



# Automation and Jobs in Financial Services

Early in 2017, we published “Jobs for The Bots: How the UK Jobs Market Is Responding to Automation”, which revealed that the UK jobs market is responding remarkably well to automation, creating many high quality roles and more than offsetting the negative impact of automation.

These patterns can be explored in detail for each sector. This paper outlines the dynamics of the Financial Services sector, one of the key employers in the UK economy.

## How is the Financial Services jobs market responding to automation?

Total employment in Financial Services, as recorded by the Office for National Statistics (ONS), was about 1.2m in 2016, unchanged from 2011, although this does not include changes since the Brexit referendum in June 2016.

Using ONS detailed data we have examined the types of roles

within Financial Services, identifying which are growing and which are declining.

This overall stable workforce figure hides a significant amount of churn. About 190,000 jobs were created and a similar amount were destroyed. This suggests that 1 in 6 people working in Financial Services have been forced to change their role, retrain or leave the industry within the past 5 years, which is higher than the average across the economy of about 1 in 8.

Some major Financial Services categories seem to be very stable so far. For example, financial investment analysts and advisers is almost flat at 128,000 despite the growth of passive investment funds and the impact of the Retail Distribution Review (“RDR”), which caused a reduction in the number of advisers during 2012-13, but which has subsequently recovered, according to the Association of Professional Financial Advisers. Customer service roles have fallen sharply, including bank clerks and the managers of customer services teams, along with a shift towards more self-service channels.

Figure 1 shows the probability of automation for the top categories of employment in Financial Services.

Figure 1  
Probability of automation for top categories of employment in Financial Services

High risk	2016 jobs	Probability of automation
Bank and post office clerks	72,000	95%
Pension and insurance clerks and assistants	57,000	98%
Other administrative occupations n.e.c	39,000	96%
Financial administration occupations n.e.c	36,000	98%
Brokers	35,000	97%

Low risk	2016 jobs	Probability of automation
Financial and investment analysts and advisers	128,000	23%
Financial institution managers and directors	66,000	16%
Financial managers and directors	63,000	7%
Financial accounts managers	53,000	7%
Business and financial project management	39,000	13%

Source: ONS, The Oxford Martin School, L.E.K. analysis

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# Executive Insights

We have drawn the probability of automation from Frey & Osborne (2013) of the Oxford Martin School. Their study looked closely at the tasks involved in each job and drew on a wide range of academic input into the potential to automate such tasks. The probability of automation figures represent the risk that such a job will be destroyed by automation over a 20-year period.

Within all categories of employment, about 187,000 jobs were created between 2011 and 2016, and the new roles have an average probability of being destroyed by automation of 40%. This is lower than the average for the economy and for the sector as a whole, and indicates that jobs in Financial Services are becoming more sustainable. See Figure 2 below.

## A new wave of job creation

The jobs being created in Financial Services are polarised. About two thirds are high quality roles, in that they are at low risk of automation (12% probability). These include specialised managers and directors, IT project managers and software developers. This trend of job creation is primarily due to Financial Institutions increasingly incorporating technology into their business processes, either at the customer-facing front-end, or in back-end systems. It also reflects the emergence and growth of the “Fintech” sector.

The other third of new roles created in Financial Services are at high risk of automation (90% probability) and include chartered accountants and various junior administrative roles.

Over the same period, around 207,000 jobs were destroyed, and those lost roles had an average probability of being destroyed by automation of 60%. This higher percentage suggests that the Frey & Osborne framework for the probability of jobs being automated is being borne out by actual changes in the jobs market to date.

This also suggests that Financial Services roles are gradually becoming more sustainable.

A small proportion of the jobs lost were high quality, such as some financial institution managers and directors and customer service managers and supervisors. While these roles are generally thought to be at low risk, there are specific dynamics within Financial Services which have contributed to the decline. In the last few years, the cost base in some areas of the industry (primarily banking) has been under pressure due to heavier regulation post the financial crisis, mis-selling scandals and legacy systems. As a result of this negative impact on returns, financial institutions have continuously streamlined their operating models by reducing management layers and offshoring service functions.

However, of the jobs destroyed, over two thirds were already at high risk of automation (86% probability) including bank clerks (45,000 jobs destroyed), book-keepers (9,000) pension and insurance clerks and assistants (9,000) and customer services (14,000).

The asset management industry is another interesting case study of employment dynamics. Total employment in the industry has grown from 29,000 jobs in 2011 to 36,000 jobs in 2015, according to a survey by the Investment Association. However, employment growth of 22% has lagged sector growth of c. 35% in Assets Under Management (AUM) over the same period. Job categories which have experienced above average growth include compliance, risk and legal (up 60%), driven by similar regulatory pressures as in banking), and business development / client services (up 40%, more in line with AUM growth and driven by a growing emphasis on distribution networks).

Figure 2  
Effect of automation on Financial Services employment market

	High quality (<33%)	Medium quality	Low quality (>66%)
<b>CREATED +187,000</b> (average 40% probability of automation)	<b>+118,000</b> Financial managers IT project managers Software developers	<b>+8,000</b> IT user support	<b>+61,000</b> Chartered accountants Financial administrators Other administrators
<b>DESTROYED -207,000</b> (average 59% probability of automation)	<b>-78,000</b> Financial institution managers Customer services managers	<b>-30,000</b> Marketing associate professionals Customer services	<b>-98,000</b> Bank clerks Pension clerks Book-keepers

Source: ONS, The Oxford Martin School, L.E.K. analysis

Some of the larger categories have seen below average employment growth, particularly investment management (which includes investment decision makers, research and dealing, and has grown by only 18%) and operations / fund administration (growing by 20%). Both of these have been impacted by growing automation, particularly driven by the rise in passive funds, which have significantly lower resourcing requirements across front and middle-office.

## The future of the Financial Services job market

Automation is already having a significant impact on employment in Financial Services. At least 1 in 6 workers in the sector have been forced to retrain or leave the industry in the past 5 years. However, new roles are being created by the market in sufficient numbers to maintain overall employment. So far, these new roles are on average more sustainable (i.e., at lower risks of automation) than the roles that have been destroyed, which is a very positive finding. The pace of change suggests that many current workers in Financial Services will need to retrain over a career and that major employers need to develop medium term skills plans or otherwise face risks to business continuity by lacking key skills.

### About the Authors



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