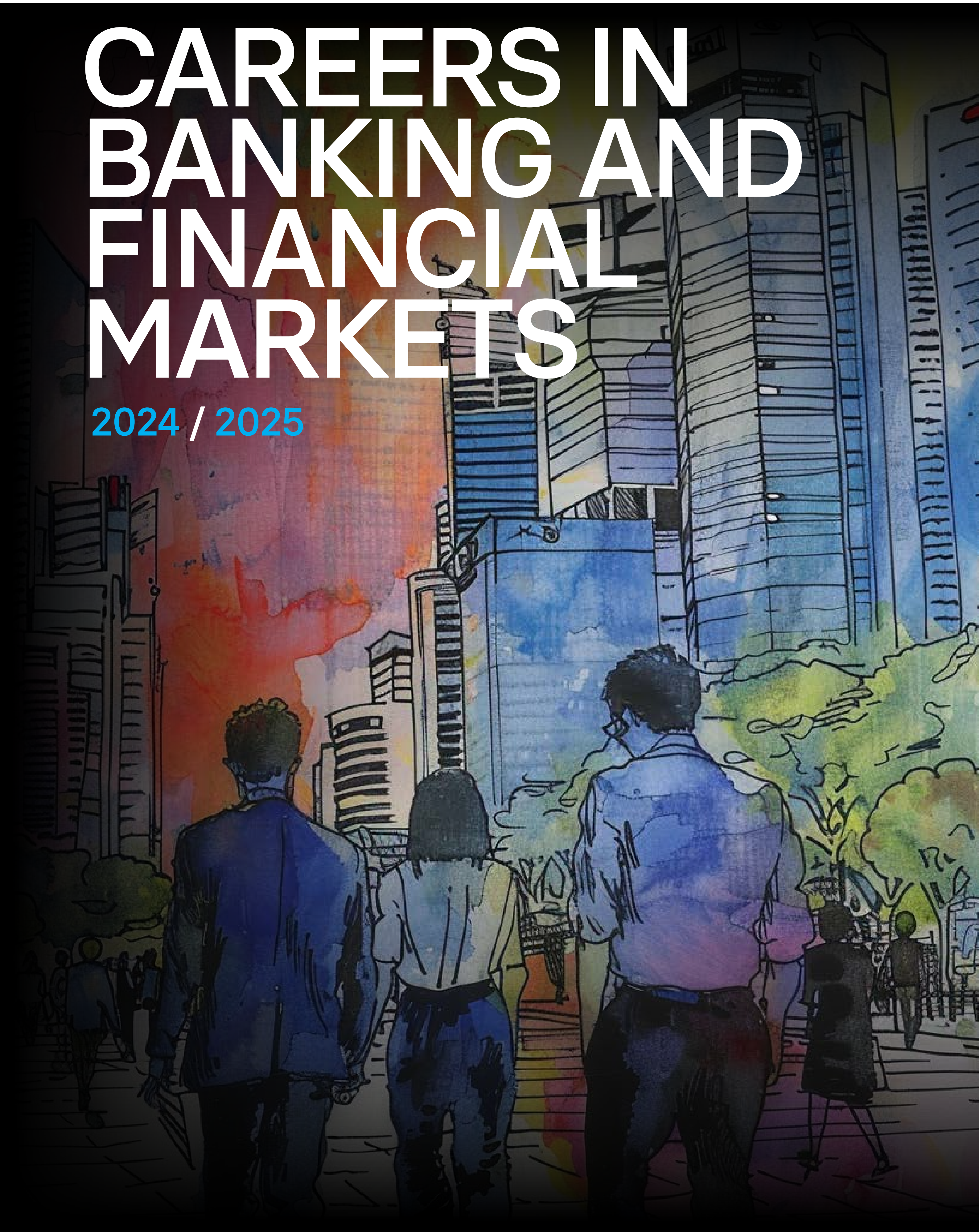
efinancialcareers

INSIDE KNOWLEDGE

# CAREERS IN BANKING AND FINANCIAL MARKETS

2024 / 2025



# Contents

# Introduction

Hello and welcome to the eFinancialCareers guide to careers in the financial services sector, written for the 2024-25 recruitment season.

As ever, we wish everyone interested in this demanding, competitive and rewarding industry the best of luck. It's never easy to get into an investment bank and 2024-25 is unlikely to be much different. However, it will hopefully be easier than the previous year.

Writing in early July '24, at the start of the third quarter, banks are optimistic that investment banking deals (M&A and capital markets) deals will return and that money can be made in sales and trading from the "right kind" of volatility. Banks' revenues have nearly doubled in some areas compared to 2023, and this can only be good for hiring.

At the same time, though, the financial services industry is suffering as a result of higher for longer interest rates, the uncertainty born of elections in many of the world's major economies and ongoing geopolitical instability. Higher rates mean that borrowing has become more expensive and that investments funded by borrowing are less viable than before. Some areas of the financial services industry, like private equity, are suffering more than others, but few people begin their careers in the private equity industry anyway. By comparison, big hedge funds, which aim to make returns in any market are seen as increasingly desirable and competitive first employers.

Our aim is to guide you into the roles that you want to find. These are usually in what people sometimes call "high" finance, which includes investment banking, sales and trading, private equity, and hedge funds.

Not all the jobs in an investment bank are for "investment bankers," however. We'll also be exploring the many other functions that you could work in - of risk, compliance, operations, and technology. And we'll take a look at some of the more cutting-edge work done in the world of fintech.

Although fewer than 1% of people are accepted into JPMorgan or Goldman Sachs, the rewards can be great. The lifestyle can also be challenging. We've peppered this guide with information on pay and working hours to help you choose what suits you best.

We hope you enjoy and make good use of this guide, and in the future visit eFinancialCareers.com, not only for our job postings, but also for our extensive editorial content, much of it geared towards students and graduates. To stay up to date, sign up for our daily newsletter here.

**Sarah Butcher, Editor, eFinancialCareers**

**Zeno Toulon, Reporter, eFinancialCareers**

# What is an investment bank? What does it do?

Author: Zeno Toulon

What's an investment bank? If you ask the man or woman on the street, the vast majority of them will draw blanks – or be completely wrong.

That's because it's hard to pin down exactly what an investment bank is, and it's hard to pin down exactly what an investment bank does. For example, Goldman Sachs, for many people the investment bank par excellence, doesn't just investment bank – it also asset manages, wealth manages, and even had a brief foray into retail banking. Asset and wealth management, as well as retail banking are, on paper, definitely not investment banking. But pretty much every major investment bank does them.

So what is an investment bank? It's complicated – let's take a deeper look into things.

## What exactly does an investment bank do at its core?

Investment banking entails two fundamental things. Firstly, banks help their clients (which might be companies or governments) to raise funds by issuing securities (equities or bonds). Secondly, they help their clients buy or sell parts of their businesses and maybe merge with other corporations. The former is known as capital markets or underwriting (both misnomers), while the latter is known as Mergers and Acquisitions, or M&A for short. Capital markets involve Equity Capital Markets (known as ECM) and Debt Capital Markets (DCM). They relate to issuing stock and bonds, respectively.

The core of all of these activities is valuation. An investment bank values bonds and stocks so they can be sold for fair values, and an investment bank values corporations to ensure that when a merger happens, a fair value is paid (or extracted).

> "An investment bank values bonds and stocks so they can be sold for fair values"

## What does sales and trading involve?

What other activities does an investment bank do? Sales and trading...

When a bank helps a client raise money by issuing bonds or shares, it guarantees the prices of these products by selling to the market. This requires salespeople and it requires traders. Salespeople and traders sell and trade the financial products the bank has helped create, and those which have been created previously. They also sell and trade derivative products based on the underlying securities.

A bank's markets (another name for sales & trading) team is supported by an array of other functions, including research, data, analytics, as well as trade execution and operations professionals.

In an M&A deal, the markets team might construct derivatives that help reduce the client's exposure to changing foreign exchange (FX) rates. In debt capital markets deals, where new tradable debt is being issued, the markets team might help organize a group of investors (a 'syndicate') to underwrite the debt being issued in the event that it's not all sold.

## What's a boutique investment bank?

Boutique investment banks solely provide M&A services – on paper. Some of the bigger ones, such as Evercore, also provide asset management services and underwriting.

Boutique banks like Centerview are some of the prestigious institutions in the financial services ecosystem, and their elite services are highly regarded. Many boutiques are as influential and revenue-generating as major (or bulge-bracket) investment banks within their niche, and are often noted for magnifying the culture of investment banking as a whole – they pay better, but they also work you a lot closer to the bone.

## What's a universal bank?

The biggest banks of all are the universal banks. You've likely heard of, and probably even bank with, some of them – they include JPMorgan, Bank of America, and Citi in the United States, and Barclays, Deutsche Bank, and BNP Paribas in Europe.

Universal banks provide both retail banking and investment banking services - which means that Morgan Stanley isn't one, and Goldman Sachs is barely one.

Universal banks have very diverse revenue streams. They can offer customer accounts, private banking (for high net-worth individuals), asset management services, commercial banking services for corporations, payments services, and markets services such as hedging.

How these all come together is a bit complicated.

## How does a (very big) investment bank work?

Let's look at JPMorgan, the biggest bank in the world by most important metrics.

In the bank's investor day last year, JPMorgan demonstrated the relationship between the investment bank and the rest of its services. The ideal situation is one in which that an investment bank can "feed" the operations of other parts of the bank, and not just the Commercial and Investment Bank (CIB) – the asset and wealth management operations also get a share of the pie, as well as its salespeople and traders and the hosts of service providers, such as its payments team.

## What does JPMorgan do?

In JPMorgan's example, a client looking for private capital funding might come to JPMorgan's investment bank for an Equity Private Placement (EPP). An EPP is a sale of stock away from the public markets (i.e., stock exchanges), and involves the commercial banking part of JPMorgan's money lending facility, as well as JPMorgan's private bank (to source potentially eligible buyers).

Similarly, if a corporate client (a company) wants to expand, it might come to JPMorgan's investment bankers to discuss M&A. The client will then work with JPMorgan's corporate bankers, who might provide a loan to fund an acquisition, or with the private bank, which also supplies a potential source of lending. The commercial bank can also identify potential targets and buyers through its own network, which assists with the investment bank's support of the corporate client.

When an Initial Public Offering (IPO) happens and a client company sells a portion of its stock (also known as its equity) in the public market for the first time, it will come through JPMorgan's ECM bankers. They will liaise with JPMorgan's markets professionals to help sell the equity, and with JPMorgan's private bankers to provide potential sources of finance and to manage the founder's wealth (when the IPO is driven by a wealthy company founder).

On top of this, not only does JPMorgan's commercial bank benefit from feeding the M&A process domestically by connecting investment bankers with JPMorgan's commercial banking clients, it does the same thing internationally for the same reason (although generally targeting takeover targets). It also benefits from a pre-formed relationship when a company is spun off from a parent...

## What does a private bank do in an investment banking deal?

A private bank is just a fancy normal bank – the kind you and I use. The main difference is that, due to their net worth, Ultra-High Net Worth Individual (UHNWI) has access to investment options, services, and attention that you and I don't.

Aside from typical UHNWI services such as tax, insurance, trusts, and estate planning, banks also offer their private banking clients exclusive access to some bank-operated investment vehicles such as hedge funds, as well as first dibs on newly-issued securities, such as after an IPO.

In our example with JPMorgan - the private bank also manages client shares in an EPP, as well as offering investment opportunities both to and for its clients during the IPO process. Additionally, once an IPO is complete, the private bank can continue its relationship with a company founder – and benefit from a "regular" private banking relationship with an UHNWI.

JPMorgan's payments team, meanwhile, is silently in the background facilitating all the above-mentioned economic activity (and taking a slice of the transactions home as profit). This web of relationships can be beneficial. JPMorgan estimated in its presentation that for every dollar generated by investment banking clients, the bank received an additional 1.4 dollars in "additional franchise revenue", reinforcing the cycle.

## What does Goldman Sachs do?

JPMorgan isn't the only big investment bank in the world.

It also isn't the only one interested in cross-selling its services. Goldman Sachs' investor day last year also brought an insight to its activities – although they didn't call it "cross-selling", but rather "One Goldman Sachs". The bank's presentation showed that investment banking, sales & trading, asset management, and wealth management were the main pillars of the initiative.

The bank's example "One Goldman Sachs" solution involved a wealth management client being referred to the investment banking team for debt financing, which moved into the asset management team that was involved in secondary, or "junior" debt financing. Finally, the proceeds flowed back to the wealth management team. The initiative works; 91% of the bank's clients work with 3 or more Goldman businesses, which lead to a 445 basis point increase in investment bank fee share, and a 255 basis point increase in sales & trading fee share.

**If you want to keep up with information about investment banks and with news about the financial services industry and its jobs, visit eFinancialCareers and sign-up for our newsletters.**

# What's the front office, middle office, and back office of a bank?

Author: Sarah Butcher & Zeno Toulon

Banks are full of confusing terminology. If you're thinking about applying for a job at one, you might have come across the front, middle, and back offices in job descriptions (although not so much in official descriptions, for a reason you'll soon find out) and in casual conversation.

What do they all mean, though? And why is everyone so funny about the back office? Read on and find out.

## What is the front office of an investment bank?

Front office jobs are generally the easiest ones to define – they're client-facing and revenue-generating. A senior banker in London says that, historically, "front office jobs in investment banks were those trading on behalf of the bank, or directly working with clients or creating products, research or analysis for them."

Another senior banker agrees. He says front office jobs were always any that involved "direct interaction with the client and customer - be that an individual or a corporate client."

What jobs does that cover? In an investment bank, that means mergers and acquisitions (M&A), debt and equity capital markets (DCM and ECM, respectively), as well as sales & trading roles... Even if you do spend that "client-facing" role as a junior carrying your boss' briefcase and building financial models alone at night.

"~~If you work in a client facing job, you will usually have revenues and profits directly linked to your role.~~"

## What is the middle office of an investment bank?

As the name suggests, the middle office is somewhere between the front and back offices.

We're not just being annoying in saying that. The front office might be easy to identify, but the middle- and back-office distinction is less clear-cut. Strictly speaking, the middle office's role is to directlysupport the front office. The word directly is italicized for good reason – there's a lot riding on it.

Which kinds of people in banks directly support the front office? Risk management professionals maybe? Or someone in compliance? Or even in technology...? Kind of. The problem with these definitions is that not all risk, compliance, or tech people support the front office directly – although some definitely do. That blurs the lines a lot.

"It's perfectly possible for a risk person to be either in the middle office or the back office," says one senior banker. "You might get a risk professional sitting on the trading floor, in which case he or she would be a middle office person. And then you might get a risk person miles away in the corporate center, in which case they'd be in the back office."

## What is the back office of an investment bank?

The "back office" generally refers to what's going on behind the scenes at an investment bank. Nowadays, a lot of the work done is far from glitzy London or New York but in offshoring paradises such as Bengaluru (home to 9,000 Goldman Sachs employees) and Mumbai (home to a similar number of Morgan Stanley people).
What sort of jobs are those tens of thousands of back office people doing? Well, a variety. Settlements, for example – making sure that payments for trades are processed. Human resources, too. A huge number work in technology (for which India is an unparalleled offshoring destination).

Back-office jobs aren't seen as sexy, really. They're not seen as desirable, but banks do their best to make them seem interesting. There might be something to their historic stigma, however. "I worked in trade support covering settlements for a French bank in London," says one operations analyst. "It was all very static, and process driven - I spent all day analyzing exception queues from various systems and analyzing trades to make sure they were settled properly. It was a repetitive job with very slow career progression." Yeesh.

## What's the difference between front, middle, and back office?

What we've outlined above is, really, what the office split used to be. Things have changed, and are continuing to change, and the reason for that is that pesky thing called technological progression.

Banks are very, very keen to automate as much as they can. You can save money, for one, and make fewer mistakes. It also can lead to better productive results than brainpower. Goldman Sachs replaced 600 equities traders with electronic trading systems back in 2000, and it hasn't looked back since.

Engineers are taking over more and more of the front office's territory, too. In 2014, Goldman introduced Marquee, a "digital storefront" for Goldman clients to access the bank's pricing and risk information directly. Goldman has since added AI capabilities to Marquee's abilities - including overlaying geopolitical events that automatically impact a change in the price of a security or derivative. Chris Churchman, Goldman's head of Marquee, told Business Insider that he saw Marquee's role in an investor's day as "just like Amazon.com's." There's not much need for humans to intervene in a purchase at Amazon.

## Is front, middle, and back office still relevant?

So, the front, middle, and back office distinctions are becoming increasingly irrelevant. Or rather, outdated – as technology advances, the tighter the bonds between everyone at the bank.

"The front, middle and back office are a dated concept, and if you're thinking in those terms you work for a bank with cultural issues," says one senior banker. "Nowadays, you're all in it together to drive performance."

The monster on the hill is Artificial Intelligence (AI). The New York Times claimed says some banks are cutting their analyst classes by 66%, as AI is used to do much of the grunt work like generating PowerPoint presentations.

The increase in demand for AI is also boosting demand for data professionals who sit in the middle office but work with the front. JPMorgan's head of digital banking, Samik Chandarana, said that AI's specific role will be to save time on data crunching. AI "frees up bankers', particularly analysts', time to focus on relationships, and allows them to give companies better data faster," Chandarana told Financial News.

Increased US of AI stands to change the skills needed in front office bankers, who will become masters at writing prompts instead of masters at creating AI models. "You have an infinitely smart companion who can automatically perform tasks like modelling and deck creation, so the skill set that will be most prized is critical thinking, creativity, taking the data and advancing it to come up with new ideas," one senior banker told Financial News. "It will be the revenge of the liberal arts graduates."

As banks automate processes, back and middle office jobs stand to disappear. Roles in off-shored centers like India may prove particularly at risk. And this isn't a distance threat - Goldman Sachs is already working on "a dozen" projects that utilise generative AI, per Reuters.

# The best time to apply for an investment banking job

Author: Zeno Toulon

> "Applying for a job just before, or even after you. graduate, is setting yourself up for failure when it comes to banking"

If there were a golden rule to getting a job in an investment bank, it would be this: the longer you wait to apply, the worse your chances are.

Applying for a job just before, or even after you graduate, is setting yourself up for failure when it comes to banking. By this point, the banking job you want will have gone. It was given away months, if not a year, before.

Getting a job in a bank is about internships. And preparing to apply for an internship begins the moment you step through the door in your first year at university.

## 1. When to apply for a spring internship in investment banking

Congratulations on getting into the university of your choice! We hope you've put your feet up and enjoyed the sun during your summer break – you don't have time for that "relaxation" business anymore.

When you arrive at university, you have a few things to do. The first is to make your CV. The second - if you're in Europe - is to start looking for and applying for spring internships.

Spring internships (also known as spring weeks) are week-long internships for first-year students. They're hosted by banks for students and are designed to give students an introduction to banking jobs. If your spring internship goes well, you may get preferential access to a summer internship in your second year.

The key period for applying for a spring internship as a first year student is **September** and **October**, sometimes later, and never earlier. As with all applications, the earlier the better.

## 2. When to apply for a summer internship in investment banking

If you're in the **USA**, you need to get started on getting your summer internship in your **first year at college/university**. If you're in **Europe** or **APAC**, your **second year** at university is when you apply for and complete your summer internship (AKA "summer analyst program").

These are, by far, the most important internships you will do. They last around 10 weeks, and if you do well, you'll get an offer at the end of it to join the bank full-time when you graduate. Job done at that point – if all goes well.

We have a lot of articles on summer internships, such as this one.

When do you apply for summer internships in banks? In Europe and Asia, summer internship applications will generally open in **August** or **September** of the year before – that is to say, a full year before the actual internship begins. In Europe and Asia, intern applications usually close in **November** or **December** at the latest.

In the US, however, applications for summer analyst programs can open even earlier. Think December or January – that is to say, 18 months before the actual internship starts. We had a list of programs open in March, with deadlines generally between **July** and **September**. Some were as early as **March**.

It's important to move quickly, as interviews are known to start before the application deadline has passed. The application process can last a while regardless of where you're doing the internship. JPMorgan, for example, was recently spied doing HireVue interviews in January for internships, and only gave offers in April.

## 3. When to apply for graduate schemes in investment banking

The ship on normal internships has sailed for you in your third year. This is bad. It's bad because banks have already earmarked who they want to hire for their analyst programs from previous years' interns. You're old news – but that doesn't mean you're completely out of options.

Banks run analyst programs for graduate hires. But these programs are usually full of either their own previous year's interns or interns from other banks. If you've never had a banking internship you will be at a disadvantage. "Why would I hire you if no one else in the industry would?" is a reasonable attitude. A consulting internship may help.

If you want to apply for an analyst program in your third year at university, you'll usually need to do so around September, which is when applications usually open (other banks, such as Goldman, start earlier). The deadlines are usually in November, but you should have applied a lot sooner than this.

There are also off-cycle internships. These, by their very nature, don't have set dates to start and end. Keep an eye open and check your preferred bank's jobs pages regularly. And, erm, start learning a foreign language.

## 4. What investment banking internships can master's students do?

A master's degree is a great lifeline if you've failed in finding a summer internship, a full-time analyst program, or an off-cycle internship. You're basically back in school – so all of the deadlines in section two apply again – August and September is when things open.

Don't mess it up twice. There is no third try.

# How to get a banking job: 14 routes in

Author: Zeno Toulon

Getting into an investment bank is, with a lot of understatement, pretty tough.

More accurately, it'll be the toughest thing you ever do. Got into Oxford University? Not bad. Acceptance rate for that is 17.5%. Got into Harvard? Also not bad. Acceptance rate for that is 3.2%. Navy SEAL? 1.5%, more or less.

If you want to get into Goldman Sachs, you'll have to be more elite (compared to your peers, at least). The bank had an acceptance rate of 0.33% for all applicants last year. Luckily, the internship was slightly easier to get into – 0.8%. Every little helps, we suppose.

> "Getting into an investment bank is, with a lot of understatement, pretty tough"

If you want to get into banking, you need to work very hard, exhaust every opportunity you have, and really, genuinely, be a little bit lucky. We've made a list of the best options you have.

### 1. Get into banking by doing a "degree apprenticeship"

Degree apprenticeships have gotten some backlash over the years. These are even tougher to get into than summer internships – one young scholar-technologist told us that there were over 4,000 applicants to 28 degree apprenticeship roles at his bank last year, which is an acceptance rate of less than 0.7%.

It might be worth it though, even if you have to start preparing for a banking job at age 17. At the end of your four-year course, you have years of part-time experience, much better finance than your average university graduate, and a graduate offer to return to the firm as a full-time analyst.

Mind you, these are only available in the UK.

## 2. Get a banking internship as an undergraduate and convert it

If you've scrolled down to get a sneak peek at what the rest of the list is before you start reading it, you may have noticed a theme: internships are really damn important. They are, and we can't stress that enough.

