BAT
BLOOMBERG APTITUDE TEST

About the **BAT**
with Sample Questions

We are excited about your participation in the Bloomberg Aptitude Test (BAT). The BAT is a global, standardized online exam that the Bloomberg Institute has developed in partnership with premier companies, university faculty, and business professionals around the world. The test is designed for undergraduates and recent graduates who are interested in an entry-level job in the business world.

The following information packet is intended to familiarize you with the content and structure of the BAT. Enclosed you will find information about the test's goals, sections, and scoring. There is also a list of annotated sample questions for you to review.
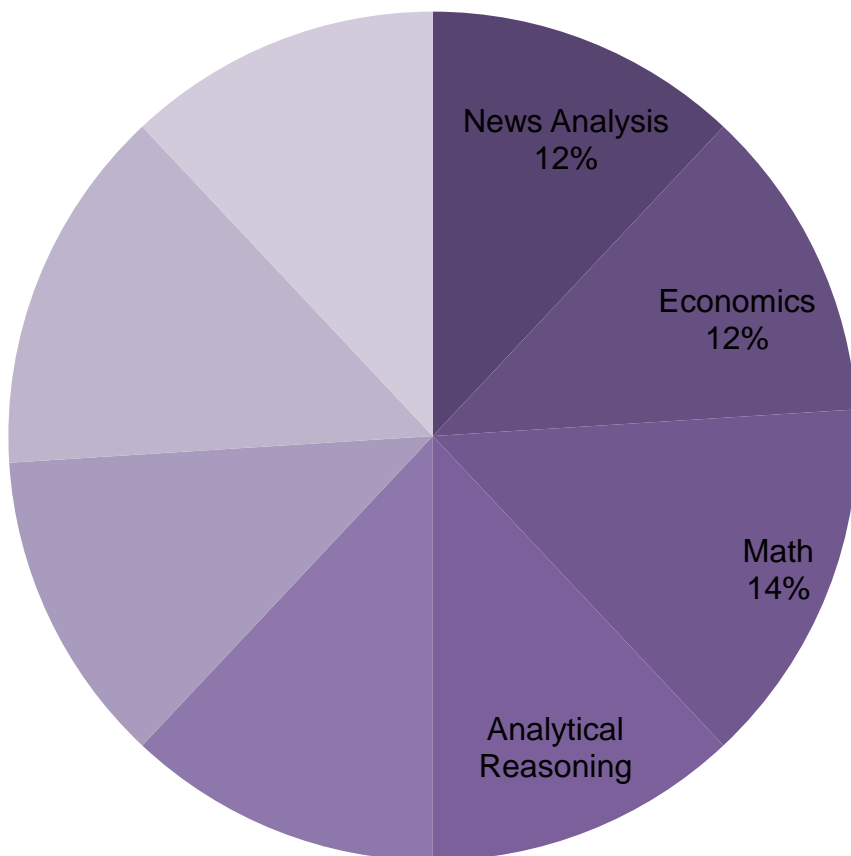
If you have any additional questions about the content of the test, please feel free to contact us at bat@bloomberginstitute.com.

Exam Sections

News Analysis (12 questions)

This section of the BAT is designed to assess your ability to use information from news articles. You are asked to read a series of brief passages on topics that impact the financial world and to answer questions that assess your critical and inferential comprehension of the information presented in the passage.

Economics (12 questions)

This section of the BAT is designed to assess how you apply the Economics concepts described in the questions. You should be aware of important current events and trends in the global economy. This section gauges your ability to analyze and interpret economic data, information, and situations. Microeconomics topics include consumer behavior, firm behavior, market equilibrium, and trade and international relations. Macroeconomics topics include economic production (GDP/GNP), labor markets, the commercial banking and central banking systems, government activity in the economic sphere, and global trade policies.

Math Skills (14 questions)

This section of the BAT is designed to assess broad-spectrum math skills, with an emphasis on finance-related math. Questions require the solution or analysis of math problems ranging from algebra to more advanced topics such as linear equations. Formulas are provided for you in more complex questions because we are more interested in how you think about the problems than in your ability to calculate.

