess tax benefit from share-based compensation	$ 1,841.00	-	-	-	-	-	-	-	-	-
Repayment of long-term debt	$ (9,524.00)	$ (905,760.00)	$ (28,304.00)	$ (36,094.00)	$ (25,717.00)	$ (33,387.00)	$ (33,387.00)	$ (1,101,788.00)	$ (582,014.00)	$ (31,000.00)
Payment of debt modification costs	-	-	-	-	$ (6,406.00)	-	-	-	-	-
Payments for partial repurchase of exchangeable senior notes	-	-	-	-	-	-	$ (356,188.00)	$ (218,812.00)	-	-
Repayments under revolving credit facility	$ (300,000.00)	$ (160,000.00)	$ (150,000.00)	$ (850,000.00)	-	-	$ (500,000.00)	-	-	-
Proceeds from tenant improvement allowance on build-to-suit lease	-	-	-	$ 3,154.00	$ 1,253.00	-	-	-	-	-
Net proceeds from issuance of debt	-	-	-	$ 559,393.00	-	-	-	-	-	-
Acquisition of noncontrolling interests	$ (136,969.00)	$ (73.00)	-	-	-	-	-	-	-	-
Net cash flows from financing activities	**$ 712,875.00**	**$ (214,323.00)**	**$ 540,987.00**	**$ (409,111.00)**	**$ (479,130.00)**	**$ (293,745.00)**	**$ 528,073.00**	**$ 3,970,522.00**	**$ (529,491.00)**	**$ (305,254.00)**
Effect of exchange rates on cash & cash equivalents	$ (3,453.00)	$ (10,622.00)	$ (5,045.00)	$ 5,046.00	$ (1,700.00)	$ 366.00	$ 374.00	$ (3,207.00)	$ (6,222.00)	$ 1,137.00
Net increase (decrease) in cash & cash equivalents	$ 47,538.00	$ 304,743.00	$ (622,822.00)	$ 20,072.00	$ (76,413.00)	$ 327,722.00	$ 420,425.00	$ (466,321.00)	$ 290,034.00	$ 624,828.00
Cash & cash equivalents, at beginning of period	$ 636,504.00	$ 684,042.00	$ 988,785.00	$ 365,963.00	$ 386,035.00	$ 309,622.00	$ 637,344.00	$ 1,057,769.00	$ 591,448.00	$ 881,482.00
Cash & cash equivalents, at end of period	$ 684,042.00	$ 988,785.00	$ 365,963.00	$ 386,035.00	$ 309,622.00	$ 637,344.00	$ 1,057,769.00	$ 591,448.00	$ 881,482.00	$ 1,506,310.00

Jazz Pharmaceuticals

Forecasted Cash Flow Statement

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2029E	2029E	2029E	2030E
net income	$ (49,270.33)	$ 17,823.43	$ 123,041.24	$ 55,218.68	$ 228,071.31	$ 362,829.43	$ 550,060.30	$ 615,401.17	$ 614,624.49	$ 540,119.32
operating activity :										
plus: depreciation	$ 22,568.65	$ 21,153.65	$ 20,162.01	$ 19,572.23	$ 19,370.83	$ 19,552.05	$ 20,117.69	$ 21,077.12	$ 22,447.41	$ 24,253.69
plus: amortization	$ 624,651.00	$ 624,651.00	$ 624,651.00	$ 624,651.00	$ 623,319.00	$ 459,223.20	$ 459,223.20	$ 459,223.20	$ 459,223.20	$ 459,223.20
change in inventories	$ (963.93)	$ (5,779.75)	$ (41,932.36)	$ (20,563.38)	$ (53,582.96)	$ (137,254.53)	$ (6,347.40)	$ (45,815.07)	$ (5,535.31)	$ 45,174.82
change in accounts receivable	$ 28,738.62	$ (6,543.80)	$ (47,475.56)	$ (23,281.73)	$ (60,666.31)	$ (155,398.76)	$ (7,186.48)	$ (51,871.55)	$ (6,267.04)	$ 51,146.66
change in prepaid expenses	$ 61,424.94	$ (1,198.96)	$ (8,698.54)	$ (4,265.71)	$ (11,115.37)	$ (28,472.39)	$ (1,316.72)	$ (9,503.98)	$ (1,148.26)	$ 9,371.16
change in other current assets	$ 58,772.10	$ (2,532.61)	$ (18,374.20)	$ (9,010.60)	$ (23,479.34)	$ (60,143.10)	$ (2,781.34)	$ (20,075.55)	$ (2,425.50)	$ 19,795.00
change in income taxes payable	$ (38,146.28)	$ 4,568.04	$ 7,178.78	$ (4,566.97)	$ 11,701.46	$ 9,189.24	$ 12,749.04	$ 4,452.02	$ (51.32)	$ (5,080.02)
change in deferred revenue	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
change in deferred revenue non-current	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
change in accrued liability	$ (87,160.98)	$ 6,830.83	$ 49,557.98	$ 24,302.94	$ 63,327.31	$ 162,215.01	$ 7,501.70	$ 54,146.79	$ 6,541.93	$ (53,390.10)
change in deferred tax assets	$ 2,967.02	$ (1,444.51)	$ (8,377.33)	$ (3,966.83)	$ (15,267.37)	$ (24,141.76)	$ (36,453.97)	$ (40,753.45)	$ (40,703.88)	$ (35,797.92)
change in accounts payable	$ 618.46	$ 15,310.35	$ 17,578.03	$ 20,181.59	$ 23,170.78	$ 26,602.70	$ 30,542.94	$ 35,066.79	$ 40,260.68	$ 46,223.87
change in deferred tax liability	$ (5,822.72)	$ 2,834.82	$ 16,440.36	$ 7,784.84	$ 29,961.94	$ 47,377.77	$ 71,540.28	$ 79,977.93	$ 79,880.66	$ 70,252.78
net operating cash flow	**$ 618,376.53**	**$ 675,672.49**	**$ 733,751.42**	**$ 686,056.05**	**$ 834,811.29**	**$ 681,578.87**	**$ 1,097,649.23**	**$ 1,101,325.40**	**$ 1,166,847.07**	**$ 1,171,292.45**
investing activity:										
goodwill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
investment & marketable securities	$ (4,704.00)	$ (4,888.40)	$ (5,080.02)	$ (5,279.16)	$ (5,486.10)	$ (5,701.16)	$ (5,924.64)	$ (6,156.89)	$ (6,398.24)	$ (6,649.05)
other non current assets	$ (2,644.59)	$ (2,748.26)	$ (2,855.99)	$ (2,967.94)	$ (3,084.29)	$ (3,205.19)	$ (3,330.83)	$ (3,461.40)	$ (3,597.09)	$ (3,738.10)
operating lease asset	$ 4,096.66	$ 2,870.97	$ 1,707.51	$ 583.08	$ (524.66)	$ (1,637.62)	$ (2,777.70)	$ (3,967.24)	$ (5,229.46)	$ (6,588.88)
property plant & equipment	$ (11,932.25)	$ (13,699.59)	$ (15,728.69)	$ (18,058.34)	$ (20,733.04)	$ (23,803.90)	$ (27,329.59)	$ (31,377.50)	$ (36,024.96)	$ (41,360.77)
intangible asset	$ 193,221.60	$ (1,056,488.88)	$ (1,192,041.66)	$ (314,064.39)	$ (522,193.26)	$ (413,151.92)	$ (567,512.18)	$ (502,802.40)	$ (398,040.11)	$ (447,920.81)
net investing cash flow	**$ 178,037.42**	**$ (1,074,954.15)**	**$ (1,213,998.85)**	**$ (339,786.74)**	**$ (552,021.35)**	**$ (447,499.78)**	**$ (606,874.95)**	**$ (547,765.44)**	**$ (449,289.85)**	**$ (506,257.61)**
financing activty										
operating lease liability	$ 3,967.73	$ (2,962.35)	$ (1,761.86)	$ (601.64)	$ 541.36	$ 1,689.75	$ 2,866.12	$ 4,093.52	$ 5,395.91	$ 6,798.60
other non current liabilities	$ 4,106.24	$ 4,267.20	$ 4,434.48	$ 4,608.31	$ 4,788.96	$ 4,976.68	$ 5,171.77	$ 5,374.50	$ 5,585.18	$ 5,804.12
long-term debt	$ (1,231,380.20)	$ 194,334.04	$ 302,143.87	$ (106,127.76)	$ 31,850.71	$ 162,863.89	$ 79,012.43	$ 102,433.07	$ 10,263.06	$ (29,101.43)
deferred financing cost	$ (1,607.00)	$ (131.80)	$ (595.76)	$ 643.29	$ 216.95	$ (294.87)	$ (32.44)	$ (12.57)	$ 104.07	$ (3.77)
current portion of long-term debt	$ 1,046.00	$ (575,000.00)	$ 1,000,000.00	$ (1,000,000.00)	$ 2,567,500.00	$ (2,298,500.00)	$ -	$ -	$ -	$ -
stock repurchases	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)	$ (191.37)
issuance of common stock	$ 93.77	$ 93.77	$ 93.77	$ 93.77	$ 9.38	$ -	$ -	$ -	$ -	$ -
net financing cash flow	**$ (1,223,964.84)**	**$ (379,590.51)**	**$ 1,304,123.12**	**$ (1,101,575.40)**	**$ 2,604,715.98**	**$ (2,129,455.91)**	**$ 86,826.51**	**$ 111,697.16**	**$ 21,156.86**	**$ (16,693.85)**
net increase (decrease in cash)	$ (427,550.88)	$ (778,872.17)	$ 823,875.70	$ (755,306.10)	$ 2,887,505.91	$ (1,895,376.82)	$ 577,600.79	$ 665,257.12	$ 738,714.08	$ 648,341.00
cash at beginning of period	$ 1,506,310.00	$ 1,078,759.12	$ 299,886.95	$ 1,123,762.65	$ 368,456.55	$ 3,255,962.47	$ 1,360,585.64	$ 1,938,186.43	$ 2,603,443.55	$ 3,342,157.64
cash at end of period	$ 1,078,759.12	$ 299,886.95	$ 1,123,762.65	$ 368,456.55	$ 3,255,962.47	$ 1,360,585.64	$ 1,938,186.43	$ 2,603,443.55	$ 3,342,157.64	$ 3,990,498.63