Getting a summer internship as an undergraduate and receiving an offer at the end of it to join your employer full-time after you graduate is the most tried and test way to get a front-office job in a bank. There's no two ways about it. So better apply for those, eh?

Not exactly. The pressure cooker begins earlier than your second year at university nowadays, with spring internships. These are week-long taster sessions in your first year that, hopefully, can lead to receiving an offer to join a bank for a second-year summer internship. They're extremely important.

## 3. Get a banking internship as a postgraduate and convert it

Didn't get an internship in your undergraduate days? That's alright. It's not ideal, but it's alright. You can always do a master's degree and apply that way. What you're doing, from an application point of view, is delaying your graduation date by a year or two – basically, think of it as applying as though you were a year or two younger than you actually are.

"What? So I pay tens of thousands of [local currency], potentially, to study for a master's and it only buys me a year or two at best?"

Yeah, it does. Should have applied earlier, bro.

The best master's to do is either in finance or financial engineering. Although finance master's are still valuable, it's financial engineering that's on the rise – financial services firms are prioritizing the people that have a tech-y streak to them more than ever, which usually means a working knowledge of a coding language such as python.

## 4. Get a banking internship as an MBA and convert it

This used to be the gold standard of getting an investment banking job, and although it's not as popular a route as it used to be, there are still opportunities to get on a summer associate program during your MBA.

Wait, summer *associate*? Yes, that's right. It's also the big benefit of doing an MBA over just about any other internship route: you get to jump up the ladder a bit and start climbing a few years above others. But because you usually need a few years' work experience to do an MBA, don't consider it a way to get on the ladder earlier in life – the biggest benefit is that you get to skip the abysmal work-life balance that analysts suffer.

Like master's degrees, not all MBAs are made equal. Banks are just as picky with who they hire from MBA programs as they are from undergrad ones, and there's very much a hierarchy of top business schools that they recruit from.

## 5. Get a banking internship as a PhD and convert it

More studying? Well, if you're this far down the list, you've missed undergraduate, postgraduate, and MBA opportunities.

So what's a bit more academia, at the end of the day? Besides, PhDs are well-loved by banks, who itch for them to join their quantitative teams.

That being said, however, there are other types of firms, including electronic traders such as Jane Street, who also like PhDs a lot. Possibly more. They definitely pay them more. Either way, you can't just do any old PhD – it has to be a scientific one. Physics and mathematics are both popular choices.

A number of banks, including JPMorgan and Barclays, are known to also sponsor their own PhD programs, usually in technology and technology-adjacent fields.

## 6. Get a banking internship after you graduate

If you've done an undergraduate degree, a master's degree, an MBA, and a PhD, congratulations: you're the best-qualified person who *still* can't get into the banking that is alive today.

However, two last options exists for you to get that all-important internship: graduate schemes and off-cycle internships. A graduate scheme without prior internship experience is pretty much impossible, but off-cycle internships are still an option: you can even do them in a bank's "satellite office" for a bit of a "Roman Holiday" vibe. We talk about off-cycle internships here.

## 7. Get a job in banking because your uncle has one

If you can benefit from nepotism, you don't need our advice on how to do it. And we don't encourage such a thing, obviously.

## 8. Get a job in banking by joining the army

Admittedly a bit of an insane step to take if you just want to work in a bank, and probably one your mother would disapprove of, there are plenty of examples of banks having specific outreach schemes for military veterans that you can apply to.

Although opportunities are mostly in the US, JPMorgan, Morgan Stanley, and Goldman Sachs are all known to have special programs for military personnel transitioning into the private sector.

## 9. Start the CFA program

A bit of a guerrilla option really given the workload, but if you're already in an established career, doing at least the CFA Level I will massively help show recruiters and banks that you're serious about finance, as well as teach you some of the basic concepts that apply directly to your future work (hopefully, at least).

## 10. Get a job in banking by coming in through accounting

Getting into banking via accounting is a more popular option in Europe than in the USA, and also takes a very long time, courtesy of all those years of extra studying you also have to do for the ACA/ACCA/etc. Accountants also tend to be a bit of draft pick for banks, and are brought in when dealmaking is booming to work on what seems like an endless supply of work. Alas, dealmaking is not booming at the moment.

The most relevant example of an accountant who succeeded in banking is probably Julian Salisbury, former chief investment officer of Goldman Sachs Asset Management (and now partner and co-CIO of asset management firm Sixth Street), who joined the bank from KPMG.

## 11. Get a job in banking by becoming a lawyer

Law isn't as popular an entry point as it used to be, but it definitely has at least one significant previous example of success

– former Goldman Sachs CEO Lloyds Blankfein, who left law to join a trading firm that was a subsidiary of Goldman's as a trader.

Doing a CFA, at least to Level I, might help show recruiters here that you're serious about the industry, too.

## 12. Get a job in banking through consulting

Management consulting is probably the most likely way to transition from another industry into banking. Although there's a friendly rivalry between the two professions, they tend to be very similar characters in terms of education, work ethic, and so on. Your field of expertise as a consultant also matters – transitioning from regulatory implementation to compliance, for instance, is quite straightforward.

There's also a veritable hall of fame of people that reached the highest levels of banking despite their backgrounds in consulting. For instance, the CEOs of Citi and Morgan Stanley, Jane Fraser and James Gorman respectively, were both partners at McKinsey before joining their respective investment banks.

## 13. Get a job in equity research through something entirely unrelated

Okay, so equity research isn't strictly investment banking, but our 2024 salary & bonus report showed that they're doing very well for themselves – better than most bankers, actually.

Lateraling into equity research is often done by people who are covered by the equity in question. Going from a medical career into covering healthcare equities is a tale as old as time, for instance. Starting the CFA program also helps here.

## 14. Get a job in banking by sending an email

Cold emails are definitely not what they used to be. A running joke these days is that Boomers like to recommend youngsters walk into a potential workplace, ask to speak to the owner, "make eye contact and give a firm handshake," and boom, you have a job. Well, that doesn't quit it these days (not for investment banking, at least). And neither does cold emailing.

That being said, what do you have to lose but your pride? And besides, a low chance is not *no* chance. We have a great guide on cold emailing here.

# Where to work for the best lifestyle (and pay) in finance

Author: Zeno Toulon

If there's one thing that finance is known for, it's the extravagant pay packages. If there's two things that finance is known for, it's the pay packages – and the grueling work hours.

Our 2024 salary and bonus report sheds some light on who exactly works the most hours, however. Our report was based on the 6,000 responses we received to our survey which ran earlier this year. We queried financial services professionals in all corners of the industry, all corners of the world, and all levels of seniority. Unsurprisingly, it was respondents in investment banking (which includes M&A and capital markets), who had some of the highest working hours in the industry.

Although M&A's 67-hour workweeks were a lot less than the 100-hour weeks said to happen during the pandemic, they're still a lot more than the hours worked in other parts of the bank. On an hourly basis, the best paid investment bankers in 2023 were in equity capital markets, earning $120 in total compensation (salary plus bonus).

On an hourly basis, most sales & trading professionals earned a lot more than bankers in 2023. Credit sales & trading professionals earned $147 per hour on average, for instance. Commodities and macro professionals earned $170 and $180 per hour, respectively.

The highest compensation per hour, as well as the highest compensation full stop, was to be found at hedge funds. Hedge fund professionals earned almost twice as much per hour as those at private equity funds.

> "If there's one thing that finance is known for, its the extravagant pay packages"

Following a difficult year for M&A bankers, their hourly pay slipped below other functions. In 2023, our survey suggests that equity researchers enjoyed compensation per hour higher than M&A bankers.

As pay per hour has fallen, M&A bankers are complaining. "The number of hours worked, and the complexity of assignments, warrants higher compensation," said one M&A associate working for Evercore in the US.

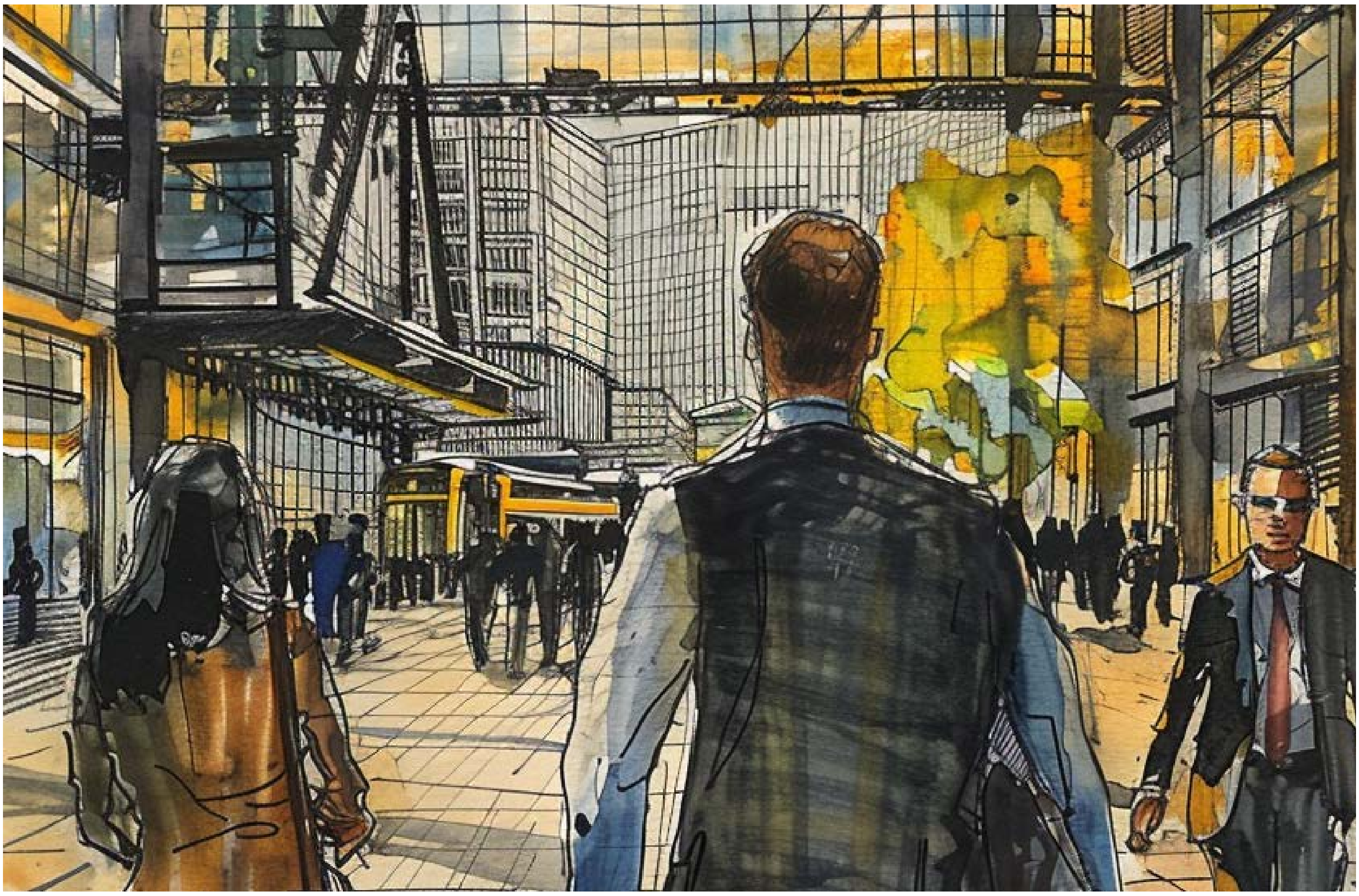
Another associate, at Deutsche Bank in London, lamented his bonus being "down on last year" despite "greater responsibilities" and "better" and team performance. Outside the key revenue generating roles in sales and trading, M&A, and equity and debt capital markets, work weeks in financial services are less demanding, ranging between 43 and 48 hours. Compensation per hour is lower accordingly: operations professionals earn $79 per hour; finance roles (which include audit and accounting) earn $101 on average.

## Working hours and hourly compensation for banking roles, 2024

| Sector | Average Total Compensation, 2023 | Working Hours, 2023 | Working Hours, 2022 | Change | Average compensation per hour, 2023 |
|---|---|---|---|---|---|
| Commodities sales and trading | $368.8K | 41.7 | 41.5 | +0.6% | $170 |
| Compliance | $197.6K | 44.1 | 38.9 | +13.2% | $86 |
| Credit sales and trading | $394.4K | 51.6 | 51.7 | –0.3% | $147 |
| Debt Capital Markets | $342.5K | 58.0 | 58.1 | –0.2% | $114 |
| Equities sales and trading | $311.9K | 50.3 | 50.6 | –0.7% | $93 |
| Equity Capital Markets | $401.4K | 64.3 | 68.3 | –5.9% | $154 |
| Equity Research | $352.8K | 61.3 | 61.9 | –0.9% | $111 |
| Finance | $230.3K | 43.9 | 44.9 | –2.2% | $101 |
| M&A | $378.2K | 67.1 | 69.3 | –3.2% | $108 |
| Macro sales and trading | $484.5K | 51.9 | 52.8 | –1.6% | $180 |
| Operations | $179.7K | 43.8 | 44.6 | –1.8% | $79 |
| Quant | $276.1K | 47.5 | 47.3 | +0.4% | $112 |
| Risk | $229.6K | 48.3 | 48.0 | +0.6% | $91 |
| Technology | $214.0K | 44.7 | 44.3 | +0.8% | $92 |

# How to write a banking CV

Authors: Zeno Toulon



Getting an investment banking job isn't easy. JPMorgan said yesterday that it accepted less than 1% of applicants to its summer internship programs, and Goldman Sachs last year said that it had 300 applicants for each open position, an acceptance rate of 0.33%. How do you stand out from such a big crowd?

Your first step is your CV/resume. Although some banks have their own little preferences during an application process (we have a whole article on Goldman's quirks here, the keystone of any good job application is a high-quality CV. Here's how to write one.

## Banking CV Education and Qualifications

Although people see "financial services" and imagine that their degree in finance will help them cruise to a financial services role, things aren't quite that simple. There's remarkably little – if any – overlap between what you learn in a finance undergraduate course and the skills you'll use as an investment banker. The reason investment banks like finance students (and STEM students) is because it shows an analytical mind, and *that* is exceptionally valuable to them. You'll also have to be personable, but you can show that off in the interview process.

That being said, banks hiring humanities or generally unconventional-subject students is far from unheard of – in fact, it's exceptionally common. So don't get too hung up on that.

Grade requirements vary by school and situation. In the US, you'll want to show off your GPA of around 3.5 if you're from a target school, and a higher GPA if you're from a non-target school or studying a humanities or humanities-adjacent subject. In the UK, you'll want a 2:1, and although banks don't stipulate A level grades, it will help if you have 216 UCAS points (A*A*A*A).

It can help to show you're serious about finance. You might want to consider the Chartered Financial Analyst (CFA) course. You'll have to have work experience to complete the last level of the course (there are three), but you can do Levels I and II as a student. Given that you'll be applying for a summer internship as a second-year student, you can realistically have a Level I pass on your CV – consider having it.

It's worth noting, however, that the CFA isn't quite what it used to be. It doesn't carry as much weight with banks as it used to, either. But having it (and having it on your CV) hurts nothing and more likely than not helps your application.

## Banking Resume Format & Structure

Formatting your CV/Resume is a topic worth writing a book on. There are significant variations in how a CV is formatted based on geography, industry, employer, and seniority.

"The ideal investment banking CV format in the USA is preferred to be conservative," said Mary DeLuca, an executive resume writer for financial professionals. That means using standardized fonts and standardized sizes. DeLuca recommends either Calibri, Arial, or Cambria between 10.5pts and 11.5pts, with 10.5 to 11.0pts the ideal. Victoria McLean, CEO of careers consultancy CityCV, named Arial, Tahoma, Verdana and Calibri as her ideal fonts. The specific choice of font might seem banal, but it has an important benefit: letting bank Applicant Tracking Systems (ATS) read what you've written. "Almost all of the IBs in the City [of London] are using the ATS approach," McLean said. DeLuca, who works with Wall Street firms and their applicants, confirmed that she was aware of ATS use, too. We'll get to hacking them in a minute; for now, let's get back to formatting.

CVs in the US are often one page for graduates, two pages for experienced professionals, and 3+ pages for an executive. Two pages is standard in the UK.

DeLuca recommends including a candidate's name, phone number, email address, and LinkedIn at the top of the page – addresses are going out of fashion, due to location discrimination. For discriminatory (although age, this time) reasons, candidates with more than 15 years of experience should only list the last ten or so. You also shouldn't include your graduation date, for the same reason, unless you've graduated in the last five years.

Don't include a picture, if you're applying in the UK or US – that's long gone out of fashion, even though any and every employer can find your face on social media (and your LinkedIn profile *has* to include a picture, McLean notes).

Beneath your personal details, you'll want three main sections: **Experience**, **Education**, and **Skills**, in that order (unless you're a student or graduate, in which case education goes above experience). Some people include an **Interests** section, but there's a bit of an overlap with **Skills**, so if that can be one section, make it.

## Banking CV Keywords

Investment banks (and big employers generally) run ATS systems. Those systems "analyse keywords, dates, titles and other key data in order to screen out approximately 75% of candidates, streamlining the process for employers," McLean says. Candidates need to beat the ATS before anything else.

Both McLean and DeLuca agree that the best place to find keywords is in related job postings, if not the job you're applying to directly. "Those just starting in the space will see requirements for the basics and. where the relevant courses taken will have influence," DeLuca says.

Whilst graduate applicants will have the bulk of their CV in the education section, experienced professionals should front-load their **experience** section at the top of their CV. "A summary or profile at the beginning of the CV, followed by a clearly marked list of skills and qualifications, helps the ATS locate the most important information straight away," McLean says.

The ATS is part of the reason why fonts were so important in the formatting section, by the way – you want to make sure that the robot can read what you've written.

## Banking Resume Skills & Achievements

"The best way to present individual/ team achievements is with quantified information whenever possible," DeLuca says. When that's not possible, such as for graduates who only have internship (especially spring) experience, loaded adjectives are the name of the game. DeLuca says that "notable", "substantial", "noteworthy", and "vast" are all good choices.

Quantifying is also important to McLean. Quantifying your achievements "shows employers the measurable impact you had on an organisation and this adds credibility to your banking CV," she says.

You want to learn (if you haven't already) the ins and outs of the S.T.A.R. technique (we have a whole article about it here). S.T.A.R. stands for Situation, Task, Action, Result – the gist of the technique is that it's an efficient story telling structure that showcases your actions, thought processes, and results.

If you're a student, there's also another to angle to consider: the fact that, unlike an experienced professional, your commitment to banking and/or financial services is still in question. Your CV "should show the hiring manager or recruiter that this is a long-term career path for you and every step you have taken has been a stepping stone to get you where you are today," McLean says. "Show your commercial awareness and industry knowledge in a unique and creative way." She recommends starting a blog.

## Banking CV Hobbies & Personality

Personality is a funny part of any CV.

Front-office bank people work insanely long hours (100+ a week, at times). They spend most of that time with their colleagues – so you'd be damn right if you thought the bank you're applying to cares about who you are in a personal capacity.

One senior banker told us about the "airport test" that he puts new candidates through: how much fun would a candidate be if you were stuck in an airport with them for 100 hours. Being a fun person might not get you an investment banking job, but *not* being one can certainly lose you it.

"Many people do not see the value of adding a hobbies and interest section to a CV," McLean says. "However, it does show that you have a life outside of work and it has been known for some recruiters to pick up on your extra-curricular activities, especially if you play a sport that they may be interested in or have an unusual hobby that warrants further discussion."

DeLuca agrees. "I tell my clients only to list noteworthy interests that can provoke conversation—for example, an avid mountain climber, a competitive tennis player, etc."

It's wise to steer clear of any generic interests, however, as well as any that might make you seem potentially... Unprofessional. Neither gave an example of what this could be, but over-zealous political affiliations fit this bill well. Or anything you wouldn't mention to your grandmother.

## Banking Resumes for senior students

There are certain other rules that are worth following for non-traditional applicants, especially those with a bit of experience under their belt.

"If you are applying for your first graduate role," McLean says, "and you don't have any experience, the first thing to say is don't worry about it. What the banks are looking for is potential and passion." It's more important to demonstrate commitment to the field (and role) than it is to tick every past experience box directly.

Besides, your unique experience might be more useful to a bank than you think. McLean gives the example of a client of hers who worked for a major supermarket chain and (separately) as a kitchen appliance salesperson, and then got an internship at a "top tier" US investment bank.

"What he did was put a lot of spin on those two roles. At the electrical retailer organization where he was working, he talked about the fact that he got involved in merchandising. He increased customer service ratings by a particular amount. He wrote about the kind of impact it had on sales," McLean explained.

"What you need to be thinking about really is what skills is that organization looking for. If I'm looking forward to working at Goldman Sachs, what do I know they're looking for, and what are their core values or their core principles?" That sort of information is readily available on their website, she notes. "How can I match my experience to show that I have the skills and the values that align with what they need? And secondarily, what might I have learned from my experience that might be relevant to that organization?"

# What is M&A and what do M&A analysts do?

Author: David Rothnie

**Prestige**
10

**Pay**
9

**Grind**
10

**Competitiveness**
10

- M&A jobs are about working with clients on deals to buy and sell companies.
- M&A juniors – 'analysts' – work on Excel models to help value companies involved in deals.
- M&A juniors put together 'pitchbooks' in PowerPoint to help senior bankers win a role advising on deals.
- M&A jobs are well paid: $110k salaries in year one are considered typical.
- M&A jobs can involve grueling hours. M&A juniors complain of 100 hour weeks.
- Two years in M&A can leave you well-positioned for the future, with opportunities available in private equity, hedge funds and elsewhere.

## What do M&A advisory jobs involve?

A job working in mergers and acquisitions (M&A) is one of the most sought-after and high-profile roles in investment banking. Senior M&A bankers travel the world and advise on the world's biggest and most complex "deals", reshaping entire industries.

M&A bankers are professional advisors. They operate at the highest levels, working with large global companies (or "corporates", as they're known in banking), advising chief executives how best to position their organizations for the future. Unlike management consultants, who help companies determine and implement the best strategy without necessarily changing the company's component parts, M&A bankers drive strategy through structural change. They encourage the companies they're working with (clients) to join together with other companies as equals (a merger), to buy and control a smaller company or part of a company (an

### Global M&A revenues by bank, full year 2023

| Rank 2023 | Bank | Fees, $m | Market Share | Rank 2022 |
|---|---|---|---|---|
| 1 | Goldman Sachs | 2,881 | 10.4% | 1 |
| 2 | JPMorgan | 2,589 | 9.3% | 2 |
| 3 | Morgan Stanley | 1,944 | 7.0% | 3 |
| 4 | BofA Securities | 1,536 | 5.5% | 4 |
| 5 | Centerview Partners | 1,107 | 4.0% | 12 |
| 6 | Citi | 1,029 | 3.7% | 6 |
| 7 | UBS | 943 | 3.4% | 5 |
| 8 | Evercore | 842 | 3.0% | 11 |
| 9 | Jefferies | 800 | 2.9% | 7 |
| 10 | Barclays | 720 | 2.6% | 10 |
| | **Total** | **27,753** | | |

acquisition), or to sell part of their own operations (a disposal).

