

Economic contribution of the New York financial services sector and review of the Stock Transfer Tax

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1. Introduction and summary

Introduction

The Securities Industry and Financial Markets Association (SIFMA) commissioned Ernst & Young LLP (EY US) to prepare this report, which presents estimates of the overall economic contribution of the New York financial services industry and reviews potential implications of the re-imposition of the Stock Transfer Tax (STT) in New York State. For the purpose of the study, the financial services industry is defined as the combination of the banking and securities sectors but excludes insurance.¹

The New York STT is a tax on the sale or transfer of stock or certain other certificates and interests that occur within New York State with a rate that varies depending on the value of the financial instrument that is traded. The current tax rates range from one and a quarter cent to five cents per share.² While the STT has been rebated at 100% since 1981, legislation has been introduced in both the New York State Senate and Assembly which would repeal the STT rebate, effectively reinstating the tax.

Key findings

- ▶ **The New York financial services industry supports nearly one million total jobs in the state.** Combined, the industry employs 369,300 people in New York state and 279,400 in New York City. These direct jobs support an additional 596,900 jobs in other sectors, for a total of 966,200 jobs supported by the sector in the state.³
- ▶ **The financial services sector is one of the highest paying industries in New York, paying 17% of all private sector wages earned in the state, and 24% in New York City, while making up 5% of all state and 7% of city private sector employment.** On average, the annual earnings of employees in the financial services sector is \$284,500 in New York State and \$335,400 in New York City, far exceeding the private-sector averages of \$76,100 and \$97,700 respectively.
- ▶ **The industry's employment multiplier is 2.62 which means for every financial services industry job in New York, an additional 1.62 jobs are supported elsewhere in the economy.** 596,900 indirect and induced jobs are supported by the financial services industry in New York, of which 341,300 are within New York City.⁴ Of these New York City jobs, 22% are indirect and induced jobs coming from the health, social services and education sectors.
- ▶ **Considering direct, indirect, and induced effects, the industry supports approximately \$364.6 billion of total gross domestic product (GDP) in New York State and \$274.5 billion for New York City.** The direct contributions to GDP, the sum of labor and capital income, are an estimated \$247.4 billion and \$207.5 billion respectively. For New York, every \$100 dollars of GDP contributed by the industry generates an additional \$47 of GDP elsewhere in the economy.

¹ As used in this study, the banking sector is reflective of NAICS 522 (Credit Intermediation and Related Activities) and the securities sector encompasses NAICS 523 (Securities, Commodity Contracts, and Other Financial Investments and Related Activities).

² The current tax applies to stock, agreements to sell stock, memoranda of sales of stock, certificates of stock, certificates of rights to stock, certificates of interest in property or accumulations, certificates of deposit, certificates of interest in business conducted by trustees

³ Results presented in this report show a snapshot of current economic contributions based on 2019 data. The input-output modeling approach used in this analysis shows the 2019 economic contribution of the financial services industries, as defined by this report, based on their relationships with other industries and households in the New York State and New York City economy. The results do not reflect the impacts of a possible industry expansion of employment into New York in a post-COVID environment or the potential contraction of the industry within New York resulting from the proposed changes to the STT described in this report.

⁴ Indirect effects include those associated with suppliers of the financial services sector while induced effects include those associated with spending of earnings by direct employees in the industry.

- ▶ **New York state and local taxes generated by the financial services sector totaled an estimated \$21.5 billion in 2019.**⁵ On a per-employee basis, the total direct, indirect, and induced state and local tax contribution of the financial services sector in New York exceeded \$58,000 per direct employee in 2019.
- ▶ **The financial services sector in New York City occupies a large share of leased commercial property space in Lower Manhattan and supports over a quarter of all business-related hotel nights in New York City, two of the sectors hardest hit by COVID-19 impacts.** In Lower Manhattan, the financial services sector occupies 45% (10.6 million sq. ft.) of commercial property leased by the top 30 largest private-sector tenants. An estimated 2 million hotel nights booked in 2019 were associated with the financial services sector.⁶
- ▶ **Employment in the New York financial services industry grew when the New York STT rebate was enacted in 1979.** Employment in the industry was stagnant in the late 1960s and early to mid-1970s. However, employment grew over 50% from 1978 to 1988, coinciding with the phase-in and subsequent full rebate of the STT starting in 1979. Note that this observed increase in employment coinciding with the rebate of the tax does not attempt to control for other factors which may have also influenced employment growth, including overall growth of the financial services sector during this period.
- ▶ **Financial firms would likely pass the cost of an STT on to investors which would include holders of mutual funds, pension funds and charitable funds.** Other investments subject to the tax would include individual savings in 401(K) or 529 plans. Equities accounted for nearly a quarter of private pension assets and 38% of US household liquid assets in 2018.⁷
- ▶ **The proposed tax would significantly increase in the all-in cost per trade for trades in New York.** The average cost of a trade is 0.1 cents while the STT ranges from one and a quarter cent to five cents per share. Based on data from CBOE, the average share value traded on New York-listed stock exchanges in January 2021 was approximately \$42 and, therefore, would be subject to a five-cent STT tax per trade, meaning the tax-inclusive cost of a New York trade would rise significantly.
- ▶ **Academic and institutional research has shown a contraction in the size of financial services markets due to STTs in France and Sweden.** When STTs or other financial transaction taxes have been imposed, observed declines in trading activity ranged from 16% in France to 30% in Sweden.^{8 9}
- ▶ **The STT may cause trading activity to shift outside of New York to avoid the tax.** It is possible transactions which would otherwise have been executed in New York could shift to other states to avoid the tax which would lead to a reduction in the scale of the New York financial services industry, impacting the amount of revenue raised from the STT and moving economic activity out of the city.

⁵ Certain direct tax contributions as well as indirect and induced tax contributions are estimated based on average levels of tax collections relative to statewide personal income and reflect a combination of business and household taxes. To the extent businesses or employees reflected in the direct, indirect, or induced effects deviate significantly from the average, the estimated tax contributions may be overstated or understated. Direct corporate tax and direct employee income tax are based on alternate estimation approaches.

⁶ Based on business-related occupied hotel room night statistics from NYC & Co and estimates of financial services hotel spending from the New York City IMPLAN economic model.

