London South Bank University

Assignment Report

Module: International Financial Market

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Question 02:

- **a section to discuss central banks' decisive role in bond markets.**

According to Bloomberg Businessweek's Fixed Income Analysis & Valuation, the data presented offers a comprehensive view of the U.S. economy's debt landscape, spanning households, corporations, and the government. Debt dynamics play a pivotal role in economic cycles, as showcased by Ray Dalio's analysis of big debt crises. Understanding these cycles involves recognizing key stages, such as the peak of income and debt during expansions, followed by a downturn leading to insolvency and potential defaults.

The graphs highlight significant trends in debt-to-GDP ratios, demonstrating the cyclical nature of debt accumulation and deleveraging. Notably, the financialization of the corporate sector, driven by securitization, has influenced debt patterns, with financial firms becoming a more substantial contributor to total corporate profits.

In the Walt Disney Company context, its diverse operating segments illustrate the complexity of revenue streams, with Media Networks and Parks, Experiences, and consumer products being significant contributors. The case study approach helps bridge theoretical fixed income principles with real-world applications, offering insights into how a company's financial structure and performance align with market practices.

Transitioning to the note's central theme, central banks' role in bond markets is a critical factor influencing fixed-income analysis and valuation. Central banks, such as the European Central Bank (ECB) mentioned in the introduction, influence market conditions. Their monetary policies, including interest rate decisions and asset purchase programs, directly impact bond yields.

During periods of economic expansion, central banks may adjust interest rates, influencing the cost of debt and moving bond prices. Additionally, central banks may engage in quantitative easing, affecting bond supply and demand dynamics. Understanding and anticipating significant bank actions become essential for bond investors, as these actions can significantly impact the valuation of fixed-income securities.

In summary, according to Bloomberg Businessweek's Fixed Income Analysis & Valuation, the data and analysis provide a robust foundation for comprehending the intricate relationship between debt cycles, market dynamics, and the role of central banks in shaping the fixed income landscape. Bond investors must navigate these complexities to make informed decisions, aligning theoretical concepts with practical market insights.

- **Write a section to discuss whether the current U.S. debt profile is approaching bubble territory.**

Household Debt:
The chart depicting U.S. Household Debt as a Percent of Household Disposable Income reveals a significant decline in household debt relative to income since the Credit Crisis. This reduction may indicate a healthier financial situation for American households, characterized by reduced reliance on credit and improved balance sheets.

Families prioritize debt reduction during economic recessions, contributing to the observed deleveraging after the Credit Crisis. The current lower level of household debt as a percentage of income, reaching levels not seen since 1980, suggests that consumers may be more resilient to economic downturns. This is a positive sign for financial stability.

Corporate Debt:
The Non-Financial Corporate Debt-to-GDP chart reveals a cyclical pattern with peaks coinciding with recessionary periods. The trend indicates that non-financial corporations accumulate debt during

economic expansions, possibly for business expansion or acquisitions, and then deleverage during downturns.

Notably, the post-credit Crisis period reflects a reduction in leverage, contrary to historical patterns. This shift is attributed to changes in corporate behaviour, with a significant portion of debt being used for share buybacks rather than funding non-performing assets. While this strategy can enhance financial performance during expansions, it may pose risks during economic contractions.

Government Debt:
The U.S. Government Debt Divided by Tax Receipts chart underscores a substantial increase in the government's debt burden relative to its ability to generate tax revenue. The ratio has risen from 2.58 in 1980 to 10.91, indicating a substantial shift. This suggests that the burden of government services is being shifted to future generations through increased indebtedness.

Intervention needs initially drove increased government debt post-credit Crisis. However, continued deficit spending has contributed to a sustained rise in debt. The ability of the government to service this debt is a crucial consideration, and the current trajectory raises concerns about long-term fiscal sustainability.