Analytical Reasoning (12 questions)

This section of the BAT is designed to assess problem solving ability. You are presented with a series of hypothetical situations or sets of conditions and asked to answer a series of questions that require you to solve problems using logic, deduction, and creativity.

Exam Sections

Financial Statements Analysis (12 questions)
This section of the BAT is designed to assess basic understanding of financial statements, which are the building blocks of corporate analysis. We expect you to understand the basic principles of how a business calculates a profit, measures its liquidity, and uses financial ratios to assess its performance.

Investment Banking (12 questions)
This section of the BAT is designed to assess how you apply the fundamental principles of financing and strategic advisory performed by an investment bank. By following the news, you should know the general motivations and concepts behind initial public offerings, leveraged buyouts, and mergers and acquisitions.

Global Markets (14 questions)
This section of the BAT is designed to assess familiarity with a broad range of concepts, current events, and trends in the global financial markets that are presented in the media, as well as the ability to analyze and interpret data and information in the context of activities, and transactions that take place in the financial markets. Topics covered include primary and secondary market activities in both equity and fixed-income products, governmental activities, interest rates, currencies and foreign exchange, asset pricing, and the activities of both institutional and retail investors in the global financial markets.

Chart and Graph Analysis (12 questions)
This section of the BAT is designed to assess your ability to interpret and use information found in charts and graphs. Questions require the understanding of chart and graph problems ranging from basic (for example, being able to perform basic calculations on a chart's data) to more advanced topics (such as being able to combine information from multiple graphs and predict an outcome).

Introduction

Test Overview

Sample Questions

Scoring

News Analysis Stimulus

S

Wage Gains Signal Boost to Consumer Spending

March 3, 2012 (Bloomberg) — The biggest six-month increase in U.S. worker pay in almost five years should prompt an increase in consumer spending, the largest part of the economy. Consumer purchasing accounts for about 70 percent of the U.S. economy. Rising incomes show the improving labor market will provide households the ability this year to increase their purchases. The wage gains may help Americans withstand higher gasoline prices that threaten discretionary spending.

Wages and salaries in the third and fourth quarters grew a combined $197.3 billion, the most since 2007, according to Commerce Department figures. The report also showed the economy grew faster in the fourth quarter than previously estimated. Savings among American consumers were also greater in the fourth quarter than initially estimated.

"We have seen some positive developments in the labor market," Federal Reserve Chairman Ben S. Bernanke said this week during his policy report to Congress. Although the U.S. has shown gains in employment and its jobless rate is at a three-year low of 8.3 percent, Bernanke emphasized the importance of keeping monetary stimulus for the immediate future.

The increases in wages helped boost the savings rate to 4.5 percent in the fourth quarter from a previously reported 3.7 percent, and to 4.6 percent in the prior three months from an initial estimate of 3.9 percent. With the improvement, there may be a less urgent need for consumers to use additional income this year to rebuild savings.

"Consumers have a lot more firepower than we thought," said Joseph LaVorgna, chief U.S. economist at Deutsche Bank Securities Inc. in New York. "We should see stronger consumption over the course of the year. Things are moving in the right direction."

News Analysis

Q According to Joseph LaVorgna, what is the "right direction"?

A
1) An increasing jobless rate
2) Increasing consumer spending
3) Increasing consumer savings
4) Continuing federal monetary stimulus

News Analysis

Q According to Joseph LaVorgna, what is the "right direction"?

A

1) An increasing jobless rate
2) Increasing consumer spending
3) Increasing consumer savings
4) Continuing federal monetary stimulus

1) Incorrect. In the last paragraph, LaVorgna states, "We should see stronger consumption over the course of the year. Things are moving in the right direction." The "right direction" seems to consist of "stronger consumption," and an increasing jobless rate would reverse that trend.

2) Correct. In the last paragraph, LaVorgna states, "We should see stronger consumption over the course of the year. Things are moving in the right direction." In this statement, the "right direction" refers directly to "stronger consumption," or, in other words, increased consumer spending.

3) Incorrect. In the last paragraph, LaVorgna states, "We should see stronger consumption over the course of the year. Things are moving in the right direction." This statement suggests that he is more interested in consumer *spending* than in consumer *saving*.