⁷ Federal Reserve Flow of Funds

⁸ Martin Haferkorn and Kai Zimmermann, "Securities Transaction Tax and Market Quality - The Case of France," Goethe University Frankfurt.

⁹ Steven R. Umlauf, "Transaction taxes and the behavior of the Swedish stock market," Journal of Financial Economics, 1993.

2. Stock Transfer Tax in New York

The stock transfer tax is levied on the sale or transfer of any stock that occurs within the state of New York. The tax rate is determined by the cost of the share being sold and ranges from one and one-quarter cents per share for agreements to sell at less than five dollars per share to five cents on sales at \$20 or more per share.¹⁰ This section of the report reviews the proposed changes to the STT by current bills in the New York legislature, the history of the tax, and potential incidence of the tax and economic effects should changes to the current tax structure occur.

Overview of the potential STT

The stock transfer tax is applied on sales, including agreements to sale, as well as transfers of stocks, certificates of stock or rights to stock, certificates of interest in property or accumulations, certificates of deposits, and certificates of interest in business made within the state of New York.¹¹ However, certain exemptions may apply (e.g., sales or transfers of less than 100 shares, loans of stock). The tax is progressive with the tax per share increasing as the dollar value per share rises. The maximum rate is five cents on stocks valued at \$20 or more per share with a maximum tax of \$350 per single transaction for the same class of stocks with the same issuer.¹²

Currently, taxpayers pay for the tax through the purchase of tax stamps or through another authorized entity such as a clearing corporation.¹³ The stamps may be fully rebated by filing a claim with the New York Tax Department which effectively eliminates the tax.¹⁴ However, New York Senate Bill S1406 from the 2021-2022 legislative session would repeal the rebate. Instead, collections from the STT would be allocated to the general fund through March 2023 and earmarked to various other funds in future years. Assembly Bill A3353, which would also repeal the rebate, has been introduced and is in committee. Different from S1406 and A3353, Senate Bill 3980 and Assembly Bill 5215, introduced by Senator Salazar and Assemblyman Niou, respectively, would impose a stock transfer tax with a potentially broader base.

The memorandum in support of New York Senate Bill S1406 asserts removing the rebate could provide an additional \$13 billion annually in tax revenue when a ten year average of past collections is considered.¹⁵ However, based upon collection data from the New York Department of Taxation and Finance, the 10 year average of STT collections is approximately \$9.5 billion and was only \$4 billion in 2020.¹⁶

New York's past experience with the STT

The STT first went into effect in New York on June 1, 1905 and for a period provided funding to the New York City Municipal Assistance Corporation.¹⁷ ¹⁸ The tax went through a series of changes during the 1900s and in 1968, following pressure from advocates that argued the tax put New York exchanges at a disadvantage to other out-of-state exchanges, New York State gradually began to reduce the tax imposed on non-New York State residents. The rebate was also supported by the New York City mayor at the time, Abraham D. Beame, who called the tax "the largest single obstacle to the competitive position of the New York financial community in national securities markets". It was also driven by technological changes in the industry including more national and

¹⁰ New York State Department of Taxation and Finance, "Stock Transfer Tax," March 2020.

¹¹ NY Tax L § 270 (2012).

¹² Ibid.

¹³ New York State Department of Taxation and Finance, "Stock Transfer Tax," March 2020.

¹⁴ Ibid.

¹⁵ New York State Assembly Speaker Carl E. Heastie, "New York State Assembly Memorandum in Support of Legislation submitted in accordance with Assembly Rule III, Sec 1(f)."

¹⁶ New York State Department of Taxation and Finance, "Fiscal Year Tax Collections: 2019-2020," December 2020.

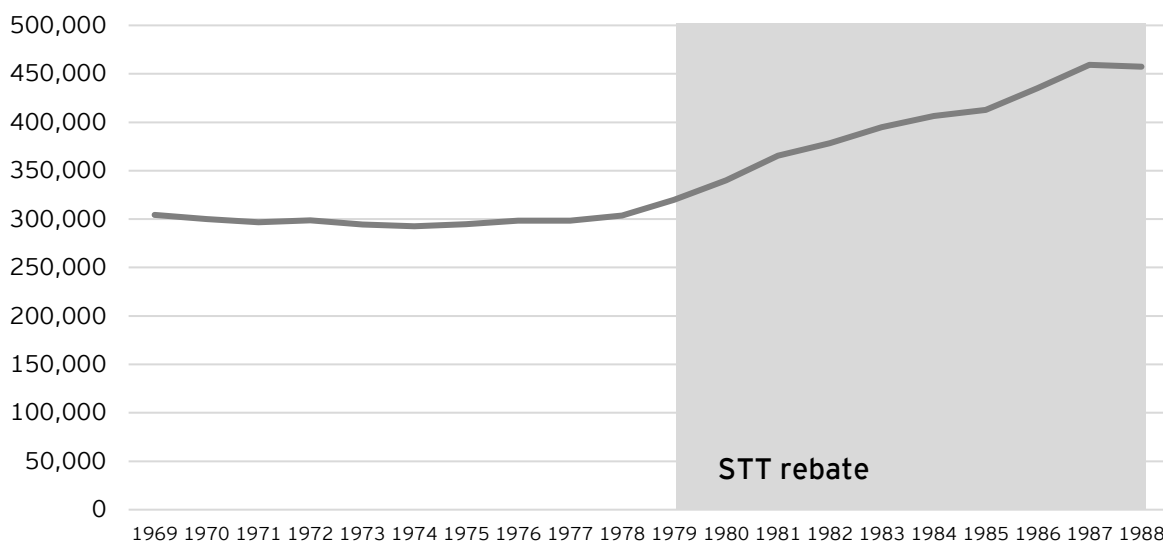
¹⁷ NY Tax L § 270 (2012).

¹⁸ New York City Independent Budget Office, "Background Paper: Reviving the New York Stock Transfer Tax: Revenues and Risks," November 2003.

electronic trading.¹⁹ As a result, a four-year phase-out of the tax began in 1979 when the rebate of the tax started at 30%. The rebate percentage increased annually up to 100% in 1981, effectively canceling the tax. The United States also imposed a Federal STT from 1914 to 1965. However, the tax was repealed under the Excise Tax Reduction Act.