Debt Bubble Assessment:
Analysing the presented data alongside the principles outlined by Ray Dalio provides insights into potential risks. Dalio's emphasis on debt cycles and the need to increase income or decrease debt to resolve insolvency aligns with the observed household, corporate, and government debt patterns.

While there are signs of prudent financial behaviour, such as reduced household debt and a shift in corporate debt usage, the sustained increase in government debt poses challenges. The potential burden change to future generations and the need for sustained economic growth to service this debt raise concerns about the U.S. debt profile approaching bubble territory.

In conclusion, a nuanced assessment incorporating historical context, behavioural shifts, and insights from economic principles suggests a complex scenario. Monitoring the trajectory of government debt and its implications for future generations will be crucial in determining whether the current U.S. debt profile poses systemic risks resembling a bubble.

- **Write a section to describe how his investment strategy generates high returns and then discuss its advantages and disadvantages.**

Ray Dalio's Investment Strategy:

Principles for Navigating Big Debt Crises:
Ray Dalio, founder of Bridgewater Associates, is known for his book "Principles for Navigating Big Debt Crises," where he analyses common elements and causes of significant debt crises. Fundamental principles and perspectives include:

1. **Debt Cycles**: Dalio outlines stages of debt cycles, which include periods of economic expansion, debt accumulation, income peaks, debt reduction, and potential defaults.

2. **Insolvency Resolution:** Insolvency can only be resolved by increasing income or decreasing debt. Governments often can print money as a last resort.

3. **Big Debt Bubbles:** Dalio's book discusses common elements and causes of past big debt crises, offering insights into economic cycles and the impact of debt on individuals, companies, and governments.

Investment Approach:
- Principles Game: Dalio sees investment management as a principles game where learning from failure is crucial for success.

- Learning from Failure: Dalio emphasizes the importance of learning from failure in the investment process.

Advantages and Disadvantages:

Advantages	Disadvantages
Dalio's principled approach to investing emphasizes learning and adapting from failures, contributing to long-term success.	Dalio's approach, while moral, can be complex and may require a deep understanding of economic principles and cycles.
As a global investor, Dalio considers macroeconomic factors and global trends, providing a comprehensive view of investment opportunities.	Successfully navigating debt cycles requires accurate market timing, which can lead to losses if not executed correctly.
: Bridgewater Associates, under Dalio's leadership, has been one of the most successful investment firms, adding credibility to his investment philosophy.	Economic conditions are constantly changing. The macroeconomic perspective could misjudge future trends.

- **Write a section to analyze the relative creditworthiness of Dinsey and its peers. Furthermore, it justifies why credit rating agencies rate Disney's debt higher than its peers.**

Debt Analysis:

1. Debt-to-Assets Ratio:
   - Disney: 21.2%

- Peers: Comcast (49.8%), CBS (44.4%), Netflix (46.4%), etc.
- Analysis: Disney has a considerably lower debt-to-assets ratio than its peers, indicating a more conservative capital structure.

2. Coverage Ratio:
- Disney: 18.4
- Peers: Comcast (1.5), CBS (5.4), Netflix (5.9), etc.
- Analysis: Disney has a significantly higher coverage ratio, implying a robust ability to cover interest expenses. In contrast, some peers may face challenges in meeting their interest obligations.

3. Debt/EBITDA Ratio:
- Disney: 1.2
- Peers: Comcast (4.7), CBS (3.8), Netflix (3.4), etc.
- Analysis: Disney's low Debt/EBITDA ratio indicates a solid capacity to pay off its debt using its operating income. Peers, notably Comcast, CBS, and Netflix, have higher ratios, suggesting higher relative indebtedness.

Comparative Analysis:

- Disney's Strengths:
  - Diversified Revenue Streams: Disney's various business segments contribute to a balanced revenue mix, reducing dependency on a single source.
  - Conservative Debt Structure: Disney maintains a conservative approach to debt, leading to a more stable financial position.

