Wealth wishes: Rising interest rates are expected to continue benefiting industry revenue growth

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About this Industry

**Industry Definition**

This industry is composed of companies and individuals that provide a range of securities services, including investment banking and broker-dealer trading services. They also offer banking and wealth management services and engage in proprietary trading (trading their own capital for a profit) to varying degrees. Investment banking services include securities underwriting and corporate financial services, while trading services include market making and broker-dealer services.

**Main Activities**

The primary activities of this industry are:

- Underwriting, originating or maintaining markets for securities issuance
- Principal and proprietary trading
- Providing corporate strategy advisory services
- Providing corporate finance services

The major products and services in this industry are:

- Advising fees
- Underwriting services (equity)
- Trading and related services
- Underwriting services (debt)
- Other

**Similar Industries**

- **52312 Securities Brokering in the US**
  Operators in this industry act as agents in buying or selling securities on a commission or transaction fee basis.

- **52391 Venture Capital & Principal Trading in the US**
  Operators in this industry primarily buy and sell financial contracts (e.g. securities) on their own account.

- **52392 Portfolio Management in the US**
  Operators in this industry manage financial portfolios.

- **52599 Private Equity, Hedge Funds & Investment Vehicles in the US**
  Operators in this industry manage collection-investment vehicles that invest in a broad range of asset classes.

**Additional Resources**

For additional information on this industry:

- [www.sifma.org](http://www.sifma.org)
  Securities Industry and Financial Markets Association

- [www.thomsonreuters.com](http://www.thomsonreuters.com)
  Thomson Reuters Corporation

- [www.federalreserve.gov](http://www.federalreserve.gov)
  US Federal Reserve
Industry at a Glance
Investment Banking & Securities Dealing in 2019

Key Statistics
Snapshot

Revenue
$133.1bn

Profit
$35.3bn

Annual Growth 14–19
2.6%

Annual Growth 19–24
2.3%

Revenue vs. employment growth

Corporate profit

SOURCE: WWW.IBISWORLD.COM

Market Share
JPMorgan Chase & Co.
13.0%
Morgan Stanley
9.6%
Bank of America Corporation
9.1%
Citigroup Inc.
8.8%
The Goldman Sachs Group Inc.
8.4%

Key External Drivers
Corporate profit
Initial public offerings
S&P 500
Investor uncertainty

Industry Structure
Life Cycle Stage
Mature
Revenue Volatility
Low
Capital Intensity
Low
Industry Assistance
High
Concentration Level
Medium
Regulation Level
Heavy
Technology Change
High
Barriers to Entry
High
Industry Globalization
High
Competition Level
High

For additional statistics and time series see the appendix on page 38

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Industry Performance

Executive Summary

Strong returns in various financial markets and continued macroeconomic growth have benefited operators in the Investment Banking and Securities Dealing industry over the five years to 2019. Operators provide underwriting, originating and market-making services for a range of financial instruments including bonds, stocks and derivatives. Revenue growth was hindered during most of the current period due to structural changes to the trading services that industry operators were permitted to conduct. However, operators have benefited from numerous trends, including increased demand for initial public offerings from private companies.

Operators have benefited from numerous trends, including increased demand for initial public offerings from private companies. Overall, industry revenue has increased an annualized 2.6% to $133.1 billion over the five years to 2019, including 4.2% growth in 2019 alone. Similarly, industry profit has expanded over the past five years, primarily due to increased advisory fees.

Early during the current period, industry revenue was stymied as a result of declining fixed income, commodities and currencies (FICC) trading revenue. Several structural trends are crucial in explaining the industry’s declining revenue from FICC, the most significant of which is regulatory change. Among the most important legislative changes is the Volcker Rule, which restricts bank-holding companies with federally insured deposits from proprietary trading. Additionally, higher capital requirements and the trend of transitioning derivative trading to central clearinghouses are anticipated to structurally dampen the industry’s FICC revenue. This trend led industry revenue growth to remain muted during the early portion of the period, despite rising fees from investment banking services.

These changes have forced the industry’s smaller operators to evolve. Since competing in FICC requires scale and massive investments in technology and compliance, boutique investment banks have alternatively focused on merger and acquisition (M&A) advising, increasing their share of this product line from 25.0% in 2010 to 29.0% in 2014, according to the Economist. As a result, boutique investment banks’ total share of M&A revenue is forecast to continue growing over the five years to 2024. Furthermore, the industry as a whole is projected to continue benefiting from continued macroeconomic activity and rising interest rates during the outlook period. Overall, industry revenue is forecast to rise an annualized 2.3% to $149.4 billion over the next five years.

Key External Drivers

Corporate profit
Changes in corporate profit influence the performance of equities markets because they affect how companies are valued, which in turn influences trading and business activity. Higher trading and business activity levels enable investment banks to earn higher trading, underwriting and advisory revenue. Corporate profit is expected to increase in 2019.

Initial public offerings
Investment banks help companies raise capital by underwriting their first sale of stock (equity) to public investors; this is known as an initial public offering (IPO). A high number of IPOs represents increased business demand for capital, which leads to higher underwriting revenue for the industry. The number of IPOs is expected to decrease in 2019, posing a threat to the industry.
Industry Performance

Key External Drivers continued

**S&P 500**
The performance of the stock market heavily influences revenue for industry operators. When equities markets are performing well, the industry generates more revenue from trading activities and experiences increased demand from downstream clients for strategic advisory services. The S&P 500 index is expected to increase in 2019, representing a potential opportunity for the industry.

**Investor uncertainty**
Investor uncertainty is an important measure of business sentiment and affects trading activity. Low investor uncertainty creates a favorable environment for initial public offerings, mergers and acquisitions and trading activity. As a result, declines in this index generally precede periods of strong industry performance. Investor uncertainty is expected to decrease in 2019.
Industry Performance

Current Performance

While the Investment Banking and Securities Dealing industry remains below its prerecessionary levels, it has grown steadily over the five years to 2019. Industry operators primarily generate revenue from two broad product and service lines: traditional investment banking services (e.g. securities underwriting and corporate advisory services) and trading services. Over the past five years, industry revenue has increased at an annualized rate of 2.6% to $133.1 billion. Industry growth has largely stemmed from strong demand for initial public offerings (IPO) between 2017 and 2019. Coupled with other key macroeconomic factors, such as expanding corporate profit, this trend is expected to lead industry revenue to increase 4.2% in 2019 alone.

Securities underwriting activities

Underwriting securities has been considered one of the main activities of investment banks. The two large products that investment banks underwrite for their clients are debt and equity securities. Various macroeconomic trends affect the performance of and demand for these securities. Equity underwriting, for example, is provided by investment banks to private companies that wish to raise capital through public financial markets in exchange for equity in their company, which is referred to as an initial public offering (IPO). Supply for IPOs increases as equity markets strengthen, as this tends to raise equity valuations for private companies’ IPOs. Over the five years to 2019, equity markets have experienced a bull market, which is categorized by rising equity prices. Illustrative of this, the S&P 500 has increased an annualized 8.9% during the current period, reaching all-time highs in 2019.

While overall equity underwriting in the United States has decreased an annualized 11.2% over the past five years, equity underwriting activity and, by extension, the total value of IPOs are expected to increase significantly in 2019. Increased demand for IPOs will likely stem from dissipating global geopolitical concerns that caused private companies to delay IPOs in 2016, coupled with equity markets reaching all-time highs. Accordingly, the value of IPOs increased 40.3% in 2018 alone, benefiting industry revenue. In 2019, the industry is also expected to benefit from several large, high-profile IPOs such as Uber Technologies Inc. and Lyft Inc.

The other main service investment banks provide their customers is debt underwriting. Governments and businesses look to finance their operations by offering debt to various investors through the industry’s underwriting services. When interest rates are low, it incentivizes borrowers to finance through debt, as the periodic interest payment they are obligated to make in accordance with the debt offering will also be lower. In the aftermath of the financial crisis, the US Federal Reserve lowered the Federal Funds Rate (FFR), the rate at which...
Industry Performance

Securities underwriting activities continued

member lending institutions can borrow overnight from each other, to historic lows. A decreased FFR also lowered prevailing interest rates economy-wide. Lower effective interest rates led borrowers to seek the services of industry operators to underwrite debt offerings. This translated to increased borrowing by investment banks’ corporate and government clients. According to SIFMA, the value of total debt offerings increased from $6.4 trillion in 2014 to $7.0 trillion in 2019 (latest data available). Debt offerings increased, despite the Federal Reserve beginning to normalize interest rates by raising the FFR starting in 2015, as borrowers looked to lock into lower interest rates before normalized interest rates led debt financing to become more expensive. This trend has benefited operators during the current period.

Operators make markets by finding buyers and sellers of the same security, which is often illiquid

The second form of trading conducted by investment banks is off-exchange trading. Off-exchange trading happens when two parties enter into an agreement to buy and sell securities without the regulation or facilitation of exchanges to do so. Operators make markets by finding buyers and sellers of the same security, which is often illiquid, and collecting a fee on the transactions. Based on the latest available data from SIFMA, IBISWorld estimates that off-exchange trade volumes have increased an annualized 3.1% over the five years to 2019. While industry operators will likely benefit from increased volume, they have experienced downward pressure on the fees they charge to execute these trades. This stems from increased automation of trading activity, which has led operators to undercut one another on execution fees to gain business. These two trends led industry revenue growth to remain muted early during the period.