Jazz Pharmaceuticals

Common Size Income Statement

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Total revenues	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Cost of product sales (excluding amortization of acquired developed technol	10.01%	7.74%	7.08%	6.81%	6.43%	5.92%	6.30%	14.24%	14.77%	11.36%	13.46%	13.46%	13.46%	13.46%	13.46%	13.46%	13.46%	13.46%	13.46%	13.46%
depreciation and amortization	0.61%	0.75%	0.79%	0.81%	0.81%	0.71%	0.79%	0.86%	0.83%	0.79%	0.58%	0.54%	0.48%	0.45%	0.42%	0.35%	0.36%	0.36%	0.38%	0.43%
gross margin	**89.99%**	**92.26%**	**92.92%**	**93.19%**	**93.57%**	**94.08%**	**93.70%**	**85.76%**	**85.23%**	**88.64%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**	**86.54%**
Selling, general & administrative	34.63%	33.90%	33.80%	33.62%	36.15%	34.09%	36.14%	46.92%	38.72%	35.03%	40.22%	40.22%	40.22%	40.22%	40.22%	40.22%	40.22%	40.22%	40.22%	40.22%
Research & development	7.26%	10.21%	10.91%	12.26%	11.98%	13.86%	14.19%	16.34%	16.14%	22.16%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%
Impairment charge	3.36%	2.38%	0.00%	0.00%	2.27%	0.00%	5.76%	0.00%	3.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	#DIV/0!
Acquired in-process research & development expenses	17.28%	0.00%	1.60%	5.25%	0.00%	5.09%	10.63%	0.00%	12.14%	0.50%	3.56%	3.52%	3.29%	3.19%	2.96%	2.48%	2.46%	2.34%	2.33%	2.45%
EBITDA	**37.48%**	**53.51%**	**53.70%**	**48.87%**	**49.60%**	**46.96%**	**33.28%**	**36.74%**	**29.35%**	**42.31%**	**23.96%**	**24.04%**	**24.33%**	**24.46%**	**24.73%**	**25.27%**	**25.28%**	**25.41%**	**25.40%**	**25.23%**
intangible asset amortization	10.79%	7.41%	6.85%	9.39%	10.66%	16.41%	10.98%	16.99%	16.37%	15.86%	16.18%	16.02%	14.98%	14.52%	13.41%	8.30%	8.24%	7.82%	7.77%	8.18%
EBIT	**26.69%**	**46.10%**	**46.84%**	**39.48%**	**38.94%**	**30.54%**	**22.30%**	**19.75%**	**12.98%**	**26.45%**	**7.79%**	**8.02%**	**9.35%**	**9.94%**	**11.32%**	**16.97%**	**17.04%**	**17.58%**	**17.63%**	**17.05%**
Interest income (expense), net	-4.49%	-4.30%	-4.16%	-4.80%	-4.08%	-3.34%	-4.22%	-9.01%	-7.88%	-7.55%	-9.14%	-7.36%	-5.80%	-8.31%	-5.53%	-9.28%	-5.51%	-5.34%	-5.47%	-5.80%
Foreign currency gain (loss)	0.74%	0.11%	0.23%	-0.62%	-0.36%	-0.27%	-0.14%	-0.14%	-0.52%	0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Income tax expense (benefit)	8.03%	8.03%	9.09%	-2.95%	4.24%	-3.38%	1.42%	6.98%	-4.34%	-3.13%	-0.19%	0.09%	0.49%	0.22%	0.80%	1.06%	1.59%	1.69%	1.68%	1.55%
Equity in income (loss) of investees	0.00%	-	-0.03%	-0.06%	-0.12%	-0.19%	-0.13%	-0.02%	-0.27%	-0.08%	-0.11%	-0.11%	-0.11%	-0.12%	-0.09%	-0.08%	-0.08%	-0.08%	-0.08%	-0.08%
Net income (loss)	**4.89%**	**24.87%**	**26.67%**	**30.14%**	**23.64%**	**24.21%**	**10.10%**	**-10.65%**	**-6.12%**	**10.82%**	**-1.28%**	**0.46%**	**2.95%**	**1.28%**	**4.91%**	**6.56%**	**9.86%**	**10.48%**	**10.40%**	**9.62%**
Weighted average shares outstanding - basic	5.09%	4.62%	4.07%	3.71%	3.17%	2.63%	2.36%	1.93%	1.71%	1.65%	2.42%	3.56%	4.59%	5.75%	6.55%	6.53%	7.49%	8.07%	8.95%	10.37%
Year end shares outstanding	5.17%	4.63%	4.02%	3.70%	3.04%	2.60%	2.38%	1.99%	1.73%	1.62%	3.20%	4.72%	5.85%	7.05%	7.77%	7.56%	8.51%	9.01%	9.88%	11.34%
Net income (loss) per ordinary share - basic	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Jazz Pharmaceuticals