Mergers, acquisitions, and disposals happen for different strategic reasons. For example, a client may decide to merge with a rival operating in the same business area in order to increase its market share. This is known as a horizontal merger. Alternatively, a client may decide to acquire one of the companies that supplies the components necessary to fabricate its product.

This is a vertical merger. There are also conglomerate mergers, when a company merges with or acquires a firm operating in a totally different market. And there are congeneric mergers, which take place when companies are in the same industry but offer different products. Conglomerate mergers have the advantage of allowing clients to enter completely different markets. Congeneric mergers bring advantages like established distribution channels, or whole new product lines.

Globally, the top three banks in M&A are Goldman Sachs, JPMorgan, and Morgan Stanley, as shown in the chart above. These are the banks that work on the biggest and the most complex deals, often involving buyers and sellers in different countries. But there are a number of other big U.S. and European banks that are also active in M&A, and many also lend the money to finance the deals.

While the biggest, multi-billion-dollar deals grab the headlines, the majority of deals are below $500m in size, and there are a number of so-called mid-market M&A firms which earn good money advising on these deals. There is also a large number of so-called boutiques, which are often independent, privately-owned firms run by a small number of senior M&A bankers who've left big banks to set up on their own.

Boutiques are typically pure advisory houses – unlike banks, they don't actually provide the financing for deals themselves. Some of the largest so-called "elite boutiques" are publicly listed. The best-known large boutiques include Evercore, Rothschild, Moelis & Co, Lazard, Centerview Partners, and PJT Partners and Perella Weinberg Partners.

The top M&A bankers are known as "rainmakers" for their ability to land big deals, but beneath the glamour the hours are long. Junior bankers have to spend years learning their trade before they can generate their own deals.

## What does an M&A analyst actually do?

M&A analysts are the lowest rung in the banking hierarchy. Working as an analyst in an M&A division means being flexible because you can work on multiple projects at any point in time. You will be working on live deals and pitching new ones. When you're working on a live deal, you'll be involved in deal execution or helping a client buy or sell an asset, called buy-side or sell-side mandates. When you're pitching, you'll be preparing documents for more senior bankers to pitch to clients as they try to persuade clients to do new deals.

Typically, an M&A analyst will be responsible for the financial analysis that underpins an M&A deal. This includes building a financial model, running the valuation and financial impact analysis, and preparing materials to present this analysis to the client. Very occasionally, an M&A analyst will also be asked to present this analysis to the client. Sometimes they will also be the point of contact for any questions or requests from the client relating to the analysis.

"Day-to-day life as an M&A analyst largely depends on the deals you are working on," says the head of UK mergers and acquisitions at one European bank. "Broadly speaking, mornings and early afternoons involve client interaction, status and/or diligence calls and discussions to agree on the workstreams the deal team should focus on as well as next steps. By the afternoon or evening, meetings are less frequent, and you can focus on progressing on the deliverables, which can range from

excel modelling to preparation of marketing materials."

## How hard do you work in an M&A job these days?

In the past few years, the arduous nature of work in some M&A teams has become apparent. When deals boomed after the COVID pandemic, some junior bankers at Goldman Sachs complained that they were working more than 100 hours a week and were on the verge of collapse. M&A analysts at other banks voiced similar complaints and the banking industry responded by increasing junior bankers' salaries and making sure juniors get some time off at weekends.

In 2024, however, long hours are still common. 75 hours a week are not unusual at big banks – especially American ones – and boutiques can regularly reach 85-hour work weeks on average. When Leo Lukenas, a 35-year-old Bank of America associate died of a coronary artery thrombus earlier this year, there were concerns that overwork and alleged 120-hour weeks may have contributed. Bank of America said Lukenas hadn't worked 120 hour weeks, but a recruiter said Lukenas had been looking for a new job as his working hours were excessive.

Why do junior M&A bankers work so hard? M&A is a fast-paced job and juniors will often work on multiple deals. Deal execution tends to be unpredictable by nature: it's a live situation and a client-driven activity. The work of pitching clients who might participate in M&A deals tends to be more predictable, but senior bankers will often ask juniors to make changes to the PowerPoint presentations recommending the deals late at night. Nonetheless, hours aren't always extreme. "Working full weekends and very late nights may occasionally happen around a particular deal, but these hours are not the norm," says the M&A head.

There are upsides. One Morgan Stanley banker told us that "M&A analysts have the opportunity to manage their own time and as long as the work gets delivered to a high standard you have the freedom to fit the job around your personal commitments."

## What's your career path in M&A?

One of the benefits of a career in M&A is that there's regular and steady progression and a clear promotion path from analyst, to associate, to Vice President (VP), to director, and to Managing Director (MD), although exact titles vary between different banks. The time it takes to reach the top rung varies, but as a very rough rule of thumb, it's around 15 years - if you get there at all.

"Meritocracy is key to this path, and we are passionate about giving our people the career opportunities to best realize their potential," says Joe Hannon, head of UK mergers & acquisitions for UBS.

As your M&A career develops, your job becomes increasingly client-facing. The role evolves from being technical and analysis-driven to becoming strategic and advice-driven.

M&A jobs offer a wide variety of exit options. Many graduates stay at banks for their two-year M&A analyst training program and then leave (if not even sooner) for jobs in private equity, hedge funds, corporate development teams in large companies, or even consulting firms. After completing an analyst training program, it was historically the case that people left to study a top MBA. Today, though, it's more common to leave for another job or to stay and become an associate.

## Which skills do you need for a career in M&A?

If you want to work in M&A, you'll need to be able to work autonomously. A member of the global M&A team at Morgan Stanley said: "M&A analysts are expected to get up the curve in terms of financial analysis and technical skills in a short period of time, and the role also requires a degree of independent and proactive work (for example reading broker notes) to stay current on the market environment."

Alongside independence, proactivity, and having a desire to learn, M&A analysts need to be confident with numbers and have a quantitative mindset. They also need to have good people skills and to be able to communicate and interact with people confidently. Ultimately this is a client-facing job, and clients look to M&A bankers to provide (good) judgement and advice.

Good analytical skills are essential along with a strong work ethic and a good attitude. "A good banker needs to be committed to the job and the deals they are working on," says Hannon, who also says a good attitude is vital. "It is essential to maintain a positive attitude as you are constantly interacting with others; a bad attitude could be detrimental to the whole team." Hannon also says a sense of humor is also essential, although that probably won't be enough on its own.

## Education and qualifications for M&A

The fierce competition for M&A roles means that you, as an applicant, have to maximise your chances of getting into an internship. That means, in all likelihood, forgoing your dream English Literature degree for something more analytical such as finance, or a STEM subject.

A brief look at recent recruits in Goldman Sachs' M&A advisory team suggests the most popular degree subjects for junior M&A bankers are economics, finance and business management. At JPMorgan, they include much the same thing. Some of the off-piste degree subjects include philosophy and foreign languages.

How else can you embellish your CV? If you're in the UK, you might want to try the Certificate in Corporate Finance offered by the Chartered Institute for Securities and Investment (CISI). The Financial Modeling & Valuation Analyst (FMVA) qualification, offered by the Corporate Finance Institute, could also help you out.

You may also want to study for the exams run by the CFA Institute. Historically, the three CFA exams, which lead to a CFA Charter, were used by people working in research jobs and the asset management industry. In the past few decades, the CFA has also become much more popular in areas like M&A, with junior bankers and students often studying for the CFA Level 1 qualification to differentiate their CVs, successfully or not.

The other key qualification for achieving an M&A job has historically been a top MBA. MBA qualifications are usually open to people with a few years' experience at work. Historically, junior bankers would spend two years as an analyst before leaving to complete an MBA and then returning to work as an associate, but this process has changed and MBAs are no longer mandatory. Even so, MBAs can still be a way to enter an M&A job mid-career or to swap into a top tier bank.

## Salaries and bonuses in M&A

M&A jobs pay large salaries and bonuses. Following complaints about working conditions, banks are now offering first year analysts a base salary of around $110k (£86k) before bonuses. Salaries increase as you rise through the ranks. Three or four years out of university, first year associates are typically earning around $175k (£137k) to $200k (£157k), while directors (about eight years in) can earn a basic salary of $300k in the US. Managing Director pay is more varied and depends on the firm in question, but a salary of around $500k is considered the standard.

When you work in M&A however, your pay isn't just about your salary – your compensation also includes a sizable bonus. For M&A bankers the size of the bonus depends strongly on fees paid to the bank when the client it is advising completes an M&A transaction. Fees vary depending on the size and complexity of the deal, but a rule of thumb is that fees equate to between 0.5% and 1% of the value of the transaction.

When the proportion of the fee allocated to the bonus pool is shared among the team that worked on the deal, the MD who originated or won the deal earns the most. Bonuses at most banks are paid predominantly in shares, with a smaller cash element. Bonuses can be 80% of your salary as an analyst and are even greater than your salary as you become more senior – although it's worth noting that it's a tough market at the moment, with 2023's bonuses flat on an already weak 2022, although 2024's are likely to increase if M&A activity picks up as expected.

Pay is typically highest in the most prestigious M&A boutiques like Centerview, Evercore, PJT, and PWP, followed by major US banks such as Goldman Sachs and JPMorgan, and lowest at mid-market firms.

The eFinancialCareers salary and bonus survey suggests that a few years into your career as an M&A banker, you can expect to earn over $220k in combined salaries and bonuses as an associate.

### Average compensation by rank in Investment Banking, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $118,269 | $66,000 | $184,269 |
| Associate | $152,273 | $69,340 | $221,612 |
| Vice President | $212,791 | $150,581 | $363,372 |
| Director | $246,111 | $178,977 | $425,088 |
| Managing Director | $398,438 | $537,500 | $935,938 |

# Day in the life: Junior Investment Banker, London

**This is an account of an average day in the life of a junior investment banker, told to us by an associate at a bank in London. It's anonymous as she didn't have permission from the bank to talk to us.**

8am. You don't get up that early in investment banking. Most people live near the office so they don't have to spend a long time travelling to work. In London, no one lives in Richmond, for example. I live close to Liverpool Street, so I can usually get up around 8am.

9.30am. Everyone is in the office by this time. There can be an expectation that you'll be in the office by 9am, but a lot depends on when you got to sleep. I've you've worked late, there's a bit of leeway. I usually arrive and check the news. I'm on a healthcare team, so I'll see if anything's occurred in relation to healthcare companies. If there's something interesting,

I'll send it to the managing director (MD), although in most cases he will have read it already at 5am!

10am. The mornings can be slow and a bit boring in investment banking. It depends slightly on the kind of team you're in. – If the team is good, there'll be work to do and it can be very dynamic. If it's not, you might be left to your own devices. Senior staff can themselves be a bit inefficient – they have their own emails to write and meetings to attend and in some teams, you'll find that they ignore you and that you're left to find your own work to do early in the day.
As a junior in a bank, you'll often work on multiple deals. Right now, for example, I'm working on two live deals – one of which

is an M&A deal and one of which is a financing. I also have three other deals that we're pitching for and which I'm staffed on.

It's up to me how I juggle all the work that results from this, but the live deals must take priority. After I've checked the news, I pick up the tasks associated with the live deal, help coordinate the due diligence and make sure I'm on top of everything. My tasks depend on the way the situation evolves. As an associate, I coordinate the work of the analysts on the team.

At the big banks a lot of the work that needs to be done by junior bankers involves the creation of PowerPoint slides and financial modelling, both of which are very time consuming. The job itself is really fairly simple. The problem is the time pressure and the culture. – You need to be self-starter: people often won't make an effort to help you learn as there's almost a presumption that you'll quit after a few years. This becomes self-fulfilling. A lot people don't progress much: they just do the PowerPointing and the Excel and then they leave the job for something else.

11am. I pick up some of the tasks from the live deal we're working on. Live deals are very process driven. A lot of it is about coordinating due diligence and making sure that all the relevant data is included in the materials we produce.

11.30am. I'm asked to jump onto a client call and listen in. As a junior banker you don't speak to the client – it's the VPs and above who usually do this, but it can help to be present so that you understand the client's requirements.

12pm. I'm working on a PowerPoint presentation and model for a deal we're pitching for. I'm building out the model, but not in too much detail as this is just the origination phase. Once we get mandated to execute a deal, we'll usually make the model far more complex, and this can be a lot of work. I often put in a bit of extra work during this initial phase just to avoid being killed by a wave of work if the deal progresses.

1pm. I get lunch at my desk.

1.30pm. This is when things can start to get busy. After lunch, senior bankers will typically start turning comments around on the work we've done for them. Some will send comments almost for the sake of it and will ask you to do more work no matter how much you've already done on slides or models. For this reason, it can be a good idea not to put too much work in at the start. – The trick is to give the senior bankers something of quality with no obvious spelling mistakes, but to be prepared that they are always going to ask for things like additional comparables for a transaction.

5pm. Things get busier still. Senior bankers will often start sending work through now and will say that it needs to be done by "the end of play," which can mean 2am or later. They'll usually want a lot of last minute changes, some of which can be very time-consuming.

7pm. We get an allowance to order dinner into the office. If you like, you can go home at this time, but almost no one does. When you go home, people look unfavourably upon you. There's a lot of expectation that you'll put in facetime in the office.

1am. I leave the office and get a cab home which the bank pays for. I work until midnight anything from two to seven days a week, depending upon the deals I'm staffed on. 10-20% of the time I work until 4am. There's no time for exercise, which is unfortunate and is something I'd like to change!

# What is sales & trading and what do salespeople & traders do?

Author: Daniel Davies

**Prestige**

10

**Pay**

10

**Grind**

8

**Competitiveness**

10

- Sales and trading is a very results-focused job where good or bad performance is immediately obvious.
- To succeed, you'll need energy, concentration, and coding and math skills.
- Sales and trading jobs working with products like fixed income, equities or derivatives are very well paid, but job security is limited. A single bad year, and you could be replaced.
- Entry to the best trading desks is super competitive; investment banks tend to hire a lot of juniors and promote the ones who perform best.
- The best salespeople and traders go on to work for hedge funds or family offices. If you're not in this top echelon, your next move can be less clear.

If you go into the sales & trading division of an investment bank, your main job will be "market making." This is the term banks use for making markets – or, to put it more simply, enable clients to buy and sell securities. The sales and trading division is also often referred to as global markets. This is the part of an investment bank that connects buyers with sellers and that stands in the middle to take a piece of the action for itself.

What will you buy and sell in a sales and trading job? The answer is more or less any kind of financial product. Some banks will even have physical commodities operations where actual metals, hydrocarbons and shipping services are traded as if they were stocks and bonds. But the three main categories of tradeable securities are equities (shares, which represent part ownership of companies), fixed income (any sort of tradeable debt, like bonds), and derivatives (securities where nobody literally owns anything but the two sides agree a contract to make payments to one another based on a predetermined formula).

Sales and trading jobs are iconic: they're where you'd used to see people shouting on trading floors during market meltdowns. A vice president at Deutsche Bank says that "when people think of investment banking, they tend to imagine the trading floor. Although sales, trading, and structuring is just one part of a bank's work, it is where a lot of its commercial activities take place."

Before the financial crisis of 2008, banks traded a lot on their own accounts and tried to earn profits for themselves in the process. These days, they mostly only trade on behalf of their clients. Clients tend to be big investors – pension funds, specialized investment companies and organizations representing very wealthy individuals. The clients may want to invest cash in securities, raise cash by selling securities or alter the risk profile of their investment portfolio. In order to do this, they need to find someone to buy what they're selling or to sell what they want to

buy. Investors don't usually have the scale or resources to have their own seat on the stock exchange. Nor do they want to take the time and trouble to search the world for the best deal, so they use middlemen. The salespeople and traders in banks are these middlemen.

## What's the difference between sales jobs, trading jobs, and sales trading jobs?

When you watch the prices scrolling across the bottom of the screen on CNBC or Bloomberg News or see them reported in the newspaper the next day, it's not obvious how those prices are reached. Each one of them, however, is the result of a specific bargain agreed at a specific time and price between an investment bank and a client. The job of making that bargain happen has two parts to it. First, there's the person who contacts the client, who tells them what deals are available and takes the order (the salesperson) and then there's the person who goes out into the market and executes the transaction at the best price possible (the trader).

Generally, sales jobs in investment banks are slightly more strategic than trading jobs. In sales, you have to understand the big picture and maintain relationships with your clients. The better you understand the big economic drivers and market trends, the more likely you are to be able to anticipate the investors' needs and to give them useful advice. "You need to be a trained psychologist… everyone needs constant advice and affirmation as well as investment knowledge", exaggerates Colin Hector, a former equities salesperson for UBS, Deutsche Bank, and Credit Suisse. Trading jobs are more focused and intense. To be a trader, you'll need to understand the structure of supply and demand at any given moment in time; some of the best traders actively avoid information about longer timeframes as a distraction from what they can see happening on the screen in front of them.

Some people fuse both roles and are sales traders. Sales traders work with clients who want to make a lot of transactions quickly. They are generally salespeople who deal with very active clients, often making dozens of phone calls a day while also keeping a similar number of chat windows open. Sales traders usually operate in liquid markets, meaning those where there is a high constant level of order flow. Examples of this kind of market might be in US Treasury bonds, blue-chip equities or options on the biggest stock market indices.

## What's the difference between trading equities, fixed income products, and derivatives?

The broad categories of equities, fixed income and derivatives cover a wide and ever-growing variety of financial markets, each with its own specialist jobs. Often, derivatives sales and trading will be divided up between the equities and fixed income divisions, with derivatives traders and salespeople working alongside colleagues who deal in the actual markets that the derivatives contracts are linked to (the "cash" markets).

It's easiest to illustrate with an example.

Some investors might just want to buy and sell shares. Simple shares are known as cash equities. But sometimes, a hedge fund might want to buy a contract that gives them positive exposure if the whole stock market goes up, but which also pays a premium for insurance against the market falling. Because it has payouts linked to another event, this is an equity derivative – it's an index option.

Products like that would usually be the responsibility of a specific equity derivatives desk with its own salespeople and traders (and sales traders). But in most banks, the derivatives desk is physically located next to the cash equities sales and traders because although it's a separate market, it's not a completely separate market – there's value in making it easy for people from the two trading desks to talk to each other and people sometimes switch jobs from one to the other.

On the fixed income side, the variety of products is much greater, but the same principles apply. Government bond trading is all about anticipating movements in interest rates, so government bond traders tend to work together with economists and with people who trade interest rate derivatives (swaps). The interest rate derivatives salespeople and traders will often be expected to cover more than one currency, so they will be located near to the foreign exchange sales and traders. Commodities and commodity derivatives are more of their own little world, so they are often managed separately.

Sales and trading of debt issued by companies (corporate bonds) is a very different business to debt issued by governments. Unlike equities and government bonds, corporate bonds are more likely to be "illiquid". This means they don't trade very often – a big pension fund or insurance company will buy the bonds when they are issued, and then hold on to them for years at a time, only selling when they need to raise cash or if the issuing company gets into financial trouble. Corporate bond salespeople and traders need to be able to go out and look for buyers and sellers in order to make transactions happen, rather than just looking at a screen where thousands of orders are placed every minute.

There's a similar distinction in the world of derivatives trading – between flow products where things are pretty standardized and orders can generally be matched quickly and structured products where the bank designs a contract specifically for one client's needs. As the VP at Deutsche Bank says, "Structuring teams provide products that are tailored to clients' specialized

needs. They might help an institutional investor achieve a required risk profile, or a corporate looking to acquire new equipment through financing."

## What's electronic trading? And how is it changing sales and trading jobs?

In a lot of financial products – particularly cash equities, short-dated government bonds and flow derivatives of all kinds – trading is carried out electronically. This means that rather than having a human being looking at a screen and matching orders, the investors are able to send a message from their computer system directly to the bank, which then uses its own system to query the stock exchange or other investors and buys or sells the product automatically within a few milliseconds. These electronic trading platforms are expensive to build but cheap to run and banks are doing their best to encourage clients to use them. Deutsche Bank's 'Autobahn' electronic trading platform can, for example, be accessed via an iPad app.

Electronic trading systems work on algorithms. The algorithms built into electronic trading systems are usually meant to break up a large order into a lot of smaller ones, and to then use advanced statistical analyses to determine the best way to place those orders in order to complete the overall transaction at the best possible price.

This doesn't mean that there is no role for human beings in trading; even in very high-volume flow products, clients often want to speak to someone who can give them market color and advice on how to manage their orders to get the best price. However, the rise of electronic trading platforms does mean there are fewer opportunities for humans than there used to be (famously, Goldman Sachs' cash equities trading desk used to employ around 600 people in New York in 2000 but was down to less than five by 2017 after electronic systems took over). It also accounts for the fact that many traders these days have taken on sales responsibilities.

The biggest banks are pouring money into electronic trading platforms that let clients get direct access to their systems – and this may end up diminishing the role of specialist flow traders even further. However, it's interesting to note that when markets get really volatile, as they did in the early stages of the Covid-19 pandemic in 2020, clients still seem to want to get on the phone and talk to a human being. During that period of market volatility, human traders seemed to do much better than automated systems in dealing with market conditions that had never been experienced before.

The rise of electronic trading platforms driven by algorithms has affected the kinds of jobs that are on offer in sales and trading. Traders in particular are now being encouraged by banks like JPMorgan to learn how to code in languages like Python in order to be able to specify the details of complicated derivatives products and the steps needed in order to trade them. Algorithmic traders are technology specialists and quantitative finance professionals with trading knowledge who write algorithms that can get orders executed at the best prices, and who develop better statistical models to choose the most efficient way to place orders.

## Which skills will you need for a career in sales and trading?

It's no good going into sales and trading if you're not a morning person. Markets open early every day, and you need to be in the office even earlier. Rain or shine, summer or winter, the market is no respecter of hangovers and duvet days; at any given minute something could suddenly turn into a crisis. Sales and trading jobs don't tend to require the punishingly long hours that are associated with investment banking, but the hours can still be very intense. "It's the kind of job that many people imagine they'd enjoy, but the reality might not suit everyone", cautions the Deutsche Bank VP.