Cyclical and structural influences on trading revenue

While industry operators have generated more revenue from investment banking services, they have derived less from trading revenue over the past five years. Investment banks participate in trading securities in two ways: proprietary and off-exchange trading. Proprietary trading conducted by banks was significantly affected in April 2014 by the Volcker Rule. The law restricts investment banks from engaging in short-term trading, usually considered to be less than six months, of various securities. As a result, revenue generated by this form of trading has declined during the current period. The main type of trading conducted by investment banks is fixed income, commodities and currencies (FICC) trading. FICC trading is capital intensive in nature, which has led banks to be concerned about the cost of this line of business in light of new regulatory restrictions that have decreased trading revenue. This has led some banks to scale back their FICC operations. FICC trading briefly benefited from increased volatility in financial markets in 2016, due to increased global geopolitical concerns and rising interest rates in the United States.
Industry Performance

Smaller operators evolve

Recently, many of the industry’s smaller players have exceeded expectations. Smaller or “boutique” investment banks raised their share of merger and acquisition (M&A) advising from about 25.0% in 2010 to 29.0% in 2014, according to the latest available data from the Economist. M&A advising has a larger focus on personal relationships and does not require small players to match their larger rivals with respect to scale. Additionally, many of the larger investment banks have mounting conflicts of interest that hinder revenue growth from advisory services. As a result, the number of industry operators has increased an annualized 3.0% to 11,182 companies over the five years to 2019.

Moreover, cost-cutting among the industry’s major players is also harming their ability to maintain market share in M&A advising. For example, in March 2015, the Royal Bank of Scotland announced that it aims to cut as many as 14,000 jobs in its investment banking units across the United States and Asia. While this trend has affected front-office staffing, investment banks have also hired workers with backgrounds in technology to help them with their evolving businesses. As a result, industry employment has only increased an annualized 1.8% to 166,049 workers over the five years to 2019. Additionally, operators benefited from increased scalability stemming from technology investments made in recent years, boosting industry profit. The average industry profit margin, measured as earnings before interest and taxes, is expected to comprise 26.5% of revenue in 2019, up from 25.6% in 2014.

Many larger investment banks have mounting conflicts of interest that hinder revenue growth

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Industry Performance

Industry Outlook

The Investment Banking and Securities Dealing industry is forecast to continue to improve over the five years to 2024. The industry will likely benefit from growth in trade volumes, interest rates and business activity, boosting demand for industry services. This growth will likely be suppressed to some extent by regulation stemming from the 2008 subprime mortgage crisis, which has led to rising costs and limits on investment banks’ financial activities. In addition, investor uncertainty is projected to expand over the next five years, posing a potential setback to the industry’s recovery. As a result of these trends, industry revenue is forecast to grow at an annualized rate of 2.3% to $149.4 billion over the five years to 2024.

Cyclical and structural influences on trading revenue

The US economy, measured by US gross domestic product, is forecast to expand at an annualized rate of 1.7% during the outlook period. Despite slow-to-moderate overall economic growth, several positive trends are projected to drive industry growth. For example, the S&P 500 is anticipated to rise an annualized 6.1% over the next five years, outpacing overall economic growth. Strong financial market activity and record cash reserves will likely spur higher corporate activity, thus raising demand for underwriting and merger and acquisition services. Over the five years to 2024, IBISWorld anticipates this trend to continue. Additionally, trading revenue is forecast to improve, partially due to increased volatility stemming from geopolitical and monetary policy uncertainty. Fee-based competition is projected to slow after significant competition that occurred during the five-year period to 2019. This will likely lead revenue generated from trade executions to increase as volumes expand.

In response to legislation and limitations on the financial activities of bank holding companies, investment banks have increasingly moved into other business lines related to trading, including wholesale market-making and investment management. For example, in anticipation of lost revenue from proprietary trading, The Goldman Sachs Group Inc. and Credit Suisse Group have recently announced the launch of wholesale market-making divisions. These divisions take retail trades from brokers, such as Charles Schwab and TD Ameritrade, and fill the orders internally instead of sending them to stock exchanges. They earn revenue from this activity by collecting a fee on each securities transaction.

Industry employment is forecast to rise an annualized 2.2% to 185,278 workers over the five years to 2024. Employment is expected to remain far below prerecessionary levels as industry investments in information technologies, particularly in electronic trading platforms and high-speed algorithms, continue to reduce the number of traders and researchers needed to conduct trading operations. However, the industry’s average wage and total wage costs are still projected to rise as investment banks and securities dealers increasingly compete for a limited pool of highly skilled workers with technical and financial expertise.

Overall, industry profit is projected to increase slightly during the outlook period. The average industry profit margin, measured as earnings before interest and taxes, is forecast to comprise 26.6% of revenue in 2024, up from 26.5% in 2019. Regulation will likely continue to hinder...
Industry Performance

Cyclical and structural influences on trading revenue continued

Regulation of the financial sector will likely increase in the United States and Europe over the next five years. The most significant regulatory changes for the banking sector have come from the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act and the Basel III accords. Collectively, these regulations limit the financial activities in which banks can participate, change how operators approach risk management and heighten the level of industry oversight. For example, Dodd-Frank’s Volcker Rule restricts bank holding companies with federally insured deposits from proprietary trading. Moreover, the rule restricts a bank’s investment to 3.0% of a private equity or hedge fund’s total value and 3.0% of the bank’s total core capital. As a result, hedge funds and private equity managers will likely have to compete for diminished funding from banking institutions.

However, industry operators affected by the rule have already lost some of their most productive traders to hedge funds, as large bonuses can no longer be tied to excessive risk taking. Proprietary trading restrictions are projected to temper the industry’s revenue substantially during the outlook period.

Basel III is a new global regulating standard for bank capital and liquidity requirements agreed upon by members of the Basel Committee on Banking Supervision, a committee of banking authorities established by major central banks. It was developed in response to the deficiencies in financial regulation revealed by the global financial crisis. Basel III strengthens bank capital requirements and introduces new restrictions on bank liquidity and investment banking leverage. More specifically, Basel III increased the minimum common equity ratio from 4.0% in 2014 to 4.5% in 2019, raises Tier 1 capital requirements and increases the capital conservation buffer. The Organization for Economic Co-operation and Development projects that Basel III will likely decrease annual global GDP growth between 0.1% and 0.2%. Basel III was originally expected to be implemented between 2013 and 2015; however, the deadline was extended to March 31, 2018. Despite the delays, banks will likely have to reassess their risk management strategies and implement more-effective safeguards against the issuance of risky loans.

Furthermore, while increased regulation will likely affect industry participation, smaller and specialized operators are still anticipated to stake a claim in the industry over the next five years. As a result of this, the number of industry enterprises is projected to increase an annualized 2.4% to 12,600 operators over the five years to 2024.

Smaller operators evolve

profit margins as scrutiny from the public and lawmakers alike raise regulatory costs for operators. To combat the effects of regulation, industry operators have implemented leaner and more-scalable trading operations, which are expected to be crucial when trade volumes pick up during the second half of the outlook period.

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Industry Performance

Life Cycle Stage

The industry has entered a major merger and acquisition phase. Establishments contend with increasing competition from foreign corporations and other industries. Operators are increasing in size and expanding their range of services.

Key Considerations:
An industry’s life cycle stage is determined by multiple factors, such as IVA vs. GDP performance and establishment growth. However, other key factors must also be considered. For more information, please refer to the Industry Life Cycle section analysis.

SOURCE: WWI.IBISWORLD.COM
Industry Performance

Industry Life Cycle

The Investment Banking and Securities Dealing industry is in the mature stage of its economic life cycle, resulting from increased regulation and extensive merger and acquisition (M&A) activity. Industry value added (IVA), which measures an industry’s contribution to the overall economy, is expected to increase 2.3% over the 10 years to 2024. Comparatively, US GDP is projected to grow at an annualized rate of 2.0% during the same period. These figures signify that the industry’s share of the economy is loosely following GDP growth.

Over the past decade, the industry has encountered rising consolidation, which has increased the size of the average operator and caused industry enterprise figures to fall. The subprime mortgage crisis has dramatically quickened the pace of this consolidation and inflated the importance of very large financial institutions in delivering investment banking services. The industry is exiting an extended period where the average profit margin reached historic lows; while profitability remains elevated, margins are not anticipated to exceed prerecessionary levels. This trend is largely due to structural changes in the industry, rather than changes in financial market activity. Lower levels of leverage and greater regulation will contribute to the industry’s lower profit and risk profile.