Common Size Balance Sheet

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
% of total assets																				
Cash & cash equivalents	20.49%	29.43%	7.62%	7.53%	5.95%	11.51%	16.18%	4.81%	8.14%	13.22%	10.80%	3.10%	10.05%	3.62%	24.78%	11.71%	15.66%	19.61%	23.80%	27.29%
investment & Marketable securities	0.00%	0.00%	1.25%	4.20%	9.90%	7.94%	16.45%	0.00%	0.00%	1.05%	1.25%	1.34%	1.20%	1.37%	1.11%	1.30%	1.27%	1.23%	1.21%	1.21%
Accounts receivable, net	5.58%	6.24%	4.88%	4.37%	5.07%	6.43%	6.07%	4.58%	6.01%	6.19%	6.78%	7.08%	6.54%	7.41%	6.20%	8.35%	7.90%	7.75%	7.38%	6.73%
Inventories	0.90%	0.58%	0.71%	0.84%	1.02%	1.42%	1.46%	8.72%	6.59%	5.24%	5.99%	6.25%	5.78%	6.55%	5.48%	7.38%	6.98%	6.85%	6.52%	5.95%
Prepaid expenses	0.38%	0.62%	0.51%	0.45%	0.48%	0.71%	0.96%	1.07%	0.85%	1.63%	1.24%	1.30%	1.20%	1.36%	1.14%	1.53%	1.45%	1.42%	1.35%	1.23%
Other current assets	0.64%	0.57%	0.61%	1.50%	1.30%	1.42%	2.33%	2.05%	2.47%	2.82%	2.62%	2.74%	2.53%	2.87%	2.40%	3.23%	3.06%	3.00%	2.86%	2.61%
Total current assets	**30.42%**	**37.43%**	**15.58%**	**18.90%**	**23.71%**	**29.43%**	**43.45%**	**21.23%**	**24.05%**	**30.15%**	**28.67%**	**21.81%**	**27.31%**	**23.18%**	**41.11%**	**33.50%**	**36.31%**	**39.86%**	**43.11%**	**45.02%**
Property, plant & equipment, net	1.75%	2.55%	2.24%	3.32%	3.85%	2.37%	1.96%	2.09%	2.10%	1.49%	1.59%	1.57%	1.32%	1.43%	1.12%	1.30%	1.28%	1.27%	1.30%	1.36%
Operating lease assets	0.00%	0.00%	0.00%	0.00%	0.00%	2.52%	1.98%	0.70%	0.68%	0.57%	0.61%	0.60%	0.51%	0.55%	0.43%	0.50%	0.49%	0.49%	0.50%	0.53%
Intangible assets, net	43.05%	35.29%	62.75%	58.14%	52.49%	44.07%	33.58%	58.16%	53.48%	47.55%	46.04%	52.10%	50.09%	51.96%	39.48%	44.26%	42.42%	39.87%	37.27%	35.71%
Goodwill	21.05%	19.56%	18.62%	18.49%	17.83%	16.61%	14.66%	14.86%	15.62%	15.39%	17.55%	18.15%	15.68%	17.22%	13.34%	15.09%	14.16%	13.20%	12.49%	11.99%
Deferred tax assets, net	2.26%	3.66%	0.31%	0.67%	1.11%	4.00%	3.90%	2.53%	3.47%	4.19%	4.75%	4.93%	4.34%	4.80%	3.84%	4.55%	4.56%	4.56%	4.60%	4.66%
Deferred financing costs	0.99%	0.69%	0.20%	0.15%	0.18%	0.13%	0.08%	0.10%	0.09%	0.06%	0.08%	0.09%	0.08%	0.08%	0.06%	0.07%	0.07%	0.06%	0.06%	0.06%
Other non-current assets	0.48%	0.82%	0.29%	0.32%	0.82%	0.87%	0.39%	0.33%	0.51%	0.59%	0.70%	0.75%	0.68%	0.77%	0.62%	0.73%	0.71%	0.69%	0.68%	0.68%
total long-term assets	**69.58%**	**62.57%**	**84.42%**	**81.10%**	**76.29%**	**70.57%**	**56.55%**	**78.77%**	**75.95%**	**69.85%**	**71.33%**	**78.19%**	**72.69%**	**76.82%**	**58.89%**	**66.50%**	**63.69%**	**60.14%**	**56.89%**	**54.98%**
Total assets	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
liabilities:																				
Accounts payable	0.75%	0.65%	0.47%	0.48%	0.78%	0.86%	0.41%	0.82%	0.84%	0.90%	1.03%	1.23%	1.22%	1.54%	1.37%	1.77%	1.91%	2.05%	2.22%	2.45%
Accrued liabilities	4.91%	4.88%	4.03%	3.88%	5.09%	4.84%	5.40%	5.42%	7.41%	6.97%	7.07%	7.39%	6.83%	7.74%	6.48%	8.72%	8.24%	8.09%	7.70%	7.03%
Current portion of long-term debt	0.28%	1.12%	0.75%	0.79%	0.64%	0.60%	3.77%	0.25%	0.29%	5.31%	6.07%	0.32%	9.22%	0.30%	19.78%	2.58%	2.42%	2.26%	2.14%	2.05%
Income taxes payable	0.23%	0.05%	0.09%	0.42%	0.02%	0.20%	0.39%	0.08%	0.07%	0.31%	-0.03%	0.02%	0.08%	0.04%	0.12%	0.22%	0.30%	0.32%	0.30%	0.25%
Deferred revenue	0.03%	0.04%	0.02%	0.17%	0.10%	0.09%	0.04%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total current liabilities	**6.49%**	**6.75%**	**5.36%**	**5.74%**	**6.64%**	**6.58%**	**10.00%**	**6.58%**	**8.61%**	**13.49%**	**14.14%**	**8.95%**	**17.35%**	**9.62%**	**27.74%**	**13.29%**	**12.89%**	**12.72%**	**12.36%**	**11.78%**
deferred revenue non-current	0.13%	0.11%	0.05%	0.31%	0.18%	0.09%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term debt, less current portion	39.92%	34.73%	41.53%	30.07%	30.04%	28.41%	28.28%	48.94%	52.54%	44.83%	38.80%	42.15%	39.12%	41.92%	32.72%	38.40%	36.69%	34.97%	33.14%	31.63%
Operating lease liabilities, less current portion	0.00%	0.00%	0.00%	0.00%	0.00%	2.73%	2.14%	0.71%	0.66%	0.52%	0.63%	0.62%	0.52%	0.57%	0.44%	0.52%	0.51%	0.51%	0.52%	0.54%
Deferred tax liabilities, net	11.23%	8.77%	11.60%	7.48%	5.94%	4.05%	2.00%	10.57%	8.72%	7.44%	8.43%	8.75%	7.70%	8.54%	6.84%	8.14%	8.22%	8.27%	8.39%	8.53%
Other non-current liabilities	1.15%	2.06%	2.35%	3.45%	4.21%	1.97%	1.55%	0.95%	0.99%	0.92%	1.09%	1.17%	1.05%	1.20%	0.97%	1.14%	1.11%	1.07%	1.05%	1.05%
total long term liabilities	**52.44%**	**45.67%**	**55.53%**	**41.31%**	**40.37%**	**37.25%**	**34.00%**	**61.18%**	**62.91%**	**53.71%**	**48.95%**	**52.69%**	**48.40%**	**52.23%**	**40.97%**	**48.20%**	**46.52%**	**44.81%**	**43.10%**	**41.75%**
total liabilities	**58.93%**	**52.42%**	**60.89%**	**47.05%**	**47.01%**	**43.83%**	**44.01%**	**67.76%**	**71.52%**	**67.20%**	**63.09%**	**61.64%**	**65.75%**	**61.85%**	**68.71%**	**61.49%**	**59.41%**	**57.53%**	**55.46%**	**53.54%**
shareholders equity:																				
Common equity	43.68%	46.54%	34.70%	37.79%	40.63%	40.92%	40.30%	28.75%	32.10%	32.48%	37.04%	38.31%	33.11%	36.36%	28.17%	31.85%	29.90%	27.87%	26.36%	25.31%
Accumulated other comprehensive income (loss)	-3.66%	-7.96%	-6.61%	-2.75%	-3.80%	-4.03%	-2.06%	-3.26%	-10.39%	-7.39%	-8.43%	-8.72%	-7.53%	-8.27%	-6.41%	-7.25%	-6.80%	-6.34%	-6.00%	-5.76%
Retained earnings (accumulated deficit)	1.04%	9.01%	11.02%	17.92%	16.16%	19.28%	17.75%	6.75%	6.77%	7.71%	8.30%	8.77%	8.68%	10.07%	9.53%	13.90%	17.49%	20.94%	24.18%	26.91%
Total shareholders' equity	**41.07%**	**47.58%**	**39.11%**	**52.95%**	**52.99%**	**56.17%**	**55.99%**	**32.24%**	**28.48%**	**32.80%**	**36.91%**	**38.36%**	**34.25%**	**38.15%**	**31.29%**	**38.51%**	**40.59%**	**42.47%**	**44.54%**	**46.46%**