Figure 1 shows the employment in the financial service industry for the State of New York from 1969 to 1988. New York employment in the financial services industry was stagnant from 1969 to 1978. However, employment began to grow in the late seventies and early eighties which coincided with the phase-in of the STT rebate (shown in the shaded area). From 1978 to 1988, industry employment grew by over 50%.

Figure 1. New York financial services industry employment 1969-1988



Source: Bureau of Economic Analysis (BEA)

Potential effects of STT

Historically, STTs are often positioned with the goals of progressivity, decreasing volatility, and increasing revenue.²⁰ The reintroduction of the New York STT is no exception. However, there are dramatically varied experiences with STTs and mixed conclusions on whether financial transaction taxes are the best way to achieve these goals.²¹ Prior research indicates the goals of the tax are not always met due to trade volume changes, share price decreases, and the impact of location and alternative substitutions to avoid the tax.

The International Monetary Fund (IMF) finds that securities values would fall in response to an STT.²² In the short term, this would lead financial activity to contract, lowering financial sector profits. The IMF indicates that as a result of this contraction, financial firms would likely pass the cost of an STT on to their clients including not only wealthy investors and corporations, but also mutual funds, pension funds and charitable funds as holders of U.S. equities. Federal Reserve Fund of Funds reported in 2018 that assets in private pension funds, federal government retirement funds and state and local retirement funds composed over 10% of the US equity market and

¹⁹ Michael Sterne, "Beame Seeks to Ease Stock-Transfer Tax", The New York Times, May 1977.

²⁰ Scott W. Maccormack "A Critique of the Reemerging Securities Transfer Excise Tax," The Tax Lawyer, Spring 1991.

²¹ Leonard E. Burman, William G. Gale, Sarah Gault, Bryan Kim, Jim Nunns and Steve Rosenthal, Financial Transaction Taxes in Theory and Practice," National Tax Journal, March 2016.

²² Thornton Matheson, "Taxing Financial Transactions: Issues and Evidence," IMF Working Paper, March 2011.

beneficiaries of these retirement funds would incur the burden of this tax.²³ In addition, US equities accounted for nearly a quarter of private pension assets and 38% of US household liquid assets.²⁴ As indicated by the IMF, the investors in these assets would pay at least a portion of this transaction tax.

For a retirement saver who invests \$10,000 per year over four decades, a Vanguard analysis on a potential 0.1% financial transaction tax (FTT) across the US estimated that this tax could cost more than three-and-a-half years of annual savings.²⁵ As equities listed on New York-listed stock exchanges accounted for 40% of the value of all shares traded in January 2021²⁶, the reintroduction of a New York STT would have significant impacts on individual investors and their retirement.

In addition to the impact on individual investors, the financial services industry of New York could be negatively impacted by trades moving to other exchanges, a further reduction in trade volume, and a transition to other financial instruments. As a result of “best execution” requirements under FINRA Rule 5310, financial firms may be required to execute trades elsewhere. Best execution rules require reasonable diligence to be used in order to obtain the best market for the security and buy or sell in the market where the resultant price is as favorable as possible.²⁷ According to an issue brief from the Partnership for New York City in 2004, reinstating the STT at half its original rate (half the currently proposed rate) would represent a 23% increase over NYSE and AMEX transaction costs at that time.²⁸ Market distortions from the re-emergence of STT could also redirect portfolio allocations away from equities and towards other financial instruments, including futures contracts, exchange-traded derivatives, etc.²⁹ These results are in line with findings from a paper studying nine modifications to the New York STT between 1932 and 1981. This study found that these changes are accompanied by an increase in volatility and transaction costs, reductions in volume, and higher price impacts. The authors conclude that an STT harms market quality and may hinder economic growth.³⁰

Table 1 presents results from imposing STTs in other countries, showing several instances of reduced trading volume. For example, analysis showed that Sweden’s doubling of its transaction tax in 1986 caused 60% of trading in 11 of the most actively traded Swedish share classes to shift from Stockholm to London. At the time these stocks constituted over 50% of Swedish equity trading, so the migrated volume represented over 30% of all trading. By 1990 the proportion of total Swedish share volume traded in London had grown to over 50%. Further, volatility fell in the classes that moved to London compared with those of Stockholm-traded classes.³¹ Another study found similar evidence about trading reductions in Sweden. In addition, they found trading shifted to non-taxed substitute products to increase tax avoidance. This study found that bond trading volume in Sweden fell by about 85%, while trading in options essentially disappeared. As a result of this, estimated tax revenues from fixed-income transactions in Sweden only reached a height of about 5% of what was initially estimated, and transaction tax revenues were entirely offset by the fall in capital gains tax revenues. Further, in England, trading volumes moved to equity derivatives that were not taxed.³²

²³ According to the Federal Reserve Flow of Funds Accounts L. 223 (2018).

²⁴ According to the Federal Reserve Flow of Funds Accounts L. 118 and L. 101 (2018).

²⁵ Vanguard, “Financial transaction tax: Main Street bears the burden,” June 2020.

²⁶ Cboe, “U.S. Equities Market Volume Summary,” February 2021.

²⁷ FINRA, “5310. Best Execution and Interpositioning,” May 2014.

²⁸ Jonathan A. Schwabish, “The Stock Transfer Tax and New York City: Potential Employment Effects,” Partnership for New York City Issue Brief, December 2004.

²⁹ When debating the Securities Transfer Excise Tax (STET) in 1989, House Speaker Jim Wright mentioned that there were “distortions created by STET relating to the choice of investments in securities.”

³⁰ Anna Pomeranets and Daniel Weaver, “Security Transaction Taxes and Market Quality,” Rotterdam School of Management, May 2012

³¹ Steven R. Umlauf, “Transaction taxes and the behavior of the Swedish stock market,” *Journal of Financial Economics*, 1993

³² Kenneth A. Froot and John Y. Cambell, “Securities Transaction Taxes: What about International Experiences and Migrating Markets,” MIDAMERICA Institute Research Project

Price decreases have also occurred following the introduction of taxes. Even an unofficial government stock transfer tax announcement to Swedish media caused the Swedish stock price index to decrease 5.3%, compared with a NYSE index increase of 1.1% on the same day.³³ Similar results were found in France, where trades declined by about 16% in the French CAC (i.e., stock market index) within 40 days of an adoption of a STT and in Italy where the reintroduction of an Italian financial transaction tax led to an increase in volatility and quoted spreads, the opposite of regulators' intentions.^{34 35} While some countries have looked to impose taxes on financial transactions, several developed nations such as Germany, Japan, the Netherlands, and Sweden have repealed FTTs in recent decades because of competitive pressures stemming from globalization and technological changes that made shifting trading to other markets less costly.³⁶ Technological advances since the adoption of these foreign taxes, as well as the relative ease of moving trading within the US as opposed to between countries, could result in greater changes than experienced historically.