However, the industry will continue to offer new products and services. Nontraditional investment banking services such as wealth and asset management and altered derivative-based products are expected to represent growing sources of revenue for industry operators. Additionally, some of the industry’s smaller players have been able to expand their share of M&A advising services, given the difficulties they contend with from competing major players in capital intensive trading activities. Furthermore, growth opportunities in emerging markets, including the BRIC (Brazil, Russia, India and China) nations, are anticipated to provide greater sources of revenue for industry players over the five years to 2024.
Products & Markets

Supply Chain | Products and Services | Demand Determinants
Major Markets | International Trade | Business Locations

Products and Services

While the number of activities in the Investment Banking and Securities Dealing industry has not deviated dramatically during the five-year period, the share of revenue that each activity accounts for has undergone substantial volatility. Products and services in the industry vary considerably on a company-
Products & Markets

Products and Services continued

by-company basis, largely depending on operator size. Small- and medium-size investment banks target niche industries and small companies and rely more heavily on traditional investment banking activities such as underwriting and financial advisory. Alternatively, major industry players earn a substantial share of revenue from trading activities. As a result, in addition to traditional investment banking services, industry operators also engage in a wide range of principal and proprietary trading and corporate finance services.

Debt and equity underwriting
Investment banks serve as the middlemen between companies looking to raise funds (equity and debt underwriting) by securitizing the ownership (equity) or debt of a company to be traded to investors in exchange for capital. They assist companies wishing to go public (initial public offerings) by issuing common stock, preferred stock and other equity-related securities. The other route investment banks offer to companies looking to raise capital is through debt markets; investment banks help corporations and governments issue various types of debt instruments such as investment-grade and high-yield debt, bank loans and bridge loans. Debt underwriting services are estimated to account for 11.3% of industry revenue in 2019, while equity underwriting services are anticipated to account for 7.5% of revenue the same year.

Trading and related services
Investment banks conduct sales, trading, custodian, financing and market-making activities on securities, futures exchanges and other markets. Lately, investment banks have favored fixed-income, interest rate and derivatives futures products. However, they do engage in trading across every asset class depending on requests from clients and their own trading desks. Their trading activities can be broken down into principal trading and market making, proprietary trading and prime brokerage.

Principal trading by investment banks involves the use of client money to purchase securities and waiting for price appreciation to subsequently sell these securities. Alternatively, market-making activities provide trade liquidity; essentially, operators buy, sell or otherwise transact with customers under a variety of market conditions and provide prices in response to customer requests. Investment banks earn revenue from market making through the difference between buy and sell order prices on client transactions. The return these activities provide reflects the risk undertaken by operators and the liquidity they provide in the market.

With respect to proprietary trading, a conflict of interest exists where investment banks generate revenue by making their trades before their clients, resulting in higher prices for these clients that they are paid to represent. New legislation stemming from the financial crisis, specifically the Volcker Rule in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, restricts banks with federally insured deposits from engaging in proprietary trading. As a result, proprietary trading is anticipated to decline sharply as a share of revenue in the years ahead.

Securities lending activities involve investment banks lending capital to hedge funds to make bets on the direction of securities. Demand for securities lending has collapsed since the global recession, as financial institutions continue to deleverage to prevent future catastrophic losses. Investment banks also contend with strong and growing competition for lending to hedge funds from custodian banks; however, some larger industry players, such as JPMorgan Chase & Co., act as custodian banks themselves and offer securities services (i.e. custody, trade
Products & Markets

Demand Determinants

Demand levels for the services provided by the Investment Banking and Securities Dealing industry broadly depend on macroeconomic and financial market conditions, both in the United States and abroad. Specifically, factors such as interest rates, business earnings and investor confidence all influence demand levels. Other important factors include uncertainty in the market and regulatory changes.

Investment banking services include advisory services related to merger and acquisition (M&A) and other corporate activities, and the underwriting of debt and equity products in private placements and public offerings. Demand for financial services depends on the level of corporate activity, which in turn depends upon earnings, business confidence and the economic outlook. Demand for traditional investment banking services in the United States is increased in 2017, driven by equity underwriting and M&A advisory services.

Demand for underwriting services specifically reflects the level of capital raising and business investment. The level of initial public offerings generally rises with strong stock market performance. Debt market underwriting includes the underwriting of mortgage-backed securities, collateralized debt obligations and other complex structured products. Demand for debt insurance of these products has dropped significantly as a result of the subprime crisis and frozen credit markets.

The volume of trading undertaken on exchanges for private clients is also closely related to the stock market’s performance and the performance of alternative investments. In turn, this factor is broadly determined by growth in the economy and interest rates. Industry operators have benefited from an annualized 3.1% in off-exchange trading volume over the five years to 2019, as they act as market makers in the space. Demand for trading services by businesses and institutional clients is related to the level of business activity and the amount of funds managed by these clients.

Products and Services continued

execution and recordkeeping) to investment banking clients. Overall, trading and related services are anticipated to account for 59.1% of industry revenue in 2019. This figure is expected to exhibit extensive volatility over the five years to 2024 with the implementation of the Volcker Rule.

Strategic advising fees

Financial advisory services include strategic advisory assignments with respect to mergers and acquisitions (M&A), divestitures, corporate defense activities, risk management, restructurings, spin-offs, exchange offers and shareholder relations. Additionally, larger investment banks will also provide advice regarding dividend policy, valuations, foreign exchange exposure and financial risk management. In total, this segment is expected to account for 14.0% of industry revenue in 2019.
The Investment Banking and Securities Dealing industry provides a wide range of products and services to financial and nonfinancial operators, government agencies and private investors. Industry operators also act for their own benefit through certain trading activities; however, these activities are excluded from discussion in this section (refer to the Products and Services section for more information). Historically, investment banks and securities dealers provide corporate finance services, including securities underwriting, corporate lending and financial advisory services, to corporate operators and governments. However, regulatory and technology changes over the past decade have blurred the lines between products offered by industry operators and other financial services companies.

**Financial operators**

Financial operators are estimated to account for 28.9% of industry revenue in 2019. Financial operators include banks, insurance companies, brokerages and financial advisors. Financial operators primarily use investment banks for a variety of trading and related services. These include underwriting and securities sales to manage risk and raise capital, executing client trading orders and providing related financing, research, financial advisory and wealth-management services. Major investment banks also provide trading services such as market making, clearing, settlement and custody services to financial operators to facilitate their larger-scale trading needs. Over the five years to 2019, this segment has declined as a share of industry revenue due to lower institutional trading volumes, declines in average trading commissions and overall contractions throughout the financial sector as a result of the financial crisis.

**Energy and power, industrial and other corporate operators**

Corporate operators, defined as nonfinancial businesses, account for the majority of revenue for industry operators. Investment banks and securities dealers assist corporate operators with underwriting and selling equity and debt securities in financial markets to raise capital. Investment banks also act in a broker-dealer capacity and assist corporate operators with hedging risks and trading securities for a profit. Additionally, depending on the company’s size, investment banks provide a variety of other financial services.
services to corporate operators, such as corporate lending and financial advisory services. Over the five years to 2019, industry operators have earned more revenue from corporate operators as these operators have increased their back mergers and acquisitions and capital raising activities during the period. The segment is expected to continue to grow over the five years to 2024 as corporate operators continue to look to use cash on their balance sheets to pursue merger and acquisition opportunities. In 2019, energy and power operators, including companies involved in integrated oil and gas, pipelines, exploration and production and alternative fuels, among several other activities, are estimated to account for 11.8% of industry revenue. Industrial operators, which include companies involved in defense, aerospace and commercial vehicle and truck manufacturing, among a myriad of other activities, are anticipated to account for 4.7% of industry revenue in the same year. Also, in 2019, high technology and healthcare operators are estimated to account for 9.7% and 9.3% of total industry revenue, respectively.

Government agencies, private investors and other clients
Despite their importance, federal, state and local government clients are estimated to account for a small portion of industry revenue in 2019. Governments use investment banks to underwrite and sell debt securities (i.e. treasuries and municipal bonds) to raise capital to finance public works projects. While government spending on the state and local levels contracted as a result of lower tax revenue during the recession, increased total US debt issuance over the past five years suggests that this market has provided a relatively stable share of industry revenue during the period. With respect to private investors, investment banks primarily provide wealth management and financial advisory services for high-net-worth individuals with at least $250,000 available for investment. As wealth levels rise, this segment is anticipated to provide a growing opportunity over the five years to 2024. Other clients for industry operators include media and entertainment operators, corporations involved in consumer products and services, retail operators and telecommunications companies.

International Trade
Exports and imports are not applicable to the Investment Banking and Securities Dealing industry. However, industry operators do provide financial products to nonresident clients, while foreign banks often provide services to US resident businesses and agencies. Additionally, the industry is increasingly subject to global macroeconomic conditions and competition; please refer to the Industry Globalization section of this report for more information.
Products & Markets

Business Locations 2019

Additional States (as marked on map)

- VT: 0.2
- NH: 0.2
- MA: 3.5
- RI: 0.1
- CT: 1.8
- NJ: 3.3
- DE: 0.8
- MD: 2.0
- DC: 0.7

Establishments (%)

- Less than 3%
- 3% to less than 10%
- 10% to less than 20%
- 20% or more

SOURCE: WWW.IBISWORLD.COM
The geographical spread of the Investment Banking and Securities Dealing industry generally follows the distribution of urban population centers across the United States. Establishments are most concentrated in areas of historically high economic activity and a prevalence of other operators in the financial services sector. The industry has traditionally been centered in New York City where many major industry operators are headquartered or have significant operations. There are also significant concentrations of industry operators in other major urban centers such as Boston, Chicago, Dallas, St. Louis, San Francisco and Los Angeles. Over the five years to 2019, the industry has become less concentrated in the Mid-Atlantic and has expanded in the Southeast and West, reflecting population shifts and rising wealth levels in these regions.