4) Incorrect. Monetary stimulus is addressed by Ben Bernanke in the third paragraph. LaVorgna's comments do not address monetary stimulus at all; rather, they focus directly on consumption.

News Analysis

Why is this important?

Misinterpretation of quotations found in the media is not uncommon. In order for you to make the best use of the information given to you in the workplace, you have to be a savvy enough reader to find the data you need and then understand the intention behind it correctly.

What are we assessing?

This question examines your ability to find and understand information quickly. Since you only have a limited amount of time on the test, you must read and absorb the passage quickly so that you can find easily the answers you're looking for later. This question asks you to focus on LaVorgna's comment ("stronger consumption") and recognize the synonymous language of the correct answer choice ("increased consumer spending").

Why is this relevant to employers?

As the amount of information in the world increases exponentially, reading rapidly and accurately is becoming more and more important. In the finance world in particular, decisions are made based on comprehensive research of all available sources. Interpreting these sources correctly is essential to success.

Economics

Q Below is a chart of the food price index in gold since 1990. Which of the following choices is the <u>most likely</u> explanation for the change in the index from the late 1990s through 2010?

FAO Food Price Index in Gold (2002–2004=100)

Monthly from Jan 1990 to Jan 2012

160

A
1) Food prices have risen by a greater percentage than gold prices.
2) Gold prices have risen by a greater percentage than food prices.
3) Gold prices are in a bubble.
4) Food prices are in a bubble.

Economics

Q

Below is a chart of the food price index in gold since 1990. Which of the following choices is the <u>most likely</u> explanation for the change in the index from the late 1990s through 2010?
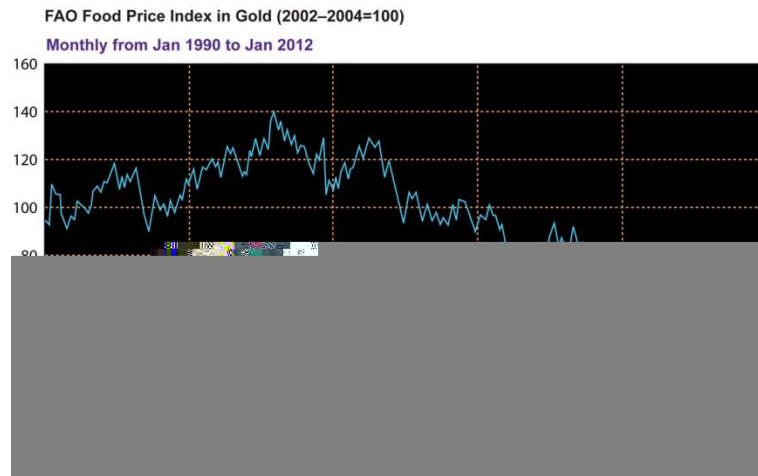
FAO Food Price Index in Gold (2002–2004=100)

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A

1) Food prices have risen by a greater percentage than gold prices.

2) Gold prices have risen by a greater percentage than food prices.

3) Gold prices are in a bubble.

4) Food prices are in a bubble.

1) Incorrect. The chart indicates that the cost of food in terms of gold has fallen over the time period shown, so food prices cannot have risen more than gold prices.

2) Correct. The chart indicates that the cost of food in terms of gold has fallen over the time period shown. This is consistent with gold prices increasing by a greater percentage than food prices over the same period.

3) Incorrect. The chart indicates only relative changes in the prices of food and gold. One cannot determine the absolute level of either price from the information in the chart.

4) Incorrect. The chart indicates only relative changes in the prices of food and gold. One cannot determine the absolute level of either price from the information in the chart.

Economics

Why is this important?

Inflation, relative prices, and the distinction between nominal and real prices are fundamental concepts in Economics that drive individual and institutional decisions regarding consumption, work versus leisure, savings, borrowing, investment, and asset allocation.

What are we assessing?

While this question does not assume any prior knowledge of the concept of real versus nominal prices, it assesses your ability to analyze and interpret data relating to this concept and to infer a likely explanation for why the data appears as it does.