Sales in particular is a noisy, people-focused job which is more suitable for extroverts than introverts. Even when markets are dominated by computers, the people making the decisions are human beings and successful salespeople need to be able to form relationships with them on a human level. That doesn't necessarily just mean dinner and drinks and meeting the clients' families – some investors are strictly business. But it does mean that you need to be able to talk to people and listen to them to understand what they want. As Hector puts it, "you need to have something to say, every single hour of the day... If there's nothing happening, you have to be able to use your imagination".

Sales and trading jobs need concentration and attention to detail. Some structured products and algorithmic roles also need advanced quantitative skills. In all products and markets, it's vital to get things right. There's not much room for "big picture" types in sales and trading; everything is either a profit or a loss, worked out to the last fraction of a cent.

## What qualifications do you need for a career in sales & trading?

Although you can hypothetically get in with any degree, it's likely best to flex some analytic aptitude to recruiters with a finance or STEM subject. Recent sales and trading junior recruits at JPMorgan, for example, graduated in economics and sciences, particularly mathematics. At Bank of America they graduated in similar roles, with STEM subjects slightly more prevalent, we found.

If you're looking for something else to fluff up your CV, the Bloomberg Market Concepts (BMC) course could help. This is a self-paced e-learning course that lasts around 8 hours and teaches the very basics of high finance, and how to use the Bloomberg Terminal; finance and economics students will likely be quite bored in the process, however, with the concepts already staples of their courses.

Increasingly, it helps if traders have some understanding of coding. There are number of options available, mostly to learn online: coding is one of the few places where self-taught people are held in as high regard (if not higher, among the known) than academically qualified people. The most popular way to self-teach (which offers you a certificate at the end of it all) is Codeacademy, which offers courses on Python, Java, and C++, among others.

There's also the ICMA Fixed Income Certificate, issued in the UK, which is very very expensive and lasts four weeks' worth of webinars. You can also pay more and have classroom teaching (for one week) in Amsterdam. It's not mandatory anywhere, but it's well-known enough to potentially make a difference to your internship application.

Masters in finance qualifications are also relevant to sales and trading. If you want to work in quantitative and electronic trading, however, you could also consider a masters in financial engineering, which focuses on not just financial topics, but also how statistics and adjacent topics, such as machine engineering, integrate.

In the US it's mandatory for salespeople and traders to study for the Series 7 exam, as mandated by the Financial Industry Regulatory Authority (FINRA). The exam makes sure that salespeople understand what they're selling. You'll need to be sponsored by an approved firm to do the exams, so don't overthink this one – the bank you work for will guide you through the process when it comes up.

## Salaries and bonuses in sales and trading jobs

Sales and trading jobs are some of the best paid in banking. If you're good and you generate a good level of profits (known as pnl) for the bank, you'll get paid a lot of money within a comparatively short period of time. Compensation almost doubles, from $171k (£134k) a year to $321k (£251k), from analyst to VP levels– a five-year jump in one's career.

The chart below shows figures from the eFinancialCareers salary and bonus survey for people working in sales and trading jobs. Promotions in sales and trading can happen more quickly than in other areas, but it's usually safe to assume that it takes around eight or so years to reach director level.

### Average compensation by rank in Investment Banking, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $91,071 | $79,762 | $170,833 |
| Associate | $148,077 | $70,500 | $218,577 |
| Vice President | $193,438 | $127,188 | $320,625 |
| Director | $285,256 | $280,652 | $565,909 |
| Managing Director | $487,500 | $494,792 | $982,292 |

# How to get a capital markets job in an investment bank

Author: Daniel Davies

Prestige
9

Pay
9

Grind
9

Competitiveness
8

- Capital markets bankers help clients raise money through public markets.
- Capital markets bankers usually specialize in equity or debt. They're known as Equity Capital Markets (ECM) bankers and Debt Capital Markets (DCM) bankers.
- Capital markets jobs are well paid. The highest pay goes to people originating deals and bringing in new clients rather than just executing on capital raising transactions.
- Entry to the best capital markets teams is highly competitive; junior bankers get ahead by impressing bosses with skill and hard work.
- To succeed, you need to be good with people and have a really strong eye for detail.

Capital markets bankers are all about facilitating expansion for their clients. When companies want to make investments and expand, they need to raise money to do so.  Sometimes they just take out a bank loan, but if you want to raise a lot of money at the best rates possible – or if your financial needs are a little bit more complicated than the average lending officer can accommodate – then you might need to go to the global capital markets and sell debt or equity to investors.  If you do that, it's the Capital Markets divisions of an investment bank you'll be talking to.
As Virginia Draper, graduate recruitment manager at Deutsche Bank in London says, "roles in corporate finance can broadly be divided into two categories: origination teams, who work with clients to understand their needs and identify new business opportunities, and product teams, who develop and execute specialist solutions within capital markets or by providing advice they may require."

Investment bankers working in capital markets are responsible for providing advice to companies on capital raising and then finding investors to provide the money. To do this, they act as a kind of go-between.

On one hand, they talk to client facing advisory bankers to understand corporate clients' capital raising requirements. On the other, they talk to the sales and trading division to understand what the investors are prepared to buy. As they move between the two, capital markets bankers are responsible for managing the capital raising process, including hiring lawyers, getting the documentation put together and ensuring that everything complies with all of the regulations that cover the act of issuing securities to the public.

## What's a debt capital markets banker? What's an equity capital markets banker?

Because they depend on investors to be able to deliver the cash to the corporations, capital markets teams are usually split into Debt Capital Markets (DCM) and Equity Capital Markets (ECM), specializing in either bond (debt) or equity issuance, respectively. The two areas are quite different from each other, because companies tend to issue bonds much more regularly and as an everyday part of their financial management, while equity issuance is a much rarer and more strategic decision.

"DCM brings a unique combination of corporate finance (a profound knowledge of how our clients' business operates and how to advise on their financial needs), fixed-income markets exposure, and mastering of complex financial products," says Demetrio Salorio, SocGen's head of global banking and advisory. Firms expect their DCM analysts to be highly numerate, and to understand the technicalities of company financing.

However, while most investment bankers are very focused on individual deals, the high-volume nature of debt issuance means DCM bankers must be able to develop relationships with clients over time and provide them with relevant market information at regular intervals. Salorio says success in DCM depends on having a "strong capacity to develop a relationship based on mutual confidence with the issuer clients".

ECM bankers, on the other hand, have to go out and make deals happen. "A typical day begins by understanding the market complexities for that day and week," says one co-head of EMEA capital markets at a European bank. "We do this by reading newspapers, listening to the research briefings, and participating in team meetings." A good capital markets team will anticipate their clients' needs – maybe there's an opportunity to take advantage of good news to issue shares at a higher price. As the opportunities are identified, the team moves into "pitch" mode.

As soon as a pitching process opens up, it's the senior ECM bankers that will hop on a plane to try and sell the investment bank to a potential client. This is the 'origination' stage of the deal, but although it's the directors and managing directors who are expected to be the face of the bank, junior employees are engaged in preparing the marketing material required to convince a client to go with a particular bank. If they're successful, the team involved moves on to the 'execution' stage of the deal.

"Origination could include preparing or conducting client pitches. Executing would include drafting or structuring work with clients, lawyers and/or accountants or distribution efforts involving syndicate, sales, and investors," says a senior banker at a boutique investment bank. A "syndicate", in this context, refers to a specialist team that sits (in organizational terms, but usually also physically) between the ECM division and the sales and trading floor. If you work in syndicate, your job will be liaising with the sales and traders and keeping track of investor interest in the products being issued. During a deal, syndicate is responsible for preparing feedback from the market about how well received the offering is going to be.

ECM jobs are typically divided into three separate areas. Firstly, there will be the industry group or sector that you're focused on – such as healthcare, technology media and communications, or financial institutions. Then there's the geographical area you're covering, and then there's the product type you specialize in.

That's not to say that you'll be focused purely on, say, glamorous bells-and-whistles stock debuts, known as Initial Public Offerings (IPO)s, which occur when companies first float their stock on publicly accessible exchanges.

ECM bankers work in teams divided by 'common' equity products. This includes IPOs, follow-ons (additional stock sales immediately after an IPO), and secondary offerings (additional stock sales a while after an IPO).

Convertibles, which are more complicated instruments that are bonds that can be paid in/as equity, are separated out (and - just to be confusing - tend to sit in both ECM and DCM teams) and there are also teams that focus on more complex derivative products. In some banks, there are teams of bankers who focus solely on private placements (targeted stock sales to specific customers, as opposed to the wider public).

DCM jobs have a similar split into geographical and sectoral teams, but the financial institutions team, which works with banks and other financial clients, is generally much bigger than the rest. This is because financial clients themselves account for nearly half of all bonds issued. There are also a number of special types of bonds only issued by banks (such as AT1 bonds) and insurance companies to meet regulatory requirements. DCM bankers working in this space need to have very detailed knowledge of the ever-changing world of regulation.

If you work in DCM you'll probably need to know a lot about private placements, as these are more common in the bond market than in the equity market. DCM bankers will also work closely with experts in interest rate and foreign exchange derivatives, so that clients can borrow efficiently even when the investors want a bond in a different currency.

## What do junior capital markets bankers do?

As a junior capital markets banker, you'll be doing a lot of spreadsheet work, making financial models for client companies. For a DCM role, you'll need to understand how credit rating agencies model the impact of new bond issuance on a company's credit rating; you also need to be able to create detailed profiles of interest payments and debt maturities in order to track how a client's financial structure develops. If you have a job in ECM, the modelling is a little less nitty-gritty and more devoted to the creation of "pitchbooks." Pitchbooks are the great big PowerPoint documents that bankers pore over in order to sell clients on the merits of a new transaction, and to promote their own skills as the best bank to execute it.

When they're not doing pitchbooks, junior bankers are heavily involved in the execution of deals, something which

can require a considerable amount of multitasking. During busy periods, particularly in DCM, you might have as many as half a dozen transactions, all at different stages, with a lot of hard deadlines for things to be completed by. One of the key skills for a capital markets banker is to be able to keep track of things and prioritize. At VP and director levels, this makes up most of the job, marshalling a small army of analysts and associates to keep everything moving through the pipeline.

In the senior ranks, Managing Directors will tend to be either "originators" – the people who bring the deals in and maintain client relationships – or "structurers", the technical experts who give advice on the right kind of transaction for every client. As your career develops in capital markets, you might find that you are drawn to one side of this divide or the other, although there is some overlap as structurers are intimately involved in the pitching and origination process while originators have to understand the deal structures relevant to their clients at any given moment.

## Skills you'll need for jobs in ECM or DCM

Capital markets bankers sit between advisory bankers in areas like M&A and people working in sales and trading. Therefore, if you work in capital markets, you'll need some of both skillsets. Capital markets is a job in which long hours are constant; if you aren't rushed off your feet with deals to execute, you're expected to fill in the gaps by working on pitches.

Capital markets bankers are famous for their attention to detail. Since the actual service is something of a commodity, banks try to differentiate themselves by reassuring the client that they will be able to make the transaction go without a hitch, so any tiny mistake in a pitchbook or model will tend to undermine the overall branding. Even getting a font or color wrong can be the occasion for long recrimination sessions and angry managing directors, so beware!
Because of the way that the capital markets division works, people in these jobs also need to be good at teamwork. Salorio says leadership and collaboration skills are key in DCM because you need to forge relationships with colleagues across the firm in order "to attract advisory resources from other units of the bank to present the client with ad-hoc, high-quality strategic financing advice".

It's the same in ECM. "Senior capital markets bankers need to have broad internal and external contacts, as well as strong interpersonal skills, marketing capabilities and strong project management skills to balance interests of complex stakeholders," says one of Asia's top ECM bankers.

Finally, if you have a capital markets job you'll also be required to multitask. Even a relatively simple capital markets transaction will call for many different skillsets as it moves through the pipeline, from pitching to modelling to legal and compliance to project management. An ECM or DCM banker is expected to stay with the transaction and to liaise with the clients all through the process, and to retain grace under pressure.

## Qualifications you'll need for a capital markets job

Capital Markets roles have a similar skillset to M&A advisory ones – there's a reason that the phrase "investment banking" applies to them as a collective. That means, much like in M&A roles, getting a finance or STEM degree is probably the best bet, although neither are (strictly) necessary. Recent ECM hires at Citi, much like M&A bankers, are hired from finance, economics, and business degrees. DCM bankers at Deutsche Bank had similar profiles, although we have seen communications graduates too, of all things in the world.

Away from your degree, you could, like M&A study for the CFA Charter, or a good MBA a few years after you graduate. There's also the Diploma in Capital Markets by CISI, which gives you an idea of how capital markets operate; the level of knowledge is probably not worth a week of work experience, but it could make the difference in an interview.

## Salaries & bonuses for capital markets jobs

Capital markets job pay really well. Banks take a percentage of each "deal" they complete in fees. The amount they take varies – in an IPO, the Financial Conduct Authority in the UK estimated that around 1.7 to 5% of a deal's value would be taken as a fee, with variations based on size of the deal (bigger deals took less). PwC in the USA estimated that it was 4 to 7%, again depending on deal size. That can easily make up tens of millions of dollars. DCM deals take much smaller percentages, but the deals are bigger, balancing the two out. Our 2024 salary and bonus report found that DCM bankers averaged $204k salaries, while ECM bankers average $209k salaries. That was higher than a lot of other front-office revenue-generating functions, including their cousins in M&A.

Bonuses also make up a significant portion of compensation. DCM and ECM bankers averaged bonuses of $139k and $103k respectively after an admittedly miserable 2023.

Our salary & bonus survey suggests that investment bankers, which capital markets professionals are considered to be, can earn over $350k in total compensation around five years into their career at VP level.

### Average compensation by rank in Investment Banking, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $118,269 | $66,000 | $184,269 |
| Associate | $152,273 | $69,340 | $221,612 |
| Vice President | $212,791 | $150,581 | $363,372 |
| Director | $246,111 | $178,977 | $425,088 |
| Managing Director | $398,438 | $537,500 | $935,938 |

# What are bank research jobs– and what do research analysts do?

Author: Daniel Davies

**Prestige**

7

**Pay**

6

**Grind**

9

**Competitiveness**

8

- If you work in research in an investment bank, you will make predictions about traded securities. These could be either equity or debt (fixed income).
- You'll need to understand businesses and economic issues in detail.
- People who succeed in research jobs tend to be good communicators and creative thinkers.
- Top performers in research often go into other roles in fund management or investment banking, although there are plenty of highly-paid and senior jobs in research itself.
- As a researcher, you are effectively a resource for the rest of the bank to consult; there are always opportunities to impress senior bankers.

## What do research jobs in banking involve?

The research department of an investment bank is not the most glamorous division, because the people who work there don't directly generate revenue. Furthermore, it's a bit of an unhappy coincidence that the name of the most junior career title in investment banking ("analyst") is also the generic name given to the employees who research and analyze companies, entire sectors, and their creditworthiness.

In research, you get "analysts" who are actually Managing Directors.

However, banks employ lots of research analysts, and they do it for a reason. A research analyst's job is to understand the reason for the valuation of financial instruments, and a large part of the business of investment banking is to understand what the fair price for something is. This is important if you're buying and selling bonds and equities in the hope of making money from price changes, but research analysts also help capital markets and advisory bankers to understand their clients' business and make better pitches.

In general, research analysts are attached to the sales and trading business line, where they comment on price movements and issue buy and sell (or overweight/underweight) recommendations to investor clients. Because of this, research analysts will usually specialize either in equities or in debt. Some banks have specialist cross asset research teams working across both, and sometimes there will be a separate economics research team serving both sides of sales and trading, but it is just as common to see both debt and equity divisions employing their own economic researchers focused on the economic implications for their specific markets. Researchers of this breed are often referred to as strategists.

## What do fixed income analysis jobs involve?

Fixed income analysis is a job that deals with all areas of interest rate markets and issuers that connect the central bank to

sovereign and corporate borrowers. Moyeen Islam of Barclays describes the fixed income strategist's role as "to translate the economists' view on the likely policy path of the central bank into a market view."

Fixed income analysts tend to have a much greater number of companies to cover than equity research analysts, but unlike equity researchers they don't generally publish earnings forecasts and make fewer trading recommendations. Consequently, their notes tend to be shorter and they publish fewer updates. Fixed income researchers also need to be aware of the credit ratings of bonds under their coverage, and to anticipate ratings changes.

Like equity analysts, fixed income (also known as bond research) teams tend to be split by sector and by geography, although fixed income research departments tend to have larger teams covering financials than any other sector, reflecting the fact that the financial sector itself is the largest issuer. Darren Sharma, founder and CEO of Frontline Analysts, says that "you're basically running a small, very specialized news service with a particular beat to cover, and a readership of a few dozen – maybe a few hundred – extremely well-informed people. Within that little area, you've got to be the Wall Street Journal, the Economist and the BBC World Service".

## What do equity research analysis jobs involve?

Equity research analysts are divided into teams. These will generally be sector-based and follow the same sectoral classifications as the stock market indices – consumer goods, technology, financials, oil & gas and so on. Geographically, the teams will be divided according to the investor base, so there are usually EMEA, Americas, APAC, and emerging markets analyst teams in every sector, who communicate with one another to establish a reasonably consistent global view.
Equity analysts typically cover around ten stocks each and will be expected to write notes on every set of quarterly results for each of the companies they cover, along with regular thematic notes on the industry as a whole and updates when

they change their view on valuation or their recommendation. They also maintain spreadsheet models of each of their companies, and publish earnings forecasts.

The job of an equity analyst is a bit different in a hedge fund. Shawn Cain covers 50 different restaurant, retail, and leisure stocks at hedge fund Citadel. When I was an analyst at an investment bank, I used to write long research reports," Cain told us. At Citadel, Cain said his job as an analyst is to present the portfolio manager with "actionable investment ideas," and to synthesize other research so that the PM can understand a path to meeting money. He also meets with the management of the companies he covers to help better understand their strategies.

## What do deal research jobs involve?

As well as supporting the sales and trading business by making recommendations to clients and warning the trading desk of upcoming events, research analysts have to write "deal research". This happens when the bank is involved in an issue of new securities, arranging by the capital markets team (Equity Capital Markets or Debt Capital Markets). Deal research does not contain any investment recommendations: it's meant to give a summary to investors of the key facts relating to the issuer, a set of earnings forecasts and a range of valuations. Deal research is also known as primary research, supporting primary deals. By comparison, everyday trading recommendations are known as secondary research because they refer to securities which have already been issued. Writing primary research is a relatively rare event for equity analysts, as it is associated with IPOs and rights issues. For bond analysts, however, it is the main part of the job, as fixed income securities tend to trade less but require constant new issuance as bonds mature.

## Which skills are required for equity and fixed income research jobs?

Research analysts are often looked on as the nerds of the sales and trading department. To do well in equity or debt research, you need to be comfortable with doing a lot of reading of company accounts and economic data and absorbing much more detailed information than in some other investment banking specialties. Your job is to be the expert that others consult.

However, research is also a job in which there's surprising scope for creativity. The currency analysts work in is ideas. The best analysts can take a sideways view and see something that others have missed is what really makes an analyst stand out. Huw van Steenis, vice chairman and partner at management consultant Oliver Wyman, says that analysts need to "read voraciously, analyze the what-ifs and tails and build a mosaic. There is no one way to develop your edge, but being curious, try to be early on a big theme and insisting on catalysts all help".

Analysts aren't confined to the back rooms of the research department. They are expected to make phone calls and presentations to investors and market their ideas and research, and to build relationships with companies in order to understand them and make forecasts. So, although the ability to build an accurate spreadsheet model is important, the ability to communicate and relate to other people is absolutely vital. At the highest levels of the research department, superstar analysts and strategists might find themselves spending nearly all of their time out meeting clients and companies, with a team of juniors back in the office to do the background work and come up with the numbers and facts to support their views. These attributes are general across the research department. However, there are also a few differences between the skills needed of equity and fixed income (debt researchers).

In general, because of the way that the underlying securities work and the risk to the downside, debt analysis has a greater need of skills like precision and attention to detail. By comparison, equity analysts are expected to publish earnings forecasts and price targets, and an equity analyst can sometimes get away with a few minor errors if their big picture understanding of broad trends is really good.

In both equity and debt research, there is often room for analysts to move on to other areas of the banking industry; because you build up a visible track record of successful and unsuccessful recommendations, analysts are often recruited by hedge funds and the buy side.

Alternatively, analysts who have strong relationships and understanding of the companies they cover will sometimes find themselves gravitating toward roles in corporate finance/ capital markets or M&A advisory. We've also noticed a marked trend for equity analysts to end up in investor relations for the firms they've previously covered, too.

## Education and qualifications for research jobs

It helps to study the right subjects. SocGen's recent research recruits have studied finance, economics and mathematics.

Because researchers often specialize in particular sectors, there can be more variety in the qualifications in research. Medical doctors will sometimes cover biotech firms, for example. After a few years in a particular industry, like healthcare, an MBA can provide an opportunity to pivot into a research job at associate level.

The CFA Charter and the three related CFA exams were designed for researchers, so this is the critical qualification here. If you want to work in research, it probably helps to start studying the CFA Level 1, even at university.

## Salaries and bonuses in research

Research jobs are well paid. Below is an excerpt from our 2024 salary and bonus report. Figures are in US dollars, and are an aggregate of all global respondents working in equity research – pay varies by jurisdiction, with the US paying its staff best, generally speaking, with European and Asian bank staff paid comparatively worst. Although bonuses are low for juniors in comparison to other investment bankers, they can increase rapidly once a researcher distinguishes themselves from their peers.

### Average compensation by rank in Research, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $75,000 | $25,000 | $100,000 |
| Associate | $83,333 | $58,333 | $141,667 |
| Vice President | $185,000 | $101,786 | $286,786 |
| Director | $261,111 | $152,778 | $413,889 |
| Managing Director | - | - | - |

# How to get a job in private equity

Author: David Rothnie

**Prestige**

10

**Pay**

10

**Grind**

10

**Competitiveness**

10

- Private equity jobs are some of the most desirable in finance.
- Private equity funds invest in large companies that are not yet listed on public markets.
- Senior private equity professionals are paid salaries, bonuses and carried interest – a proportion of the profits made when an investment is sold. Carried interest can be huge.
- Competition for private equity jobs is intense.

## What do private equity jobs involve?

Private equity is a vast industry covering a range of investment firms from global companies like Blackstone, KKR, and The Carlyle Group to hundreds of smaller players that specialize by geography or sector such as Vitruvian Partners, Sovereign Capital Partners, or Bridgepoint Group. The biggest firms tend to operate beyond just private equity and invest in asset classes like real estate and private credit as well.

In principle, what private equity firms (also known as General Partners, or GPs) do is very straightforward. They collect money from investors (also known as Limited Partners, or LPs), which include pension funds and wealthy family offices. They then use that money to buy private (not-publicly listed) companies. They "improve" those companies, and then sell them. The profits from the sale are then shared between the firm and the investors, after the investor's initial contribution is paid back.