- Peers' Challenges:
  - High Debt Levels: Comcast, CBS, and Netflix exhibit higher debt levels, potentially increasing financial risk, especially during economic downturns.
  - Lower Coverage Ratios: Peers have lower coverage ratios, indicating a potential struggle to cover interest expenses.

Credit Rating Agencies:

- Reasons for Disney's Higher Rating:

- Strong Financial Ratios: Disney's low debt ratios and high coverage ratios suggest financial stability, which credit rating agencies view favorably.
- Diversification: The diversified business model reduces risk, making Disney's cash flows more predictable.

- Concerns for Peers:
- Higher Debt: Peers' higher debt levels may raise concerns about their ability to service debt, impacting credit ratings.
- Lower Coverage: Lower coverage ratios in some peers indicate a higher risk of default, affecting creditworthiness.

In conclusion, Disney's lower debt levels, higher coverage ratios, and diversified revenue streams position it as a more creditworthy entity than its peers, who face challenges associated with higher debt and lower coverage ratios. Credit rating agencies will likely assign Disney a higher rating due to its strong financial fundamentals.

- **Calculate the yield-to-maturity on a Disney bond that matures in 13 years and pays a 6.4% coupon semi-annually, with a current price of $114.328 (as of 11 September 2022). bond has a par value of $1,000. Use the Terminal Tutorial section to find the yield-to-maturity on the same bond in question 5. Explain the difference between your calculation and the Terminal Tutorial result.**

Given:
- Face Value (F) = $1,000
- Coupon Rate (C) = 6.4%
- Current Market Price (P) = $114.328
- Number of Coupon Payments per Year (n) = 2
- Years to Maturity (T) = 13

Calculate the semi-annual coupon payment (C):
$$ C = \frac{6.4\% \times \$1,000}{2} = \$32 $$

Now, use the formula for Yield to Maturity (YTM):

$$ YTM = \left(\frac{C + \frac{(F - P)}{n}}{\frac{F + P}{2}} \right)^{\frac{1}{T}} - 1 $$

Substitute the values:
$$ YTM = \left(\frac{32 + \frac{(1,000 - 114.328)}{2}}{\frac{1,000 + 114.328}{2}} \right)^{\frac{1}{26}} - 1 $$

$$ YTM \approx \left(\frac{32 + \$442.836}{\$557.164} \right)^{\frac{1}{26}} - 1 $$

$$ YTM \approx (0.8526)^{0.0385} - 1 $$

$$ YTM \approx 0.0028 $$

$$ YTM \approx 0.28\% $$

The calculated Yield to Maturity for the Disney bond is approximately 0.28%.

Question 03:

Disney's Intrinsic Value Analysis:

Disney stock's intrinsic value using the four models

We see the condition for the constant model is that r - g > 0 [From the case and also mathematically if g> r, then the Price <0]

Therefore g<6.9%

Therefore, we will use the information about D0 and D2 to get a growth rate.

D0*(1+g)^2 = D2 [Using 2nd year as in next year there is a degrowth which is not sustainable]

=> 6.93*20% = 6.6*20%*(1+g)^2

=> (1+g)^2 = 6.93/6.6

=> g = 2.5% [Using this growth as sustainable growth]

Constant Growth Model = D1/(r-g)

D1 = 6.19*20% = 1.238

P= 1.238/(6.9%-2.5%) = $28.13

2)

Multi-Stage growth model:

We will assume the growth of dividends to continue at 17.7% for three years, followed by 2.5% growth.

Therefore,

D0 = 6.6*20% = 1.32

D1 = 1.32*(1+17.7%) = 1.55

D2 = 1.55*(1+17.7%) = 1.82435

D3 = 1.82435*(1+17.7%) = 2.147

Terminal value at year 3 = D3*(1+2.5%)/(6.9%-2.5%) = 2.147*(1+2.5%)/(6.9%-2.5%) = 50.02

Value of share = 1.55/(1+6.9%)^1 + 1.82435/(1+6.9%)^2 + 2.147/(1+6.9%)^3 + 50.02/(1+6.9%)^4 = $43.10

3)

Discounted Dividend Model:

We will assume the dividends as given in D1 and D2.