Why is this relevant to employers?

The global markets are intensely data-driven, and virtually any job in the financial services sector requires a strong aptitude for analyzing and interpreting data, regardless of the form in which that information is presented. These abilities are also crucial to success in many roles and businesses outside the financial services sector, and are critical to making sound business decisions.

Math

| Q | There are 100 employees in a conference room in New York City. You note that 99% of them are managers. How many managers would need to leave the conference in order to reduce the percentage of managers in the hall to 98%? |

| A | 1) 1
2) 2
3) 50
4) 98 |

Math

Q

There are 100 employees in a conference room in New York City. You note that 99% of them are managers. How many managers would need to leave the conference in order to reduce the percentage of managers in the hall to 98%?

A

1) 1
2) 2
3) 50
4) 98

1) Incorrect. You may have thought that since 99% of the people in the room are managers when there are 99 managers in the room, 98% of the people will be managers as soon as 1 manager leaves, but then the total number of people will be 99, not 100, so the percentage of managers will be 98 ÷ 99 = 98.98%.

2) Incorrect. You may have confused percentages and values, thinking that since there are 100 people in the room, if 2 managers leave, the percentage of managers in the room will be 100% − 2% = 98%. However, there would be 97 managers out of 98 total adults, giving a percentage of 98.97%.

3) Correct. There is only 1 non-manager in the room. To make the percentage of managers in the room 98%, this single non-manager will have to be 100% − 98% = 2% of the total number of people in the room. If 1 non-manager represents 2% of the room, then there must be 50 total people in the room. Therefore, 50 managers must leave.

4) Incorrect. There is only 1 non-manager in the room. To make the percentage of managers in the room 98%, this single non-manager will have to be 100% − 98% = 2% of the total number of people in the room. If 1 non-manager represents 2% of the room, then there must be 50 total people in the room. Therefore, 50 managers must leave.

Math

Why is this important?

It is just as essential to be careful with "easy" math as it is with complex math. A firm's success or failure may depend on assumptions made and numbers crunched by someone racing against the pressure of time and stress.

What are we assessing?

This question reveals how well you can work with percentages in word problems. More importantly, it tests how quickly you rely on mathematical assumptions when under pressure. Our analysis has shown that test takers relying on erroneous mental shortcuts usually select either of the first two options.

Why is this relevant to employers?

Companies often spend the most time recruiting "quant jocks," facile mathematicians and omniscient thinkers who rapidly, thoroughly, and accurately quantify outcomes. These employees typically bring in the most money, so recruiters search carefully for them.

Analytical Reasoning

S

The program director at television station KBAT is creating its Sunday night schedule. The program director has six shows to choose from: *Boston Police*, *Cowboy Nights*, *Dance Fever*, *Eye on Entertainment*, *Families & Friends*, and *Goalies*. The program director sets a schedule based upon the following criteria:

- *Boston Police* must be shown before *Cowboy Night* and *Dance Fever*.
- *Cowboy Nights* must be shown before *Eye on Entertainment*.
- *Families & Friends* must be shown after *Dance Fever* and *Goalies*.

Q

Which of the following Sunday night schedules are consistent with the program director's criteria?

A

1) *Boston Police, Cowboy Nights, Dance Fever, Eye on Entertainment, Families & Friends*, and *Goalies*.

2) *Goalies, Boston Police, Cowboy Nights, Dance Fever, Families & Friends*, and *Eye on Entertainment*.

3) *Boston Police, Goalies, Families & Friends, Cowboy Nights, Eye on Entertainment*, and *Dance Fever*.

4) *Boston Police, Goalies, Eye on Entertainment, Dance Fever, Families & Friends*, and *Cowboy Nights*.

Analytical Reasoning

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1) *Boston Police, Cowboy Nights, Dance Fever, Eye on Entertainment, Families & Friends*, and *Goalies*.

2) *Goalies, Boston Police, Cowboy Nights, Dance Fever, Families & Friends*, and *Eye on Entertainment*.

3) *Boston Police, Goalies, Families & Friends, Cowboy Nights, Eye on Entertainment*, and *Dance Fever*.