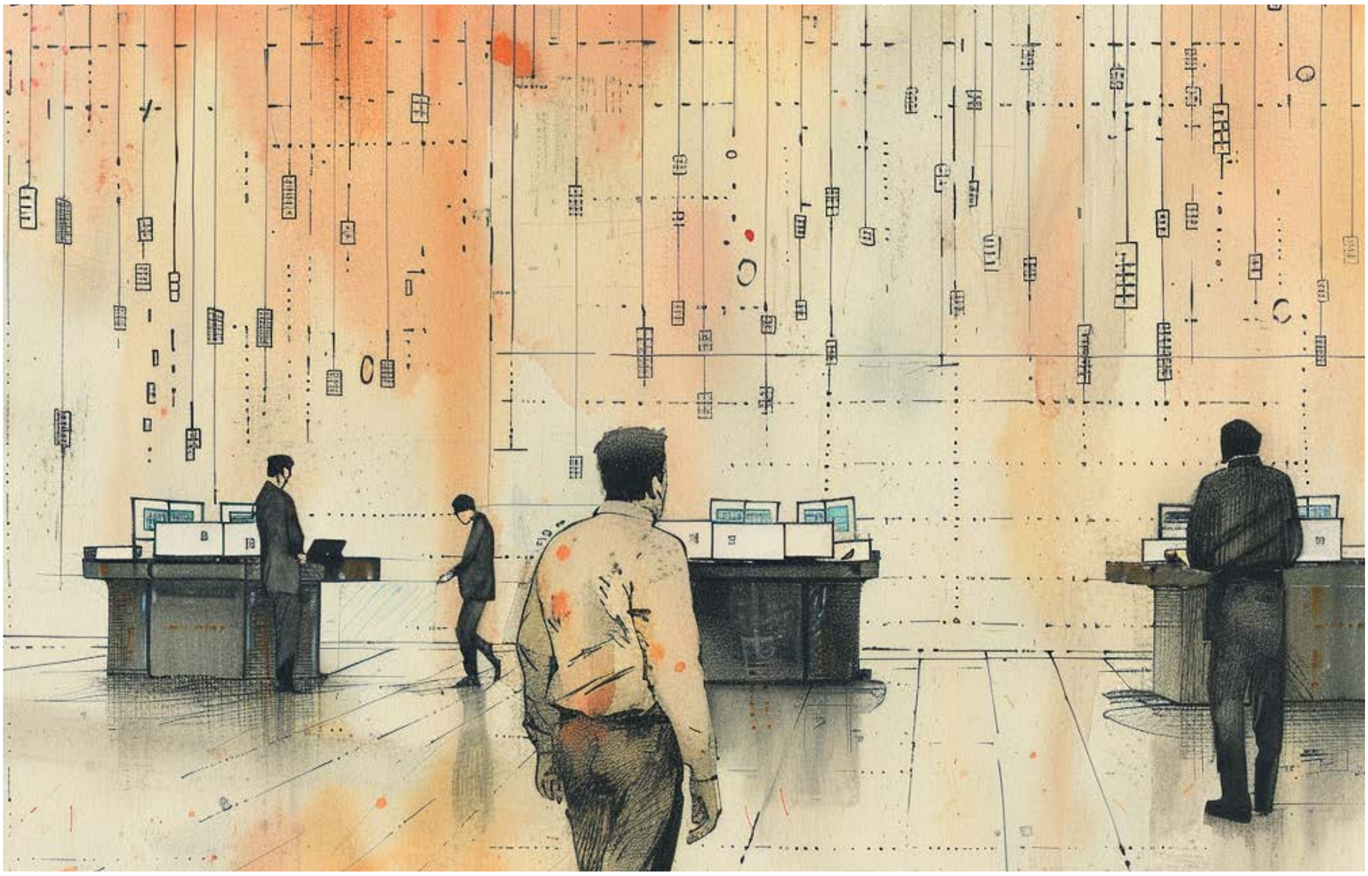
In reality, things are more complicated. Private equity firms stand are often accused of "asset stripping." They buy companies with loans in structures called "leveraged buyouts." Those loans are often taken out against the collateral of the company they're acquiring. The acquired company then has to pay them back. Companies with collateral – like nursing homes (which own the buildings) and pubs and supermarkets (which also own their premises) are ideal targets.

A classic recent example of this phenomenon is private Equity firm Clayton Dubilier & Rice (CD&R)'s acquisition of British supermarket chain Morrisons in 2021 in a deal valuing Morrisons at £10bn. As a result of the acquisition, Morrisons' net debt obligations went from £3.2bn to almost £6bn.

Unfortunately, shortly after CD&R's acquisition of Morrisons was completed, Russia invaded Ukraine and interest rates rose. As a result, that debt became more expensive to service. Morrisons posted a £1.1bn pretax loss in the year to Oct. 29 2023, according to its parent Market Topco. This included £735m of finance costs, such as interest payments.

## Hard times in private equity

It's not only the Morrisons' deal. Rising interest rates makes servicing debt increasingly challenging and leveraged buyouts increasingly unviable. Private equity is not what it was.



Bain & Company, a consulting firm, says private equity deals were down 60% in 2023 from the peak in 2021, "as rapidly rising interest rates led to sharp declines in dealmaking, exits [when companies are sold], and fund-raising."

At the same though, private equity firms still have plenty of money to spend. Bain & Co estimated that they have $1.2 trillion in "dry power," or money to be spent. They also have plenty of existing investments they can't get rid of because no one wants to buy them (at least not at the right price). In 2023, Bain said buyout-backed exits came in at $345bn globally, a 44% decline from 2022. They described the situation as "unprecedented", in a bad way.

Because they can't sell their investments, private equity firms are increasingly adopting a different tactic and selling their investments at a discount to other funds, or even back to themselves in a new fund, in the so-called "secondary" market.

## Why do people want to work in private equity?

Even so, private equity jobs still are highly desirable. This is because, unlike investment bankers, people in private equity are the buyers. They are investing in companies rather than just advising on deals, and this is more exciting. Job security in private equity is also typically much higher than in a bank, and as you become more senior you are paid carried interest, or a proportion of profits above a specified level, which can be extremely lucrative [if the exits happen].

## How do you get a job in private equity?

Historically, most private equity firms liked to recruit junior talent from investment banks. This is because banking juniors have completed a two-year training program and have a good grounding in the fundamental aspects of financial modelling, pricing companies, and Mergers & Acquisitions(M&A). In recent years, however, many private equity firms have started to hire and train recent graduates of their own. For example, big funds like Blackstone now run their own training programs. But getting a place can be hard - Blackstone has around 400 applicants for each of its 160 or so open graduate opportunities.

For this reason, a first job in an investment bank is still the best launchpad for a private equity career. "Graduates wanting a career in private equity must get into an investment bank and get into the right team," says McManus. Working in M&A or leveraged finance secures the best chance of getting on the shortlist for a job in private equity.

Another way into private equity is by training in transactions services with a Big Four firm or by doing private equity commercial due diligence in a strategy consultancy.

## What are the jobs you do private equity?

Working in private equity is all about analyzing good business investments, and then beating the competition to acquiring an asset. This might be through direct negotiation with a company that a PE firm has identified as a good target to purchase, or through a formal auction process run by an investment bank that's selling a business to a group of competing buyers.

There are similarities to working in private equity and to working in M&A (and this is why junior M&A bankers often move into private equity). However, as we noted above, when you're working in the M&A division of a bank, you'll just be advising on the deal. As the advisor, you'll provide advice on deals and financing. As the private equity professional, you'll be the one instructing the bank and the person actually doing the deal.

Both jobs can involve an intense workload. But when a deal is live, it's the M&A bankers that pick up most of the slack. "If anyone will be working all weekend, it will be the M&A advisor, not the private equity person," says Gail McManus, founder of Private Equity Recruitment. "You're calling the shots, and the advisers are doing the delivery."

Private equity firms have job titles that are similar to those in banks. At the bottom of their hierarchy are the analysts and associates, and this is where you'll usually start. Analysts and associates own the models. That means they'll be able to see the cashflows and analyze what needs to be done to make a business perform better. Owning the models provides essential grounding for taking more senior roles in private equity. You'll soon be able to identify what makes a good target firm for your private equity firm to invest in.

As you become more senior, you will have more responsibility for running deals and working with senior executives at the firms you've invested in. "If you work for a big global firm which work on the multibillion complex leveraged buyouts, you'll look after a tiny part of a big deal. But if you're working for a mid-market firm with a £1bn fund, then you'll be more involved," McManus says.

Some big U.S. firms expect associates to complete an MBA after a couple of years, but broadly speaking, if you're a good fit then you can forge a very successful career at a single private equity firm.

Associates typically have five years' industry experience, and you'll spend another couple of years as a senior associate before making it to director or principal. If you want to make it to managing director, it will take a minimum of 10 to 15 years.

### Fund investment jobs and venture capital jobs

As well as working as a deal professional in a private equity firm, you can also work for an LP as a fund investor. Here you'll work for a pension fund or the family office of a wealthy individual and decide where to invest. These roles are a lot less competitive and more suited to people with analytical minds who aren't necessarily extroverts or highly competitive. LPs are increasingly investing alongside the funds they invest in on big deals. For example, in February 2021, Bill Gates' family investment vehicle, Cascade Investment, teamed up with private equity firms and pension funds to acquire Signature Aviation, a UK aviation services company.

You could also consider a career in Venture Capital (VC), a once growing and now struggling area of the market. Unlike big LBO houses which seek ownership of already mature large companies, VC funds take smaller stakes in companies and help them reach their "full" potential. VCs are big investors in technology, where start-ups are looking to disrupt established players across industry groups. They also invest in companies pursuing zero carbon emissions as environment – so social and governance factors play a prominent role in investment decisions. To enter a venture capital fund, you'll still need a solid grounding at an investment bank, but more likely to have worked in a specialist sector team such as technology, media and telecommunications.

### Which skills will you need for a career in private equity?

Private equity firms recruit from investment banks, so candidates will already have a basic grounding in finance, reading balance sheets, and understanding how companies are valued. Strong analytical skills are essential. But private equity firms are also looking for ultimate all-rounders: people with insightful thinking and the ability to build relationships.

"Private equity professionals need to be confident and persuasive but also hard-edged when it comes to negotiating. They sell with their eyes and mouths and buy with their brains," says McManus. Private equity funds are looking for "Action Man or Action Woman," says McManus. You need to make things happen, to be "ultra-competitive, not let things stand in your way." You need relationship skills as well. "It's all about winning the deal," McManus says.

Alongside this, you'll need to be interested in how businesses work, rather than simply sitting behind a desk and looking at numbers, although there is an element of that as well.

When assessing candidates for a career in private equity, McManus asks the coffee shop question. "If you're thinking of buying a coffee shop, what's the first thing you'd do?" If your answer is you'd go and visit your local shop to see if the toilets are clean, how many people there are, how many staff are on a shift and whether they look happy, then a career in private equity is probably for you. If your instinct is to go and find an analyst report on the subject, then you're probably better off working at an investment bank.

If you want to work in private equity, it's important to speak up and have an opinion on a particular deal. Being a private equity professional means being able to argue for or against a particular investment opportunity or sector, so a passion for understanding the inner workings of business is essential.

### Education and qualifications needed for private equity

What do private equity professionals study? The same as investment bankers! This is because private equity firms typically hire from investment banks. Blackstone and

Apollo for example hire a lot of finance and business studies graduates, as does European firm CVC. All firms hire humanities students too, though.

Historically, the golden ticket into a private equity role was an MBA. This path was called the 2+2; 2 years in investment banking (the length of an analyst program), plus a 2-year MBA. Although MBAs are still popular, they're less of the big deal they were in the past, as private equity firms are increasingly training their own juniors internally.  MBAs hired by private equity firms have generally come from three places: Harvard, Stanford, and Wharton.

Other qualifications for PE jobs might include a masters in finance (also a popular choice for prospective investment bankers), a Chartered Alternative Investment Analyst (CAIA), or if you're in the UK, Oxford University's private markets investments programme, which lasts six weeks. CFA Institute, best known for its eponymous qualification, has also recently launched a certificate in Private Markets and Alternative Investments.

## What's the pay like in private equity?

When it comes to salaries and bonuses, private equity firms usually pay slightly below or on a par with investment banks – and like banks, salaries and bonuses vary significantly depending on the firm in question. The real money is not in the annual compensation, but in carried interest, which usually goes to professionals from around principal upwards (although some firms pay carried interest earlier).

Also known as "carry", carried interest is derived from the profits that are made on the LP's original investment and is typically 20% of the returns (once a predetermined hurdle rate has been met). For example, if an LP invests $1bn, the private equity firm's carry might be $200m, which it then distributes to the deal team. In this way, working in private equity can be very, very lucrative (especially as carried interest is typically taxed as a capital gain). But carry is only paid when deals are exited, so you'll typically need to wait around five years.

The figures below are taken from our 2024 salary and bonus report. As private equity uses a different ranking system to investment banking, we've chosen to show the data by age bracket. It's worth noting that a majority of private equity hiring is done either of MBA graduates or established investment bankers, meaning that those few graduates (in the 20-25 bracket) who join the firm are much more likely to be the cream of their crop, and better compensated for it.

It's also worth noting that our figures do not reflect carried interest, which varies significantly between firms based on their size, measured in Assets Under Management (AUM).

### Average compensation by age in Private Equity, 2023/24

| Age | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| 20-25 | $109,524 | $68,750 | $178,274 |
| 26-30 | $96,739 | $42,045 | $138,785 |
| 31-35 | $157,813 | $74,167 | $231,979 |
| 36-40 | $184,211 | $85,294 | $269,505 |
| 41-45 | $164,706 | $100,000 | $264,706 |
| 46-50 | $264,583 | $331,250 | $595,833 |
| 50+ | $200,000 | $275,000 | $475,000 |

# Day in the life: David, Private Equity Associate, KKR, New York

**David is a private equity associate in the Technology, Media, and Telecommunications (TMT) at KKR in New York. He joined the firm in 2022 from boutique investment bank PJT Partners, where he was an investment banking analyst. He graduated from The Wharton School in 2020.**

8am: I wake up and head to the gym, for either weightlifting or cardio. I was on the swim team at Penn so I still try to get in the pool consistently. I'll listen to a podcast or an audiobook on the way, catching up on any urgent emails. Once I hit the gym it's strictly music for me – I use the opportunity to discover new songs and new artists.

9:30am: This is when I usually arrive at the office, although that can swing depending on what meetings I have planned in the morning. Once I get to the desk, I go through my unread emails and catch up on any industry newsletters in my inbox. I'll then make a to-do list for the day and head to the cafeteria. We've got a great café here, so I grab a small bite and a coffee before heading back down to my desk.

10am: I usually try and focus on the main analytical work I have in the mornings. Recently, we have been working on a deal with the European private equity team; We have a lot of collaboration across regional teams and it's nice to learn from the different thesis building and diligence processes. It's also great to build new connections around the world.

1pm: I usually go and grab lunch around this time. I like to try and eat lunch with other people, whether it's team members, other private equity coworkers, or even people in other KKR teams such as infrastructure or real estate. We've got a great space and great food, so I like to grab a bit of everything.

1:30pm: After lunch, I may have a diligence session for a deal we're working on. As an associate, you get a lot of responsibility to guide the direction of those sessions, which is great. This time is spent asking management teams questions and playing back insights from the data; it is a full team effort and your deal team will also chime in with their thoughts too.

2:30pm: Depending on everyone's schedule, we try to debrief after the session to discuss our key takeaways and findings. The most junior member of the team always gives their thoughts first, which is a bit of a fun challenge and learning experience.

3pm: Coffee number two, and an opportunity to catch up with other members of the team, both junior and senior. My team's partners do a good job of keeping informal catch-up sessions going between the more structured feedback / review cycles. It's great to have that kind of relationship with senior leadership who I admire and consider mentors.

3:30pm: Most of my days include an expert call of some sort. These are usually done with customers or former employees of businesses we're interested in or are evaluating. I usually let our analysts guide the call, and I'll chime in here and there to coach them through it. We usually have a debrief right after that too to orient ourselves on focus areas for the next customer call.

4:30pm: It's summer now, and we have interns who have joined the team for a few weeks. We try to give them as many experiences resembling the analyst / associate experience via both live deal experience as well as ad-hoc training sessions. The session I am leading today is doing one focused on LBO modelling, for example.

5:30pm: Calls for the day are usually over at this point, and I get back to some of the other analytical work I have. That could be building an operating model or other data analyses based on key files we received as part of diligence processes. As I've gotten more experience, I have more responsibility in the direction we take across commercial diligence. This means taking a larger role in deciding the core drivers to model the business, choosing the key analyses from certain data files that will help us answer our key diligence questions, and ultimately choosing how to frame and present the work to the rest of the team and our investment committee.

8pm: I'm usually leaving the office around this time. I'll usually pick up something quick from the Whole Foods across our office. If I have the time, I'll fit in my workout here if I missed it in the morning. Fortunately, the Equinox is also right across from our office.

9pm: I'm home and may log on to complete any deliverables left for the day. Depending on the cadence of deals or projects, that could either mean an hour or so of work, or it could mean a few hours of work.

12pm: My bedtime is pretty flexible, but I like to wrap things up by around midnight if I have the option to (but this can vary based on what deals or projects you're working on). I like to read a little before bed if I can.

# Day in the life: Beatriz Duarte, Senior Associate, Blackstone, London

**Beatriz Duarte is a Senior Associate in the Real Estate Acquisitions team at Blackstone in London. She joined the firm in October 2020 and prior to that, was an analyst in the Investment Banking Power & Utilities team at Morgan Stanley. She completed both her undergraduate and master's degrees at Nova School of Business and Economics, in Lisbon.**

7am: I wake up early to seize the day and start my morning routine. I'll scan through my emails for any urgent messages from my deal teams or external parties. If I can, I'll go to an early morning class near the office before going into work, typically 2 or 3 times a week.

9-9.30am: When I'm not traveling for work, I get into the office and start by responding to urgent inbounds and reading the news. As I work in the investment team, it's important to keep track of what's happening in the market, and publications like the FT and React News are a good place to start.

A lot of my time is spent in acquisitions in the UK and Ireland, and my day usually revolves around projects in those two countries. These may be early-stage opportunities which means identifying and analyzing new investments, or at a later stage, when we focus more on the due diligence workstreams ahead of signing and closing a transaction. I will usually work on 3 to 4 projects at a time.

9.30am: I like to get organized and usually go through my to-do list for the day and week. Blackstone is a fast-paced environment, and during the day I receive more assignments from senior team members, and so I go back to my list throughout the day to track my progress and see if I need to re-prioritize.

10am: I join a weekly catch-up with one of our portfolio companies, where we discuss progress on a live deal or go through the near-term pipeline.

11am: I work with various analysts in the team and aim to catch-up with them in the morning to go through the priorities for the day. Some days are very busy and planning in advance is key to getting everything done.

11.30am: I attend a meeting with an external advisor on a transaction I'm working on. Following the meeting, I circulate some key actions and highlights to my Principal and Managing Director where I address any immediate concerns or roadblocks.

As a Senior Associate, my role is increasingly relationship-focused, and half of my day will be spent in calls and meetings with external stakeholders, such as operating partners (who help us identify investments and support us throughout the process), or advisors such as banks, lawyers and technical consultants.

12.30pm: I like to go for a short walk with some colleagues, to get some fresh air and lunch at one of the delis or takeaway places near the office. Once I'm back, and if I have time, I'll eat my lunch in the common area with some of the members of my team.

1pm: I do a site visit at a local asset that we are potentially looking to acquire. We'll use that time to evaluate the location and physical qualities of the property, understand its key strengths, and identify any potential challenges.

3pm: I'm back at my desk and catch up on some emails. I then have an internal meeting with my deal team to go through the materials we have been working on for an upcoming meeting or investment committee, we brainstorm new ideas and evaluate next steps. After the meeting, I catch-up with the analyst on the deal and we go through the meeting follow-ups and/or additional analysis needed to support our investment decision, and we assess how best to divide and conquer.

4pm: I grab a quick coffee with a colleague from another business area that I met at an internal networking event. Blackstone offers great networking and mentorship opportunities, including through our employee resource groups such as the Women's Initiative, which regularly organizes events and talks that I like to participate in.

5pm: I hop on a call with a few colleagues from our real estate asset management team to discuss one of our collective initiatives. The asset management team manages our existing properties, and staying informed about the recent performance of our assets will help us in our future investment decisions – it's really important we keep each other up to date.

6pm: Usually by that time, my meetings are wrapping up for the day and I can spend time catching-up on work. That might include reviewing the latest version of the model or memo the analyst on the deal spent time updating earlier in the day, stress-testing various potential scenarios and outcomes, reviewing a diligence finding report or conducting market research work for a new opportunity.

8pm: A couple of times a week, I like to go home in time for dinner. After dinner, I log back on from my home office to do some final bits of work I couldn't get to during the day or prepare for the following day.
We also get food delivered in the office, which is convenient when I'm working in the office late. Dinner time is usually a social moment for the team, as most of the junior team tends to stay and eat together.

9.30pm: If I'm working in the office, I'll usually finish up my work and get a taxi home. My workload may vary depending on deal flow, and things tend to get busier when we are presenting a potential acquisition to our investment committee or are close to signing or closing a transaction.

# How to get a job in asset management

Author: Sarah Butcher & David Rothnie

**Prestige**

6

**Pay**

6

**Grind**

7

**Competitiveness**

8

- Large asset management firms manage money for pension funds and other investors around the world.
- The role most people aspire to is that of "portfolio manager", where you manage a pool of funds yourself on behalf of clients.
- You don't necessarily need to be highly mathematical for these roles – unless you work for a "quant fund".

## What do asset management jobs in banking and finance involve?

Large asset management firms are the backbone of the financial services industry. Part of the "buy-side," they manage huge sums of money on behalf of their clients, which include large pension funds, sovereign wealth funds and retail investors. Asset management firms aim to increase the value of clients' investments over time, and they receive a fee for their services.

Unlike hedge funds, which "hedge" investments and try to make money even when markets fall, asset management firms typically "go long" – they invest in products in the hope that their prices will rise. For this reason, they are also known as "long-only investors." They can also be called "institutional asset managers" – they manage money for institutions.

The scale of the asset management industry is huge. PwC estimates that, from around $85tn in Assets Under Management (AUM) in 2016, the asset management industry will be managing around $145tn in 2025. Although the USA and EU were historically the industry's most important markets, PwC predicts that the fastest growth worldwide over the next few years will be in Latin America and the Asia-Pacific region.

If you work in asset management, you'll be helping to manage these enormous pools of money and helping today's working population save for the future. Increasingly, you'll also be helping to invest to mitigate climate change and build a better world: environmental, social and governance (ESG) issues are increasingly important when funds decide where to invest.