% of sales																				
Cash & cash equivalents	58.32%	74.64%	24.59%	23.85%	16.37%	29.48%	44.75%	19.11%	24.09%	39.29%	27.93%	7.69%	26.95%	8.56%	70.04%	24.58%	34.76%	44.34%	56.57%	71.06%
investment & Marketable securities	0.00%	0.00%	4.03%	13.28%	27.24%	20.35%	45.48%	0.00%	0.00%	3.13%	3.23%	3.32%	3.23%	3.25%	3.13%	2.73%	2.82%	2.78%	2.87%	3.14%
Accounts receivable, net	15.89%	15.83%	15.74%	13.85%	13.95%	16.47%	16.78%	18.21%	17.80%	18.41%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%	17.53%
Inventories	2.56%	1.47%	2.29%	2.67%	2.80%	3.64%	4.04%	34.67%	19.51%	15.57%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%	15.49%
Prepaid expenses	1.09%	1.56%	1.65%	1.43%	1.32%	1.82%	2.64%	4.25%	2.51%	4.84%	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%	3.21%
Other current assets	1.82%	1.44%	1.97%	4.74%	3.57%	3.65%	6.45%	8.16%	7.30%	8.37%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%	6.79%
Total current assets	**86.61%**	**94.93%**	**50.27%**	**59.82%**	**65.26%**	**75.41%**	**120.14%**	**84.39%**	**71.22%**	**89.60%**	**74.18%**	**54.03%**	**73.19%**	**54.83%**	**116.18%**	**70.33%**	**80.59%**	**90.13%**	**102.46%**	**117.21%**
Property, plant & equipment, net	4.98%	6.46%	7.22%	10.51%	10.60%	6.08%	5.41%	8.30%	6.23%	4.42%	4.12%	3.89%	3.53%	3.38%	3.16%	2.73%	2.84%	2.87%	3.09%	3.55%
Operating lease assets	0.00%	0.00%	0.00%	0.00%	0.00%	6.45%	5.47%	2.80%	2.00%	1.70%	1.59%	1.50%	1.36%	1.30%	1.22%	1.05%	1.09%	1.11%	1.19%	1.37%
Intangible assets, net	122.56%	89.49%	202.42%	184.05%	144.44%	112.92%	92.87%	231.15%	158.35%	141.31%	119.12%	129.05%	134.28%	122.92%	111.59%	92.89%	94.15%	90.15%	88.57%	92.97%
Goodwill	59.91%	49.60%	60.07%	58.54%	49.06%	42.56%	40.54%	59.06%	46.26%	45.72%	45.40%	44.96%	42.04%	40.74%	37.71%	31.67%	31.44%	29.86%	29.68%	31.22%
Deferred tax assets, net	6.44%	9.27%	1.01%	2.13%	3.06%	10.24%	10.79%	10.05%	10.28%	12.46%	12.30%	12.22%	11.62%	11.36%	10.84%	9.54%	10.12%	10.31%	10.93%	12.14%
Deferred financing costs	2.83%	1.76%	0.65%	0.47%	0.51%	0.34%	0.22%	0.39%	0.25%	0.17%	0.21%	0.21%	0.21%	0.19%	0.17%	0.15%	0.15%	0.14%	0.14%	0.15%
Other non-current assets	1.36%	2.08%	0.94%	1.01%	2.26%	2.22%	1.09%	1.32%	1.51%	1.76%	1.82%	1.87%	1.82%	1.83%	1.76%	1.54%	1.58%	1.56%	1.61%	1.76%
total long-term assets	**198.07%**	**158.66%**	**272.33%**	**256.71%**	**209.92%**	**180.81%**	**156.39%**	**313.08%**	**224.88%**	**207.55%**	**184.54%**	**193.70%**	**194.86%**	**181.73%**	**166.45%**	**139.57%**	**141.38%**	**136.00%**	**135.20%**	**143.15%**
Total assets	**284.68%**	**253.60%**	**322.60%**	**316.53%**	**275.18%**	**256.22%**	**276.53%**	**397.47%**	**296.10%**	**297.15%**	**258.72%**	**247.73%**	**268.05%**	**236.56%**	**282.64%**	**209.90%**	**221.97%**	**226.13%**	**237.66%**	**260.36%**
liabilities:																				
Accounts payable	2.14%	1.65%	1.51%	1.51%	2.15%	2.20%	1.14%	3.24%	2.48%	2.68%	2.68%	3.04%	3.27%	3.64%	3.86%	3.73%	4.25%	4.63%	5.28%	6.38%
Accrued liabilities	13.99%	12.38%	12.99%	12.28%	14.01%	12.39%	14.92%	21.53%	21.95%	20.71%	18.30%	18.30%	18.30%	18.30%	18.30%	18.30%	18.30%	18.30%	18.30%	18.30%
Current portion of long-term debt	0.80%	2.84%	2.43%	2.51%	1.77%	1.54%	10.42%	1.00%	0.85%	15.78%	15.69%	0.80%	24.72%	0.72%	55.90%	5.42%	5.38%	5.11%	5.08%	5.34%
Income taxes payable	0.65%	0.14%	0.30%	1.33%	0.06%	0.51%	1.07%	0.31%	0.21%	0.91%	-0.08%	0.04%	0.21%	0.10%	0.34%	0.45%	0.68%	0.72%	0.71%	0.66%
Deferred revenue	0.10%	0.10%	0.08%	0.53%	0.29%	0.22%	0.11%	0.07%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total current liabilities	**18.48%**	**17.11%**	**17.30%**	**18.16%**	**18.27%**	**16.86%**	**27.66%**	**26.16%**	**25.50%**	**40.08%**	**36.59%**	**22.18%**	**46.50%**	**22.75%**	**78.40%**	**27.90%**	**28.60%**	**28.76%**	**29.38%**	**30.68%**
deferred revenue non-current	0.38%	0.28%	0.17%	1.00%	0.51%	0.22%	0.10%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term debt, less current portion	113.65%	88.08%	133.98%	95.17%	82.66%	72.80%	78.21%	194.52%	155.58%	133.22%	100.38%	104.41%	104.87%	99.17%	92.47%	80.61%	81.43%	79.07%	78.77%	82.34%
Operating lease liabilities, less current portion	0.00%	0.00%	0.00%	0.00%	0.00%	7.00%	5.92%	2.82%	1.96%	1.54%	1.64%	1.54%	1.40%	1.34%	1.26%	1.09%	1.13%	1.14%	1.23%	1.41%
Deferred tax liabilities, net	31.98%	22.23%	37.42%	23.69%	16.35%	10.37%	5.52%	42.03%	25.81%	22.11%	21.80%	21.66%	20.65%	20.20%	19.34%	17.10%	18.25%	18.70%	19.93%	22.22%
Other non-current liabilities	3.27%	5.23%	7.57%	10.91%	11.58%	5.06%	4.28%	3.78%	2.92%	2.73%	2.82%	2.90%	2.82%	2.84%	2.73%	2.38%	2.46%	2.43%	2.51%	2.74%
total long term liabilities	149.29%	115.82%	179.14%	130.76%	111.09%	95.45%	94.03%	243.17%	186.27%	159.61%	126.64%	130.52%	129.75%	123.55%	115.80%	101.17%	103.27%	101.34%	102.44%	108.71%
total liabilities	**167.77%**	**132.93%**	**196.43%**	**148.92%**	**129.36%**	**112.31%**	**121.69%**	**269.32%**	**211.77%**	**199.69%**	**163.23%**	**152.69%**	**176.25%**	**146.30%**	**194.20%**	**129.07%**	**131.88%**	**130.09%**	**131.81%**	**139.40%**
shareholders equity:																				
common equity	124.36%	118.01%	111.95%	119.60%	111.81%	104.85%	111.45%	114.26%	95.03%	96.51%	95.83%	94.91%	88.75%	86.01%	79.61%	66.86%	66.37%	63.03%	62.64%	65.90%
Accumulated other comprehensive income (loss)	-10.41%	-20.19%	-21.33%	-8.70%	-10.46%	-10.33%	-5.68%	-12.94%	-30.76%	-21.96%	-21.81%	-21.60%	-20.20%	-19.57%	-18.12%	-15.21%	-15.10%	-14.34%	-14.26%	-15.00%
Retained earnings (accumulated deficit)	2.96%	22.85%	35.55%	56.71%	44.48%	49.40%	49.07%	26.83%	20.05%	22.92%	21.47%	21.72%	23.25%	23.82%	26.94%	29.18%	38.83%	47.35%	57.46%	70.06%
Total shareholders' equity	**116.91%**	**120.67%**	**126.17%**	**167.61%**	**145.82%**	**143.91%**	**154.84%**	**128.15%**	**84.32%**	**97.46%**	**95.49%**	**95.03%**	**91.81%**	**90.26%**	**88.44%**	**80.83%**	**90.10%**	**96.03%**	**105.85%**	**120.97%**