4) *Boston Police, Goalies, Eye on Entertainment, Dance Fever, Families & Friends*, and *Cowboy Nights*.

1) Incorrect. This schedule violates the rule that *Goalies* must be shown before *Families & Friends*.

2) Correct. This schedule is possible since it does not violate any rules.

3) Incorrect. This schedule violates the rule that *Dance Fever* must be shown before *Families & Friends*.

4) Incorrect. This schedule violates the rule that *Cowboy Nights* must be shown before *Eye on Entertainment*.

Analytical Reasoning

Why is this important?

Even though employees in the finance industry probably won't be designing television programming line-ups, the ability to follow rules translates. Understanding and applying the rules of your role is paramount to success. Think about what has happened when those you've worked with *haven't* followed the rules.

What are we assessing?

This question examines how good you are at following the rules of a given situation.

Why is this relevant to employers?

Employers most want new employees who can learn quickly and learn correctly. This type of question demonstrates your ability to understand a variety of parameters and then deploy them as appropriate to complete a task (answering a question). And, since you only have a limited amount of time to answer each question on the test, you must accomplish this task rapidly. Although the content isn't the same, the ability to comprehend and use information applies to every job.

Financial Statements Analysis

Q Immediately after the leveraged buyout of Nikkon Electronic, a Japanese electronics firm, the company assumed substantial amounts of debt. Which term below most correctly states how market participants refer to the debt burden of Nikkon Electronic?

A
1) Liquidity
2) Market capitalization
3) Financial leverage
4) Contingent liability

Financial Statements Analysis

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A

1) Liquidity
2) Market capital
3) **Financial leverage**
4) Contingent liability

1) Incorrect. The concept of liquidity is not related to debt but rather to the ability to convert an asset to cash quickly.

2) Incorrect. Market capital refers to a company's market value of equity, not debt.

3) Correct. Financial leverage refers to the degree of debt a company utilizes to finance its assets and operations.

4) Incorrect. Contingent liability refers to a financial liability that may or may not occur depending on a specific outcome (e.g. paying damages for losing a legal case).

Financial Statements Analysis

Why is this important?

Leveraged buyouts (LBOs) and financial leverage are both important and widely discussed topics in finance. It is essential to understand that the acquired company in an LBO bears the debt that was issued to finance the purchase. The concept of financial leverage not only drives the motivation behind LBOs but is ultimately the reason why any company raises capital through debt: it increases the shareholders' return on investment. A large aspect of financial statements analysis, especially for investors and lenders, revolves around calculating a company's financial leverage through various ratios and metrics.

What are we assessing?

The question assesses your awareness of a fundamental concept within corporate finance: debt financing and the impact it has on a company's risk profile.

Why is this relevant to employers?

There are certain topics and terms that employers expect candidates to understand. A well-prepared and serious candidate is able to use proper terminology and to differentiate between major types of financial transactions in the market.

Investment Banking

| Q | Leveraged loans are loans provided to companies that already have a significant amount of outstanding debt. As a banker, how might you compare a leveraged loan to other loans in your portfolio? |

A	1) Higher risk to the lender <u>but</u> less costly to the borrower.
	2) Lower risk to the lender <u>and</u> less costly to the borrower.
	3) Lower risk to the lender <u>but</u> more costly to the borrower.
	4) Higher risk to the lender <u>and</u> more costly to the borrower.

Investment Banking

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3) Lower risk to the lender <u>but</u> more costly to the borrower.

4) Higher risk to the lender <u>and</u> more costly to the borrower.

1) Incorrect. The leveraged loan does indeed carry a higher risk of default for the lender, but this is reflected in a higher price (or interest rate) charged to the borrower. The loan is more costly as a consequence.

2) Incorrect. Making a loan to a borrower that already has a significant amount of outstanding debt results in a higher risk for the lender. The cost to the borrower will be higher to compensate for this.

3) Incorrect. It is true that the leveraged loan will be more expensive for the borrower. However, this is to offset the higher risk taken by the lender, who is making a loan to a company with a significant amount of debt already outstanding.