The experience you have will depend on the kind of fund you work for. Broadly speaking, there are two basic kinds of funds.

**Passive:** Also called "index trackers", passive funds mirror the performance of large financial indices like the S&P 500 or the FTSE 100. The money going into an index tracker is put into stocks or bonds in the same proportion as the in the relevant index. The advantage for investors is that the fees are low, the risks of human error are minimal and turnover in the portfolio is also lower. As well as passive mutual funds run by huge institutional investors like Vanguard, exchange-traded funds (ETFs) are a good example of passive investment. They track an index, or a 'basket' of assets, but are also a tradable security, so their value goes up and down like a stock on a stock exchange.

**Active:** This is where human skill and experience comes into the fund management industry. A team of portfolio managers, analysts and researchers use their expertise and a plethora of research, quantitative analysis, forecasts and judgement to decide on what assets to invest in with the aim of beating the market.

A fund is judged on how far above or below it is on a particular index – in equity markets this could be, say, the Dow Jones Industrial average, but funds also compete in bond markets and a host of other asset classes. It can be hard to beat the index, but this is the measure of a good portfolio manager.

Active vs passive management is only one great divide in the fund management industry. Another is top-down versus bottom-up investment. Top-down investors are concerned with a big picture view of a particular sector, asset class or geography first, before delving into the finer financial details. Bottom-up investors are more interested in the financials of a particular company than broad macro themes. This assumes that gems can be found even in industries that are generally not doing well.

Many funds today use quantitative methods to analyze markets and determine where to invest their money, and therefore rely less on humans to make decisions. These are the so-called "quant funds".

## Career paths in asset management

When people think of asset management, they think of portfolio managers. Portfolio managers, or "fund managers", are the top dogs of the asset management world. They run funds on behalf of their clients based on a range of investment experience and expertise. However, you won't be a portfolio manager from the outset. This is the pinnacle of an investment career – you'll need to work your way up.

These are the jobs you can do in the asset management industry:

**Investment jobs:** This is where you find the portfolio managers who run the investment strategies. They tend to specialize in one asset class, whether that's equities, fixed income, or property, and manage the day-to-day investment decisions across the funds they look after. In big fund management firms, there are dozens of money managers with various areas of

expertise including multi-asset funds, which decide on which 'blend' of financial investments to include in a portfolio. However, portfolio managers don't work in isolation. Supporting them are teams of research analysts, whose role is all about generating investment ideas for portfolio management teams to act upon. Research analysts spend their days poring through company reports and industry insights in order to gain in-depth knowledge about particular sectors or asset classes, which will give the portfolio management team an edge over the competition.

**Distribution:** While investment teams deal with the money management side of the business, distribution teams are all about bringing client money into the fund.

**Sales,** or business development professionals, deal with large institutional investors, find out what their investment needs are and try to recommend the products of their employer. Sales professionals also spend a lot of time developing and maintaining relationships with clients in an attempt to increase loyalty. One of the biggest challenges any fund manager faces is maintaining assets under management, particularly if performance dips.

**Traders** in asset management firms execute the trades required to maintain the portfolio as required by the portfolio managers. Working as a trader in asset management is about market timing and breaking large trades into manageable chunks. Algorithms are increasingly being used to do this instead of human beings.

**Product development/management** roles ensure that a fund manager is present in all the markets and asset classes it should be, has the right funds available to investors in the right markets and that there are no obvious gaps. Product developers also work with the risk and compliance teams to ensure any new products will keep regulators happy, that a fund's pricing structure is correct and that a firm isn't falling behind competitors in any areas.

**Marketing professionals** make sure that the right messages about the products reach potential and existing clients. Marketing professionals today spend less time wining and dining clients and more ensuring that the fund manager is well represented online and on social media.

**Business operations:** Fund managers employ risk and compliance professionals, investment operations professionals performing back-office functions, as well as IT, HR, and accounting positions.

If you're a graduate starting out in fund management and you're on the portfolio management track, you'll start out as an analyst.

Analysts in fund management learn the trade. They study the financial results of companies, consume huge amounts of information and news on the companies and sectors they cover, and – when they're good enough - make investment recommendations.

Some people choose to remain as analysts throughout their careers. Others move across to become junior portfolio managers, and eventually work their way up to a portfolio management position.

## Which education and qualifications will you need for a career in asset management?

Asset management roles are pretty broad, and firms take a range of graduates. For front-office roles at major firms such as BlackRock and State Street, our analysis shows that most graduates studied finance and economics, although there was a wider variety of qualifications than in investment banking front-office roles. In support functions, there's a lot of overlap with investment banking roles, such as compliance analysts coming from legal backgrounds.

If the CFA exams and CFA Charter are critical anywhere, it's in asset management roles. The Financial Modeling & Valuation

Analyst (FMVA) could also be highly valued in an asset management career, especially during the interview process. There's also the Institute of Asset Management's IAM Certificate, which we've also seen in our research, even though it isn't as popular as the FMVA.

"It's important for graduates to understand it's not all about numbers," said Margaret Franklin, CFA, president and CEO of CFA Institute. "Many investors and employees today want a three-dimensional view of their investments, one of risk, return, and impact."

Something that has changed significantly over the last few years is the role of ESG in finance. Although banks don't appear as interested in the space as they used to be, it's still a big deal for asset managers, especially in Europe. For that reason, it might be worth looking into CFA Institute's ESG Certification on the continent. CFA Institute also offers the Investment Management Certificate (IMC) in the UK, which is a CFA Level I-tier certificate for asset management.

Although asset management firms don't recruit on the scale of investment banks, there are still summer associate programs, which means that an MBA can also be valuable. It also means that an MBA can enter the sell-side and "lateral" into asset management with some investment banking or research experience.

## Which skills do you need for a career in asset management?

Alex Torrens, American head of Walter Scott & Partners, an equity portfolio management firm, says: "With a team-based approach, it is critical that the team functions effectively, and that demands diversity. For that reason, we don't rule anyone in, or out, based on the subject studied or the university. Instead, we look for people who are inquisitive and curious in nature, and who have a strong interest in how businesses work."

Torrens says asset managers value cognitive diversity. "Our job is to seek to invest in some of the best companies around the world, companies that will lead their markets over the next 10 or 20 years. In analyzing companies and making those decisions, it doesn't matter what subject you studied at university, but you do need to have a passion for finding and understanding those companies."

Good people skills are important. For example, if you work in a distribution role, you need to be able to build relationships with investors. Communication skills are needed too: portfolio managers need to be able to understand a client's needs, and to explain their investment decisions.

"Employers today are looking for a broader range of skills from their staff in order to deliver for their clients," says Franklin. "While technical skills will always a play a role in an employee's ability to perform a financial role, the growth of soft skills and T-shaped skills – such as the ability to make connections and foster lateral thinking – will be increasingly important."

Asset managers must also be aware of a whole range of factors that drive growth and performance, particularly big trends such as ESG factors. "Employees also must be educated and prepared to respond to client's investing objectives. This includes considerations like ESG analysis to underline the impact of their investments," Franklin adds.

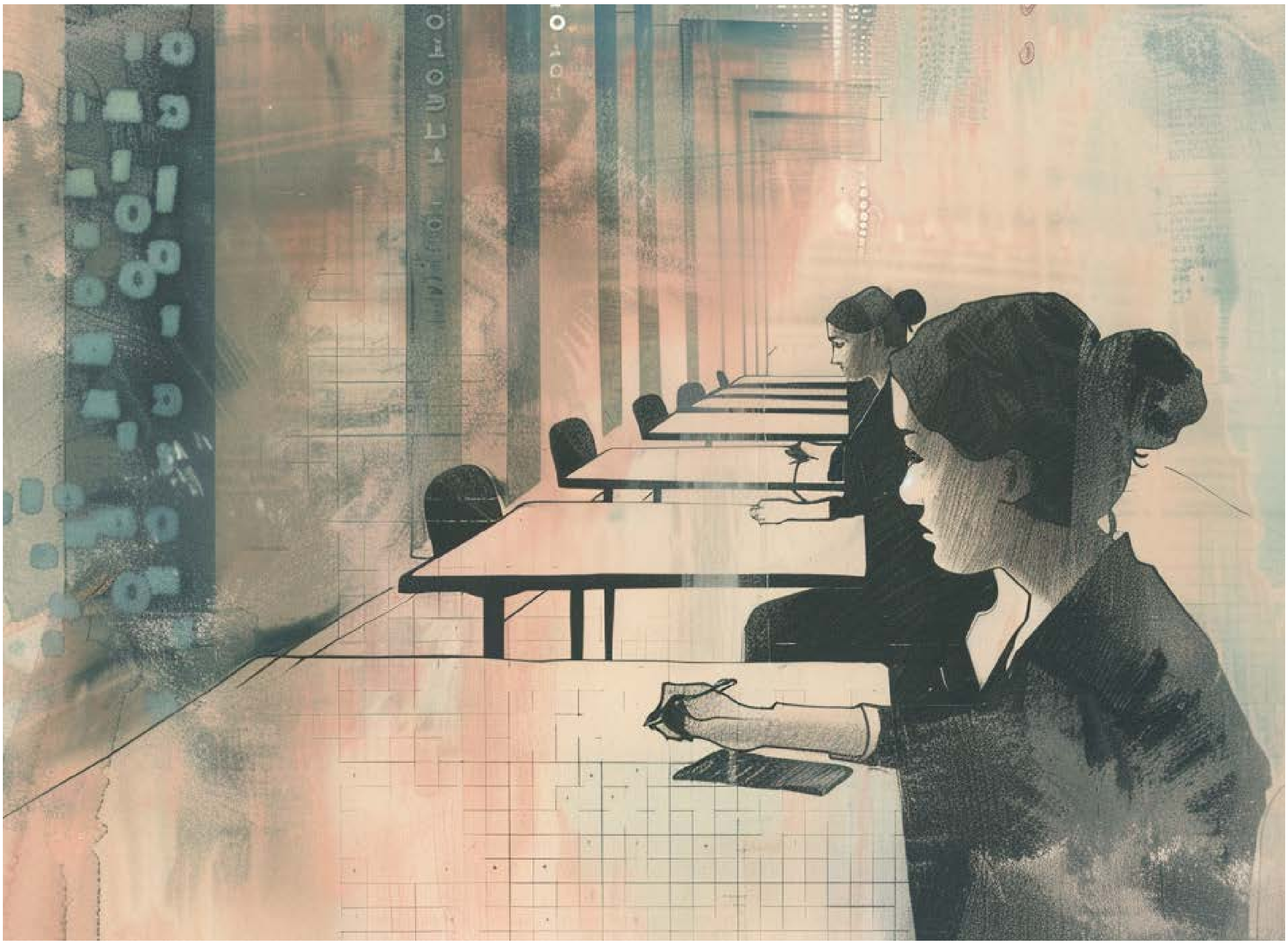
## Salaries and bonuses in asset management

Asset management jobs can be very well paid. In the eFinancialCareers salary and bonus report this year, we found that asset managers in their 20's can easily earn over $200k per year, with compensation peaking in a professional's career in their late 50's, when they make nearly $500k on average.

Although asset managers worked on average more than those working in hedge funds or private equity, they earned significantly more in salary than the latter, and were on par with professionals in investment banks (all roles). Asset managers also reported the highest increases in bonus in 2023 (the bonus round that paid in early 2024) across all sectors we analyzed in the industry.

## Average compensation by age in Asset Management, 2023/24

| Age | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| 20-25 | $75,000 | $41,667 | $116,667 |
| 26-30 | $122,368 | $93,056 | $215,424 |
| 31-35 | $135,185 | $102,000 | $237,185 |
| 36-40 | $183,333 | $121,250 | $304,583 |
| 41-45 | $238,889 | $153,125 | $392,014 |
| 46-50 | $182,692 | $155,556 | $338,248 |
| 50+ | $225,000 | $271,154 | $496,154 |



# How to get a job in a hedge fund

Author: David Rothnie

**Prestige**
10

**Pay**
10

**Grind**
7

**Competitiveness**
10

- Hedge fund jobs can be some of the most lucrative in finance.
- Hedge funds are asset management firms, but with the freedom to follow more creative investment strategies.
- Hedge funds used to be scrappy outsiders but have become far more institutional.
- Large hedge funds are increasingly running their own graduate recruitment schemes.

## What do hedge funds do?

Hedge funds invest money for their clients. These "clients" used to be wealthy individuals, but are now likely to include institutional investors such as pension funds, too. Unlike so-called "long only" asset management funds, which make money by investing in products that are rising in price, the term "hedge fund" comes from the fact that hedge funds try to hedge their bets – they try to ensure that they can make good returns in any market. This means they seek to make money by investing in things that are falling in price as well as things that are rising. But how do hedge funds make money in a falling market? Well, by "short selling."

Short selling, or "going short" involves first borrowing shares (or some other security) and then selling them into the market before buying them back again at some point in the future. When a hedge fund goes short, it's betting that the price of the shares will drop before it buys them back again. The profit is the difference between the price it sells the shares at after it borrows them, and the (hopefully) lower price it pays when it buys them back before handing the shares back to organizations it borrowed them from.

By using short selling and other techniques to hedge their investments, hedge funds aim to generate super-charged returns for their investors. Long-only funds rarely achieve returns of more than 10% when investing in 'safe' products like European equities, but top performing hedge funds can achieve returns of 50%, and sometimes more, in the same period of time.

Given that hedge funds have traditionally charged investors a 2% management fee (2% of the funds they invest) and a 20% performance fee (20% of the profits they earn), this can make working for a successful hedge fund very lucrative indeed. Everything is geared towards chasing alpha - returns that are above and beyond the "beta" generated by a moving market. When you work for a hedge fund, you are laser-focused on investment performance.

To some extent, all hedge funds are on the lookout for the same thing - financial products that are incorrectly priced. "Hedge funds make money by capitalizing on market inefficiencies, which are always fleeting opportunities," says Dominique Mielle, a former partner at Canyon Capital, a hedge fund with $25bn in Assets Under Management (AUM), writing in her memoir 'Damsel in Distressed.'

Colin Lancaster, global head of Macro & Fixed Income for Schonfeld (a hedge fund with $14bn in AUM) known for “Fed Up!”, his memoir of trading during the start of the covid pandemic, calls the goal of every hedge fund to be “finding an imbalance” – and then profiting from it.

## What are the different types of hedge fund?

While all hedge funds are chasing imbalances, the imbalances you find will depend on the kind of strategy the hedge fund you work for is pursuing. Some of the main strategies are:

**Long/short:** Long/short hedge fund managers go long some of the time. They also go short some of the time. They go long when they expect the price of a product to rise, and they go short when they expect the price of a product to fall.

**Global macro:** Macro funds invest to benefit from global macroeconomic trends (going both long and short). Lancaster says global macro hedge fund managers look for imbalances between countries in things like economic growth, interest rates and central bank reactions. They profit from the moves in that country’s interest rates, or from moves in its foreign exchange, equity, or credit markets – or rather, they profit from the reaction those moves make.

**Arbitrage:** Arbitrage-focused hedge funds seek to make the most of price differentials between related securities products.
At their simplest, so-called ‘statistical

arbitrage' (Stat Arb) funds put stocks into related pairs. If one pair does well and outperforms the other, it will be sold short (in the expectation that its price will then fall again). The underperforming stock will be bought (in the expectation that its price will rise to meet its pair). Arbitrage funds are often quantitative – they use complicated computer programs to determine what to buy and sell.

**Event driven:** Event driven hedge funds try to profit from one-off events. For example, when one company decides to buy another, it will usually pay more than the current price for the shares and event driven funds will seek to benefit from this.
Systematic/quantitative: Increasingly, hedge funds are 'systematic' – they use high speed computer algorithms to unearth market inefficiencies and to place trades in the brief time period when there's money to be made before the inefficiency is discovered by other funds in the market. Systematic hedge funds operate across different market strategies.

**Multi-strategy funds:** A lot of the biggest hedge funds (like Citadel, Balyasny, Millennium, Schonfeld, or Point72) are multi-strategy hedge funds: they pursue all the strategies above, and more. More on them later.

Hedge funds also vary by the vast range of products they invest in. For example, there are credit hedge funds (which invest in credit), distressed hedge funds (which invest in credit which might never be repaid), and emerging markets hedge funds (which invest in emerging markets).

The rise of the multi-strategy hedge fund – and how hedge fund jobs are changing

To the uninitiated, hedge funds may still have a reputation for being at the edgier end of financial services (and scrutiny), but that wild west reputation has taken a more... Genteel turn over the years. Over the last two decades they've become increasingly like banks, and the biggest drivers of this (as well as the biggest hedge funds full stop) are the global multi-strategy funds.

These top hedge funds have tens of billions under management, much of it from the pension funds and other institutional investors that like nice safe returns instead of risky mavericks. Those mavericks, however, are the ones delivering results – by competing against each other, within the same hedge fund. Multi-strategy funds employ "pods", a small team and pool of capital under the purview of a portfolio manager.

Some hedge funds are so committed to their multi-pod strategy that portfolio managers don't even know what their colleagues are doing. Their goal is, as a collective, to generate as much profit as possible, regardless of where specifically it comes from. The central structure of the fund deploys capital as it sees fit to meet its desired return and risk profile, as former hedge fund PM Marc Rubenstein explained.

As Mielle points out, the sheer size of hedge funds, combined with new technology (allowing financial statements to be accessible online), regulations (requiring the same disclosure to all investors), and competition, have eroded many of the market inefficiencies that hedge funds formerly thrived upon.

The whole point of a multi-strategy fund is to be market neutral. The fundamental idea that Ken Griffin had was that multiple pods, following multiple strategies, with money balanced across them in the right way, would balance out the volatility inherent both in the market and in the hedge fund concept as a whole.

"In the beginning, hedge funds had a rebellious aspect to them, an anti-establishment mentality, and a certain scrappiness. We wanted to do things differently, discover new investing ways. We wanted to be original, innovators, inventors, explorers. It was about thinking creatively, outside the box," writes Mielle. "In the industrialization age, we started mutating into the big, stodgy guys ourselves."

And the multi-strategy funds are growing, too, at a time when banks are shedding bankers and private equity funds are just... Suffering in general. Millennium, the world's biggest hedge fund (as measured by employees) added 260 new investment staff in the last year ending Q1 2024, a 10% increase. Citadel, the next biggest, increased investment staff numbers by 5%. Point72, the third biggest, added a whopping 15%.

The ever-increasing size of multi-strategy hedge funds can be seen in how big they've started debuting. Citadel, a pioneering multi-strategy fund, was founded with $4.6m of capital by Ken Griffin in 1990; nowadays, in 2024, a pioneering fund such as Bobby Jain's Jain Global is opening with around $5bn, or a thousand times as much capital.

## Career paths in hedge funds

If you want to work for a hedge fund, you probably envisage yourself as a trader or portfolio manager. However, like investment banks, hedge funds have teams of support staff working in areas like compliance, technology, risk, and operations. Some of the key jobs in hedge funds include:

**Analysts and researchers:** Analysts spend their days poring over the financials of the companies and financial products hedge funds invest in. They help determine the fund's investment strategy.

**Traders:** You might think being a trader in a hedge fund is the most exciting job there is. You may well be wrong. Traders in hedge funds are often 'execution traders'. Execution traders simply push the button, or 'execute' trades. They don't get a chance to devise their own trading strategies, they don't get a chance to take their own positions on the market. What they do get a chance to become experts in is 'market timing'. Execution traders watch the market closely and know when's the best time to place their trades.

**Portfolio managers:** Portfolio managers are at the top of the hedge fund tree. They listen to what analysts say and decide how to allocate investors' money to achieve the highest returns. They are in charge of the whole investment portfolio (hence the name). Everyone wants to be a portfolio manager.

Recent filings from a court case involving BlueCrest, a large family office (owned by Mike Platt) operating as a hedge fund, explained a bit more precisely how portfolio managers operate. To start with, they carry out market research to form a long-term view of the market of their investments before the rest of the market. They then construct a portfolio and seek to minimize the amount of cash that backs up the market exposure they naturally assume by taking any market position. That exposure is partly backed by cash with the balance being leverage (debt) from a counterparty such as a bank or broker.

**Sales and marketing professionals:** Hedge fund sales and marketing professionals liaise with investors. They help sell the merits of the fund and persuade investors to hand over their money to be invested. Investor relations professionals fall into this category.

**Quants:** Hedge funds also employ quantitative specialists - all the more so if they're pursuing a quantitative strategy. These quants develop complex mathematical equations which tell the fund when to trade in order to make the most money using its chosen strategy. Quants who build algorithms work with quant developers - technologists who translate the algorithm into computer software which can implement the algorithm's strategy.

**Risk managers and compliance, legal, technology, and operations professionals:** As hedge funds have become bigger (and more boring), they have accumulated the sort of support structures only previously seen in investment banks. Hedge funds now have risk management, compliance, and operations professionals. These jobs will be similar to banks - except you'll probably have to be more of a 'jack of all trades.' It's normal for compliance and legal roles to be blended in hedge funds, for example.

## How to get a first job at a hedge fund

Getting into a hedge fund is very, very difficult. "The bar is exceptionally high," says Ilana Weinstein, the legendary hedge fund recruiter and founder of The IDW Group, a recruitment consultant. "There are so few people that can meet that challenge."

What does it take to get a job with a multistrategy fund? At the very least, "good intellectual horsepower, work ethic, training, and a history of results," says Weinstein. However, these are only a "necessary, and not a sufficient" condition of getting hired. "The other things we're really looking for under the hood are insatiable curiosity, self-awareness, a growth mindset, coupled with an intense desire to improve and learn, and passion."

Specifically, she says, analysts are about "idea generation, creativity, independent research, and asking the right questions." Portfolio managers are about "risk management, portfolio construction, hedging, sizing, the ability to build and manage a team."

If you want an investment role at a top hedge fund, Weinstein says it will help if you come with a record of your own performance. Even better will be, "a spreadsheet showing what you have achieved and what you might have achieved if you had been allowed to do the things you wanted to have done."

The good news for you is that as big hedge funds have become more institutional, they've started running their own campus recruitment programs and training graduates of their own. In the past, they tended only to recruit people who had first trained in an investment bank's sales and trading team.

As with sales and trading jobs, it helps to start off as an intern. But be warned: winning a place on a hedge fund graduate program or internship is exceptionally tough. Hedge funds hire a lot less people than banks.

Funds hire a large variety of people for a large variety of roles, and that extends to hiring students, too. These tend especially to be the biggest hedge funds, with the most AUM: Balyasny, Citadel, and Millennium for example have "traditional" summer internships. Rokos offers graduate programs. We have a whole list of hedge fund internships available here.