Jazz Pharmaceuticals

Weighted Average Cost of Capital (WACC) Estimation

Cost of Equity:		*ASSUMPTIONS:*
Risk-Free Rate	4.43%	10-year Treasury bond
Beta	0.56	average of 2 year weekly beta
Equity Risk Premium	5.26%	1928-2023 geometric average over 10-year Treasury
Cost of Equity	**7.36%**	
Cost of Debt:		
Risk-Free Rate	4.43%	10-year Treasury bond
Implied Default Premium	1.22%	
Pre-Tax Cost of Debt	5.65%	YTM on company's 10-year corporate bond
Marginal Tax Rate	14%	
After-Tax Cost of Debt	**4.87%**	

		MV Weights
Market Value of Common Equity:		
Total Shares Outstanding	$ 62,255,000.00	
Current Stock Price	$121.65	
MV of Equity	**7,573,320,750.00**	56.67%
Market Value of Debt:		
Current Portion of LTD	$ 604,954,000.00	
Long-Term Debt	$ 5,107,988,000.00	
PV of Operating Leases	$ 78,244,000.00	
MV of Total Debt	**5,791,186,000.00**	43.33%
Market Value of the Firm	**13,364,506,750.00**	100.00%
Estimated WACC		**6.28%**

Jazz Pharmaceuticals
Value Driver Estimation

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
NOPLAT:										
Revenue	**$1,172,875**	**$1,324,803**	**$1,487,973**	**$1,618,693**	**$1,890,922**	**$2,161,761**	**$2,363,567**	**$3,094,238**	**$3,659,374**	**$3,834,204**
less: COGS	$117,418	$102,526	$105,386	$110,188	$121,544	$127,930	$148,917	$440,760	$540,517	$435,577
less: Depreciation	$7,097	$9,894	$11,786	$13,089	$15,233	$15,342	$18,673	$26,714	$30,302	$30,412
less: Amortization of non goodwill Intangibles	$126,584	$98,162	$101,994	$152,065	$201,498	$354,814	$259,580	$525,769	$599,169	$608,284
less: R&D	$85,181	$135,253	$162,297	$198,442	$226,616	$299,726	$335,375	$505,748	$590,453	$849,658
less SG&A	$406,114	$449,119	$502,892	$544,156	$683,530	$736,942	$854,233	$1,451,683	$1,416,967	$1,343,105
less: acquired in process R&D	$202,626	$0	$23,750	$85,000	$0	$109,975	$251,250	$0	$444,148	$19,000
plus: implied interest on leases - beg PV operating leases * R debt	$0	$0	$0	$0	$0		$7,875	$7,298	$4,892	$4,143
EBITA	**$227,855**	**$529,849**	**$579,868**	**$515,753**	**$642,501**	**$517,032**	**$503,414**	**$150,862**	**$42,710**	**$552,311**
plus: provision for income taxes expense	$94,231	$106,399	$135,236	-$47,740	$80,162	-$73,154	$33,517	$216,116	-$158,645	-$119,912
plus: tax on lease interest	$0	$0	$0	$0	$0	$0	$1,446	$631	$533	$410
less: tax shield on interest income (m. tax rate * interest income)	-$32,946	-$17,986	-$18,087	-$25,504	-$18,806	-$15,319	-$18,308	-$24,116	-$31,418	-$28,625
less: gain on foreign currency	$5,427	$457	$985	-$3,270	-$1,678	-$1,232	-$601	-$376	-$2,073	$869
total adjusted tax	$66,712	$88,870	$118,134	-$76,514	$59,678	-$89,705	$16,054	$192,255	-$191,603	-$147,259
plus: change in deferred taxes- find on cash flow statement	-$43,423	-$61,209	-$41,163	-$225,591	-$88,815	-$236,610	-$136,937	$69,198	-$292,251	-$260,217
NOPLAT	**$117,720**	**$379,770**	**$420,571**	**$366,676**	**$494,008**	**$370,127**	**$350,423**	**$27,805**	**-$57,938**	**$439,353**
Invested Capital (IC):	**$3,254,224**	**$2,913,770**	**$6,672,245**	**$6,699,141**	**$6,392,238**	**$6,016,402**	**$5,613,708**	**$16,755,248**	**$13,627,351**	**$12,824,151**
plus: normal cash (industry specific , look at historical level - figure c	$192,048	$216,925	$243,643	$265,047	$309,622	$353,970	$387,014	$506,655	$599,191	$627,817
plus: accounts receivable	$186,371	$209,685	$234,244	$224,129	$263,838	$355,987	$396,490	$563,360	$651,493	$705,794
plus: inventory	$30,037	$19,451	$34,051	$43,245	$52,956	$78,608	$95,396	$1,072,721	$714,061	$597,039
plus: prepaid expenses	$12,800	$20,699	$24,501	$23,182	$25,017	$39,434	$62,422	$131,413	$91,912	$185,476
plus: other operating current assets	$21,322	$19,047	$29,310	$76,686	$67,572	$78,895	$152,491	$252,392	$267,192	$320,809
less: accounts payable	$25,126	$21,807	$22,415	$24,368	$40,602	$47,545	$26,945	$100,298	$90,758	$102,750
less: accrued liabilities	$164,091	$164,070	$193,268	$198,779	$264,887	$267,873	$352,732	$666,304	$803,255	$793,914
less: deferred revenue	$1,138	$1,370	$1,123	$8,618	$5,414	$4,720	$2,546	$2,093	$463	$0
less: income taxes payable	$7,588	$1,808	$4,506	$21,577	$1,197	$10,965	$25,200	$9,608	$7,717	$35,074
Net Operating Working Capital	**$244,635**	**$296,752**	**$344,437**	**$378,947**	**$406,905**	**$575,791**	**$686,390**	**$1,748,238**	**$1,421,656**	**$1,505,197**
Plus:Net PPE	**$58,363**	**$85,572**	**$107,490**	**$170,080**	**$200,358**	**$131,506**	**$127,935**	**$256,837**	**$228,050**	**$169,646**
plus: net other operating assets	**$2,955,725**	**$2,535,167**	**$6,222,920**	**$6,166,229**	**$5,794,556**	**$5,313,967**	**$4,801,698**	**$14,750,636**	**$11,977,645**	**$11,149,308**
Intangible assets, net	$1,437,435	$1,185,606	$3,012,001	$2,979,127	$2,731,334	$2,440,977	$2,195,051	$7,152,328	$5,794,437	$5,418,039
Capitalized PV of Operating Leases	$22,492	$78,383	$91,428	$37,895	$131,530	$161,122	$154,492	$102,557	$87,395	$78,244
Other operating assets	$1,495,798	$1,271,178	$3,119,491	$3,149,207	$2,931,692	$2,711,868	$2,452,155	$7,495,751	$6,095,813	$5,653,025
less:Other operating liabilities	**$4,499**	**$3,721**	**$2,601**	**$16,115**	**$9,581**	**$4,861**	**$2,315**	**$463**	**$0**	**$0**
Long term Deferred rev	$4,499	$3,721	$2,601	$16,115	$9,581	$4,861	$2,315	$463	$0	$0
Free Cash Flow (FCF):										
NOPLAT	$117,720	$379,770	$420,571	$366,676	$494,008	$370,127	$350,423	$27,805	-$57,938	$439,353
Change in IC		-$340,454	$3,758,475	$26,896	-$306,903	-$375,836	-$402,695	$11,141,540	-$3,127,897	-$803,199
FCF		**$720,224**	**-$3,337,903**	**$339,780**	**$800,911**	**$745,963**	**$753,118**	**-$11,113,735**	**$3,069,959**	**$1,242,552**
Return on Invested Capital (ROIC):										
NOPLAT	$117,720	$379,770	$420,571	$366,676	$494,008	$370,127	$350,423	$27,805	-$57,938	$439,353
Beginning IC		$3,254,224	$2,913,770	$6,672,245	$6,699,141	$6,392,238	$6,016,402	$5,613,708	$16,755,248	$13,627,351
ROIC		**11.67%**	**14.43%**	**5.50%**	**7.37%**	**5.79%**	**5.82%**	**0.50%**	**-0.35%**	**3.22%**
Economic Profit (EP):										
Beginning IC		$3,254,224	$2,913,770	$6,672,245	$6,699,141	$6,392,238	$6,016,402	$5,613,708	$16,755,248	$13,627,351
x (ROIC - WACC)		5.39%	8.15%	-0.79%	1.09%	-0.49%	-0.46%	-5.79%	-6.63%	-3.06%
EP		**175,348**	**237,536**	**-52,458**	**73,185**	**-31,417**	**-27,512**	**-324,834**	**-1,110,460**	**-416,683**