³³ Daniel Waldenström, "Why are securities transactions taxed?: Evidence from Sweden, 1909-1991," Department of Economics in Stockholm School of Economics.

³⁴ Martin Haferkorn and Kai Zimmermann, "Securities Transaction Tax and Market Quality - The Case of France," Goethe University Frankfurt.

³⁵ Tobias R. Ruhl and Michael Stein, "The impact of financial transaction taxes: Evidence from Italy," *Economics Bulletin*, January 2014

³⁶ Leonard E. Burman, William G. Gale, Sarah Gault, Bryan Kim, Jim Nunns and Steve Rosenthal, "Financial Transaction Taxes in Theory and Practice," *National Tax Journal*, March 2016.

Table 1. Summary of prior research on the effects of stock or financial transaction taxes on trading volume and other measures

Name of report	Commissioned by or university	Key findings
Securities Transaction Tax and Market Quality - The Case in France	Goethe University Frankfurt	<ul style="list-style-type: none"> • Within 40 days after the adoption of an STT, trades within the French CAC 40 declined by 16% compared to the benchmark.
Why are securities transactions taxed? Evidence from Sweden, 1909-1991	Stockholm School of Economics	<ul style="list-style-type: none"> • An unofficial government STT announcement to the media caused the Swedish stock price index to decrease 5.3% compared to a 1.1% increase on the NYSE.
Taxing Financial Transactions: Issues and Evidence	International Monetary Fund	<ul style="list-style-type: none"> • Securities values would fall in the short term in response to the tax, leading financial activity to contract and lowering financial sector profits. These firms would likely pass the cost of an STT on to clients, including charities, pensions, and mutual funds.
Main Street Investors at Risk	Vanguard	<ul style="list-style-type: none"> • A Vanguard analysis on a potential .1% financial transaction tax (FTT) across the US estimated that this tax could cost a retirement saver who invests \$10,000 per year over four decades more than three-and-a-half years of annual savings.
The Stock Transfer Tax and New York City: Potential Employment Effects	Partnership for New York City	<ul style="list-style-type: none"> • In 2003, reinstating the STT at half its original rate would represent a 23% increase in transaction costs. This would be accompanied by an 18% decline in trading volume. • A 10% decrease in traded volume would decrease securities industry employment by 6.1% to 6.4% based on 2002 employment levels.
The Impact of Financial Transaction Taxes: Evidence from Italy	Published in Economics Bulletin; Authors from University of Duisburg-Essen	<ul style="list-style-type: none"> • The reintroduction of an Italian financial transaction tax led to an increase in volatility and quoted spreads, the opposite of regulators' intentions
Security Transaction Taxes and Market Quality	Rotterdam School of Management	<ul style="list-style-type: none"> • Modifications of the New York STT between 1932 and 1981 were accompanied by an increase in volatility and transaction costs, reductions in volume, and higher price impacts. Authors concluded that an STT harms market quality and may hinder economic growth.
Securities Transaction Taxes: What about international experiences and migrating markets?	MIDAMERICA Institute	<ul style="list-style-type: none"> • Trading in Sweden shifted to non-taxed substitute products. Bond trading volume in Sweden fell by about 85%, while trading in options essentially disappeared. • Estimated tax revenues from fixed-income transactions in Sweden only reached a height of about 5% of what was initially estimated. • Transaction tax revenues were entirely offset by the fall in capital gains tax revenues. • Trading volumes in England moved to equity derivatives that were not taxed
Transaction taxes and the behavior of the Swedish stock market	Published in Journal of Financial Economics	<ul style="list-style-type: none"> • When Sweden doubled their transaction tax in 1986, 60% of trading in 11 of the most actively traded Swedish share classes shifted from Stockholm to London. These stocks constituted over 50% of Swedish equity trading, so the migrated volume represented over 30% of all trading. • By 1990 the proportion of total Swedish share volume traded in London had grown to over 50% • Volatility fell in the classes that moved to London compared with those in Stockholm-traded classes.
A Critique of the Reemerging Securities Transfer Excise Tax	American Bar Association	<ul style="list-style-type: none"> • Broad information about positioning of STTs with the goals of progressivity, decreasing volatility, and increasing revenue.
Financial Transaction Taxes in Theory and Practice	National Tax Association	<ul style="list-style-type: none"> • There are varied experiences with STTs and mixed conclusions on whether financial transaction taxes are the best way to achieve the stated goals • There have been several developed nations that have repealed FTTs in recent decades because of competitive pressures stemming from globalization and technological changes that made shifting trading to other markets less costly

3. Economic and tax contribution analysis of the New York financial services sector

The financial services industry is a vital part of the economy for both the State of New York and New York City. The industry supplies nearly 370,000 direct jobs and creates additional employment opportunities through indirect and induced contributions. The following section of the report provides information regarding the size of the financial services industry in New York State and New York City as well as its economic contributions, including direct and indirect effects, and potential impact of a reinstated STT on those contributions.

