Recruiters in New York and London report on current trends in salaries and bonuses.

CAREERS

Just a Way of Keeping Score?

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Which positions are rewarding better and which are rewarding worse?
Growing demand in a market of finite talent pushes compensations up and there have been a few interesting shifts in the market, driving increased compensations in particular areas.

Front-office quants, as always, are in demand and always lead the pack in terms of compensation. However, the market is shifting, and that demand has become more targeted and selective. The market has gotten crowded; many are finding it harder to get an edge, and that has been reflected in the type of talent that firms seek. Interviews have become sharper and more geared toward a candidate's market and asset class knowledge and viewpoint. Those with that market view are rewarded better and viewed as more strategic hires, rather than execution/number crunchers who, while in demand to some extent, don't get paid as well.

Asset management/hedge funds
Hedge funds and alternative asset managers, I feel, are, after many years, a growing source of demand for quantitative talent – generally, performance has improved and there has been increasing scrutiny from those funds' investors (perhaps due to more risk-averse investors, like pension and insurance funds, investing in alternatives, trying to access better returns). This has required many funds to have specialized quantitative talent that can provide the insights and understanding they seek. Some investors have been known to bring their own quants to the table for these meetings. Demand in this world has also been driven by sheer size as AUM has grown organically and through acquisition.

> There continues to be some demand for quants in the traditional asset managers that wasn't there a few years ago

Specifically, risk/portfolio construction, too, has been in demand, and rewarding better in the last year or so due to the more dynamic multi-asset/multi-strategy solutions that funds are offering and, to a greater degree, the increase in client/investor scrutiny and their interest in more visibility and understanding. These quants need to be dynamic and multi-faceted, bringing a strong mix of quant skills, market knowledge, coding skills, as well as a deep understanding of portfolio management and solid communication skills for fielding in-depth client inquiries and conveying the narrative to clients, PMs, IR, and others. The low supply of people with this mix make these more highly rewarded roles as well.

There continues to be some demand for quants in the traditional asset managers that wasn't there a few years ago – these firms are testing out new quantitative approaches to risk and investment analysis. The success of these hires has varied widely, depending on the fund's culture and acceptance of these new techniques and approaches. Generally, however, the traditional asset managers don't pay as well as alternatives or the big investment banks.

Insurance
There has been quite a bit of demand for model validation quants as well as quantitative risk professionals in the insurance world over the past few years. Specifically, there is ongoing demand for both actuarial and more traditional quants, to validate asset management/valuation models and actuarial models. Most of these firms have been building these model validation teams since about 2015/2016 and are all still at it. Insurance firms' central independent risk organizations have grown over the last few years as well, and continue to pull in talent as they grow and replace turnover.

Banks/sell side
The bigger banks, however, have plateaued their hiring in the model validation space, which has been a big draw for quants over the last few years and an area where demand drove up compensation. Smaller banks are facing fewer regulatory requirements on the horizon, and the bigger banks are moving their model risk frameworks into a 'business as usual' status, shifting their focus to increased efficiencies – that is, fewer quants or moving validation work offshore.

> [T]he big banks are throwing quantitative talent at newer endeavors such as wider implementation of AI and ML techniques

That said, the big banks are throwing quantitative talent at newer endeavors such as wider implementation of AI and ML techniques – using these techniques to breathe new life (and hopefully profits) into old-hat analytics (risk and valuation), new analytics/compliance (heading off fraud and financial crime), as well as improving operational efficiencies. These are top priorities for most banks and therefore areas of demand-driven compensation increases. JPMIS, J.P. Morgan's "Intelligent Solutions" function, is an obvious example; it has grown and produced some really interesting work but has just recently been broken up and embedded into each of the relevant lines of business. Perhaps the "innovation lab" was getting too big, or just needed to be more commercially inclined, but I don't expect this move to slow the need for talent.

The smaller banks and FBOs are a few years behind the big US banks, in terms of risk model development and model validation, as well as fraud analytics, and are still selectively hiring in these areas as well as quant research to a degree, but these firms generally don't pay as well as the bigger banks or alternative asset managers. They have also, since the 2008 downturn, moved away from the more complex products that require bigger quantitative teams and generally aren't pulling talent into AI/ML-driven roles yet.

What are the factors influencing current salaries and packages?
Compensation is very much dependent on the firm's goals, the firm's performance, and that person's performance against expectations. Beside revenue production, I see quants getting solid pay increases for implementing operational efficiency gains, cost savings, building out infrastructure, and so on. Other factors influencing compensation include:

- Leadership skills – leaders in the quant space are in short supply; being a recognized up and coming leader (strong communication skills, emotional intelligence, and the ability to influence others) in any quantitative function will positively influence salary.
- Depth of market knowledge – the ever-present and yet growing issue has been quants who don't have a feel for markets or a view into what the numbers mean, where the relationships lay that may or may not be

reflected in the numbers.