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
NOPLAT:										
Revenue	**$3,861,804**	**$3,899,129**	**$4,169,921**	**$4,302,716**	**$4,648,746**	**$5,535,113**	**$5,576,103**	**$5,871,969**	**$5,907,715**	**$5,615,984**
less: COGS	$519,799	$524,823	$561,271	$579,146	$625,721	$745,026	$750,543	$790,367	$795,178	$755,911
less: Depreciation	$22,569	$21,154	$20,162	$19,572	$19,371	$19,552	$20,118	$21,077	$22,447	$24,254
less: Amortization of non goodwill Intangibles	$624,651	$624,651	$624,651	$624,651	$623,319	$459,223	$459,223	$459,223	$459,223	$459,223
less: R&D	$703,365	$710,163	$759,484	$783,670	$846,694	$1,008,131	$1,015,597	$1,069,484	$1,075,995	$1,022,861
less SG&A	$1,553,305	$1,568,318	$1,677,237	$1,730,650	$1,869,831	$2,226,348	$2,242,835	$2,361,840	$2,376,217	$2,258,876
less: acquired in process R&D	$137,396	$137,396	$137,396	$137,396	$137,396	$137,396	$137,396	$137,396	$137,396	$137,396
plus: implied interest on leases - beg PV operating leases * R debt	$3,692	$3,460	$3,298	$3,202	$3,169	$3,198	$3,291	$3,448	$3,672	$3,967
EBITA	**$304,411**	**$316,085**	**$393,018**	**$430,833**	**$529,583**	**$942,635**	**$953,682**	**$1,036,030**	**$1,044,930**	**$961,430**
plus: provision for income taxes expense	-$7,226	$3,518	$20,401	$9,660	$37,181	$58,792	$88,776	$99,247	$99,126	$87,179
plus: tax on lease interest	$509	$478	$455	$442	$437	$441	$454	$476	$507	$548
less: tax shield on interest income (m. tax rate * interest income)	-$48,727	-$39,626	-$33,382	-$49,355	-$35,468	-$70,856	-$42,383	-$43,256	-$44,574	-$44,957
less: gain on foreign currency	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
total adjusted tax	-$55,443	-$35,631	-$12,526	-$39,253	$2,150	-$11,622	$46,847	$56,467	$55,059	$42,769
plus: change in deferred taxes- find on cash flow statement	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NOPLAT	**$359,854**	**$351,716**	**$405,545**	**$470,086**	**$527,433**	**$954,256**	**$906,835**	**$979,564**	**$989,872**	**$918,661**
Invested Capital (IC):	**$11,088,870**	**$11,924,274**	**$13,132,280**	**$12,544,935**	**$12,452,569**	**$12,689,321**	**$12,896,650**	**$13,090,423**	**$12,974,919**	**$12,832,108**
plus: normal cash (industry specific , look at historical level - figure c	$632,337	$638,448	$682,788	$704,532	$761,192	$906,326	$913,038	$961,484	$967,337	$919,568
plus: accounts receivable	$677,055	$683,599	$731,075	$754,356	$815,023	$970,422	$977,608	$1,029,480	$1,035,747	$984,600
plus: inventory	$598,003	$603,783	$645,715	$666,278	$719,861	$857,116	$863,463	$909,278	$914,814	$869,639
plus: prepaid expenses	$124,051	$125,250	$133,949	$138,214	$149,330	$177,802	$179,119	$188,623	$189,771	$180,400
plus: other operating current assets	$262,037	$264,570	$282,944	$291,954	$315,434	$375,577	$378,358	$398,434	$400,859	$381,064
less: accounts payable	$103,368	$118,679	$136,257	$156,438	$179,609	$206,212	$236,755	$271,822	$312,082	$358,306
less: accrued liabilities	$706,753	$713,584	$763,142	$787,445	$850,772	$1,012,987	$1,020,489	$1,074,636	$1,081,178	$1,027,787
less: deferred revenue	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
less: income taxes payable	-$3,072	$1,496	$8,675	$4,108	$15,809	$24,998	$37,747	$42,199	$42,148	$37,068
Net Operating Working Capital	**$1,486,434**	**$1,481,891**	**$1,568,397**	**$1,607,345**	**$1,714,649**	**$2,043,045**	**$2,016,596**	**$2,098,642**	**$2,073,120**	**$1,912,110**
Plus:Net PPE	**$159,010**	**$151,556**	**$147,122**	**$145,608**	**$146,971**	**$151,222**	**$158,434**	**$168,735**	**$182,312**	**$199,419**
plus: net other operating assets	**$9,443,427**	**$10,290,827**	**$11,416,761**	**$10,791,982**	**$10,590,950**	**$10,495,053**	**$10,721,621**	**$10,823,047**	**$10,719,487**	**$10,720,579**
Intangible assets, net	$4,600,166	$5,032,004	$5,599,395	$5,288,808	$5,187,683	$5,141,611	$5,249,900	$5,293,479	$5,232,296	$5,220,994
Capitalized PV of Operating Leases	$22,841	$16,891	$14,184	$12,675	$12,008	$2,364	$2,364	$2,364	$2,364	$2,364
Other operating assets	$4,820,419	$5,241,932	$5,803,182	$5,490,498	$5,391,260	$5,351,078	$5,469,356	$5,527,203	$5,484,827	$5,497,221
less:Other operating liabilities	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Long term Deferred rev	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Free Cash Flow (FCF):										
NOPLAT	$359,854	$351,716	$405,545	$470,086	$527,433	$954,256	$906,835	$979,564	$989,872	$918,661
Change in IC	-$1,735,281	$835,404	$1,208,006	-$587,345	-$92,366	$236,751	$207,330	$193,772	-$115,504	-$142,812
FCF	**$2,095,135**	**-$483,689**	**-$802,461**	**$1,057,431**	**$619,798**	**$717,505**	**$699,505**	**$785,791**	**$1,105,375**	**$1,061,473**
Return on Invested Capital (ROIC):										
NOPLAT	$359,854	$351,716	$405,545	$470,086	$527,433	$954,256	$906,835	$979,564	$989,872	$918,661
Beginning IC	$12,824,151	$11,088,870	$11,924,274	$13,132,280	$12,544,935	$12,452,569	$12,689,321	$12,896,650	$13,090,423	$12,974,919
ROIC	**2.81%**	**3.17%**	**3.40%**	**3.58%**	**4.20%**	**7.66%**	**7.15%**	**7.60%**	**7.56%**	**7.08%**
Economic Profit (EP):										
Beginning IC	$12,824,151	$11,088,870	$11,924,274	$13,132,280	$12,544,935	$12,452,569	$12,689,321	$12,896,650	$13,090,423	$12,974,919
x (ROIC - WACC)	-3.48%	-3.11%	-2.88%	-2.70%	-2.08%	1.38%	0.86%	1.31%	1.28%	0.80%
EP	**-445,727**	**-344,859**	**-343,508**	**-354,851**	**-260,608**	**172,018**	**109,724**	**169,429**	**167,564**	**103,610**

