

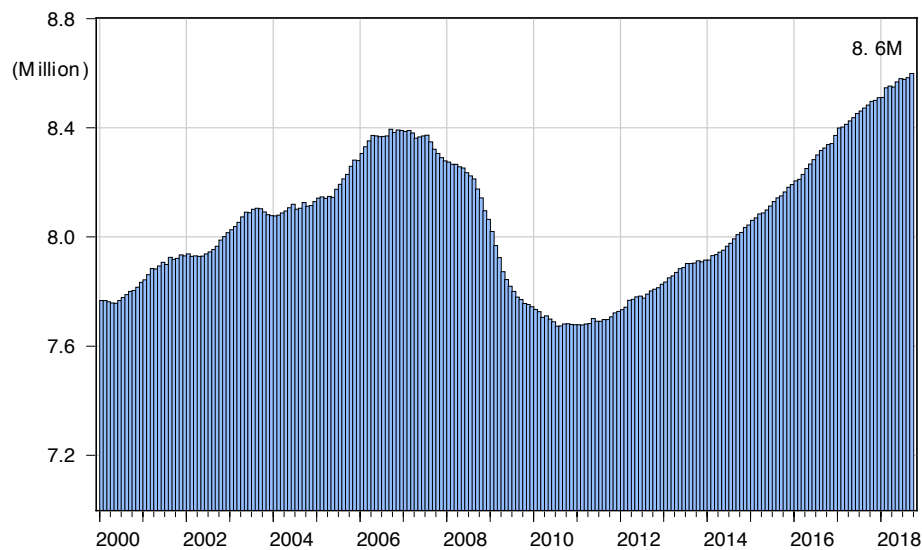
Employment in the Financial Industry

William Yu
Economist, UCLA Anderson Forecast
December 2018

At the 10-year anniversary mark of the global financial crisis, we take a look at how the financial industry has fared in the decade since the downfall of Lehman Brothers. Figure 1 shows total payroll jobs in the finance industry.¹ As we can see, finance jobs plummeted during the financial crisis and Great Recession from a peak of 8.4 million jobs in November 2006, to a low of 7.7 million jobs in July 2010. Since then, employment has gradually recovered to 8.6 million jobs in the era of Dodd-Frank.²

Finance sector job growth from 2006 to 2018 was a miniscule 2.5%, compared to 8.2% for total payroll employment. Therefore it is no longer a growth sector. Finance sector job is even direr in California as shown in Figure 2. The finance jobs collapsed from 935,000 at the peak in 2006 to 758,000 during the trough in 2010, slowly recovered to current level of 836,000, which is still 10% below the pre-recession peak level.

Figure 1 Finance Industry Jobs in the U.S. from 2000 to 2018



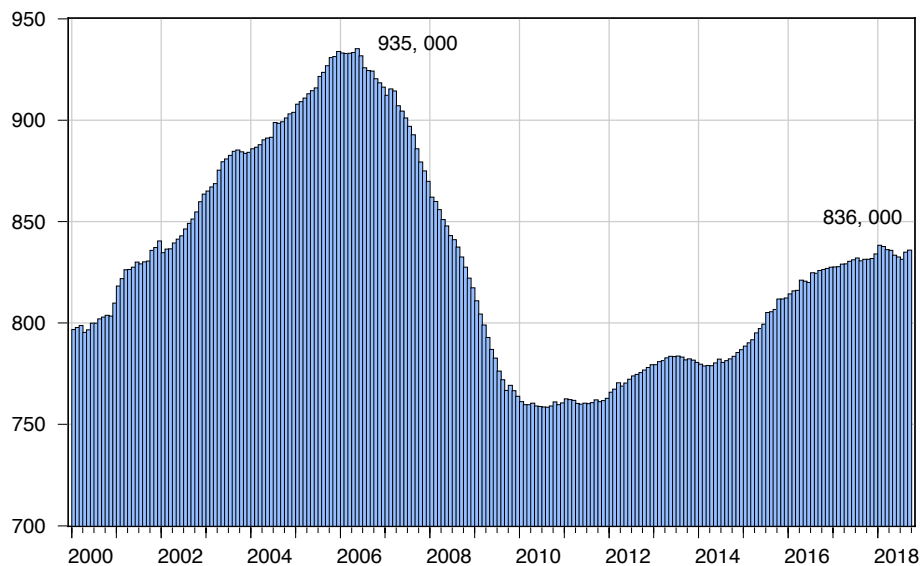
Sources: Bureau of Labor Statistics

1. The financial industry includes finance and insurance (6.3 million jobs in September 2018), real estate, and rental/leasing industries (2.3 million jobs in September 2018). That includes both NACIS code 52 and 53.