- Coding ability – being a strong quant with an analytical mind, and hitting the ball out of the park on Python or whatever language is relevant to that fund will drive up compensation as well
- Track record of success – material examples of past success are always a key driver to pushing up compensation

Which skill sets ought a candidate to develop for the next job move?

- Python – most companies are after people with solid Python coding skills but having a strong gateway skill like Matlab usually doesn't kill the opportunity.
- Market knowledge – Firms want talent that can look at the data through a markets lens – not just execute analytics and apply theory, but also understand what the inputs and the output mean commercially. Be prepared to sit down and have an intelligent conversation on markets and specific asset classes. Take what you think you know and use that to have a conversation with someone who knows more than you; gain some more depth and dimension and then do that a few more times before going into an interview.
- Revisit the foundation – I find that many interviewers will ask basic finance and analytical questions, the types of things you covered in the CFA or in school, and most candidates get those answers wrong because they haven't thought through basics in such a long time.

What's the outlook for bonus season?
Generally, I think bonus season will be good this year, unless of course there is some major disruption before year end. Funds are doing better, banks are making more money, hiring in the space is active, so I expect firms will do more this year to retain talent.

That said, banks have had several years of lower bonus payout and I wouldn't be surprised if they capitalize on that 'new norm' and hold back.

Mark Allan is Recruitment Consultant – Quant Analytics at LMA recruitment in London.

Which positions are rewarding better and which are rewarding worse?
In response to the scarcity of talent, we saw salaries inching higher early in 2018. This has come at all levels, and particularly at mid-level roles in leading investment banks. As such, mid-tier banks will be pushed to assimilate, while some consulting and advisory firms are struggling to keep up with client requirements. To maintain both their market share, and their ability to attract talent, they may have to follow suit with increased compensation. For further detail on salaries in the London market, refer to Table 2.

Banking quant roles in london – salary survey source: lma recruitment

	GRAD/ASSOC	AVP	VP	DIRECTOR	HEAD OF/ED AND ABOVE
Market Risk Quant	35-50k	50-85k	80-130k	120-160k	145k+
Credit Risk Quant	30-50k	45-75k	80-130k	120-160k	145k+
Model Validation Quants	45-55k	55-85k	85-135k	125-185k	160k+
Front Office Pricing Quant	50-75k	60-95k	90-140k	140-220k	200k+
Quant Developer	45-55k	55-80k	75-125k	120-175k	175k+

What are the factors influencing current salaries and packages?
The changing landscape of banking due to regulation and technology means that specific skillsets can rapidly increase in demand. We've seen this with changes in trade reporting regulations, and also with new trading strategies and platforms. The quantitative work that inevitably follows has presented opportunities for many, from a job interest and remuneration perspective.

John Meadowcroft is currently leading the Quant Analytics, Risk and Trading space at Anson McCade in London. John has been at Anson McCade for over 13 years, covering the quant finance space globally, mainly focusing on the quant strat/modeling/analytics development areas, model risk/validation and algo quant research/quant trading, as well as the data science/machine learning space.

Over this time, John has worked on mandates ranging from Associate right up to MD level, with many top-tier investment banks, hedge funds, proprietary trading houses, asset managers, financial technology firms, as well as a variety of boutique financial companies, including J.P. Morgan, Goldman Sachs, Jump Trading, Rothesay Life, and many others.

Which positions are rewarding better and which are rewarding worse?
Many investment banks have been increasing the level of base salary offered to quant candidates, to compensate for the restrictions placed on the size of the bonus that they can pay out. In the front office, I have seen entry-level quant/strat roles starting at around the £80k mark for a freshly graduated PhD, going up to the £100k mark in some cases, predominantly on the buy side, where many hedge funds are willing to pay extra for the elite candidates. At the higher end, directors/EDs at top IBs are now looking at a £200k+ salary in many cases, with total compensations of around £350–400k+ for those with management responsibilities as well.

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What are the factors influencing current salaries and packages?
Over the past year or two, we have seen many firms rebuilding the platforms they use to price and risk manage products, and so the more tech-savvy candidates, usually quant developers/core strat people, have seen big pay increases. In addition, the continued growth across electronic trading and the systematic trading strategies space has seen a continued upward trend when it comes to remuneration.

Which skill sets ought a candidate to develop for the next job move?
Nowadays, the definition of a quant (or strat) has changed significantly from ten years ago, and the demand now mainly focuses on those with a very strong mix of the maths, programming, and even statistics and machine learning in some cases (as well as communication skills, of course, which are needed to be sitting at a desk). Many quant/strat groups are hiring data science/ML experts as firms look to be able to analyze all sorts of data and react to changes more quickly and efficiently. Due to this increased demand in seeing candidates with this kind of expertise, it has seen remuneration jump up quite significantly as banks, hedge funds, and prop houses all compete for the same talent as your Facebooks, Googles, and so on.