D1 = 6.19 *20% = 1.238

D2 = 6.93 *20% = 1.386

Terminal Value at year 2 = D2*(1+g)/(r-g) = 1.386*(1+2.5%)/(6.9%-2.5%) = 32.2875

Value of the share = 1.238/(1+6.9%) + 1.386/(1+6.9%)^2 + 32.2875/(1+6.9%)^2 = $30.625

4)

Estimate of earnings for 2019:

Earnings per share split segment-wise

Media networks = 6.6*46.7% = 3.0822

PECP = 38.8%*6.6 = 2.5608

Studio Entertainment = 19.1%*6.6 = 1.2606

DCTI = -4.7%*6.6 = -0.3102

Price for each segment based on industry multiples for Disney:

Media networks = P/E*EPS = 25.5*3.0822 = 78.5961

PECP = P/E*EPS = 21.9*2.5608= 56.08152

Studio Entertainment = P/E*EPS = 19.1*1.2606= 24.07746

DCTI = P/E*EPS = 14.1*-0.3102= -4.37382

Now, to find the consolidated value of Disney =Sum of the Price of each Segment.

Value = 78.5961 + 56.08152 + 24.07746 -4.37382 = $154.38

2)

Strengths and Weakness of each model

- Constant Growth Model

The significant deviance($28.13 vs $140) is due to the constant growth assumption, with growth less than the expected return of 6.9%. This shows the shareholders believe the company will grow much higher before its rate stabilizes. Therefore, although the model uses only the company's internal factors, its major disadvantage is its unrealistic stable growth assumption.

- Multi-Stage Growth Model

With the Multi Stage Growth Model, we improved upon the values of the constant growth model by reaching $43, but it's still far from the actual value of $140. This is because the model only considers dividends as its source of value, whereas in reality, investors do give importance to the goodwill and stability a matured company provides.

The major disadvantage of the model is its usage of a year's estimate of dividends, which could be less because of various economic) and need not be due to the company's fundamentals and strength being similar to the constant growth model.

- Discounted Dividend Model

With DDM, we got an intrinsic value of $30, far from the actual value of $140. This is because of the same problems with multi-growth that the company is assumed to be following a dividend pattern, which in reality does not happen, and only a few estimates are used, which could be biased because of external factors (e.g., fewer dividends due to lousy performance due to COVID, nothing to do with company's fundamentals)

- Market Multiples Approach

With this method, we received a value of $154.38, closer to the actual value of $140. The plan worked well as it took industrial valuation, incorporating more than just dividends, to measure the company's worth. The method's weakness is that it needs to include the dynamics of making all the segments work together, i.e., it does not incorporate synergies or the cost associated with making all four pieces operate together. Also, it assumes the company's riskiness and capital structure are similar to the industry but can vary.

From Bloomberg:

From the video, we saw that Disney earlier outperformed the index, but within the time range, the index is topping Disney.

Question 04:

Impact of the Coronavirus Crisis on International Equity Markets: A Comparative Analysis of the United States, Germany, and Japan

Executive Summary

This report examines the impact of the coronavirus (COVID-19) pandemic on the international equity markets, focusing on three significant economies: the United States (North America), Germany (Europe), and Japan (Asia). The analysis period spans from January 1, 2020, to September 1, 2022, and emphasizes the financial, Health

Care, and Utilities sectors. The report aims to understand the extent and reasons behind the economic impacts of the pandemic in these countries, analyze the relationship between economic indicators and equity market performance in the United States and compare sectoral performance against the benchmark equity index.

1. Economic Impact of COVID-19 on the United States, Germany, and Japan:

The U.S. economy faced significant challenges due to the pandemic, including massive unemployment, business closures, and supply chain disruptions. The Federal Reserve's response, including interest rate cuts and quantitative easing, provided liquidity and stabilized financial markets. However, sectors like tourism and hospitality were severely affected, while technology and healthcare sectors experienced growth.