2. Some composition of job loss and recovery are different. More details in the later section.

EMPLOYMENT IN THE FINANCIAL INDUSTRY

Figure 2 Finance Industry Jobs in California from 2000 to 2018



Sources: Bureau of Labor Statistics

Employment in Subsectors of the Financial Industry

Figure 3 displays the annual growth rates of jobs in the finance industry by subsector for the period of 2008 to 2018 (the long run) in the blue bar and 2017 to 2018, in the yellow bar. Let's focus on the long run (blue bar). Except for credit unions, most depository credit intermediations have seen negative job growth, in particular the savings institutions. Non-depository credit intermediations employment barely grew, whereas financial transactions, processing, and clearing had robust growth.

In the investment and securities sector, the trading and securities brokerage sub-sector had negative job growth. There might be two reasons: (1) the total shares traded have declined after the financial crisis. For instance, in June 2008, there were 29 billion shares traded³ in the New York Stock Exchange where the trading volume declined to 22 billion shares in June 2018. (2) Those computer algorithms doing daily or even high frequency trading might be very real.

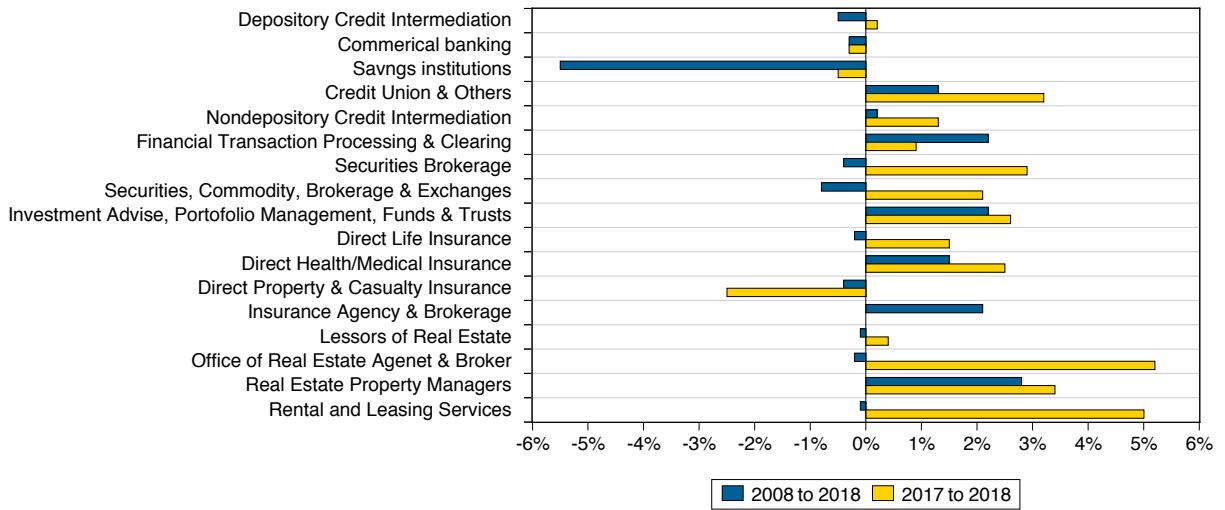
In contrast, the investment advisory, portfolio management, and funds and trusts sub-sectors has been doing very well in the long bull market. Figure 4 indicates a strong correlation between the jobs in these investment sectors (left scale) and the S&P 500 index (right scale). Within the insurance sector; life and property & casualty insurance had a bad decade. On the other hand, the health insurance sector has been doing well as a direct consequence of the increased number of insured induced by the Affordable Care Act. In the real estate sector, property managers have been growing at a rapid rate (almost 3% a year) reflecting the move to rental housing from owner occupied housing in many markets.

Have Computers and Robots Replaced Stocks Traders?

As we mentioned earlier, job growth in the finance sector is tepid in the aftermath of the financial crisis. Is it because of the regulatory constraints the finance industry faced after the bubble bust and deleverage in the industry? Or is it because computers, robots, or artificial intelligence (AI) are replacing high-paying jobs (high-cost jobs to employers)? It could be some of both.