Ben Hodzic is a Director with Selby Jennings, a Phaidon International company. Ben has been recruiting in the quantitative analytics, research, technology, and trading markets for over four years, and has successfully placed with most of the top-tier investment banks (American and European), hedge funds, proprietary trading, and asset management firms across the USA. Ben leads a large team of consultants that are responsible for the delivery of Associate up to Executive Director talent across these niche markets.

Which positions are rewarding better and which are rewarding worse?
Compensation varies highly, depending on how a position sits relative to the revenue generating arms of companies. The highest paying positions at investment banks are front-office quantitative research roles or algorithmic execution quants sitting on electronic trading teams. At hedge funds, the highest paying positions are research and trading positions responsible for generating new alpha signals and new quantitative strategies, or portfolio managers running the strategies. Further detail is provided in the results of our salary survey in Table 1; the increase on the previous year is approximately 5 percent across the board.

Which skill sets ought a candidate to develop for the next job move?
Aside from the traditional coding skills, a quant should have (i.e., C++), there is a growing demand for candidates who have expertise in Python and AI technologies. With Data Science and AI on the rise, Python is the primary language that is used to manage large data sets as well as for machine learning purposes. Although expertise in stochastic calculus, PDEs, Monte Carlo simulations, and C++ continue to be the core of the quant space, it has also become essential for candidates to have strong written and verbal communication skills, so that they can effectively explain various concepts to different business lines that may not have the same quantitative disciplines.

Industry Range						Example 1			Example 2		
Asset Class	Title	Target Base Range		Target Bonus Range		Firm	Target Compensation		Firm	Target Compensation	
		High	Low	High	Low		Target Base	Target Bonus		Target Base	Target Bonus
Equity	Associate	150k	90k	90k	35k	US Investment Bank	150k	80k	European Investment Bank	145k	44k
Equity	Vice President	210k	150K	100K	42k	European Investment Bank	165k	60k	US Investment Bank	175k	60k
Equity	Director/Executive Director	300k	250k	375k	50k	European Investment Bank	250k	200k	Canadian Investment Bank	250k	100k
Fixed Income - Mortgages	Associate	140k	120k	45k	20k	US Investment Bank	140k	30k	European Investment Bank	125k	45k
Fixed Income - Mortgages	Vice President	200k	165k	175k	25k	US Investment Bank	200k	175k	European Investment Bank	200k	35k
Fixed Income - Mortgages	Director/Executive Director	285k	175k	200k	25k	US Investment Bank	260k	200k	European Investment Bank	250k	150k
Fixed Income - Credit	Associate	140k	120k	40k	30k	US Investment Bank	130k	40k	European Investment Bank	140k	35k
Fixed Income - Credit	Vice President	220k	165k	100k	45k	US Investment Bank	200k	55k	European Investment Bank	220k	100k
Fixed Income - Credit	Director/Executive Director	350k	200k	325k	50k	European Investment Bank	250k	125k	Canadian Investment Bank	200k	80k
Fixed Income - Rates	Associate	140k	120k	45k	40k	US Investment Bank	135k	45k	US Investment Bank	140k	40k
Fixed Income - Rates	Vice President	175k	155k	65k	35k	US Investment Bank	170k	60k	Japanese Investment Bank	155k	65k
Fixed Income - Rates	Director/Executive Director	350k	225k	270k	145k	US Investment Bank	250k	200k	European Investment Bank	350k	200k
Commodities	Associate	145k	120k	40k	10K	European Investment Bank	135k	45k	US Investment Bank	140k	50k
Commodities	Vice President	200k	140k	80k	20k	US Investment Bank	175k	50k	European Investment Bank	200k	50k
Commodities	Director/Executive Director	240k	150k	150k	40k	European Investment Bank	220k	70k	Canadian Investment Bank	185k	75k
CVA	Associate	150k	115k	40k	20k	US Investment Bank	130k	30k	European Investment Bank	135k	40k
CVA	Vice President	180k	155k	60k	30k	European Investment Bank	165k	40k	US Investment Bank	160K	50K
CVA	Director/Executive Director	250K	200K	170K	50k	US Investment Bank	220K	100K	Canadian Investment Bank	240K	70k

*This information is based on publicly available data as well as collated information around targeted compensation from multiple candidate and client sources.

Quantitative finance - salary survey 2018 Source Selby Jennings

Title	Analyst / Associate / Quant Reseacher		AVP / VP / Senior Researcher / Associate PM		Director / Portfolio Manager	
Experience	PhD/Postdoc, Target Base Salary range:	Target Bonus Range: PhD/Postdoc	Target Base Salary:	Target Bonus Range	Target Base Salary	Target Bonus Range
Buy-Side	110-175	50-200%	150-185	50-200%	200-300	50-200%