Current direct economic and tax footprint

As shown in Table 2 below, the securities sector makes up the largest share of the overall financial services industry statewide and in New York City. Combined, the financial services industry accounts for 17% of all private sector wages earned in New York for 2019 while only making up 5% of all private sector employment.³⁷ Correspondingly, financial services in New York City accounts for 24% of all private sector wages, and only 7% of private sector employment.³⁸

Table 2. Financial services industry employment and wages in New York, 2019

	Employment	Labor Income
New York State		
Banking	170,000	\$27.4b
Securities	199,300	\$77.7b
New York State financial services industry total	369,300	\$105.1b
New York City		
Banking	100,900	\$21.1b
Securities	178,500	\$72.6b
New York City financial services industry total	279,400	\$93.7b

Source: BLS Quarterly Census of Employment and Wages for 2019

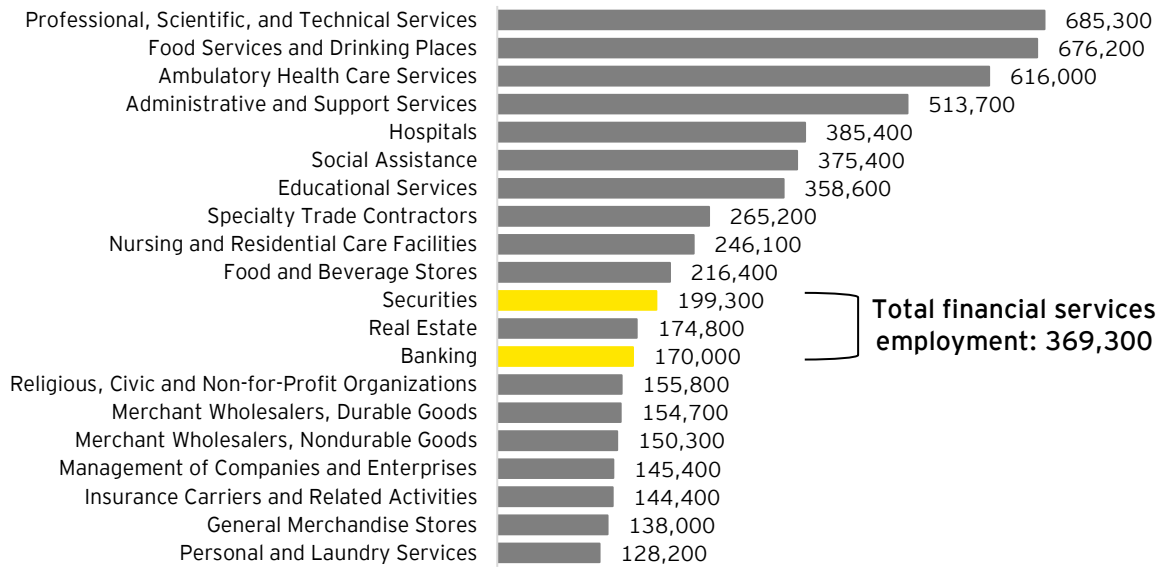
Industries in the financial services sector are drivers of New York’s economy. Figure 2 presents the top industries by private employment in the state.³⁹ The two sectors of the financial services industry rank as the eleventh and thirteenth largest industries by employment in the State of New York for 2019. In New York City, the financial services industry represents 279,400 or 7% of the overall private sector workforce.

³⁷ The proportion of financial services industry wages and employment was calculated as the difference of the sum of 522 & 523 over totals for New York in 2019. Total Annual Wages and Annual Average Employee Levels were extracted from the Bureau of Labor Statistics QCEW.

³⁸ The proportion of financial services industry wages and employment was calculated as the difference of the sum of 522 & 523 over totals for all 5 New York counties in 2019. Total Annual Wages and Annual Average Employee Levels were extracted from the Bureau of Labor Statistics QCEW.

³⁹ By three-digit NAICS code

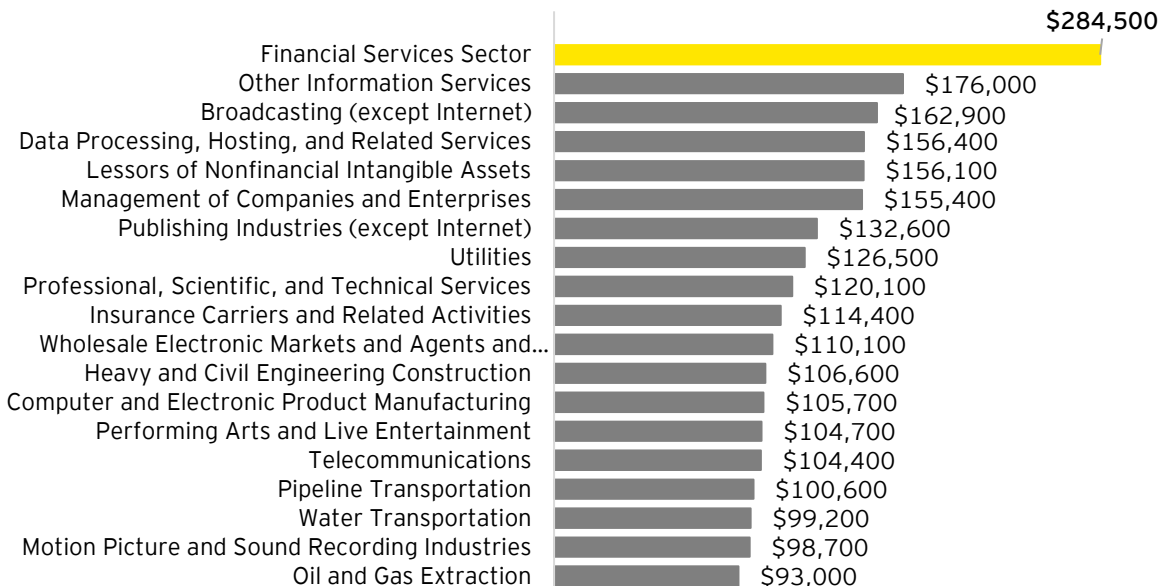
Figure 2. Top 20 industries by employment in New York, 2019



Note: Employment represents only private sector jobs under ownership code 5 and industries are broken out at the three digit NACIS code level.
 Source: BLS Quarterly Census of Employment and Wages for 2019.