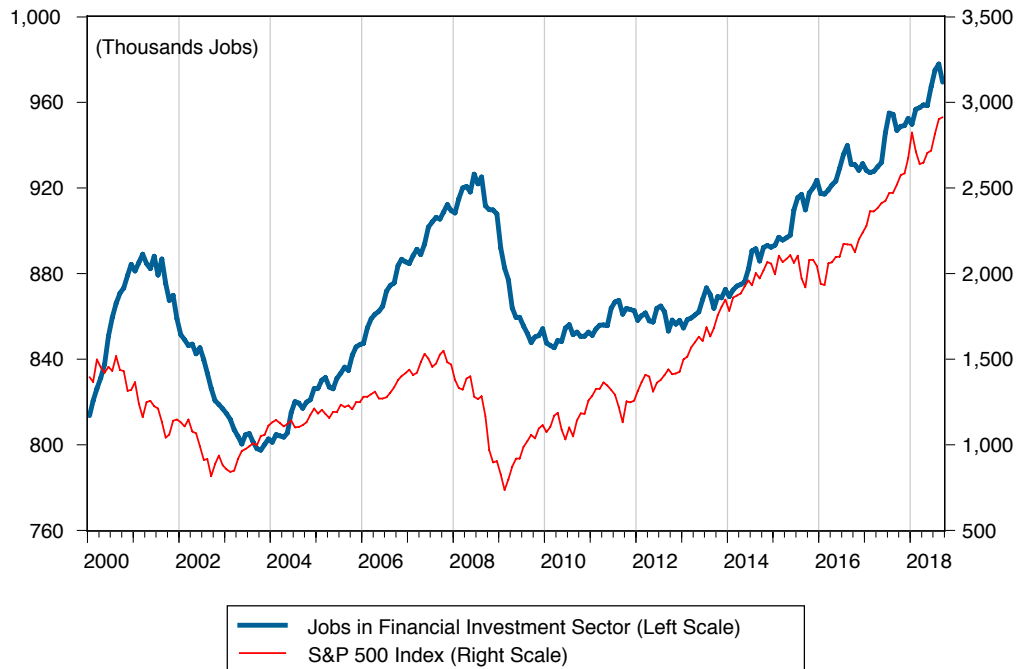
3. https://markets.cboe.com/us/equities/market_statistics/historical_market_volume/

Figure 3 Annual Growth Rates of Subsector Finance Jobs for the Period 2008 to 2018 and 2017 to 2018



Sources: Bureau of Labor Statistics

Figure 4 Jobs in the Investment Sector and S&P 500 Index



Sources: Bureau of Labor Statistics and Yahoo Finance

Figure 5 presents the annual compounded growth rates of real industry output (value added) and payroll employment from 2007 to 2017. The blue bar is the annual real output growth rate and the yellow bar is the annual job growth rate. We order the industry by the difference of growth rates between real outputs (e.g. GDP) and jobs. There could be two ways to explain the difference. When the growth rate of industry output is higher than its jobs, the sector could simply be very productive. Or, higher output than jobs could indicate the industry is using more machines, robots, computers, or AI to replace traditional human jobs, whether blue or white collar.

The industry with the highest output-to-jobs ratio is the information industry, which should not be surprising. After all, it is mostly the tech industry who gives us the technology to improve efficiency, productivity and profits across all sectors. Of course, they will be using a lot of tech in their own companies. From 2007 to 2017 (the second half is the tech-boom era), the annual real output growth rate of the information sector is an impressive 5%. What is surprising is that its annual net job growth is negative (-0.9%) in the same period.