**Mid-Atlantic and Great Lakes**
The Mid-Atlantic region remains the most important geographical market for industry investment banks and securities dealers, accounting for 28.2% of industry establishments in 2019. The state of New York alone has 17.8% of establishments, with New Jersey and Pennsylvania also providing significant contributions. The major establishments in the Mid-Atlantic are primarily located in the region to be near major corporate headquarters, financial intermediaries and exchanges. Prestige and branding also pay a key role in this industry, with Wall Street historically housing many prominent industry operators. Additionally, urban areas in the Mid-Atlantic typically house a large pool of labor with industry-relevant skills, making hiring activities easier.

The Great Lakes is also an important geographical segment for investment banks and securities dealers, accounting for 14.2% of industry establishments in 2019. Similar to the Mid-Atlantic, companies in this region choose to locate in the region to be near the Chicago metro area and the Chicago Board Options Exchange. This region also offers less costly real estate for establishments compared with other financial hubs, such as New York and San Francisco. Within this region, Illinois alone accounts for 7.8% of industry establishments.

**Southeast and West**
The Southeast region has seen the fastest growth in the number of industry establishments during the five-year period, accounting for 18.4% of establishments in 2019. The region’s large population and improving wealth levels have boosted corporate business activity, contributing to the region’s rising share of establishments. The West region’s share of industry establishments has also grown during the period, accounting for 15.9% of the total in 2019. Establishments in the West are largely represented by California, which accounts for 13.2% of the nation’s establishments. California’s massive population, large corporate entities and high-tech economic centers attract many investment banks and securities dealers.
Mergers and acquisitions are prominent for technology operators because entrepreneurs often develop and sell novel technologies and start-up companies to larger corporations.

Other regions and their share of establishments include the Southwest (9.5% of establishments), New England (5.9%), the Plains (4.4%) and the Rocky Mountains (3.6%).
Competitive Landscape

Market Share Concentration  |  Key Success Factors  |  Cost Structure Benchmarks
Basis of Competition  |  Barriers to Entry  |  Industry Globalization

Cost Structure Benchmarks

Cost structures throughout the Investment Banking and Securities Dealing industry vary considerably on a company-by-company basis and depend extensively on the financial activities industry operators choose to engage in. However, profit margins are generally high for the majority of operators. Although small- and mid-size investment banks generate relatively low levels of revenue, they rely on traditional

Key Success Factors

Market research and understanding
The ability to provide quality research will attract more investors to buy securities.

Access to a highly skilled workforce
An experienced and highly trained staff is necessary for this industry. Clients are attracted to individuals and teams that have successfully raised debt and equity in the past.

Having a high profile in the market
For institutional brokers and investment banks, a significant presence, including panel memberships and strong dealings, can increase one’s profile in the marketplace.

Provision of a related range of goods/services (“one stop shop”)
It is essential to have the right mix of product offerings that raise sufficient funds on the sell side to maximize returns on the buy side.
Competitive Landscape

Cost Structure

Benchmarks continued

banking activities such as underwriting and financial advisory services that remain highly profitable. In addition, wages are consistently the single largest expense across the industry, regardless of operator size.

Wages
Traditionally, wages account for the single largest expense in the Investment Banking and Securities Dealing industry. Total compensation costs have historically reached 40.0% of industry revenue; however, this varies on a year-to-year basis depending on the industry’s performance, bonus obligations and employment figures. Wages as a share of revenue have decreased during the five-year period, falling from 36.1% in 2014 to 33.4% in 2019. General declines in wages as a share of revenue are a result of operators investing in new technologies and systems that have reduced labor requirements. Consequently, wages are forecast to continue to decline as a share of revenue over the five years to 2024, reaching a forecast 33.2% of total revenue in 2024.

Purchases
While industry operators do require some computing and analytic software to provide services, purchase expenses only account for 0.7% of industry revenue in 2019. While operators have increased their spending on such analytic tools in recent years, industry revenue growth has outpaced purchase expense growth, leading it to account for a lower portion of industry revenue.

Profit
The average industry profit margin, measured as earnings before interest and taxes, is expected to comprise 26.5% of revenue in 2019, up from 25.6% in 2014. During the financial crisis, some of the industry’s largest players, including
Competitive Landscape

Basis of Competition

JP Morgan Chase & Co. and Bank of America Corporation, experienced operating income losses. While these costs reflected poor macroeconomic conditions, they were also influenced by increased costs associated with their major acquisitions. Tempered trading revenue and increased regulatory expenses have harmed the margins of the industry’s major players throughout the duration of the five-year period to 2019. Despite this, equity underwriting and advisory fees have increased over the past five years, benefiting industry profitability. Additionally, the average industry profit margin is forecast to increase from 26.5% of revenue in 2019 to 26.6% in 2024, as operators benefit from scalability from technological investments made in recent years.

Depreciation
Since operators require little capital assets to conduct business, depreciation expenses only account for 0.9% of industry revenue in 2019.

Marketing
Most customers that are in need of industry operators’ services seek out industry operators on their own. As a result, marketing expenses only account for 0.6% of industry revenue in 2019.

Rent
In 2019, rental expenses are expected to account for 0.9% of industry revenue. Despite operators having offices in metropolitan areas, businesses only need office space to conduct their services.

Utilities
Utility expenses associated with running industry operators’ offices is very low. In 2019, utility expenses will account for less than 0.1% of industry revenue.

Other
Brokering, clearing and exchange fees are directly related to the cost of trading on stock exchanges. Therefore, the costs for these activities are directly related to the volume of trades undertaken. These costs are anticipated to decline as a share of revenue during the current period. A large reason for this is execution fees for completing a trade have decreasing during the period as a result of automation in numerous points of the trading process. This has led to fee-based competition between industry operators to gain new business.

Other costs vary widely throughout the industry. There is a miscellany of lesser costs related to banking, such as insurance and hedging costs. There are also costs related to administration and general upkeep, including discretionary payments, capital expenditures on upgrading and maintaining IT systems and legal and compliance costs. During the current period, these costs have increased, particularly provisions for losses and compliance costs, due to the recession and subsequent wave of new financial regulations. Overall, other expenses are expected to account for 36.9% of industry revenue in 2019.
Competitive Landscape

Basis of Competition continued

the range of services broadens into those traditionally offered by other industries, the size and geographic reach of industry players is increasing. Furthermore, consolidation and the globalization of capital markets have significantly increased the capital bases of some industry players, bringing US operators into intense competition with large foreign operators that have more capital, a stronger local presence and longer operating histories outside of the United States. As a result, US investment banks are increasingly competing on a global basis, particularly in emerging markets.

An important point of competition that has emerged since the financial crisis is the ability of investment banks to access funds. Investment banks that rely less on wholesale markets for funding are likely to operate with lower costs, enabling these operators to better compete for business. The host of investment banking mergers and acquisitions during the five-year period has increased the movement of senior staff between operators. Banks such as Citigroup Inc., which had government-imposed restrictions on the compensation available to senior staff during the recession, were put at a competitive disadvantage when attempting to attract and retain personnel.

Barriers to Entry

Capital and regulatory requirements within the banking sector provide the largest barriers to entry into the Investment Banking and Securities Dealing industry. The level of industry regulation is increasing and is likely to include the requirement that investment banking activities be supported by an increased level of tier 1 capital, which consists of common stock and disclosed reserves (or retained earnings), but it may also include non-redeemable, noncumulative preferred stock.

Traditional barriers to entry for the industry also include relationships, reputation, economies of scale and research departments that rely on a limited supply of talented labor. Established relationships between investment banks and large downstream companies serve to exclude new entrants from attracting business. Similarly, an operator recognized for its reliability, capacity to deliver and skill in valuation and advising largely guarantees itself business, making potential players wary of the level of business they could attract.

With the increased importance of IT development in the industry and its large initial costs, industry operators have grown in size. These larger enterprises are able to keep variable costs low and profit margins high. Therefore, the need for expensive technological investment to compete in the industry serves as another significant barrier to entry for many of the industry’s product lines.

Furthermore, the ability to attract a limited supply of skilled labor and pay these individuals accordingly is a very substantial barrier to entry. However, extensive layoffs in recent years have the potential to limit these labor costs to some extent by improving the pool of available workers. Additionally, while most technological change has increased

<table>
<thead>
<tr>
<th>Barriers to Entry checklist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
</tr>
<tr>
<td>Concentration</td>
</tr>
<tr>
<td>Life Cycle Stage</td>
</tr>
<tr>
<td>Capital Intensity</td>
</tr>
<tr>
<td>Technology Change</td>
</tr>
<tr>
<td>Regulation and Policy</td>
</tr>
<tr>
<td>Industry Assistance</td>
</tr>
</tbody>
</table>

SOURCE: WWW.IBISWORLD.COM
Investment Banking & Securities Dealing in the US
June 2019

Competitive Landscape

Barriers to Entry

Continued

barriers to entry due to large initial costs, not all developments have. For example, internet advancements have vastly reduced the cost of communication between banks and investors. Moreover, developments like internet-based initial public offering auction systems have enabled some industry operators to undercut fees charged by traditional banks and siphon away some revenue.