Germany

Germany's economy, known for its strong industrial base, experienced a substantial contraction. The government's effective fiscal response, including subsidies and support for short-time work, mitigated some impacts. The automotive industry, a key sector, faced significant challenges due to reduced global demand and supply chain issues.

Japan

Japan's economy, heavily reliant on exports and manufacturing, was hit hard by global demand shocks and supply chain disruptions. The government's stimulus packages aimed to cushion the economy, but sectors like tourism and electronics manufacturing saw significant downturns.

2. United States: Equity Market Performance and Economic Indicators

Methodology

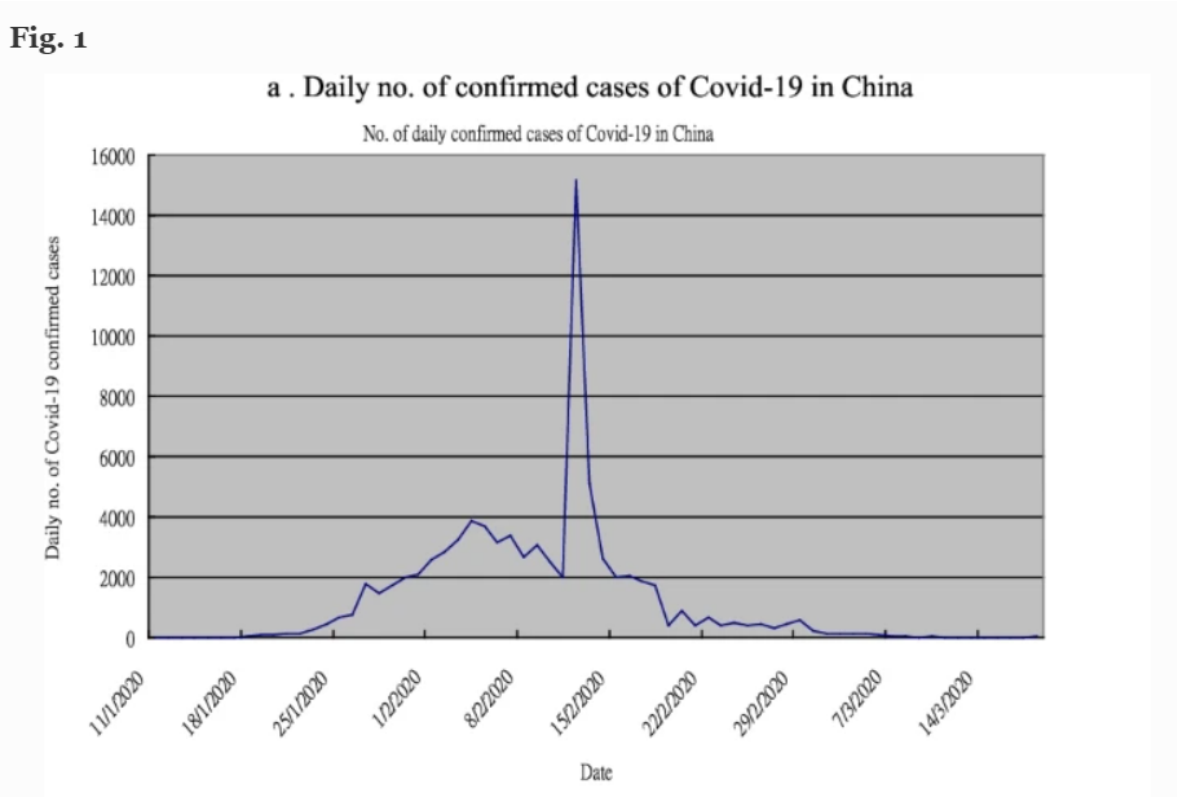
A quantitative analysis was conducted focusing on the S&P 500 as the benchmark equity index for the United States. Economic indicators include GDP growth, unemployment rate, and the Federal Reserve's interest rate decisions. A regression analysis on the Capital Asset

Pricing Model (CAPM) and correlation analysis was employed to understand the relationship between these indicators and the S&P 500 performance.