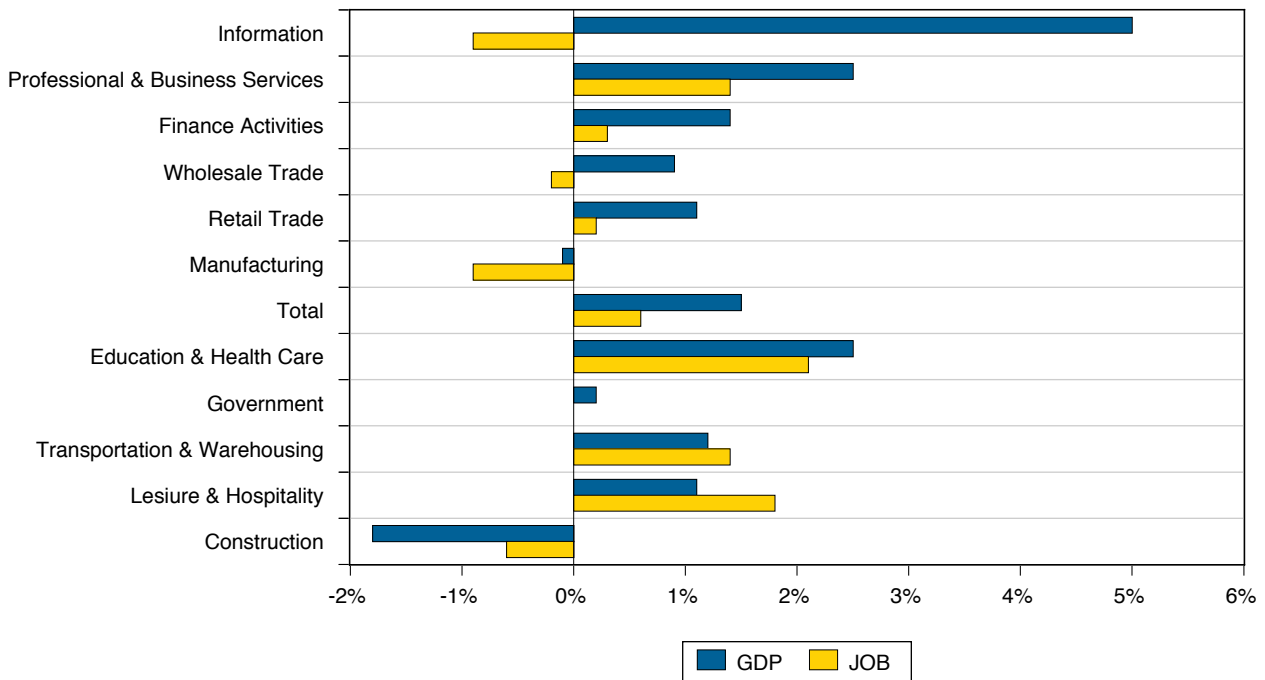
The second place most productive per job industry is the professional and business services sector. During the same decade, the real output growth rate is 2.5% a year while the job growth rate is 1.4%. In third place is the financial industry with its real output growth rate of 1.4% with 0.3% job growth, and then come the wholesale trade sector, retail trade sector, and manufacturing sector. The next line on the chart is the “total sector,” which is the average of the whole economy. The last two below the line are the obviously more labor intensive leisure and hospitality and construction sectors.

In short, we suggest that the financial industry is no doubt adopting technology to enhance productivity or even replace human jobs.

Financial Industry Employment Across Metros

Figure 6 lists the ranking of annual job growth of the finance and insurance sector from 2008 to 2018 for 33 major metro areas. San Antonio has stunning job growth at 3.2% a year over the past decade, followed closely by Austin’s 3.1%, Phoenix’s 3.1%, Columbus’s 2.4%, Dallas’s 2.3%, Salt Lake

Figure 5 Annual Compounded Growth Rates of Real Industry Output and Industry Jobs from 2007 to 2017



Sources: Bureau of Labor Statistics and Bureau of Economic Analysis

City’s 1.9%. On the other hand, we see negative job growth in the finance sector for metros such as Baltimore, Chicago, Boston, L.A., and Seattle.

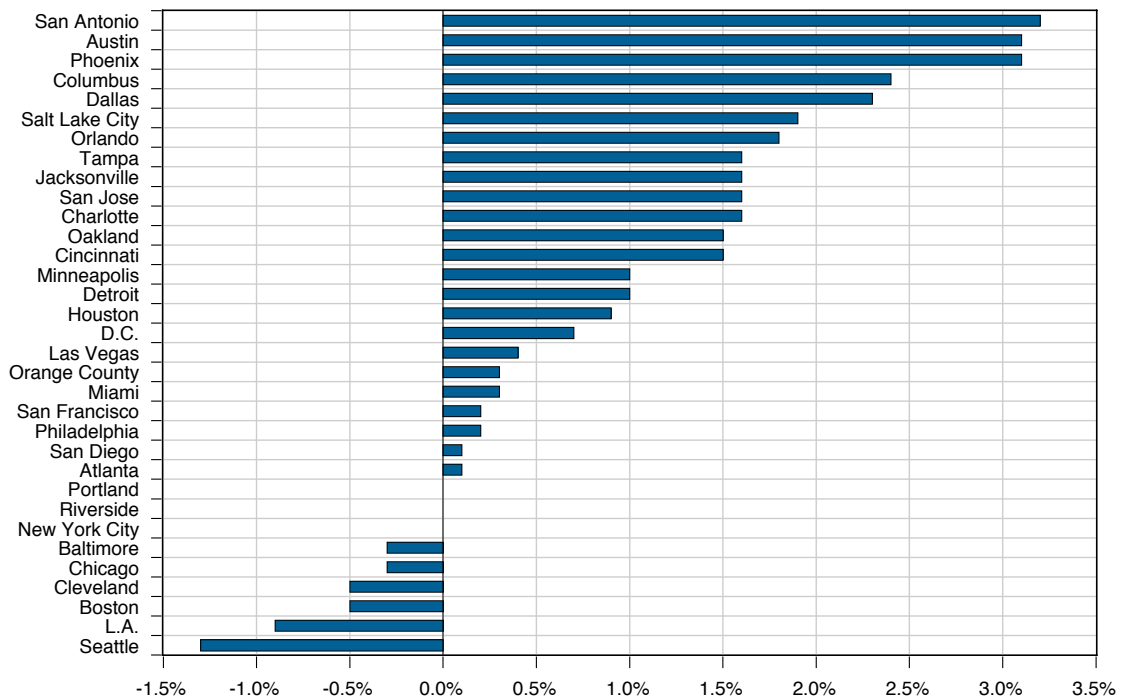
Why do we see this disparity of job growth across metros? Figure 7 might provide part of the reason for it. The chart illustrates the correlation between a metro’s annual total job growth and finance/insurance job growth from 2008 to 2018. In general, we see a positive correlation between these two growth rates as shown in the red line. It is reasonable to see that a fast-growing metro, such as Austin, with more jobs and more people moving into town would have more demand for basic financial services, such as banking and insurance.