Jazz Pharmaceuticals

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

Fiscal Years Ending	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
EPS	$ (0.53)	$ 0.13	$ 0.64	$ 0.22	$ 0.75	$ 1.00	$ 1.32	$ 1.30	$ 1.16	$ 0.93
Key Assumptions										
CV growth of EPS	2.68%									
CV Year ROE	8.64%									
Cost of Equity	7.36%									
Future Cash Flows										
P/E Multiple (CV Year)										14.73
EPS (CV Year)										$ 0.93
Future Stock Price										$ 13.66
Dividends Per Share	0	0	0	0	0	0	0	0	0	
Discounted Cash Flows	0	0	0	0	0	0	0	0	0	7.21
Intrinsic Value as of Last FYE	$ 7.21									
Implied Price as of Today	**$ 7.65**									

Jazz Pharmaceuticals

Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

Key Inputs:	
CV Growth of NOPLAT	2.44%
CV Year ROIC	7.08%
WACC	6.28%
Cost of Equity	7.36%

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
DCF Model:									
Free Cash Flow (FCF)	2,095,135.36	-483,688.59	-802,461.36	###########	619,798.27	717,505.00	699,505.07	785,791.21	1,105,375.26
Continuing Value (CV)									
PV of FCF	1,971,303.10	-428,201.79	-668,417.93	828,738.25	457,042.89	497,820.58	456,646.47	482,656.02	638,824.58
Value of Operating Assets:	**13,293,585.40**								
Non-Operating Adjustments	**-4,927,622.13**								
(+)excess cash:	873,973.24								
(+)marketable securities	120,000.00								
(+) other non-operating assets - non current assets- ?	67,464.00								
(-)current portion of long-term debt	-604,954.00								
(-) LT debt	-5,107,988.00								
(-) operating lease liability	-59,225.00								
(-) other non operating liability- non current liabilities?	-104,751.00								
(-) ESOP	-112,141.38								
Value of Equity	8,365,963.27								
Shares Outstanding	62,255.00								
Intrinsic Value of Last FYE	$ 134.38								
Implied Price as of Today	$ 135.96								
EP Model:									
Economic Profit (EP)	-445,726.59	-344,859.09	-343,508.09	-354,850.54	-260,608.27	172,017.67	109,723.73	169,428.87	167,564.43
Continuing Value (CV)									
PV of EP	-419,382.07	-305,298.25	-286,128.38	-278,106.25	-192,174.07	119,349.60	71,629.15	104,068.18	96,839.76
Total PV of EP	469,433.91								
Invested Capital (last FYE)	12,824,151.49								
Value of Operating Assets:	**13,293,585.40**								
Non-Operating Adjustments:	**-4,927,622.13**								
(+) excess cash	873,973.24								
(+) marketable securities	120,000.00								
(+) other non operating assets	67,464.00								
(-) current protion of long term debt	-604,954.00								
(-) LT debt	-5,107,988.00								
(-) operating lease liability	-59,225.00								
(-) other non operating liability	-104,751.00								
(-) ESOP	-112,141.38								
Value of Equity	8,365,963.27								
Shares Outstanding	62,255.00								
Intrinsic Value of Last FYE	$ 134.38								
Implied Price as of Today	$ 135.96								

Jazz Pharmaceuticals

Relative Valuation Models

Ticker	Company	Price	EPS 2024E	EPS 2025E	P/E 24	P/E 25	Est. 5yr EPS gr.	PEG 24	PEG 25
AMGN	Amgen Inc.	$316.91	$19.54	$20.65	16.22	15.35	5.56%	291.70	276.02
LLY	Eli Lilly and Company	$806.14	$13.22	$23.14	60.98	34.84	71.70%	85.05	48.59
AMRX	Amneal Pharamceuticals	$8.41	$0.60	$0.70	14.02	12.01	3.00%	467.22	400.48
ALKS	Alkermes pls	$29.24	$2.67	$2.01	10.95	14.55	24.80%	44.16	58.66
BHC	Bausch Health Companies Inc.	$8.78	$4.00	$5.00	2.20	1.76	2.60%	84.42	67.54
TEVA	Teva Pharmaceutical Industries Limited	$16.94	$2.45	$2.77	6.91	6.12	1.60%	432.14	382.22
				Average	18.55	14.10		234.12	205.58
JAZZ	Jazz Pharmaceuticals	$121.65	($0.53)	$ 0.13	(230.7)	947.3	10.0	(23.1)	94.7

Implied Relative Value:

P/E (EPS24)	**$ (9.78)**
P/E (EPS25)	**$ 1.81**
PEG (EPS24)	**$ (1,234.41)**
PEG (EPS25)	**$ 264.01**

Jazz Pharmaceuticals

Key Management Ratios

Fiscal Years Ending Dec. 31	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Liquidity Ratios:																				
current ratio (CA/CL)	$ 4.69	$ 5.55	$ 2.91	$ 3.29	$ 3.57	$ 4.47	$ 4.34	$ 3.23	$ 2.79	$ 2.24	$ 2.03	$ 2.44	$ 1.57	$ 2.41	$ 1.48	$ 2.52	$ 2.82	$ 3.13	$ 3.49	$ 3.82
quick ratio (cash +AR/CL)	$ 4.55	$ 5.46	$ 2.77	$ 3.15	$ 3.42	$ 4.26	$ 4.20	$ 1.90	$ 2.03	$ 1.85	$ 1.60	$ 1.74	$ 1.24	$ 1.73	$ 1.28	$ 1.97	$ 2.28	$ 2.60	$ 2.96	$ 3.32
cash ratio = Cash/CL	$ 3.16	$ 4.36	$ 1.42	$ 1.31	$ 0.90	$ 1.75	$ 1.62	$ 0.73	$ 0.94	$ 0.98	$ 0.76	$ 0.35	$ 0.58	$ 0.38	$ 0.89	$ 0.88	$ 1.22	$ 1.54	$ 1.93	$ 2.32
Asset-Management Ratios:																				
inventory turnover (COGS/average inventory)		4.14	3.94	2.85	2.53	1.94	1.71	0.75	0.61	0.66	0.87	0.87	0.90	0.88	0.90	0.94	0.87	0.89	0.87	0.85
days sales in inventory (365/inventory turnover)		88.09	92.65	128.02	144.45	187.68	213.24	483.67	603.29	549.33	419.58	417.90	406.28	413.43	404.29	386.29	418.37	409.34	418.64	430.82
receivable turnover (net credit sales /average accounts receivable)		6.69	6.70	7.06	7.75	6.98	6.28	6.45	6.02	5.65	5.59	5.73	5.90	5.79	5.92	6.20	5.72	5.85	5.72	5.56
days sales outstanding = 365/receivable turnover		54.56	54.45	51.68	47.10	52.33	58.10	56.61	60.59	64.60	65.35	63.69	61.91	63.00	61.61	58.87	63.76	62.38	63.80	65.65
Financial Leverage Ratios:																				
debt to equity ratio (total debt/total equity)	1.44	1.10	1.56	0.89	0.89	0.78	0.79	2.10	2.51	2.05	1.71	1.61	1.92	1.62	2.20	1.60	1.46	1.35	1.25	1.15
debt ratio (total debt/total assets)	0.59	0.52	0.61	0.47	0.47	0.44	0.44	0.68	0.72	0.67	0.63	0.62	0.66	0.62	0.69	0.61	0.59	0.58	0.55	0.54
finnancial leverage ratio (total assets/total equity)	2.44	2.10	2.56	1.89	1.89	1.78	1.79	3.10	3.51	3.05	2.71	2.61	2.92	2.62	3.20	2.60	2.46	2.35	2.25	2.15
interest coverage ratio (EBIT/interest expense)	-3.71	-8.93	-9.55	-6.80	-7.98	-7.37	-3.79	-0.61	0.23	-2.00	-0.85	-1.09	-1.61	-1.20	-2.05	-1.83	-3.09	-3.29	-3.22	-2.94
Profitability Ratios:																				
Return on Equity (NI/Beg TSE)		24.03%	24.82%	25.99%	16.48%	18.98%	7.67%	-9.01%	-5.65%	13.44%	-1.32%	0.48%	3.32%	1.44%	5.87%	8.83%	12.29%	12.25%	10.90%	8.64%
gross profit margin = gross profit/net sales	89.99%	92.26%	92.92%	93.19%	93.57%	94.08%	93.70%	85.76%	85.23%	88.64%	85.96%	86.00%	86.06%	86.09%	86.12%	86.19%	86.18%	86.18%	86.16%	86.11%
return on asset = net income/total assets	1.72%	9.81%	8.27%	9.52%	8.59%	9.45%	3.65%	-2.68%	-2.07%	3.64%	-0.49%	0.18%	1.10%	0.54%	1.74%	3.12%	4.44%	4.63%	4.38%	3.69%
Payout Policy Ratios:																				
Dividend Payout Ratio (Dividend/EPS)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Payout Ratio ((Divs. + Repurchases)/NI)	-0.61%	-18.68%	-70.13%	-20.25%	-117.13%	-57.60%	-61.41%	0.00%	0.02%	-65.03%	0.39%	-1.07%	-0.16%	-0.35%	-0.08%	-0.05%	-0.03%	-0.03%	-0.03%	-0.04%
retention ratio (retained earnings/net income)	2.96%	22.85%	35.55%	56.71%	44.48%	49.40%	49.07%	26.83%	20.05%	22.92%	21.47%	21.72%	23.25%	23.82%	26.94%	29.18%	38.83%	47.35%	57.46%	70.06%

Jazz Pharmaceuticals

Present Value of Operating Lease Obligations

Fiscal Years Ending Dec. 31	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Year 1					10165.0	11757.0	15442.0	9102.0	9881.0	21315.0	400.0
Year 2					7852.0	12709.0	12255.0	8166.0	14474.0	21104.0	350.0
Year 3					4915.0	8310.0	10881.0	6111.0	14908.0	21139.0	275.0
Year 4					1443.0	7165.0	9941.0	5212.0	15355.0	21508.0	225.0
Year 5					671.0	6735.0	9439.0	5007.0	15816.0	23857.0	140.0
Thereafter						66562.0	67914.0	12753.0	119409.0	104655.0	390.0
Total Minimum Payments	0.0	0.0	0.0	0.0	25046.0	113238.0	125872.0	46351.0	189843.0	213578.0	1780.0
Less: Cumulative Interest	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2554.1	34854.7	34444.4	8455.5	58313.0	52456.5	300.4
PV of Minimum Payments	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**22491.9**	**78383.3**	**91427.6**	**37895.5**	**131530.0**	**161121.5**	**1479.6**
Implied Interest in Year 1 Payment		**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**1270.8**	**4428.7**	**5165.7**	**2141.1**	**7431.4**	**9103.4**
Pre-Tax Cost of Debt	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%	5.65%
Years Implied by Year 6 Payment	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.0	9.9	7.2	2.5	7.5	4.4	2.8
Expected Obligation in Year 6 & Beyond	0	0	0	0	0	6735	9439	5007	15816	23857	140
Present Value of Lease Payments											
PV of Year 1	0.0	0.0	0.0	0.0	9621.4	11128.3	14616.2	8615.2	9352.6	20175.1	378.6
PV of Year 2	0.0	0.0	0.0	0.0	7034.6	11386.0	10979.3	7315.9	12967.3	18907.1	313.6
PV of Year 3	0.0	0.0	0.0	0.0	4167.9	7046.8	9227.0	5182.1	12641.9	17925.7	233.2
PV of Year 4	0.0	0.0	0.0	0.0	1158.2	5750.9	7979.1	4183.4	12324.6	17263.2	180.6
PV of Year 5	0.0	0.0	0.0	0.0	509.8	5116.7	7171.0	3803.9	12015.7	18124.6	106.4
PV of 6 & beyond	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.0	37954.6	41455.1	8794.9	72228.0	68725.8	267.2
Capitalized PV of Payments	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	22491.9	78383.3	91427.6	37895.5	131530.0	161121.5	1479.6

Jazz Pharmaceuticals

Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding

Number of Options Outstanding (shares):	2,716
Average Time to Maturity (years):	4.10
Expected Annual Number of Options Exercised:	662
Current Average Strike Price:	$ 141.55
Cost of Equity:	7.36%
Current Stock Price:	$121.65

Fiscal Years Ending Dec. 31	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Increase in Shares Outstanding:	662	662	662	662	66	0	0	0	0	0
Average Strike Price:	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55	$ 141.55
Increase in Common Stock Account:	**93,768**	**93,768**	**93,768**	**93,768**	**9,377**	**-**	**-**	**-**	**-**	**-**
Share Repurchases ($)	191,371	191,371	191,371	191,371	191,371	191,371	191,371	191,371	191,371	191,371
Expected Price of Repurchased Shares:	$ 121.65	$ 130.60	$ 140.22	$ 150.54	$ 161.62	$ 173.52	$ 186.29	$ 200.00	$ 214.73	$ 230.53
Number of Shares Repurchased:	**1,573**	**1,465**	**1,365**	**1,271**	**1,184**	**1,103**	**1,027**	**957**	**891**	**830**
Shares Outstanding (beginning of the year)	62,255	61,344	60,541	59,839	59,230	58,113	57,010	55,982	55,026	54,134
Plus: Shares Issued Through ESOP	662	662	662	662	66	0	0	0	0	0
Less: Shares Repurchased in Treasury	1,573	1,465	1,365	1,271	1,184	1,103	1,027	957	891	830
Shares Outstanding (end of the year)	**61,344**	**60,541**	**59,839**	**59,230**	**58,113**	**57,010**	**55,982**	**55,026**	**54,134**	**53,304**

Jazz Pharmaceuticals

Valuation of Options Granted under ESOP

Current Stock Price	$121.65
Risk Free Rate	4.43%
Current Dividend Yield	0.00%
Annualized St. Dev. of Stock Returns	42.00%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	2,716	141.55	4.10	$ 41.29	$ 112,141
Range 2					$ -
Range 3					$ -
Range 4					$ -
Range 5					$ -
Range 6					$ -
Range 7					$ -
Range 8					$ -
Range 9					$ -
Total	2,716	$ 141.55	4.10	$ 41.29	**$ 112,141**