When comparing average wages by sector, the financial services sector ranks even higher. Figure 3 shows the top 20 industries by private sector average wages for New York in 2019. The financial services sector exceeds the second highest industry by over \$100,000 (\$284,500 for the financial services sector vs. \$76,100 for all industries statewide). In New York City, the financial services sector pays more than three times the average private sector wage (\$335,400 vs. \$97,700).⁴⁰

Figure 3. Top 20 industries by average wage in New York, 2019

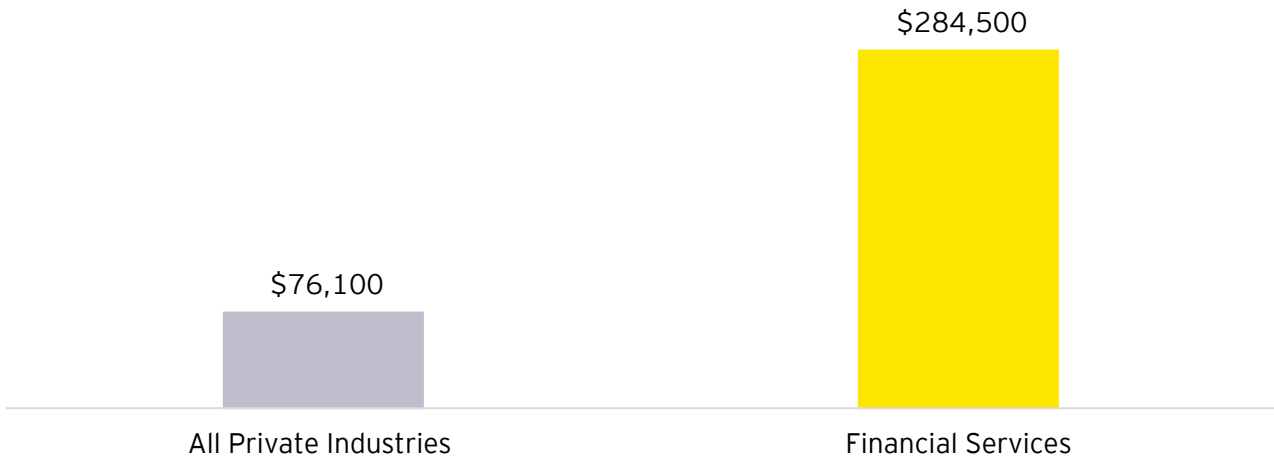


Note: Employment represents only private sector jobs under ownership code 5.
 Source: BLS Quarterly Census of Employment and Wages for 2019.

⁴⁰ The financial services sector average wage in New York City was calculated as the simple difference of total labor income by total employment (see Table 1). Private sector average wage in New York City is the average of BLS average annual wages for all five New York City counties in 2019.

The financial services sector pays, on average, more than three and half times the New York State average across all private sector industries. Figure 4 compares the average wage of the industry to the average wage of New York for private sector jobs in 2019.

Figure 4. Annual average wages paid by the financial services sector and New York statewide average, 2019



Source: BLS Quarterly Census of Employment and Wages

Current direct, indirect, and induced economic contribution

The economic contribution of the financial services industry includes not only the activity contained within the New York facilities operated by these companies, but also includes the activities supported by the payments of these companies to employees as well as payments to third-party suppliers. This section of the report summarizes the industry's economic contribution in terms of three metrics:

- ▶ **Employment** the total number of full-time and part-time workers in the state, based on place of employment.
- ▶ **Labor income** the total cash and non-cash compensation (benefits) paid to employees.
- ▶ **Value added** the total incremental value that is created by an economic activity, approximately equivalent to revenue less purchases from third parties.

The contributions include three categories of economic activity, which reflect the connection of the New York financial services industry to other types of businesses in the state:

- ▶ **Direct economic contribution** denotes the activity of New York financial services industry, including the employment and associated labor costs of their New York workers.
- ▶ **Indirect economic contribution** denotes the contribution related to the suppliers of these financial services companies in New York. Typically, the supplier spending of financial services firms in the state is concentrated in the professional and business services categories, as well as utilities, real estate, and technology.
- ▶ **Induced economic contribution** denotes the spending of earnings by employees of the sector.

Table 3 presents the estimated economic contributions of New York's financial services industry for 2019. The direct contributions are based on the information presented in Table 1 describing the direct footprint of the sector. These data points are used as inputs into the IMPLAN economic model of New York to estimate the indirect and induced economic effects.

These estimates show that New York’s financial services industry supports an estimated 966,200 total statewide jobs in New York, as well as approximately \$162.6 billion of labor income to New York workers. The sector directly supports approximately \$320.1 billion in direct gross economic output, including an estimated \$247.4 billion in direct New York GDP. When indirect and induced contributions are included, the gross economic output increases to \$502.2 billion while New York GDP rises to \$364.6 billion. This means, for every \$100 dollars of direct GDP generated by the financial services industry, an additional \$47 dollars of GDP is generated by indirect and induced effects.

The financial services sector in New York City supports an estimated 620,700 of total jobs, and approximately \$127.1 billion of labor income to New York City workers. To put New York City employment supported by the financial services industry into perspective, that’s nearly four times the current unemployment level in New York City (160,700).⁴¹ The sector directly supports approximately \$207.5 billion in direct GDP, \$26.9 billion in indirect GDP, and \$40.1 billion in induced GDP for a total of \$274.5 billion.

Table 3. Estimated economic contributions of the financial services sector

Billions of 2019 dollars; Number of full- and part-time employees

	Direct contribution	Indirect contribution	Induced contribution	Total contribution
Annual contribution in New York State				
Employment	369,300	183,300	413,600	966,200
Labor income	\$105.1	\$23.4	\$34.2	\$162.6
GDP	\$247.4	\$41.8	\$75.4	\$364.6
Economic output	\$320.1	\$64.6	\$117.4	\$502.2
Annual contribution in New York City				
Employment	279,400	113,700	227,600	620,700
Labor income	\$93.7	\$15.2	\$18.2	\$127.1
GDP	\$207.5	\$26.9	\$40.1	\$274.5
Economic output	\$254.7	\$39.5	\$60.0	\$354.2

Note: Figures may not appear to sum due to rounding.