4) Correct. The leveraged loan has a higher risk of default for the lender due to the amount of debt already outstanding. The borrower will be charged a higher interest rate as a consequence, making the loan more costly.

Investment Banking

Why is this important?

Leveraged loans provide a valuable source of funding for non-investment-grade borrowers, and are used to help troubled companies as well as to back buyouts. To compensate for the greater risk associated with these loans, the borrower is charged a higher interest rate, which can offer investors attractive yields that compare favorably with high-yield bonds. The market for leveraged loans is growing and is likely to be the focus of tighter regulatory controls.

What are we assessing?

This question assesses your understanding of the relationship between risk and reward: that an investor will demand a higher return when making a more risky investment. You have to infer that the leveraged borrower poses a higher risk to the lender, and that this will result in a higher interest rate being charged on the loan. Actual knowledge of the detailed terms of a leveraged loan is not required.

Why is this relevant to employers?

Employers like to ensure that candidates have a broad understanding of different financial instruments and the risks and costs associated with them.

Global Markets

Q

Bloomberg News reported recently that Bolivia is in dialogue with Bank of America Merrill Lynch and Goldman Sachs about an international bond issuance of $500 million, its first global bond sale since 1920. In doing so, what macroeconomic tool would Bolivia be utilizing for the first time since 1920?

A

1) Multilateral trade relations

2) Advice from international rating agencies

3) Financing from international capital markets

4) Control of government expenditures

Global Markets

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A

1) Multilateral trade relations

2) Advice from international rating agencies

3) Financing from international capital markets

4) Control of government expenditures

1) Incorrect. A global bond sale is unrelated to international trade.

2) Incorrect. Rating agency services are not a macroeconomic tool. Rating agencies are private companies that provide an assessment of the credit worthiness of a specific bond or issuer.

3) Correct. An international bond issuance represents borrowing from investors around the globe. Bolivia had been without any access to international bond markets.

4) Incorrect. Government expenditures are macroeconomic policy decisions but are separate from the decisions regarding how to finance those expenditures. An international bond issuance is a financing decision.

Global Markets

Why is this important?

Access for sovereign issuers to the international bond markets is one of the most urgent issues currently affecting the global economy. The sovereign debt crisis affecting a number of EU countries and its impact on the euro and on economic growth globally are perhaps the most important recent drivers in the financial markets .

What are we assessing?

This question assesses your familiarity with global economic news and activity. While it assumes no prior knowledge of macroeconomics, it gauges awareness of the current crisis in the international sovereign debt markets, the importance of those markets to any country's solvency and growth, and the impact of stress in any one region on the entire global economy.

Why is this relevant to employers?

A curiosity about and familiarity with current events and their global implications are necessary in order to understand how they impact the markets on a macro level as well as business activity at the firm level. The ability to make sound strategic business decisions in any industry and good trading decisions in the finance industry depends on a sound understanding of these issues.

Chart and Graph Analysis

Q Which statement describes the correlation between the percent changes in the Bloomberg Pure Play Dry-Bulk Shipping Index and the Baltic Dry Index?
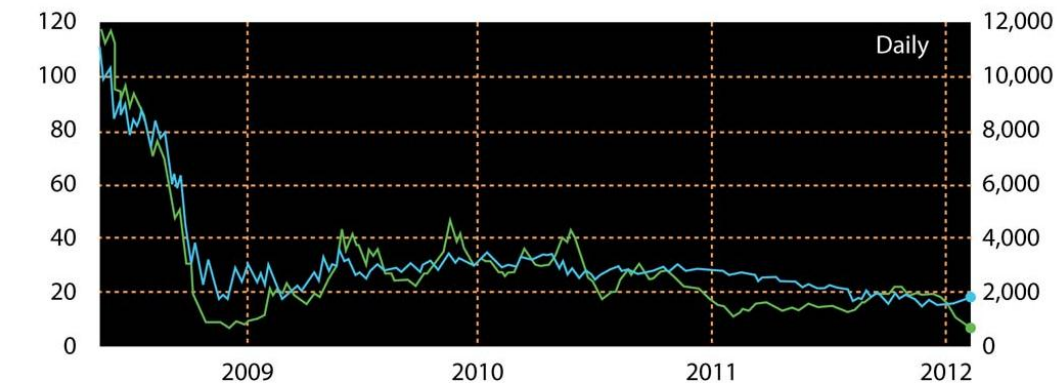
Tanker Rates Follow Stock Prices in Rebounding: Chart of the Day
A rebound in shares of commodity-tanker owners from a record low seven weeks ago may have foreshadowed this week's jump in dry-bulk shipping rates.