Industry

Globalization

The Investment Banking and Securities Dealing industry is highly globalized in both its operation and ownership. Some of the largest players in the industry, including Credit Suisse Group and Deutsche Bank AG, are not domestically owned. Furthermore, while the industry’s major players are all domestically owned, many generate upward of 50.0% of their revenue outside of the United States. Additionally, with the need to raise capital to replace growing losses from subprime-related write-downs, US investment banks attracted significant investment from overseas sources. For example, in April 2011, Morgan Stanley reached a deal with Mitsubishi UFJ Financial Group that gave the Tokyo-based lender a 22.0% ownership interest in the company.

Cross-border sales and acquisitions of investment banking operations are becoming more common, as assets are often shuffled in an effort to raise capital. For example, during the financial crisis, the London-based Barclays purchased the US investment banking operations of Lehman Brothers. The growing level of consolidation in financial markets driven by the subprime crisis is increasing the rate at which financial services are offered globally. However, this trend largely varies on a company-by-company basis. For example, some banks have recently sold their overseas operations as they seek to reduce costs and conserve capital for their domestic market. Some of the largest US and UK banks have sold their interests in Chinese banks, primarily because of the need to raise capital. Despite this trend displayed by some operators, the overall level of globalization in the industry is still increasing.

Level & Trend

Globalization in this industry is High and the trend is Increasing.
JPMorgan Chase & Co.

Market Share: 13.0%

Industry Brand Names
Bear Stearns

Headquartered in New York City, financial holding company JPMorgan Chase & Co. (JPMorgan) is a leading global financial services operator and the largest banking institution in the United States by assets. The company operates in more than 60 countries and employs over 256,000 full-time employees. In 2018, JPMorgan had nearly $2.6 trillion in assets (latest data available). The company holds leading positions in investment banking, financial services for small businesses, commercial banking, transaction processing, asset management and private equity. Through its subsidiaries, it serves millions of customers and some of the most prominent domestic and international corporate, institutional and government clients.

JPMorgan's principal subsidiaries are JPMorgan Chase Bank, National Association, Chase Bank USA, National Association and JPMorgan Securities LLC, the company's investment banking arm. According to the latest available data from the Financial Times, JPMorgan ranks first in terms of fees collected for investment banking activities, with leading US market positions in industry-relevant underwriting and lending services. More specifically, JPMorgan offers corporate advising and lending, risk management, market-making, prime brokerage and research in all major capital markets. The company currently operates through four business segments: consumer and community banking, corporate and investment banking, commercial banking and asset and wealth management. The company's corporate and investment bank segment accounts for the majority of its industry-specific revenue.

At the beginning of the 2008 financial crisis, the US government helped

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JPMorgan Chase & Co. (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
<th>(% change)</th>
<th>Operating Income ($ million)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>17,158.0</td>
<td>N/C</td>
<td>5,707.8</td>
<td>N/C</td>
</tr>
<tr>
<td>2015</td>
<td>16,651.0</td>
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<td>5,882.1</td>
<td>3.1</td>
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<tr>
<td>2016</td>
<td>18,290.0</td>
<td>9.8</td>
<td>8,133.8</td>
<td>38.3</td>
</tr>
<tr>
<td>2017</td>
<td>17,515.0</td>
<td>-4.2</td>
<td>7,766.6</td>
<td>-4.5</td>
</tr>
<tr>
<td>2018</td>
<td>17,733.0</td>
<td>1.2</td>
<td>7,555.8</td>
<td>-2.7</td>
</tr>
<tr>
<td>2019</td>
<td>17,254.6</td>
<td>-2.7</td>
<td>7,130.1</td>
<td>-5.6</td>
</tr>
</tbody>
</table>

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD
Morgan Stanley is a leading global banking and financial services corporation that provides financial products and services to individuals, governments, corporations and financial institutions. Headquartered in New York City, Morgan Stanley has principal offices in London, Tokyo, Hong Kong and other world financial centers. Worldwide, Morgan Stanley employs over 60,000 workers. Morgan Stanley was one of the few remaining major independent investment banks prior to the financial crisis; however, the company was forced to convert to a bank-holding company in 2008 to receive bailout funding to cover significant losses in trading volumes that have subdued the company’s financial position during the current period, despite maintaining its position as one of the top investment banks in the world.

Morgan Stanley (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
<th>(% change)</th>
<th>Operating Income ($ million)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12,374.5</td>
<td>N/C</td>
<td>-42.5</td>
<td>N/C</td>
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<tr>
<td>2015</td>
<td>12,807.9</td>
<td>3.5</td>
<td>3,332.3</td>
<td>N/C</td>
</tr>
<tr>
<td>2016</td>
<td>12,849.1</td>
<td>0.3</td>
<td>3,770.3</td>
<td>13.1</td>
</tr>
<tr>
<td>2017</td>
<td>13,791.6</td>
<td>7.3</td>
<td>4,137.5</td>
<td>9.7</td>
</tr>
<tr>
<td>2018</td>
<td>15,036.6</td>
<td>9.0</td>
<td>4,573.4</td>
<td>10.5</td>
</tr>
<tr>
<td>2019</td>
<td>12,755.5</td>
<td>-15.2</td>
<td>3,439.6</td>
<td>-24.8</td>
</tr>
</tbody>
</table>

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD
Bank of America Corporation (BoFA) is a leading global financial holding and financial services corporation that serves consumers, small- and middle-market businesses, large corporations, institutional investors and government agencies with banking, trading, asset management and other financial products and services. Founded in 1904 as the Bank of Italy, BoFA is now headquartered in Charlotte, NC, and operates in all 50 states, the District of Columbia and more than 35 countries worldwide. It has more than $2.3 trillion in total assets and 204,000 full-time employees.

BoFA divides its operations into five segments: consumer banking, global banking, global markets, global wealth and investment management and a segment for all other remaining business activities. Industry-specific investment banking and securities services are primarily provided through its global markets segment. The company’s investment banking services include debt and equity underwriting and distribution securities, including equities, investment-grade and noninvestment-grade debt and related products. Furthermore, the segment engages in an array of activities that include structuring, underwriting and trading collateralized securities.

Financial performance
Despite tough market conditions occurring over the five years to 2019, Morgan Stanley grew into an investment-banking market leader in equities underwriting and sales in US initial public offerings (IPOs). It continues to outpace other investment banks in technology IPOs, leading notable deals such as Uber Technologies Inc., Snap Inc. and Yext. Additionally, in 2014, the company’s advisory and underwriting fees both increased substantially, leading to industry-specific revenue growth of 10.9% that year alone despite a decline in fixed income and commodities sales and trading revenue. Overall, the company’s US industry-specific revenue has increased at an annualized rate of 0.6% to $12.8 billion over the five years to 2019. While the company grew steadily between 2014 and 2018, lower investment banking and trade revenue in 2019 is expected to stifle industry revenue growth for the entirety of the current period.
Player Performance continued

Bank of America Corporation (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
<th>(% change)</th>
<th>Operating Income ($ million)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>13,690.9</td>
<td>N/C</td>
<td>3,581.2</td>
<td>N/C</td>
</tr>
<tr>
<td>2015</td>
<td>13,096.9</td>
<td>-4.3</td>
<td>3,179.7</td>
<td>-11.2</td>
</tr>
<tr>
<td>2016</td>
<td>13,921.0</td>
<td>6.3</td>
<td>5,096.0</td>
<td>60.3</td>
</tr>
<tr>
<td>2017</td>
<td>13,664.4</td>
<td>-1.8</td>
<td>4,331.2</td>
<td>-15.0</td>
</tr>
<tr>
<td>2018</td>
<td>14,259.8</td>
<td>4.4</td>
<td>4,773.4</td>
<td>10.2</td>
</tr>
<tr>
<td>2019</td>
<td>12,104.6</td>
<td>-15.1</td>
<td>3,571.6</td>
<td>-25.2</td>
</tr>
</tbody>
</table>

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

capabilities, merger and corporate advisory services and risk management securities products. In support of its investment banking services, its global markets segment also provides advisory, financing, clearing, settlement and custody securities services to facilitate client trading activities, including market-making services. In addition, it offers a range of lending products and services to corporate clients. The company is a leader in global fixed income, currency, energy and commodities markets, with one of the largest equity production, origination and trading operations in the world.

Prior to the five-year period to 2019, BofA acquired struggling investment bank Merrill Lynch at the height of the financial crisis, causing the company’s industry-specific operations and revenue to increase significantly. However, as with the majority of domestic banks, the recession severely affected the company. The financial crisis and the subsequent contraction in available credit put negative pressure on the core banking and mortgage businesses of banks. As a result, BofA received $45.0 billion in government support under the Troubled Asset Relief Program and operated at a significant loss during the recession. Prior to the current period, BofA announced its new cost-cutting program, Project New BAC, an enterprise-wide initiative to streamline workflows and processes and realign businesses to increase profit. This plan, however, largely signaled layoffs and wage cuts in the company’s retail-banking operations, although not in its industry-relevant operations.