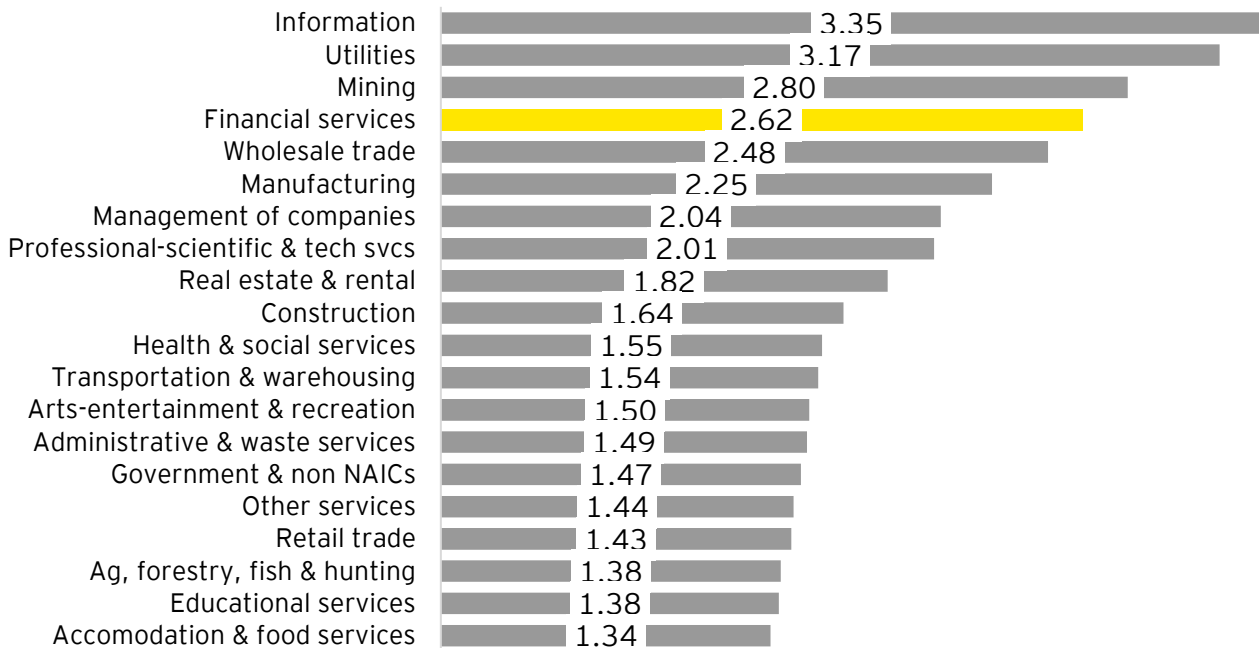
Source: EY analysis using the IMPLAN input-output multiplier model of New York and the five New York City counties.

The indirect and induced job contributions of the financial services sector are greater than the most other industries in New York, as measured by the employment multiplier, which is the number of total New York jobs supported by the sector per direct job in the sector. The financial services sector, as defined by this study, has an employment multiplier of 2.62 in New York. This means that for every 100 workers directly employed by the industry, an additional 162 jobs are supported elsewhere in the State.

Figure 5 presents the employment multipliers of major sectors in New York as well as the overall employment multiplier for the financial services sector. The multiplier of 2.62 for the financial services sector is 49% higher than the statewide average employment multiplier of 1.75, indicating the sector supports a higher-than-average number of total jobs in the state, as compared with other sectors.

⁴¹ The current unemployment level in New York City was calculated as the sum of New York City county-level unemployment from BLS Local Area Unemployment Statistics 2019.

Figure 5. IMPLAN employment multiplier by industry



Source: IMPLAN input-output multiplier model of New York.

The New York financial services industry presented in Table 2 also supports state and local tax revenues throughout the state. The financial services sector directly supports more than \$8.0 billion in annual New York state tax revenues including individual income taxes paid by employees, household sales and property taxes, and corporate income, property, and sales taxes remitted by the industry.⁴² According to the Office of the New York State Comptroller, the securities sector accounted for approximately 17% of total New York tax collections in FY19. Table 4 shows the direct, indirect, and induced tax contributions of the financial services sector by tax type.

Table 4. Estimated tax contributions of the financial services sector

Billions of 2019 dollars

	Direct tax contribution	Indirect tax contribution	Induced tax contribution	Total tax contribution
State taxes				
Sales & excise taxes	\$1.9	\$0.5	\$0.7	\$3.1
Individual income taxes	\$5.0	\$0.9	\$1.3	\$7.3
Corporate income taxes	\$0.6	\$0.1	\$0.1	\$0.8
Other taxes	\$0.4	\$0.1	\$0.1	\$0.6
Total state taxes	\$8.0	\$1.5	\$2.3	\$11.7
Local taxes	\$6.8	\$1.4	\$1.6	\$9.8
Total state and local taxes	\$14.7	\$2.9	\$3.9	\$21.5

Note: Figures may not appear to sum due to rounding.

Source: Census; New York Department of Taxation and Finance; IMPLAN input-output multiplier model of New York.

⁴² Tax contributions were estimated based on the historical ratio of tax collections to personal income in the state based on US Census Bureau tax collection data and statewide personal income data from the Bureau of Economic Analysis. The effective tax rate was adjusted to reflect the direct corporate income tax amount paid by the financial services industry in FY19, based on data from the Office of the New York State Comptroller.

The financial services industry also contributes more in taxes per worker than the other top industries in the state by private employment. Figure 6 shows the direct tax contribution per worker for the largest private sectors by employment. On average, each employee in the financial services sector supports \$21,600 in direct taxes, which is nearly five times larger than the average across the top 20 New York industries. Correspondingly, in New York City, the financial services sector supports over \$24,000 in direct taxes per employee.⁴³

Figure 6. Estimated direct taxes per employee in New York



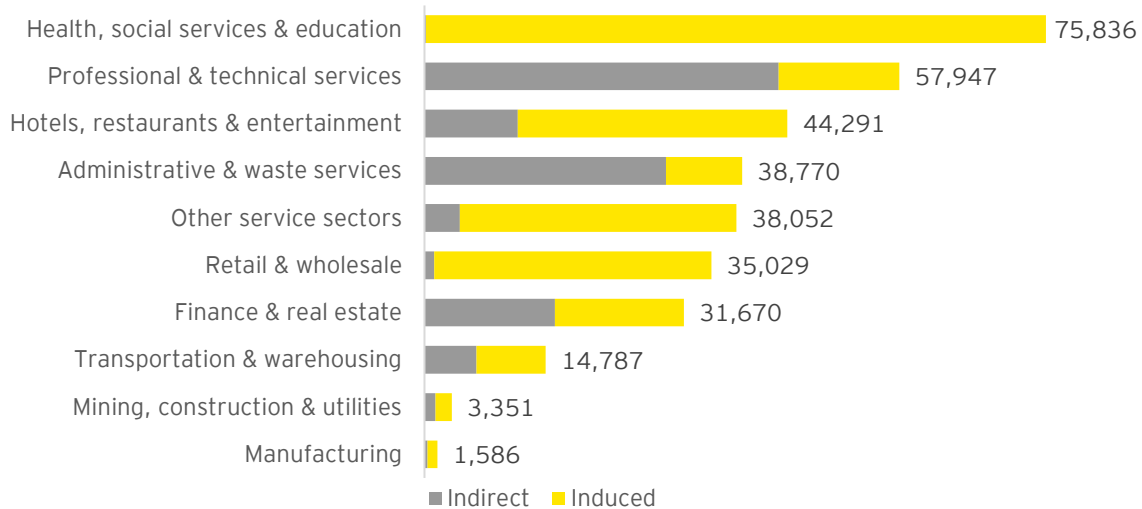
Note: Business taxes are excluded for the hospitals, educational services, religion, civic and non-for-profit organizations, and social assistance sectors as these generally include tax exempt organizations.
Source: Census; BLS; BEA.