Tanker Stocks Versus Shipping Rates
• Bloomberg Pure Play Dry-Bulk Shipping Index   • Baltic Dry Index

Source: Baltic Exchange

A
1) The correlation is between zero and one.
2) The correlation is between zero and negative one.
3) The correlation is greater than one.
4) The correlation is less than negative one.

Chart and Graph Analysis

Q Which statement describes the correlation between the percent changes in the Bloomberg Pure Play Dry-Bulk Shipping Index and the Baltic Dry Index?
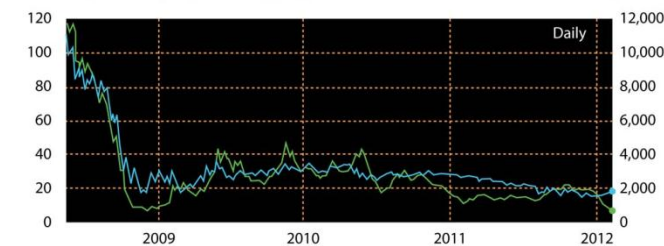
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Tanker Stocks Versus Shipping Rates
• Bloomberg Pure Play Dry-Bulk Shipping Index   • Baltic Dry Index

Source: Baltic Exchange

A

1) The correlation is between zero and one.

2) The correlation is between zero and negative one.

3) The correlation is greater than one.

4) The correlation is less than negative one.

1) Correct. The tendency of the two indices to move together indicates a positive correlation. But the indices clearly do not move perfectly in tandem, so the correlation must be less than one.

2) Incorrect. The tendency of the two indices to move together indicates a positive correlation. The correlation would be negative only if the indices tended to move in opposite directions.

3) Incorrect. By definition, the range of values for correlation is between -1 and +1. Thus, it is not possible to have a correlation that is greater than one.

4) Incorrect. By definition, the range of values for correlation is between -1 and +1. Thus, it is not possible to have a correlation that is less than negative one.

Chart and Graph Analysis

Why is this important?

While markets and sectors such as shipping and some commodities are not often seen in news headlines, they are nonetheless important components of industrial production and international trade as well as important indicators of global economic and business activity and growth. In addition, analysis of the correlation between different variables can often give valuable insight that drives business decisions, trading strategies, and projections of future economic activity.

What are we assessing?

This question assesses your ability to analyze and interpret data and information that is presented in graphical form and to draw inferences about the relationship between the values of different variables based on that information. It also assesses familiarity with the important concept of correlation, not from a computational perspective but rather from the perspective of its usefulness for describing the relative movements of different prices, indices, or markets, and for projecting the future movement of one variable from what is known about the movement of another.

Why is this relevant to employers?