Financial performance
Over the five years to 2019, BofA’s industry-specific revenue has declined at an annualized rate of 2.4% to $12.1 billion. During the current period, industry revenue was negatively affected by geopolitical concerns, especially in 2016, which lead to lower investment banking fees that year. Additionally, similar to the industry as a whole, industry-relevant revenue from BofA’s fixed income, commodities and currencies operations declined $552.0 million in 2017.

Bank of America Corporation (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
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<td>2016</td>
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<td>5,096.0</td>
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<td>2017</td>
<td>13,664.4</td>
<td>-1.8</td>
<td>4,331.2</td>
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<td>-15.1</td>
<td>3,571.6</td>
<td>-25.2</td>
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</table>

*Estimates
Citigroup Inc. (Citi) is a diversified bank holding and financial services corporation formed in 1998 from the merger of Citicorp and Travelers Group Inc. Headquartered in New York City, Citi has 204,000 full-time employees and over $1.9 trillion in total assets. Citi has one of the largest financial networks in the world, with 200.0 million customer accounts and operations in more than 160 countries.

Since its partial government takeover and restructuring in 2008, Citi has reported in two segments: Citicorp, which maintains its core business lines such as investment banking and Citi Holdings, which contains noncore businesses. Within Citicorp, the institutional clients group (ICG) offers industry-relevant services. ICG as a whole provides fixed income and equity sales and trading, research, investment banking, trade finance, private banking and securities services. Trading floors in 80 countries and a proprietary network that covers 95 countries and jurisdictions support ICG’s international operations.

Financial performance
In 2008, Citi had to write off large losses on defaulted home loans and associated derivatives products. These losses led to the US government taking a 36.0% ownership stake in the company to calm investor fears. The losses continued through 2009, including a $7.6 billion loss in the first quarter of 2009. Citi has since refocused on core business activities, such as investment banking. In 2010, the company concentrated on shedding assets from its Citi Holdings segment.

Over the five years to 2019, Citi’s investment banking and securities-dealing revenue in its ICG group has decreased at an annualized rate of 1.1% to $11.7 billion. A reorganized Citi focused on core investment banking activities prior to the current period, leading to sustained growth for the majority of the period. Prior to the current period, advisory fees for the company remained low before reversing in 2013. This raised advisory and equity underwriting fees largely explain the sharp increase in the company’s industry-specific revenue that year. Similarly, the company’s traditional investment banking revenue increased 7.6% in 2014, driven by both advisory and equity underwriting services. Despite these strong synergies early during the current period, the company experienced declining investment banking revenue in 2018, leading to the slight decline during the current period. Furthermore, investment banking revenue is expected to decline further in 2019.

Citigroup Inc. (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
<th>% change</th>
<th>Operating Income ($ million)</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12,345.0</td>
<td>N/C</td>
<td>4,916.9</td>
<td>N/C</td>
</tr>
<tr>
<td>2015</td>
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<td>2.9</td>
<td>5,060.2</td>
<td>2.9</td>
</tr>
<tr>
<td>2016</td>
<td>12,513.0</td>
<td>-1.5</td>
<td>5,191.3</td>
<td>2.6</td>
</tr>
<tr>
<td>2017</td>
<td>13,636.0</td>
<td>9.0</td>
<td>6,145.3</td>
<td>18.4</td>
</tr>
<tr>
<td>2018</td>
<td>12,914.0</td>
<td>-5.3</td>
<td>5,526.3</td>
<td>-10.1</td>
</tr>
<tr>
<td>2019</td>
<td>11,708.2</td>
<td>-9.3</td>
<td>4,926.5</td>
<td>-10.9</td>
</tr>
</tbody>
</table>

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD
The Goldman Sachs Group Inc. (Goldman Sachs) is a leading global investment banking, securities and investment-management company that provides financial services to corporations, financial institutions, governments and high-net-worth individuals. Founded in 1869, the company is headquartered in New York City and has offices in major financial centers in over 30 countries. In addition, the company employs 36,000 workers, a large portion of whom are located outside of North and South America. Goldman Sachs divides its business into four segments: investment banking, institutional client services, investing and lending and investment management. In total, these segments generated $36.6 billion in total revenue in 2018 (latest data available).

The company’s investment banking and institutional client services segments contain industry-relevant activities. The company’s investment banking segment offers traditional investment banking services such as financial advisory and capital-raising services, including equity and debt underwriting. The company’s institutional client services segment provides clients with a range of securities, financial and investment services, such as corporate lending, securities brokerage and proprietary and principal trading services.

Financial performance
Prior to the recession, Goldman Sachs was the envy of the investment banking world, pulling in record revenue and profit during a boom in merger and acquisition activity. The financial crisis led to huge losses for investment banks that underwrote and traded in mortgage-backed securities, such as Goldman Sachs. Through emergency assistance from the US government, Goldman Sachs remained afloat; this contrasted with the majority of other major independent investment banks that either failed or were consolidated into commercial banks. Goldman Sachs was pushed to become a bank holding company, bringing it under the same scrutiny and limitations imposed on commercial banks. New regulations regarding capital requirements and derivatives trading have also significantly tempered industry-relevant revenue and operating income. Overall, the company’s industry-specific revenue has declined at an annualized rate of 2.4% to $11.1 billion over the five years to 2019.

### The Goldman Sachs Group Inc. (US industry-specific segment) - financial performance*

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ million)</th>
<th>(% change)</th>
<th>Operating Income ($ million)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12,585.8</td>
<td>N/C</td>
<td>4,121.3</td>
<td>N/C</td>
</tr>
<tr>
<td>2015</td>
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<td>2,570.3</td>
<td>-37.6</td>
</tr>
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<td>2016</td>
<td>12,294.4</td>
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<td>2017</td>
<td>11,660.7</td>
<td>-5.2</td>
<td>3,663.4</td>
<td>-18.6</td>
</tr>
<tr>
<td>2018</td>
<td>13,021.7</td>
<td>11.7</td>
<td>4,055.3</td>
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</tr>
<tr>
<td>2019</td>
<td>11,141.5</td>
<td>-14.4</td>
<td>3,457.9</td>
<td>-14.7</td>
</tr>
</tbody>
</table>

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD
Headquartered in Switzerland, Credit Suisse Group (Credit Suisse) is a multinational, financial services holding company. In 2018, the company employed 45,680 workers worldwide, the majority of which were employed outside of Switzerland (latest data available). The company operates through five divisions: Swiss universal bank, international wealth management, global markets, Asia Pacific and investment banking and capital markets segments. Credit Suisse operates in the Investment Banking and Securities Dealing industry through its global markets division and investment banking and capital markets division. Products and services included in these divisions are global securities trading, capital raising and advisory services. Credit Suisse’s industry-specific revenue is expected to reach $2.7 billion in 2019, giving the company a market share of 2.0%. Similar to many of the industry’s other major players, gains in equity underwriting and advisory fees were partially offset by lower debt underwriting in 2014. However, unlike some of the industry’s other players, Credit Suisse’s revenue from fixed income sales and trading increased 4.0% in 2014, with these gains offset by a 4.0% increase in the company’s compensation- and benefit-related operating expenses. Similar to other large operators in the industry, the company has seen declining industry-relevant revenue during the period. Part of Credit Suisse’s decline during the current period came as a result of more of an emphasis being spent on business units outside of the United States.
Operating Conditions

Capital Intensity

Level: The level of capital intensity is **Low**

The Investment Banking and Securities Dealing industry has a low level of capital intensity. IBISWorld estimates that for every $1.00 spent on wages, the industry will allocate $0.03 to capital investment. The industry’s level of capital intensity has remained steady over the five years to 2019, despite wages slight decrease as a share of industry revenue and increased capital expenditures related to new technology implemented by investment banks.

Investment banks extensively rely on talented labor for each of their product offerings; as a result, wages represent the largest single expense for industry operators, estimated at 33.4% of industry revenue in 2019. However, during the five-year period, industry participants have increasingly invested in technology to improve efficiency and lower processing and administrative costs. Furthermore, the continued development

**Tools of the Trade: Growth Strategies for Success**

**New Age Economy**
- Recreation, Personal Services, Health and Education. Firms benefit from personal wealth so stable macroeconomic conditions are imperative. Brand awareness and niche labor skills are key to product differentiation.

**Investment Economy**
- Information, Communications, Mining, Finance and Real Estate. To increase revenue firms need superior debt management, a stable macroeconomic environment and a sound investment plan.

**Capital Intensive**
- Securities Brokering
- Venture Capital & Principal Trading
- Stock & Commodity Exchanges
- Life Insurance & Annuities
- Agriculture and Manufacturing. Traded goods can be produced using cheap labor abroad. To expand firms must merge or acquire others to exploit economies of scale, or specialize in niche, high-value products.

**Labor Intensive**
- Wholesale and Retail. Reliant on labor rather than capital to sell goods. Functions cannot be outsourced therefore firms must use new technology or improve staff training to increase revenue growth.