Other financial services contributions to New York City

As shown in Table 3, the financial services industry’s economic contributions extend beyond the direct effects to also include indirect and induced benefits for both the State of New York as well as New York City. For New York City, the indirect and induced employment benefits from the financial services industry include approximately 341,300 jobs and \$33.4 billion in labor income. Figure 7 breaks out the indirect and induced jobs by industry. Health, social services and education makes up the largest share of the indirect and induced jobs at almost 22%.

⁴³ Based off New York state effective tax rates.

Figure 7. Indirect and induced jobs by industry



Source: IMPLAN input-output multiplier model of New York.

Another sector significantly impacted by the financial services industry in New York City is corporate real estate. Of the top 30 largest private sector tenants in Lower Manhattan, 30% are in the financial services sector.⁴⁴ This 30% occupies 45% of total commercial square footage (10.6 million sq. ft.) of the top 30 largest private-sector tenants in Lower Manhattan and has a disproportionate contribution to commercial property occupancy.

The financial services industry is also a critical sector for business travel and hotel occupancy in New York City. In a NYC & Co 5-Year Trend Report on Hotel Occupancy, 39 million hotel room nights were sold in New York City in 2019 of which approximately 8 million were for business travel. Of the 8 million, an estimated 2 million hotel rooms were booked in association with the financial services industry.⁴⁵ By assuming the average hotel room rate in New York City of \$250,⁴⁶ the financial services sector in 2019 contributed an estimated \$513 million in revenue to the New York City hotel industry.

Potential impact of an STT on the size of the New York financial services sector and economic activity

There is evidence of declining trade volumes as a result of the introduction of financial transaction taxes and some indication that the impact in New York could be even greater. A 2000 study estimated that the STT being reinstated in New York at half of the currently proposed rate would represent a 23% increase in existing transaction costs, which would be accompanied by an estimated 18% decline in trading volume.⁴⁷ With the introduction of the STT at the full rate, these declines could be even greater. The associated declines in trading could have significant declines in

⁴⁴ Downtown Alliance, "Lower Manhattan Largest 30 Tenants of 2019."

⁴⁵ Estimated by multiplying total Hotel Room Nights Sold by the proportion of business travelers in NYC (20%) and then by the proportion of financial services (26.40%). The proportion of business travelers is listed in the New York City Department of City Planning's report on "NYC Hotel Market Analysis: Existing Conditions and 10-Year Outlook." The proportion of financial services was estimated as the proportion of regional inputs in the financial services industry over total regional inputs.

⁴⁶ Approximated from Average Daily Rates (ADR) for hotel rooms in New York City between 2011 and 2016. New York City Department of City Planning, "NYC Hotel Market Analysis: Existing Conditions and 10-Year Outlook," 2017.

⁴⁷ Jonathan A. Schwabish, "The Stock Transfer Tax and New York City: Potential Employment Effects," Partnership for New York City Issue Brief, December 2004.

securities industry employment. The Partnership for New York City estimated in 2004 that a 10% decrease in trading volume would decrease securities industry employment by 6.1% to 6.4%.

As highlighted in the section above, the financial services industry is an economic driver in both the state and New York City paying well above the average wage and supporting more indirect and induced jobs than most other industries. Compared with prior estimates of the impact of previous STT proposals, the imposition of the STT as currently proposed may have more significant effects due to the relative increase in all-in trading costs. According to the Nasdaq report, "Is Free Fair To All?," the CBOE, Nasdaq, NYSE, and IEX securities exchanges have different all-in costs to trade.⁴⁸ The major exchanges' transaction costs are all under 0.1 cents-per-share. Based on data from CBOE, the average share value traded on New York-listed stock exchanges in January 2021 was approximately \$42 and, therefore, would be subject to a five-cent tax per trade. This tax would represent a significant increase in the all-in cost of a trade. As a result of this significant increase in transaction costs, New York-listed exchanges' competitiveness with other exchanges could be greatly impacted.

4. Limitations and caveats

The reader should be aware of the following limitations of the analysis:

- ▶ The results presented in this report show a snapshot of current economic contributions based on 2019 data. The input-output modeling approach used in this analysis shows the 2019 economic contribution of the financial services industries, as defined by this report, based on their relationships with other industries and households in the New York State and New York City economy. The results do not reflect the impacts of a possible industry expansion of employment into New York in a post-COVID environment or the potential contraction of the industry within New York resulting from the proposed changes to the STT described in this report.
- ▶ This study does not present potential impacts of the proposed STT changes. Instead, it presents the current economic contribution of the economic activities most likely to be impacted and references prior studies to point to potential economic impacts to the sector.
- ▶ Input-output modeling can include double counting. The input-output modeling approach used in this analysis can include double counting in its indirect and induced estimates. Financial services company suppliers or the suppliers of suppliers could be themselves financial services companies and consumer re-spending of income supported by financial services activities could be at financial services businesses. Thus, some portion of these financial services activities could be included in the indirect and induced estimates of this analysis. This limitation is due to the use of industry averages in estimating indirect and induced economic contributions in input-output modeling.
- ▶ Estimates are limited by available public information. The analysis relies on employment information reported by federal government agencies.
- ▶ Unless otherwise stated, tax contributions are estimated based on average levels of tax collections relative to statewide personal income and reflect a combination of business and household taxes. To the extent businesses or employees reflected in the direct, indirect, or induced effects deviate significantly from the average, the estimated tax contributions may be overstated or understated.

⁴⁸ Phil Mackintosh, "Is Free Fair To All?," Nasdaq, Jan. 2019.