The most interesting, however, is probably Point72 and its academy. It has a remarkably low acceptance rate – just 0.6% for its summer program, which is somehow even less than Goldman Sachs', but it's a well known academy for a reason. It also pays its interns an annualized salary between $100k and $120k, which doesn't hurt.

At the Point72 academy, you'll learn to be an analyst – a long/short analyst, specifically. That means covering "statistics, accounting, economics, finance, modelling, financial statement analysis, M&A, corporate finance, data science, sequel and coding, operational management and balance sheets," per the Hedge Fund Journal. Eventually, once you graduate from the academy, you'll get the opportunity to join one of Point72's long/short teams.

If you want a first job at a hedge fund specifically, you'll typically need to have an excellent academic record and – if you want to be an analyst or a portfolio manager – you'll need to be no stranger to hard work.

"The game has gotten much harder," says Colin Lancaster. He categories the best people in hedge funds as "exceptional decision markets" who spend hours researching the markets. Mielle says analysts in hedge funds need conviction about their investment ideas, and to be willing to defend them when other analysts or portfolio managers question their validity.

While most hedge funds like people with mathematical and data skills, these aren't enough on their own. "A widespread misconception about the hedge fund profession is that you must be either a math geek or a sleazy dealmaker to succeed," says Mielle. In fact, she says being a successful portfolio manager or analyst is also about being able to communicate complex investment ideas, innovative thinking, generating new ideas and having flashes of intuition that can join up the dots.

This might be why Citadel says it looks for candidates with sound judgement, good communication skills and "a whatever it takes attitude," or why Two Sigma says it wants people who are "creative" and have "intellectually curious minds."

## Education & qualifications for hedge fund roles

All that being said, what education would help you get a job in a hedge fund? There's a similar pattern to what bank sales & trading teams look for, unsurprisingly. Our analysis of some of the new analysts at Citadel and Millennium – two of the biggest hedge funds in the world – show that hard sciences (especially mathematics and physics) are very much preferred over anything else, although there were a handful of "traditional" financial services graduates scattered throughout.
An MBA might also help your chances, particularly if you want a non-investment role – In 2023, 6% of Harvard MBAs went into hedge funds or asset management. A masters in finance or a masters in financial engineering will also be helpful, with the latter particularly helpful for quant funds. At top quant hedge funds, which use systematic investment processes, quantitative PhDs are popular. As funds make energy investments based on weather predictions it may even help to have studied meteorology. Or poetry.
Aside from a hard numbers degree (or several), it might be worth quantitative hedge fund aspirants to angle for the Certificate in Quantitative Finance (CQF), which aside from having some directly applicable knowledge, also gives you access to a well-known and well-connected alumni network.

It's also worth pointing out that, although hedge funds recruit frequently from investment bank sales & trading programs, there's no need to sit FINRA's Series 7 exams.

## Salaries and bonuses in hedge funds

The amount that you earn in a hedge fund will depend upon things like the role you're doing, the size of the fund you're working for (measured in AUM) and the fund's performance – or the performance of your unit within the fund.

Hedge funds pay out a much higher percentage of profit generated (called pnl) as bonus to its staff than bank sales and trading teams do. That means that top portfolio managers can earn insane amounts of money – one single team at Citadel, made up of just 20 people, split a colossal $600m bonus pot between them. That's $30m each, on average, if you thought that was a typo.

Our 2024 salary and bonus survey was more realistic. Hedge funds pay their staff in the range of $320k to $400k in their 20s, and the really, really big numbers (seven figures) only start with serious experience – over the age of 50, we found, on average.

### Average compensation by age in Hedge Funds, 2023/24

| Age | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| 20-25 | $138,333 | $185,714 | $324,048 |
| 26-30 | $163,158 | $248,529 | $411,687 |
| 31-35 | $188,043 | $269,318 | $457,362 |
| 36-40 | $214,000 | $229,167 | $443,167 |
| 41-45 | $269,118 | $342,647 | $611,765 |
| 46-50 | $282,143 | $153,571 | $435,714 |
| 50+ | $510,714 | $510,714 | $1,021,429 |

# Day in the life: Trainee hedge fund analyst, Point72 Academy Investment Analyst Program

**Natalia Bondanza is an associate in the Point72 Academy Investment Analyst Program. She joined in February after four years in investment banking at Goldman Sachs, where she was a vice president. This is what a day in her life looks like.**

5.30am. These days, I'm an early riser. I wake up around 5.30am, read my emails, check the headlines and then I work out. I like to start my day with some energy! I either go to Barry's Bootcamp for a bit of treadmill and some weights or I run on the West Side Highway. I live pretty close to the office in Hudson Yards, so I'll also walk to work.

7.30am. This is when my working day really starts. The Point72 Academy prepares us for a career on the buy-side, specifically as a long/short equity analyst. The first eight months are a combination of training, lectures, and ramping our skills on stock pitches, followed by two months of rotations with investment teams. It feels more like working as an analyst than being at school – we have lectures and guidance from coaches, but ultimately it's up to us to learn how to come up with investment recommendations and how to articulate why we think stocks will move in one direction instead of another.

The first thing I do when I arrive at the office is to go through the headlines and digest all the news relevant to my coverage area. If it's earnings season, we'll also go through print and analyze the potential implications for the companies we cover.

8am. As the morning progresses, members of the Academy class usually discuss our observations at the beginning of the hour. There are only 10 of us in the class and we all know each other very well. It's a nice mix – some are early-career professionals like me, and some are more recent college graduates. We discuss anything related to our coverage areas – from data points to news. We've covered everything from consumer to industrials and technology, and we really dig in and research the companies. My favorite has been restaurants: I was astonished at the operational and financial differences between restaurant companies that seem very similar from a consumer standpoint. It's very fluid and more of a conversation than anything prescriptive.

9am. We start work on our weekly research assignments. We're being taught how to develop opinions on particular stocks and sectors and how to pitch our ideas. The framework we learn centers around a deep understanding of our whole coverage universe, which in addition to analyzing a specific company, means we look at its competitors, suppliers, customers and other parts of its supply chain. Our research process entails reading news and reports, evaluating compliance approved alternative data sources, going through company financials and presentations, and tying everything together.

10am. I have a one-to-one meeting with a coach. Our coaches are former investment professionals who not only provide feedback and advice on company research but I believe also challenge us intellectually, stimulating deeper analysis and understanding of market dynamics.

11am. We have an investment professional debrief. This happens weekly and is where a Point72 discretionary investment team joins us to discuss their sectors and share career advice. It's super interesting: we get to learn from the investment teams and discuss our opinions further with our peers. In the mornings we don't have meetings, we might hear from a senior leader at the firm or an external speaker. We recently had someone discuss valuations and how to marry the short and long term – one of my favorite topics!

12pm. I'm back at my desk, building a financial model. We build our models from scratch so we can learn. It's up to us how complex we want to build them – it's about finding a balance between having something nuanced enough to express detail but also simple enough to be easily comprehensible. A model is usually an iterative process: as news is publicly reported that impacts a name, we update our models accordingly.

1pm. We have hot food at the office three days a week, but there are also plenty of lunch options in Hudson Yards, so I often take the chance to get out. Once a week, we also have a nice thing called "meet and eat" with analysts and portfolio managers in the office, which is a great way to get to know people and hear different perspectives.

2pm. I'm working on my model again and talking with my fellow Academy associates. The team is very collaborative, and we often compare and debate on stocks. Things aren't black and white: it's not about who's right and who's wrong but about how different people are thinking about a company. It can be interesting – some people are super creative and there's often a lot of discussion around our calls.

3pm. I have an interview with one of the discretionary investment teams that I might do my rotations with. During the last two months of the Academy, we rotate on investment teams at Point72 with the opportunity to potentially receive an offer from a team upon the successful completion of the Academy program.

4pm. I'm back at my desk, conducting research and working on my models. The market closes at 4 and we spend this time digesting everything that's happened during the day and incorporating feedback from the coaches. These daily conversations and the ongoing analysis of a mosaic of datapoints, have helped me recognize how knowledge compounds in this job, constantly confirming or prompting us to rethink our views.

7pm. The Academy class often sits down for dinner together. There are usually people from other Point72 offices around, so it's a social occasion. We talk about stocks and markets, but also about New York life and restaurants!  Sometimes the previous Academy classes come and check up on us, which is really nice. I think everyone wants to see you succeed.

8.30pm. I go back home and catch up with friends and family. Some nights where we don't eat as a group, I'll cook a late dinner. I'm Argentinian so I don't mind a late meal and love making a traditional dish – milanesas, which is breaded meat.

9.30pm. I may finish some work or prep for the next day but am usually in bed unwinding by 10:30pm. My schedule has shifted earlier compared to when I was in investment banking, but the early mornings have been easy to get used to. It's pretty beautiful–especially in the winter when I get to see the sunrise.

# Day in the life: Equities analyst, Citadel Global Equities, Miami

**Shawn Cain is an analyst focused on the consumer sector with Citadel Global Equities. He joined the firm in 2022 and is based in Miami. Before Citadel, Shawn worked in finance in both Ohio and New York. This is what a typical day in his life is like.**

5.45am. This is my standard wake-up time, although I'm occasionally up earlier because I have a toddler at home. I usually start the day by looking at my phone and checking the research and market news that's arrived overnight. If I see something impactful, I'll send it to my portfolio manager and associate before taking a shower and heading into work.

6.30am. Now that I live in Miami, I drive to the office and really enjoy starting my day this way. When I lived in New York, I took the subway, but now I have a 15-minute drive with the ocean on both sides of me as I head to downtown Miami. The view can't be beat.

6.45am. I arrive in the office and get to work. I usually start by reviewing the checklist I developed the night before. I like to plan out my day and know at the start what I want to accomplish. Sometimes there can be unexpected news and I need to recalibrate, but being able to refer to the list helps focus my efforts and keep me on track.

When that's done, I'll have a closer look at the notes and market news from overnight. I cover 40-50 different stocks within the restaurant, retail, and leisure space, including everything from powersport and RV companies to food franchises.

8am. This is when we have our morning meeting, where we discuss actionable trades, changes to our theses, and our calls on events scheduled for the day. As the senior analyst on the team, my role during the meeting is to present my portfolio manager with actionable investment ideas. I also synthesize our research and the research from the banks to concisely explain these ideas and the path to monetization. When I was an analyst at an investment bank, I used to write long research reports, but my role now is very different. On the buy-side we communicate our theses much more concisely and we're prepared to act on them quickly. Analysts at Citadel are given a lot of responsibility and input into investment decisions, which I really appreciate.

8.45am. After the morning meeting, I'll sit down with my associate to quickly discuss our priorities for the day. I'll then usually spend a few minutes walking around our floor and speaking to other analysts about what they're seeing. In addition to working closely with other investment professionals, I frequently interface with the engineers. Their work and support enable me to digest information more quickly and be much more efficient with my time.

9.00am. Before the market opens, I have a call with a sell-side analyst [an analyst in a bank] who recently met with the management team at one of the companies I cover. I ask what the team highlighted and try to learn more about the various initiatives underway or issues facing the company.

10.30am. I drop into my portfolio manager's office to discuss what I'm seeing and hearing from my calls and research. After our quick debrief, I return to my desk for more reading and modeling. What I'm doing on a given day is very dependent on the reporting cycle and where we are in it: when the companies I cover are reporting results, we're very busy. After earnings season, we spend some time digesting the results and talking to management. And when that's done, we'll often go on the road to attend industry conferences.

Meeting management teams is one of my favorite parts of the job – people in the C-suite are generally very smart, driven, down-to earth-people and it can be really stimulating to meet with industry experts. All the more so because I cover restaurants and leisure – who doesn't love talking about Harley Davidsons and Taco Bell? Sometimes, management team meetings happen at company headquarters, where we get to see the latest products up close and experience them for ourselves. I once zipped across a lake at over 50mph with a boating company I cover.

11.30am. Right now, though, we're in the period just before results, so I'm focused on digging into the data and spending extra time on the earnings models. I discuss what I'm learning with my associate and talk through what we've seen in the market so far this morning and answer any questions he has. We sit right next to each other, so it's easy to stay in close touch throughout the day. After that, I have another call with a sell-side analyst who recently produced some interesting research.

In addition to speaking with management teams and analysts, I talk to a lot of small business owners who run franchises like Wendy's or McDonalds, or who own Harley dealerships. If you talk to enough dealers and franchisees, you can get an even better feel for what's going on in the market. There are people who've been in the industry for decades and have seen it all.

12.15pm. Lunch is something I look forward to. Though Citadel provides some great options, about half the time I'll have order-in so I can try the menu innovations at the companies I cover. For example, Domino's recently came out with a New York-style pizza and I tried it on day one. I do that whenever I can because I know that if something tastes good enough, sales will usually follow. The best analysts live their coverage – there's only so much you can learn from analyzing the data, which is always backwards looking. You never know if a company might have the next Popeye's chicken sandwich!

1pm. In the early afternoon, I'll usually check in with my portfolio manager. We message each other throughout the day, but we typically have a quick, more structured meeting after lunch. We talk about investment ideas and what I expect from the coming earnings season.

1.30pm. I spend time reading and digging into the data on some of the companies I cover and working on earnings previews.

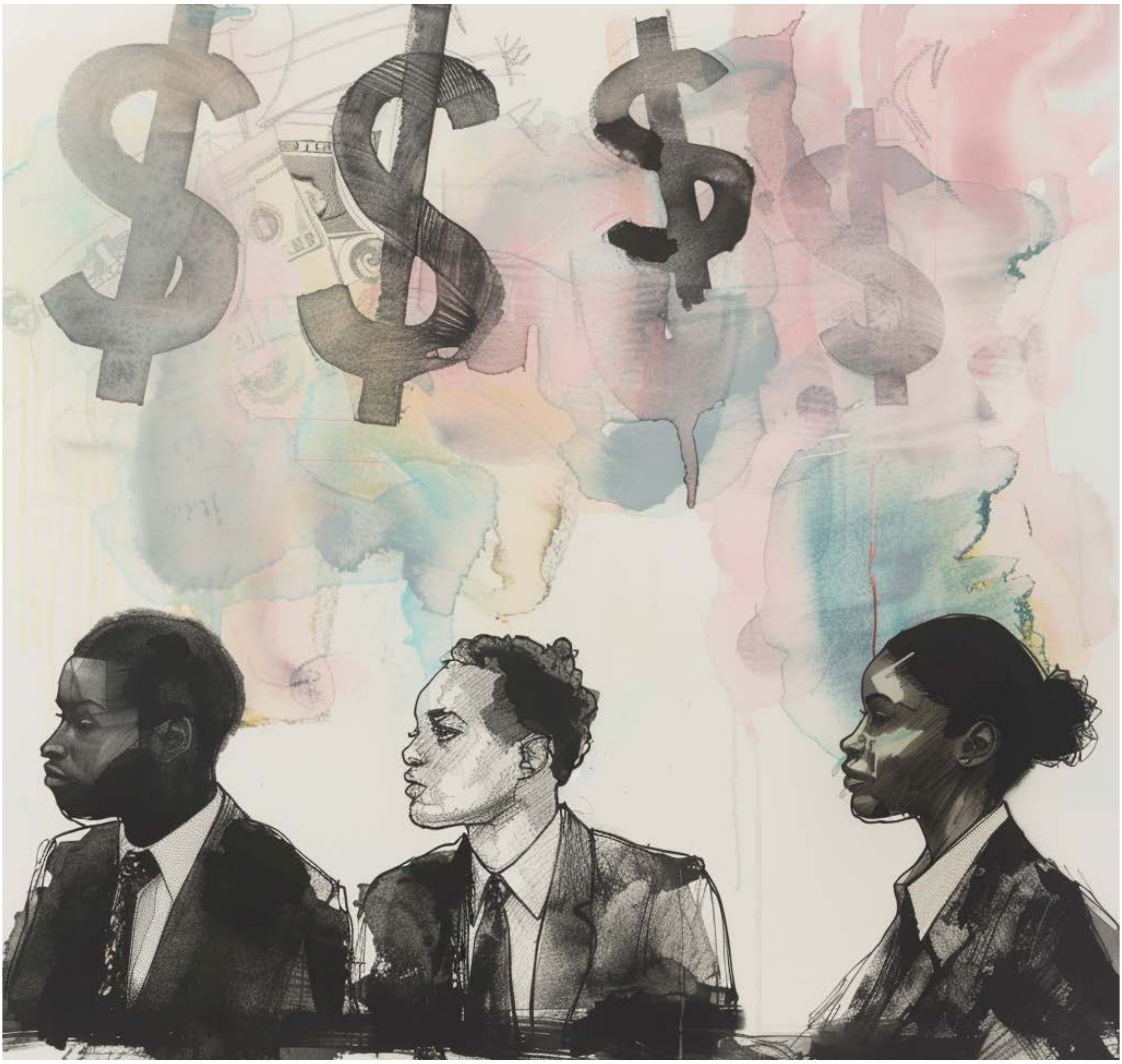
3pm. I have another meeting with my associate. He's embraced all the technology and analytics we have available to build out our food staples coverage and further enhance our existing infrastructure. I talk to him throughout the day, but we'll also usually connect mid-afternoon to discuss what he's been working on in more detail. He's an important part of our team and helping him learn the craft has been really rewarding. I know from my own experience as an associate that being deeply involved in the work and asking lots of questions is the fastest way to learn, so there's frequent communication between us.

**3.30pm.** I have a channel check call with a powersports dealer and then spend more time working on my investment ideas and previews.

**6.15pm.** I usually leave the office. The traffic is a little heavier in the evenings, but I'm usually home by 6.45pm. While I love what I do, the best part of my day is when I walk through the front door and my 15-month-old runs over to me and gives me a big hug. I usually play with her and get her ready for bed around 7.30pm or so. Then I try to get in a quick work-out and have dinner.

**8:15pm.** I'll often read or watch TV with my wife, while checking my inbox for incoming research reports. The reports generally hit between 6pm and 7am. I skim through them and bookmark anything that catches my eye. I also scan social media and industry blogs to see if anything interesting is being said there.

**9pm.** I put together my checklist for the next day and get ready for bed. I'm usually in bed by 9.45pm or 10pm, but with a 15-month-old daughter I never know whether I'll sleep through the night or be up at 2am with her!



# What do quants do – and how do you become one?

Author: Paul Bilkon

**Prestige** 7

**Pay** 6

**Grind** 6

**Competitiveness** 8

- Quant finance jobs combine mathematical and engineering skills.
- Quants in finance look for mathematical relationships between underlying assets, or create derivatives based on those assets.
- Quants in finance also (increasingly) work in areas like risk.
- You make the most money in quant finance when you're closely associated with the profit and loss made by traders or portfolio managers.

## What is a quant and what do quantitative finance jobs involve?

If you want to understand quantitative finance as a discipline, you should look at the winners of the Nobel Prize for Economics.

For much of the last century, financial decision making was based on heuristic principals, but in 1990 the prize went to Harry M. Markowitz, Merton H. Miller, and William F. Sharpe, in recognition of their mathematical approach to the study of financial markets and investment decision-making. In 1997, the award went to Robert C. Merton and Myron S. Scholes for their method for determining the value of stock options and other derivatives.

The 1990 award helped establish the so-called P-measure subfield, which was primarily concerned with the behavior of the underlying assets – stocks, bonds, currencies, etc. The 1997 award formalized the creation of the Q-measure subfield, concerned with derivatives on those assets, such as options.

Quantitative finance (or quant finance) was born. It's been evolving ever since.

Quantitative finance is a broad church. Before the financial crisis of 2007-2008, the most lucrative jobs in quantitative finance were found in the creation of the ever-more complex derivative products. Since the crisis, the emphasis has shifted to risk and complexity management, regulation, and robustness.

Today, quantitative finance is a catch-all term that covers numerous different subfields. If you have a quantitative finance job, you might be working in any of the following areas:

**Computational Finance:** Computational methods, including Monte Carlo, PDE, lattice, and other numerical methods with applications to financial modelling.

**Economics:** Including micro and macroeconomics, international economics, theory of the firm, labor economics, and other economic topics outside finance.

**General Finance:** The development of general quantitative methodologies with applications in finance.

**Mathematical Finance:** Mathematical and analytical methods of finance, including stochastic, probabilistic, and functional analysis, algebraic, geometric, and other methods.

**Portfolio Management:** Selecting and optimizing securities, capital allocation, investment strategies, and performance measurement.

**Pricing of Securities:** The valuation and hedging of financial securities, their derivatives, and structured products.

**Risk Management:** The measurement and management of financial risks in trading, banking, insurance, corporate, and other applications.

**Statistical Finance:** Statistical, econometric analysis with applications to financial markets and economic data.

**Trading and Market Microstructure:** Looking at market microstructure, liquidity, exchange, and auction design, automated trading, agent-based modelling and market-making.

## What sort of quantitative finance jobs are there?

There are a wide variety of jobs you could do as a quant:

### The are quant jobs creating derivative pricing models

Derivatives trading, especially exotic [complicated] derivatives trading, exploded in the run up to the Global Financial Crisis (GFC) and, after the years of uncertainty that ensued, has started to grow again.

Whereas before the GFC the emphasis was on increasing complexity (such as the creation of exotic derivatives), after the GFC, the focus shifted to taming complexity and increasing the realism and robustness of pricing models.

The quants who work on derivatives pricing models are referred to as derivatives pricing quants or simply pricing quants. They may also be called Q-measure quants because they work under the risk neutral (or “Q”) measure.

### There are quant jobs applying existing models

Not all Q-measure quants have the opportunity to contribute new derivatives pricing models. Risk aversion also dictates that instead of developing something new, one should go for the tried and tested solutions. Therefore, most quants simply implement and customize models that have been created by someone else.

This doesn’t mean there’s no room for innovation. – You can engineer custom solutions around existing models. This is why the term financial engineering is often used in preference to quantitative finance to describe this kind of work. Financial services firms are prepared to pay handsomely for both these activities.

### There are quant jobs creating new products

Financial engineering, and more broadly financial innovation, often takes the form of the creation of new financial products. Even though there is a large array of classical exotics (digital options, barrier options, look-back options, Asian options, options on baskets, forward-start options, compound options, etc.), there is still scope for new ideas and occasionally we see some radically new and useful products.

Nowadays though, instead of creating new exotic products, financial services firms often manufacture so-called structured products. These are pre-packaged financial products for facilitating customized risk-return objectives based on the returns from certain investible assets. Structured products can offer the exposure for specific market views and desired risk profiles under the constraints of financial budgets and legal frameworks for investment.

The experts that work on structured products are usually referred to as structurers rather than quants, although the work of a quant and that of a structurer has a significant overlap.