**Old Economy**
- Health & Medical Insurance
- Change in Share of the Economy

_Dotted line shows a high level of capital intensity_
Operating Conditions

Capital Intensity continued

of online services, information technology and communication methods serve to decrease labor costs as well, particularly given the global nature of investment banking.

Since the financial crisis, investment banking services are predominately provided by bank holding companies, rather than independent investment banks. This change in structure, along with changing attitudes with respect to investment banking compensation and government-imposed restraints on wages, may lower industry labor costs. Over the five years to 2024, these changes are expected to keep wages as a share of revenue well below the 42.9% they accounted for in 2008. Furthermore, regulation changes are anticipated to push investment banks toward trading activities that require large-scale investments in trading systems. This trend also has the potential to increase industry consolidation over the next five years as large investment banks with advanced trading systems will attract the most liquidity and offer the most competitive rates. Yet, some boutique investment banks have been successful in avoiding large technological costs in recent quarters by focusing on businesses that are less capital intensive, particularly merger and acquisition advising.

Technology and Systems

The use of telecommunications services, information technologies and electronic distribution technologies in the Investment Banking and Securities Dealing industry is increasing at a rapid rate. The industry’s technology is used to improve the efficiency and effectiveness of information delivery and services to clients, and to monitor operational, market and financial risk. These technologies reduce processing costs and labor costs, but also require significant capital investment. However, this investment is generally considered worthwhile as operators with premium trading systems primarily attract the most liquidity.

The introduction of new computer software, providing more streamlined back office administration, has enabled industry operators to significantly reduce administration costs. Trading desks use platforms to generate high volume algorithmic-based trading. According to Tabb Group, a financial research and strategic advisory operator, investment banking technology primarily facilitates real-time access to crucial information. In addition, new technology will be able to incorporate qualitative inputs like social media sentiment into investment decisions. Consequently, the level of technological change in the industry is anticipated to remain high over the five years to 2024.

Expected technological changes over the next five years will provide even greater control over trading activities and legislation compliance. Similarly, industry operators continue to consolidate their trading systems in an effort to lower trading costs, boost margins and comply with regulatory changes. For example, according to the Financial Times, in 2013, JPMorgan Chase & Co. launched a new single platform that combined the company’s 30 existing platforms into one. The primary catalyst for the $3.0 billion move is regulatory change, including the more than 14,000 new regulations the company must comply with since the global financial crisis.
IBISWorld estimates that industry revenue volatility has been low over the five years to 2019. Volatility primarily depends on any aggregate changes in fees for industry operators and trading gains, which in turn rely on the current macroeconomic climate. Industry revenue displayed relatively little variance from year to year as a result of countervailing trends in trading and underwriting revenue leading total industry revenue to gradually change during the period. However, in 2017, industry operators benefited from increased equity underwriting activity as more companies look to raise capital through public investors. This led industry revenue to increase rapidly in 2017. This belief is further supported by the year-over-year growth in the Producer Price Index (PPI) for investment banking services provided have increased 12.9% from 2016 to 2017. While price inflation was strongest in 2017, price inflation occurred throughout the period, as industry PPI increased an annualized 14.9% over the five years to 2019, according to the latest available data from the Bureau of Labor Statistics and IBISWorld estimates.

Industry revenue tends to follow the financial market cycle very closely. When economic and financial market conditions are above average, this industry tends to perform well. Alternatively, when financial markets take a turn for the worse, revenue is often hit hard. The leveraging activities, or the use of borrowed funds for investment, used by many industry operators serve only to increase the industry’s revenue volatility. While leveraging can multiply gains during economic booms, it can also multiply losses during economic busts. In recent quarters, gains in equity underwriting and advisory services have been offset by both cyclical and structural changes related to the industry’s trading services, moderating revenue fluctuations. Additionally, as another economic crisis of a similar magnitude to that experienced just prior to the five-year period is extremely unlikely over the next five years, revenue volatility is anticipated to remain tempered over the five years to 2024.
The Federal Reserve (the Fed) is the federal supervisor and regulator for all US bank and bank holding companies, including financial holding companies formed under the authority of the Gramm-Leach-Bliley (GLB) Act of 1999, and state-chartered commercial banks that are members of the Federal Reserve System. In overseeing these organizations, the Fed promotes their operation and compliance with laws and regulations.

The Fed exercises important regulatory influence over both entry into the US banking system and the system's structure through its administration of the Bank Holding Company Act, the Bank Merger Act (regarding state member banks), the Change in Bank Control Act (concerning bank holding companies and state member banks) and the International Banking Act. In carrying out its responsibilities, the Fed coordinates its supervisory activities with other federal banking agencies, state agencies, functional regulators and international regulatory agencies.

**Bank Holding Company Act**
The US Securities and Exchange Commission (SEC), under the consolidated supervised entity (CSE) program, regulated many US investment banks. Under the CSE program, an investment banking group was subject to group-wide supervision and examination by the SEC. Minimum capital standards were set on a consolidated basis. The SEC ended this program in September 2008, conceding that oversight flaws contributed to the financial crisis.

In September 2008, the remaining major independent investment banks in the United States, namely The Goldman Sachs Group Inc. and Morgan Stanley, converted to bank holding companies. Under the Bank Holding Company Act, a corporation must obtain the Fed’s approval before forming a bank holding company by acquiring one or more banks in the United States. Once formed, a bank holding company must also receive Fed approval before acquiring or establishing additional banks.

Bank holding companies generally may only engage in activities that the Board of Governors of the Federal Reserve has previously determined to be closely related to banking under section 4(c)(8) of the Act. The act was partially established to regulate banks that formed bank holding companies to own both banking and nonbanking corporations.

Since 2000, the Bank Holding Company Act has permitted the creation of a special type of bank holding company called a financial holding company. These companies are permitted to engage in a broader range of non-bank activities; for example, they may affiliate with securities operators and insurance companies and engage in certain merchant banking activities. Financial holding companies do not have to obtain the Board’s prior approval to engage in or acquire a company engaged in new financial activities under the GLB Act; instead, the financial holding company must notify the Board within 30 days after commencing a new activity or acquiring a company engaged in a new activity.

**2010 Dodd-Frank Wall Street Reform and Consumer Protection Act**
Banking regulation stemming from the 2008 subprime mortgage crisis has and will continue to fundamentally change how banks operate. During the five-year period, the most significant regulatory changes for the banking industry have come from the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (commonly referred to as Dodd-Frank) and the Basel III accords. Collectively, both sets of requirements will affect the investment banking industry by changing the financial activities operators can participate in, how operators approach risk management and the level
Before the subprime crisis, governments and their central banks provided little assistance to the Investment Banking and Securities Dealing industry. Beginning in late 2007, this situation radically reversed. In December 2007, the US Federal Reserve let banks borrow money using a range of collateral. In March 2008, it created a new facility giving securities dealers access to emergency funds. Also in March 2008, the US government intervened to assist in the takeover of Bear Stearns by JPMorgan Chase & Co. by agreeing to take responsibility for some of Bear Stearns losses.

In early October, the US Congress passed a $700.0 billion rescue plan for financial institutions. The Treasury was authorized to purchase distressed assets. The Troubled Asset Relief Program was also announced in October to provide direct equity investments in certain financial institutions. As part of this program, the government took a direct equity stake worth up to $25.0 billion in Citigroup Inc. (Citi), Bank of America Corporation (BofA), JPMorgan Chase & Co. and Wells Fargo, among other banks. Subsequently, the government provided an additional $20.0 billion to Citi and BofA.
### Key Statistics

#### Industry Data

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<thead>
<tr>
<th>Year</th>
<th>Revenue ($m)</th>
<th>Industry Value Added ($m)</th>
<th>Establishments</th>
<th>Enterprises</th>
<th>Employment</th>
<th>Exports</th>
<th>Imports</th>
<th>Wages ($m)</th>
<th>Domestic Demand</th>
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#### Annual Change

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<th>Enterprises (%)</th>
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#### Key Ratios

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<th>Imports/Demand (%)</th>
<th>Exports/Revenue (%)</th>
<th>Revenue per Employee ($k)</th>
<th>Wages/Revenue (%)</th>
<th>Employees per Est.</th>
<th>Average Wage ($k)</th>
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### Key Statistics

**Figures are in inflation-adjusted 2019 dollars. Rank refers to 2019 data.**

**SOURCE: WWW.IBISWORLD.COM**
# Industry Financial Ratios

## Liquidity Ratios

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## Coverage Ratios

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## Leverage Ratios

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<td>0.1</td>
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<tr>
<td>Debt / Net Worth</td>
<td>0.7</td>
<td>2.1</td>
<td>1.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Tangible Net Worth</td>
<td>46.6</td>
<td>19.7</td>
<td>31.2</td>
<td>45.1</td>
</tr>
</tbody>
</table>

## Operating Ratios

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before Taxes / Net Worth, %</td>
<td>20.9</td>
<td>24.7</td>
<td>18.5</td>
<td>34.5</td>
</tr>
<tr>
<td>Profit before Taxes / Total Assets, %</td>
<td>10.6</td>
<td>8.1</td>
<td>7.6</td>
<td>13.1</td>
</tr>
<tr>
<td>Sales / Net Fixed Assets</td>
<td>67.4</td>
<td>61.7</td>
<td>72.1</td>
<td>50.5</td>
</tr>
<tr>
<td>Sales / Total Assets (Asset Turnover)</td>
<td>1.3</td>
<td>1.4</td>
<td>1.0</td>
<td>1.1</td>
</tr>
</tbody>
</table>