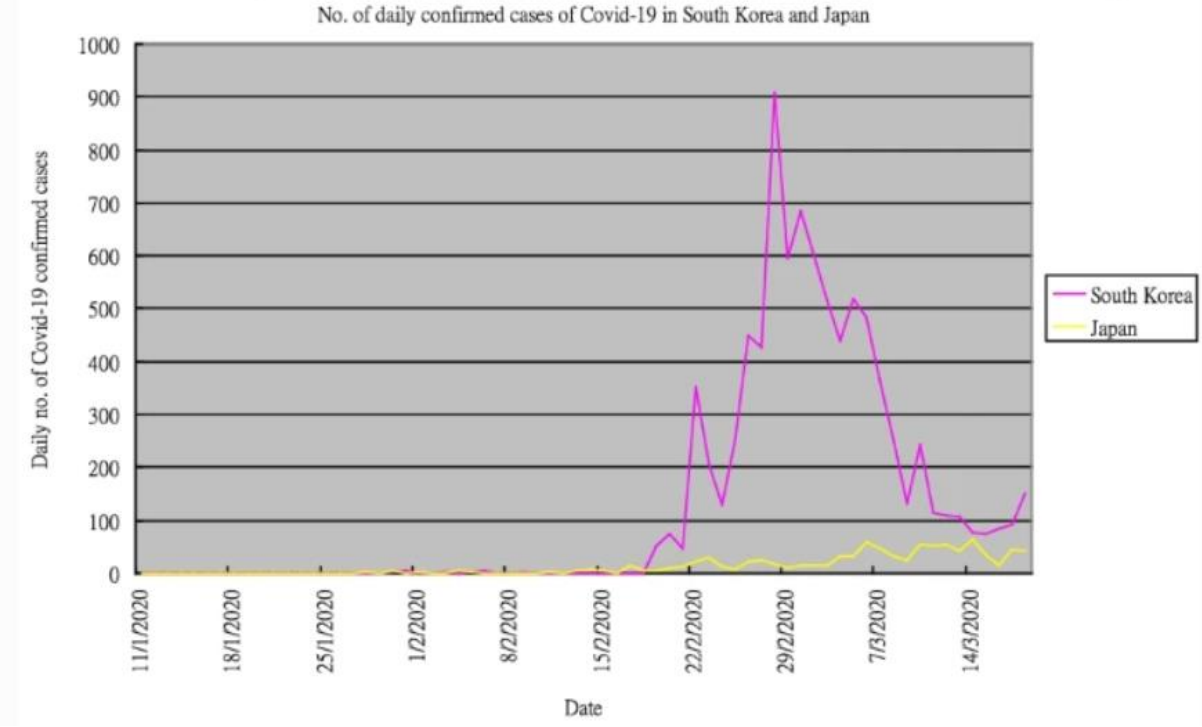
Findings

The analysis revealed a strong negative correlation between the S&P 500 and unemployment rates, indicating that equity markets tended to underperform as unemployment rose. Conversely, there was a positive correlation with GDP growth, suggesting that signs of economic recovery positively influenced the equity market. The Federal Reserve's policy decisions showed a mixed impact, with initial rate cuts boosting market confidence but prolonged low rates leading to concerns about economic recovery.