Many trading and investment decisions in the financial markets, as well as strategic business decisions both within and outside the financial services sector, are made based on a careful analysis of the movement of prices, markets, or other variables, as well as the relationship between two or more such variables. The ability to correctly analyze such data and make the right inference about the relationships between important variables is key to making sound business decisions at any level.
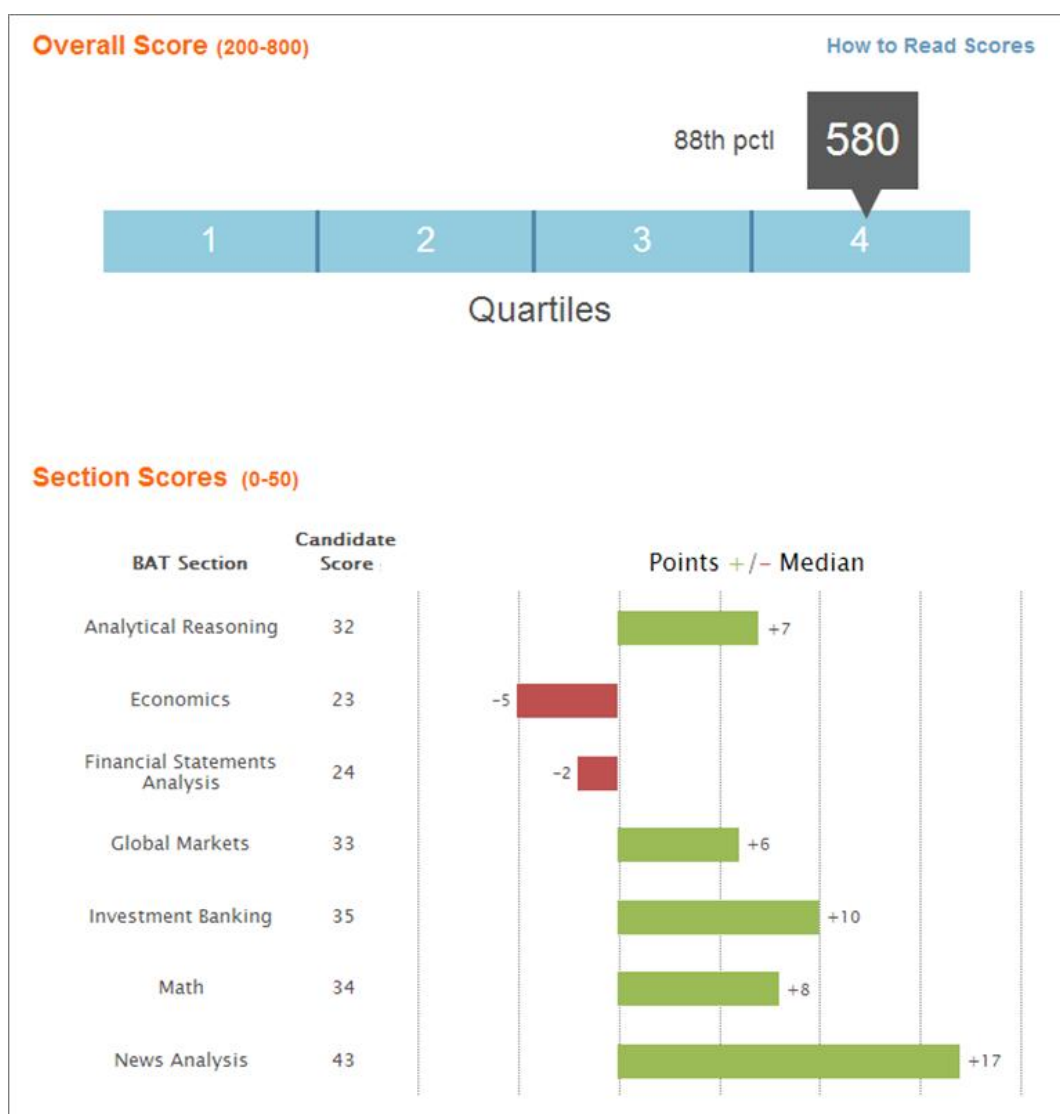
Reading Your Score

When your exam is scored, the results will be in your profile. In the sample score report below, the overall BAT score, which can range from 200 to 800, is displayed in the gray marker above the blue scale "Quartiles." Beside it is a percentile ranking that indicates how this BAT score compares to the rest of the scores for the same test.

The overall score represents a combination of the 8 section scores, which are individually scored on a scale of 0-50. Section scores are listed under "Candidate Score" beside the bar chart. The bar chart shows the number of points scored above or below the global median for each section of the test. In your profile, you can hover over each bar to see the median score for that section.

Overall Score (200-800)   How to Read Scores

88th pctl   **580**

| 1 | 2 | 3 | 4 |

Quartiles

Section Scores (0-50)

BAT Section	Candidate Score	Points +/– Median
Analytical Reasoning	32	+7
Economics	23	–5
Financial Statements Analysis	24	–2
Global Markets	33	+6
Investment Banking	35	+10
Math	34	+8
News Analysis	43	+17

Good Luck!

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