## Cash Flow & Debt Service Ratios (% of sales)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash from Trading</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Cash after Operations</td>
<td>15.4</td>
<td>23.2</td>
<td>21.1</td>
<td>11.5</td>
</tr>
<tr>
<td>Net Cash after Operations</td>
<td>11.7</td>
<td>22.1</td>
<td>21.6</td>
<td>10.1</td>
</tr>
<tr>
<td>Cash after Debt Amortization</td>
<td>-2.2</td>
<td>1.1</td>
<td>4.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Debt Service P&amp;I Coverage</td>
<td>1.1</td>
<td>2.4</td>
<td>4.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Interest Coverage (Operating Cash)</td>
<td>2.3</td>
<td>6.5</td>
<td>6.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>

## Assets, %

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash &amp; Equivalents</td>
<td>39.3</td>
<td>29.3</td>
<td>30.5</td>
<td>41.1</td>
</tr>
<tr>
<td>Trade Receivables (net)</td>
<td>14.6</td>
<td>15.7</td>
<td>15.2</td>
<td>11.0</td>
</tr>
<tr>
<td>Inventory</td>
<td>6.1</td>
<td>3.0</td>
<td>2.0</td>
<td>0.4</td>
</tr>
<tr>
<td>All Other Current Assets</td>
<td>6.6</td>
<td>10.5</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>66.6</td>
<td>58.6</td>
<td>51.4</td>
<td>56.3</td>
</tr>
<tr>
<td>Fixed Assets (net)</td>
<td>14.2</td>
<td>17.2</td>
<td>11.9</td>
<td>12.9</td>
</tr>
<tr>
<td>Intangibles (net)</td>
<td>8.3</td>
<td>8.9</td>
<td>5.4</td>
<td>8.2</td>
</tr>
<tr>
<td>All Other Non-Current Assets</td>
<td>11.0</td>
<td>15.6</td>
<td>31.2</td>
<td>22.7</td>
</tr>
<tr>
<td>Total Assets</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total Assets ($m)</td>
<td>1,121.5</td>
<td>1,423.7</td>
<td>1,736.8</td>
<td>1,216.2</td>
</tr>
</tbody>
</table>

## Liabilities, %

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes Payable-Short Term</td>
<td>4.8</td>
<td>8.7</td>
<td>3.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Current Maturities LT/D</td>
<td>1.1</td>
<td>5.8</td>
<td>1.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Trade Payables</td>
<td>5.6</td>
<td>8.1</td>
<td>7.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Income Taxes Payable</td>
<td>0.1</td>
<td>0.2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>All Other Current Liabilities</td>
<td>13.2</td>
<td>11.5</td>
<td>22.2</td>
<td>17.2</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>24.8</td>
<td>34.3</td>
<td>35.3</td>
<td>27.4</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>12.4</td>
<td>21.4</td>
<td>19.1</td>
<td>13.4</td>
</tr>
<tr>
<td>Deferred Taxes</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>All Other Non-Current Liabilities</td>
<td>7.5</td>
<td>15.5</td>
<td>8.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Net Worth</td>
<td>54.9</td>
<td>28.6</td>
<td>36.6</td>
<td>53.3</td>
</tr>
<tr>
<td>Total Liabilities &amp; Net Worth ($m)</td>
<td>1,121.5</td>
<td>1,423.7</td>
<td>1,736.8</td>
<td>1,216.2</td>
</tr>
</tbody>
</table>

## Source
RMA Annual Statement Studies, rmahq.org. RMA data for all industries is derived directly from more than 260,000 statements of member financial institutions’ borrowers and prospects.

## Note
For a full description of the ratios refer to the Key Statistics chapter online.
Jargon & Glossary

Industry Jargon

INITIAL PUBLIC OFFERING (IPO) When a company (called the issuer) issues common stock or shares to the public for the first time.

LEVERAGEING Investing with borrowed money, which can increase potential gains but also increases risks.

MARKET-MAKING Buying, selling or otherwise transacting with customers under a variety of market conditions and providing prices in response to customer requests.

TIER 1 CAPITAL Secure and transparent core capital comprising equity capital and disclosed reserves.

BARRIERS TO ENTRY High barriers to entry mean that new companies struggle to enter an industry, while low barriers mean it is easy for new companies to enter an industry.

CAPITAL INTENSITY Compares the amount of money spent on capital (plant, machinery and equipment) with that spent on labor. IBISWorld uses the ratio of depreciation to wages as a proxy for capital intensity. High capital intensity is more than $0.333 of capital to $1 of labor; medium is $0.125 to $0.333 of capital to $1 of labor; low is less than $0.125 of capital for every $1 of labor.

CONSTANT PRICES The dollar figures in the Key Statistics table, including forecasts, are adjusted for inflation using the current year (i.e. year published) as the base year. This removes the impact of changes in the purchasing power of the dollar, leaving only the “real” growth or decline in industry metrics. The inflation adjustments in IBISWorld’s reports are made using the US Bureau of Economic Analysis’ implicit GDP price deflator.

DOMESTIC DEMAND Spending on industry goods and services within the United States, regardless of their country of origin. It is derived by adding imports to industry revenue, and then subtracting exports.

EMPLOYMENT The number of permanent, part-time, temporary and seasonal employees, working proprietors, partners, managers and executives within the industry.

ENTERPRISE A division that is separately managed and keeps management accounts. Each enterprise consists of one or more establishments that are under common ownership or control.

ESTABLISHMENT The smallest type of accounting unit within an enterprise, an establishment is a single physical location where business is conducted or where services or industrial operations are performed. Multiple establishments under common control make up an enterprise.

EXPORTS Total value of industry goods and services sold by US companies to customers abroad.

IMPORTS Total value of industry goods and services brought in from foreign countries to be sold in the United States.

INDUSTRY CONCENTRATION An indicator of the dominance of the top four players in an industry. Concentration is considered high if the top players account for more than 70% of industry revenue. Medium is 40% to 70% of industry revenue. Low is less than 40%.

INDUSTRY REVENUE The total sales of industry goods and services (exclusive of excise and sales tax); subsidies on production; all other operating income from outside the firm (such as commission income, repair and service income, and rent, leasing and hiring income); and capital work done by rental or lease. Receipts from interest, royalties, dividends and the sale of fixed tangible assets are excluded.

INDUSTRY VALUE ADDED (IVA) The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industry’s contribution to GDP, or profit plus wages and depreciation.

INTERNATIONAL TRADE The level of international trade is determined by ratios of exports to revenue and imports to domestic demand. For exports/revenue: low is less than 5%, medium is 5% to 20%, and high is more than 20%. Imports/domestic demand: low is less than 5%, medium is 5% to 35%, and high is more than 35%.

LIFE CYCLE All industries go through periods of growth, maturity and decline. IBISWorld determines an industry’s life cycle by considering its growth rate (measured by IVA) compared with GDP: the growth rate of the number of establishments; the amount of change the industry’s products are undergoing; the rate of technological change; and the level of customer acceptance of industry products and services.

NONEMPLOYING ESTABLISHMENT Businesses with no paid employment or payroll, also known as nonemployers. These are mostly set up by self-employed individuals.

TROUBLED ASSET RELIEF PROGRAM (TARP) A program instituted by the US government to purchase assets and equity from financial institutions in order to strengthen the financial sector.

VOlCKER RULE A specific section of the Dodd-Frank Wall Street Reform and Consumer Protection Act that restricts US banks from making certain kinds of speculative investments that do not benefit their customers.
Jargon & Glossary

IBISWorld Glossary

**PROFIT** IBISWorld uses earnings before interest and tax (EBIT) as an indicator of a company’s profitability. It is calculated as revenue minus expenses, excluding interest and tax.

**VOLATILITY** The level of volatility is determined by averaging the absolute change in revenue in each of the past five years. Volatility levels: very high is more than ±20%; high volatility is ±10% to ±20%; moderate volatility is ±3% to ±10%; and low volatility is less than ±3%.

**WAGES** The gross total wages and salaries of all employees in the industry. The cost of benefits is also included in this figure.
At IBISWorld we know that industry intelligence is more than assembling facts. It is combining data with analysis to answer the questions that successful businesses ask.

- Identify high growth, emerging & shrinking markets
- Arm yourself with the latest industry intelligence
- Assess competitive threats from existing & new entrants
- Benchmark your performance against the competition
- Make speedy market-ready, profit-maximizing decisions

Who is IBISWorld?

We are strategists, analysts, researchers, and marketers. We provide answers to information-hungry, time-poor businesses. Our goal is to provide real world answers that matter to your business in our 700 US industry reports. When tough strategic, budget, sales and marketing decisions need to be made, our suite of Industry and Risk intelligence products give you deeply-researched answers quickly.

IBISWorld Membership

IBISWorld offers tailored membership packages to meet your needs.

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