What is interesting is to explain why a metro with high total job growth might have relatively low finance/insurance job growth. For instance, Seattle has an annual total job growth of 1.6% on average a year in the past decade but has a negative 1.3% job growth in finance. The bankruptcy of Washington Mutual in the sample period might explain most

of that. In addition, traditional finance centers, such as New York City (0%), San Francisco (0.2%), Boston (-0.5%), and L.A. (-0.9%) seem not to be doing well in growing jobs in the finance/insurance sector despite some of them, such as San Francisco at 2.3% and New York City at 1.7%, having high job growth rates,.

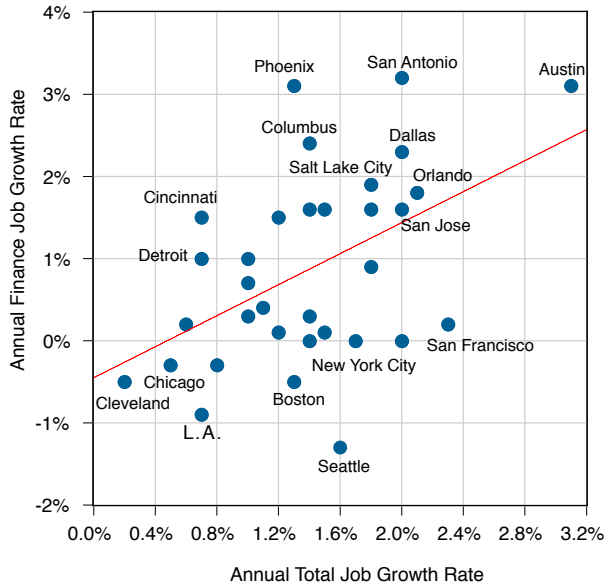
On the other hand, metros such as San Antonio, Phoenix, Dallas, Columbus, Salt Lake City, and Cincinnati have a higher growth rate of finance jobs than other sectors. That said, these cities might be attracting and growing some back-office or analytics jobs serving national customers rather than local ones. Why is that? One possible reason is that these metros have a lower cost of living, making them attractive for employers to build and expand financial industry jobs in these places rather than in high-cost New York City, San Francisco, or Boston. As long as its performance is good, it is not important to a customer that his/her mutual fund manager work nearby, for instance, so there is more flexibility to expand in lower-cost areas.

Figure 6 The Annual Growth Rate of Finance and Insurance Jobs from 2008 to 2018 for 33 Major Metros



Source: Bureau of Labor Statistics

Figure 7 The Correlation of Annual Job Growth Rate Between the Total Sector and the Finance/Insurance Sector from 2008 to 2018 for 33 Major Metros



Source: Bureau of Labor Statistics

For instance, Goldman Sachs now has a major presence in Salt Lake City and UBS has a major presence in Nashville. Furthermore, money manager Alliance Bernstein is moving its executive offices and back office to Nashville as well.

California Forecast

Using the growth rate of finance employment of California in Figure 2, we forecast the finance job growth over the next year by sub-sector in California: total finance: 1.4%, credit intermediation: 0.4%, securities and investment: 2.5%, insurance: 0.5%, and real estate: 1.5%.

Conclusions

The takeaways of the report are as follows:

- Similar to the information and professional and business service sectors, productivity in the financial industry is high. The adoption rate of technology to help or substitute human work might be more common than other sectors. Job growth in the investment sector has been robust mostly due to the bull stock markets in the past several years.
- Finance job growth is uneven across metros. In addition to local economic factors, we suggest lower-cost cities have been attracting and creating more jobs in the finance and insurance sector.