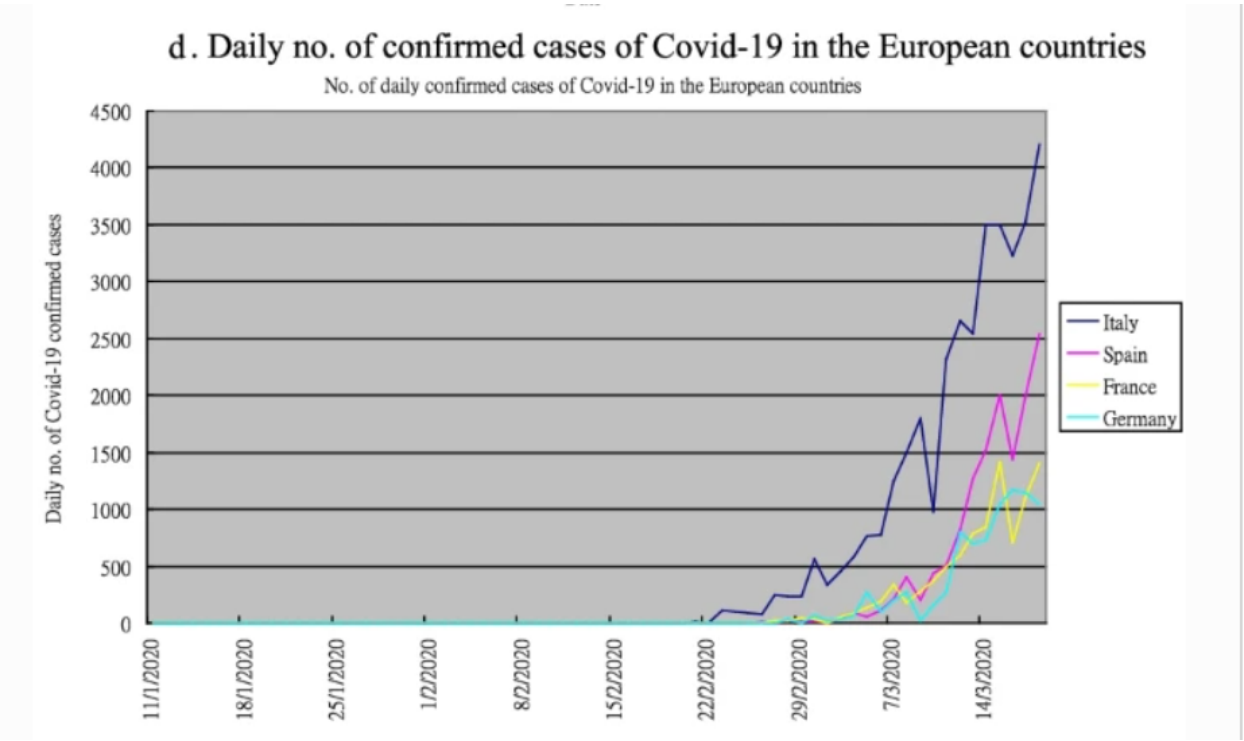
Fig. 1



c . Daily no. of confirmed cases of Covid-19 in South Korea and Japan



d . Daily no. of confirmed cases of Covid-19 in the European countries



3. Sectoral Performance Comparison in the United States

Financials Sector

The Financials sector, represented by the S&P 500 Financials Index, initially experienced a significant downturn due to low interest rates and economic uncertainty. However, it recovered in late 2021, driven by expectations of economic recovery and potential rate hikes.

Health Care Sector

The S&P 500 Health Care Sector Index outperformed the benchmark in the initial months of the pandemic, driven by the demand for healthcare services and pharmaceuticals. However, its growth normalized as the pandemic situation improved.

Utilities Sector

The Utilities sector, tracked by the S&P 500 Utilities Sector Index, showed relative stability. This sector is typically considered a defensive investment during economic downturns, and its performance was less volatile than the overall market.

Conclusion

The COVID-19 pandemic profoundly impacted international equity markets, with varying effects across different sectors and countries. In the United States, the equity market's performance was closely tied to economic indicators, reflecting investor sentiment about the country's economic health. The financial, Health Care, and Utilities sectors responded differently to the pandemic, highlighting the importance of sector-specific dynamics in equity market performance.

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