## There are quant jobs creating new trading strategies

Whereas the pricing of derivatives usually takes places under the risk-neutral (Q) measure, the design and development of trading strategies is a P-measure activity. This is why those who engage in it are usually called P-measure quants. Their skillset is often different from that of derivatives pricers: derivatives pricing relies on applied mathematics, such as the solution of partial differential equations and stochastic analysis, whereas P-measure work relies on different kinds of mathematics – such as those described in the book The Elements of Statistical Learning (statistics and, increasingly, machine learning).

On the surface, statistics appears easier than applied mathematics. It doesn't involve such deeply nested formalisms (e.g. one doesn't rely as much on measure theory in statistical work). However, the successful application of statistical methods to derive trading strategies with high Sharpe ratios is a highly challenging endeavor.

P-measure quants vary dramatically in outlook and skillsets. There are a few successful quants that have developed (or adopted) one or two profitable trading strategies and have built their careers around them. However, this is rare, since individual strategies are subject to alpha decay (its predictive accuracy) – what works today may fail to work tomorrow. Therefore, many quants invest their time and efforts in the development of sufficiently general methodologies and frameworks (be it scientific or software) that enable them to quickly generate new trading strategies and adapt the existing ones. Many trading firms have taken this activity to an industrial level; they constitute "factories" for the mass production of trading strategies. Others provide services to these trading firms, e.g. in the form of software, connectivity, data, etc.

Much of the time of a P-measure quant is spent on backtesting trading strategies and ideas (testing predictive models on historical data).

When you're creating trading strategies, the nature of your job as a quant varies dramatically by trading frequency / holding period and asset class. Quants working for high-frequency trading firms, for example, build their strategies on tick data which arrives every millisecond, microsecond, or nanosecond, whereas quants working for longer-term asset managers (more on them later) look at hourly or daily returns.

## There are quant jobs validating existing pricing models and trading strategies

Since the financial crisis, pricing models and strategies have been subjected to increasing scrutiny. Trading disasters, such as the 2012 Knight Capital stock trading disruption and the flash crashes, which happen every couple of years in different asset classes, have also contributed to regulatory attention. Regulatory frameworks, such as MiFID II in Europe, require that the nature of the trading strategies be disclosed to the regulators and stipulate requirements for an audit trail. Regulatory attention alone is not the only reason why pricing models and trading strategies should be carefully validated. Trading firms themselves are naturally interested in their validation. Trading strategies and, especially, derivatives pricing models are often very complex and nontrivial. Experts other than their creators (and not subject to the same conflicts of interest) are therefore needed to validate them. This need has given rise to a different specialty – model validation quants.
On the one hand model validation quant jobs are less "glamorous" than that of the originators of new models and strategies.

They suit the more detail-oriented people who don't like to work under the pressures of the front office. Model validators work to less stringent deadlines and they have the opportunity to thoroughly test the ideas of others (and learn from them). As a by-product of their activities, they are often responsible for writing the documentation.

## There are quant jobs on the trading floor

The closer you are to the profit and loss (pnl) made from trading, the more money you'll typically be paid as a quant. Most quants don't own the pnl. Instead, the trading (short-term) and investment (long-term) decisions are made by others – traders and asset managers.

However, the boundary between the two roles can be quite blurry. For example, in algorithmic trading businesses the quants are responsible for developing the trading strategies. The role of a trader – in this context called the book runner – is more formal and less creative than that of a quant. Since the trading decisions have already been made by the quant's software, the book runner's role amounts to vetting or validating these decisions after the fact. In practice the quant and the book runner must work closely together for the trading endeavor to be successful.

By comparison if you're a quant pricing derivatives and writing derivatives pricing software, you'll often lack hands-on trading and hedging expertise, and you won't have client relationships. You'll know in more detail than the trader how the products are priced, but it's the trader who owns the dynamic hedging know-how – and it's the trader who is usually compensated for it.

Many options traders themselves come from quantitative backgrounds and have previously worked as pricing or desk quants, which we'll elaborate on later. Quants who are closer to the money (to the pnl) usually get a larger share of the profits. However, with this proximity comes the increased responsibility: who will lose their jobs first if the trading strategies don't perform as well as expected?

## There are quant jobs in asset management firms

Usually the word "trading" is used to describe shorter-term, tactical decision making, whereas "investing" is reserved for longer-term, more strategic decision making. Professional investors tend to be called asset managers or portfolio managers.

Portfolio management jobs are pnl-owning; portfolio managers are responsible for the bottom line. If their methodology is systematic (quantitative), rather than discretionary, they may also describe themselves as quants. Or they may be working with quants, who perform the analysis for them, but who don't own the decisions and therefore don't own the pnl.

## There are quant "desk" jobs

A desk quant supplements the trader/portfolio manager on a trading desk. Desk quants usually sit on the trading desk with the traders (whereas derivatives trading and model validation quants, along with technologists, often sit separately and may work in cubicles rather than on trading desks.) Different trading desks pay different levels of respect to their desk quants. Some desk quants are regarded as quantitative gurus; others simply perform the number crunching required by the traders and aren't as important.

In each case the role of a desk quant is usually based on tighter schedules than that of a pricing quant and is seen as part of the front office.

## There are quant jobs in risk management

People with quantitative finance expertise often serve not only as risk calculators but also as risk managers. Since the financial crisis, risk calculation has grown in importance relative to trading; it is seen as a critical supporting, non-revenue generating function.

Risk calculation involves not only quantitative talent, but also technologists, who build risk systems. The robustness of these systems plays an important role in the bank's success (or otherwise) as a business.

Risk numbers used to take the form of VaR, CVaR (Value-at-Risk and Conditional Value-at-Risk, respectively) and related metrics, which are heavily relied on to this day. After the global financial crisis, these metrics have been supplemented by various "valuation adjustments" that banks must make when assessing the value of derivative contracts that they have entered into. These are collectively known as X-value adjustments, or XVA. The purpose of these is twofold: primarily to hedge for possible losses due to other parties' failures to pay amounts due on the derivative contracts; but also to determine (and hedge) the amount of capital required under the bank capital adequacy rules.

The emergence of XVA has led to the creation of specialized desks in many banking institutions that manage the XVA exposures. These are regarded as separate from the traditional risk function.

## There are quantitative development jobs

Quant jobs involve producing vast amounts of code. This code may be tactical (e.g. Jupyter notebooks needed to create and debug a model) or strategic (e.g. a derivatives pricing library). Depending on how strategic the code is, it must be written to different software engineering standards. Those who write code that will be run in production must be accomplished software engineers. Often, quants themselves have this skillset, and some of the best quants are often also some of the best coders. At other times, the less software-minded quants may rely on the help of quantitative developers, whose job it is to create (and debug) code rather than come up with new quantitative models.

## The difference between a strat and a quant

The importance of quants in finance has been underlined by the renaming of quants to strats, which took place at several financial institutions. The word strat is an abbreviation for strategic analyst. The emphasis has shifted from the nature of the work (quantitative analysis) to its strategic role within the organization.

If you want to be a quant, however, you're advised not to look at the title of a role but at its deeper nature. There are many quant jobs, differently named, with different strategic importance (and corresponding compensation).

## Career paths for quants in finance

If you start working as a quant in a bank or fund, you don't have to stay in one.

For example, you could move into Fintech. Fintech refers to the technology and innovation aiming to compete with traditional financial methods in the delivery of financial services. Some larger Fintechs are competing with established banks and hedge funds for quantitative talent. This applies particularly to non-bank liquidity providers.

You could also move to the Magnificent Seven – a group of tech giants consisting of Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla. These firms often hire quants to work on machine learning and artificial intelligence systems.

Not all quants are employed by banks, hedge funds, and other financial firms, however; some work in academia. The pay is lower here, but the problems you solve can be a lot more interesting. As you get more senior it can be possible to sit in both worlds, and to hold an academic job while working in a bank or fund at the same time.

For quants who want to publish research, there can also be opportunities to work on research desks, or for non-bank organizations that publish blue skies quantitative research. For example, Bloomberg has a sizeable research division, although they are not a trading firm.

## Skills you'll need for a quant job in finance

Quants don't work in isolation. They collaborate (and sometimes compete and coopete) with traders, structurers, sales, technologists, risk analysts, and other quants. For this reason, the so-called "soft" skills are just as important as quantitative skills.

Senior quants often end up managing people and projects. People and project management expertise increases in importance as the quant's career progresses, unless they choose to focus purely on the technical side of things, which is rarely possible.

Quants at various levels of seniority also have the task of convincing others of the usefulness and importance of the work that they do. As usual, there are many sceptics around, particularly when it comes to the latest approaches and technologies.

## Mathematics you'll need for a quant job in finance

Traditional Q-measure quant roles consisted in the (often numerical) solution of partial differential equations (PDEs) and stochastic calculus/analysis – the classical applied mathematics.

Such mathematics used to be taught at mathematics and physics departments of leading universities. Often quants came from relativity and string theory and fluid dynamics backgrounds – those areas where PDEs and stochastics abound.

After the financial crisis, P-measure jobs became more numerous. Such jobs relied more on statistics than on PDEs and stochastics. Accordingly, more people were hired with statistical rather than applied mathematics background.

## Qualifications you'll need for a quant job in finance

Traditionally, quants have had a background in applied mathematics of various flavors. They've also been known to come from the physics departments at universities. More recently, with the development of specialized quantitative finance education, pricing quants started to come from dedicated quantitative and computational finance programs (such as the MSc in Mathematics and Finance at Imperial College, London, where I teach).

In more recent years, dedicated mathematical finance programmes have been created at most leading universities. In addition to such programmes, which are usually delivered at the masters level, it is nowadays possible to obtain a PhD degree in mathematical finance and/or complete a certification course, such as CQF.

Our analysis of quantitative-related juniors at Barclays and UBS showed that most studied STEM subjects, with mathematics in particular being highly prized, although there were also finance and engineering students in the mix.

Masters in financial engineering graduates might stand to benefit the most, although the small number of courses means that their alumni network is spread thin. In France, many quants historically studied the Masters in Probability and Finance at the Ecole Polytechnique and University Paris-VI under Nicole El Karoui. She has now retired, but the course continues. The recent ML/AI revolution has further shifted the focus towards subjects traditionally regarded as computer science – Machine Learning (ML) and Artificial Intelligence (AI). Dedicated programmes, such as Imperial College's MSc in Artificial Intelligence, have been created in response to rising demand. Imperial's MSc in Mathematics and Finance also includes a significant ML/AI component – a dedicated track. There are also certification programmes, such as the MLI.

## Programming skills you'll need for a quant job in finance

Programming is as important to many quant roles as mathematics - quants who oversee quantitative libraries need to be well-versed in software architecture.

As well as writing code, quants spend their time debugging and speeding up existing code, creating quantitative infrastructure (e.g. the way that different systems use to talk to each other, the way objects are persisted and stored, and interaction between the quantitative libraries and the underlying databases), automating tasks and – most recently – applying machine learning. Some leading financial institutions have dedicated machine learning teams. At others machine learning research or artificial intelligence implementation is conducted by regular quants. Banks, hedge funds, and trading firms are beginning to adopt new methods, such as deep pricing and deep hedging.

Which coding language do you need to learn if you want to become a quant? Modern coding languages have each their respective "ecological niches":

- Python for prototyping and research
- C++ for high-performance production systems
- Java and C# for production systems where software engineering is somewhat more important than performance (although in some areas these languages compete with C++ for performance; see, for example, Azul)
- Julia attempts to combine the advantages of C++/Java/C# with those of Python
- Kdb+/q and shakti for big and high-frequency data
- CUDA for programming GPUs in high-performance computing (HPC) applications

## Pay for quantitative jobs in finance

How much quants are paid varies tremendously. The numbers below comes from the eFinancialCareers 2024 salary and bonus report, which took a broad cross-section from across the industry, and represents both quantitative researchers and developers, mostly in banks.

The best paid quantitative finance roles are in hedge funds and electronic trading houses, however. The pay scale in these roles starts huge and get even bigger – electronic trading firm Jane Streetpays new graduates $275k per head, and it pays its staff in London as a whole an average of £696k ($888k) per head. And that number includes administrative staff, who are almost all paid a lot less than any flavour of quant.

Our salary and bonus report also found that quants enjoy some of the best work-life balance in the financial services industry; quants self-reported working just 48 hours a week on average, significantly less than other revenue-generating parts of a bank, such as investment bankers and (most) traders.

### Average compensation by rank in quant roles, 2023/24

| Quant | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $100,000 | $25,000 | $125,000 |
| Associate | $107,143 | $44,231 | $151,374 |
| Vice President | $188,281 | $102,344 | $290,625 |
| Director | $232,813 | $139,063 | $371,875 |
| Managing Director | - | - | - |

# Day in the life: Quant researcher, Citadel Securities, Miami

**Will Kaufhold is a quantitative researcher in Citadel Securities' Miami office. He joined the firm in 2021 after completing a PhD in physics at the University of Cambridge.**

7am-8am. I wake up. I live a five-minute walk away from the office in an apartment complex north of the river in Miami. I try to keep things civilized and usually go for a jog or cycle before work. The beach is only a 10-minute cycle away and for a while I got into early morning swimming. Because my hours aren't dictated by the markets, I can ease into the day more than those in some other roles in finance.

8.30am. I arrive at the office and check the overnight P&L (profit and loss) of the strategies we're running. After I've checked the P&L, I prioritize pressing issues, including any bugs that have been raised. I'll check the results of the compute jobs that were completed overnight.

9.30am. I usually spend some time in the morning collaborating with my European colleagues. I'm a quantitative researcher on the FX team. Most FX is traded electronically, and it's not constrained by US trading hours: it's a 24-hour market and I'm only working for a portion of that period, so it's good to understand what my colleagues in London and elsewhere have been seeing.

10.30am. I have a meeting with some of my direct reports who look after their own strategies. I started managing people just a couple of years after joining Citadel Securities, which doesn't happen at many firms but isn't at all unusual here. It's brought an entirely new dimension to my role that I really enjoy. During these meetings, we'll synch up to discuss my team's ideas and observations. They might have ideas for improvements that allow us, for example, to take more opportunities with less risk. Everyone on the team is encouraged to take initiative and ownership of their projects.

11am. After the meeting, I focus on refining our strategies. Broadly, my role involves working with data to generate insights that inform trading in the FX markets. As a quantitative researcher, it's my job to develop and deploy our automated strategies to provide liquidity in the FX markets and drive better outcomes – and I do that by building models and systematic trading algorithms.
95% of the time, our strategies don't require human input: they're fully systematic. A lot of my job therefore involves monitoring our existing strategies as well as improving them and applying them to new products. My team members and I apply our research quickly and get fast feedback from the markets, so we never have to wait long to see the impact of our work.

12.30pm. I break for lunch. We have catered food and often eat lunch together with a beautiful view over the bay. Sometimes I get very focused, though, and will eat lunch at my desk.

1.00pm. I spend more time refining our strategies. We are always trying to drive the firm's competitive edge by improving our strategies. We derive ideas for improvements from post-trade analysis and looking at why trades were successful or unsuccessful. It's about understanding patterns and how we can replicate good performance.

3pm. I have a meeting with some of our quantitative researchers who are trading different assets. I want to understand how they are managing their risk and opportunities and whether we could apply what they are doing to the FX markets.

3.30pm. I'm refining our strategies again, while thinking about how we could either develop new strategies or apply our existing strategies to different opportunity sets. I work closely with our traders, who help monitor the strategies' performance – they might, for example, flag upcoming economic events that present a risk that's difficult to model.

When we conceive a new strategy, we will test it using our existing market data and will try to see whether it's profitable based on historic patterns. We try to be systematic and intentional in strategy construction, creating trading strategies that are as optimized as possible. I also work closely with our engineers, whose work powers what we do.

6pm. I tend to leave the office around 6pm, but if there's something I'm really focused on or trying to finish I will sometimes stay later. Constructing, testing, and refining hypotheses has always been fun for me, so sometimes I just want to keep pushing forward.

7pm. A few times a week, I go to the track club in Miami. There's a great running scene here and it's been a nice way to make new friends while keeping up with a hobby I enjoy.

9pm. When I get back home from my run, sometimes I'll do a bit more work. I'm passionate about what I do and enjoy working late at night because there aren't any interruptions and I can really focus. In the evenings, I like to unwind by reading a good book. Some recent ones include "The Songlines," "Homage to Catalonia," and "Something to Do with Paying Attention."

12am. I'm a bit of a night owl and usually go to bed around midnight. I'm able to keep a pretty sensible schedule even while staying focused on my work and keeping up with my interests outside of the office.

# How to get a risk management job in banking and finance

Author: Ken Abbott

**Prestige** 6

**Pay** 5

**Grind** 6

**Competitiveness** 7

- Risk management jobs are all about identifying, quantifying, and mitigating the risk inherent to a financial services firm's activity.
- There are many paths to specialize in in risk management, including market, credit, operational, and liquidity risk.
- A bank's risk profile is heavily regulated, as high-profile bank failures have led to substantial legislation.
- Risk management roles can be very lucrative, with notably better work-life balance than other divisions in a bank.

## What do risk management jobs in financial services involve?

If you work in risk in the financial services industry, your role will be to help prevent your employer from becoming unstuck by virtue of any of the things that could cause a shock to the institution. There are four broad kinds of risk you need to be aware of: market risk, credit risk, operational risk, and liquidity risk.

**Market risk** reflects the risk of loss from changes in market prices, yields, and volatilities and correlations. At its heart, market risk provides a gauge of sensitivity of P&L, and ultimately capital, to changes in market conditions. Its core responsibility is to identify, measure, monitor, and control exposure to these risks in accordance with a bank's size, risk capacity, and overall risk appetite, and to report on these exposures to senior management and the board. The fundamental role of market risk management is to ensure that management is fully informed about the risk profile of the bank and to protect the bank against unacceptably large losses resulting from the concentration of risk.

**Credit risk** is the potential that a borrower or counterparty – a person or entity that owes money - will fail to meet their payment obligations. The goal of the credit risk management function is to keep a company's credit risk exposure within predefined credit limits. These are usually calculated at the issuer, currency, industry, country, and regional levels. About half of all bank assets in the US consist of loans, making them the largest single source of credit risk, but banks also incur credit risk in their investment portfolios. This is usually in the form of bonds and in their trading books, but also through counterparty and settlement risk (i.e., the risk that a trade doesn't settle properly). In addition, banks also take credit risk via guaranties and letters of credit.

The Bank of International Settlements defines **operational risk** as the risk of loss resulting from inadequate or failed internal processes, people, and systems, or the risk of loss from external events. Operational risk typically includes legal risk but excludes strategic and reputational risk. Some of these risks result in actual financial losses, while others lead to inefficiencies, lost opportunities, and other indirect costs. In essence, operational risk captures those direct and indirect risks not captured by market or credit risk. If you work in operational risk, your role will be

focused on the maintenance of an effective control environment within a firm.

**Liquidity risk** is a different type of risk altogether and is one which has come under increasing regulatory scrutiny since the 2008 financial crisis. Liquidity risk gauges an organization's ability to meet its immediate cash obligations to its creditors. It sounds simple, but it's not. Ready cash in a financial institution comes from bank balances, the capacity to borrow, and the ability to sell (or "liquidate") assets without suffering severe losses. Meanwhile, obligations incurred include loan and bond interest and principal, contractual obligations to lend, and derivative securities commitments. Failure to meet any of these obligations can have severe repercussions, up to and including bankruptcy. The liquidity risk function in a bank measures and monitors sources of uses of cash, including both those of a fixed nature and those driven by markets and client behavior.

## Career paths in risk

How your career evolves in risk management will depend upon the area of risk you go into.

For example, career paths in market risk often start out in desk coverage or in the reporting function. The reporting function conveys to management and the board the risks associated with trading activity, decomposing them into their core equity, commodity, interest rate, foreign exchange, and volatility components. They aggregate risks by type and compare them with the firm's risk limits, ensuring that risk-taking is within management's risk appetite. They also calculate statistical measures of risk, including Value-at-Risk (VaR), and run stress tests to ensure capital adequacy. This reporting is done on both a regularly scheduled and ad-hoc basis. Market risk professionals with quantitative backgrounds also move into model risk and quantitative audit roles.

Once you've done your time in reporting, you might move into desk coverage. This is the process by which teams of risk management staff are assigned to cover specific trading desks. These teams are co-located with the trading desks and are actively involved in the new products process, model implementation, regulatory and management reporting, and limits monitoring. Staff in these areas are expected to monitor market conditions closely and be able to articulate clearly what the risks are in any particular area. They are also expected to understand and leverage IT infrastructure to get information.

Credit risk analysts usually start out by doing financial statement analysis in the case of issuer credit risk. For counterparty credit risk, new analysts focus on how expected exposure is measured, aggregated, and reported.

Many credit risk professionals stay in the credit risk function for extended periods in their careers. They often manage groups of credit analysts and become specialists in particular industry areas like media, energy, or hospitality. This specialization requires them to become experts in their fields both with respect to the balance sheets of the companies involved and in the fundamentals of the business itself. From there, some move on to manage credit exposure in hedge funds, pension funds and mutual funds. Others can apply their knowledge of how cash moves through a business in the private equity business, where financial statement analysis is a core competency.

Operational risk as a career path has only really existed since the early 2000s. The people engaged in operational risk since it became a Basel focal point are thus career trailblazers, establishing new career paths. Currently, many op-risk professionals are expanding into cyber risk management and environmental/climate risk management. In these new areas of interest, the skills associated with event risk identification and event reporting are highly valued, as is the development of risk appetite frameworks.

Liquidity risk management as a discipline is also relatively new, although banks have been managing liquidity for years. New analysts here tend to focus on particular areas within liquidity risk like balance sheet management and analysis, repo/reverse markets, or regulatory reporting. There is frequent movement in both directions between the bank treasury and liquidity risk management areas as the skill sets required are fungible. Liquidity risk management skills are also readily applicable in both nonbank financial institutions and in corporations, where cash management is just as important.

## Which skills will you need for a risk management career?

If you want to work in risk, you'll need an inherent interest in the way markets and companies work, an appreciation of the importance of process, and a core level of quantitative competency.

While many are attracted to the financial rewards of a career in finance, the primary requirement is a curiosity about companies, products, and markets. You really need to look at the markets and companies the way an entomologist studies an anthill or a beehive. People drawn only to the financial rewards often burn out. At a minimum, they are often less willing to devote the time and effort required for success. If you are not naturally drawn to markets, this may not be for you.

Process at the heart of everything that takes place in risk management. In order for risk to maintain its key role – to keep senior management aware of the risk profile of the firm and to prevent unacceptable concentrations of risk – business activities need to be carried out in a regular, orderly fashion in a way to which everyone involved agrees. This is obviously easier in small organizations but is absolutely crucial in large ones.

Quantitative competence is also a must in all areas of risk management. While there are certainly many subjective elements to risk management, its essence lies in the analysis of numbers. Both market risk and liquidity risk are heavily dependent upon econometrics, statistics, and of course finance. There is a great deal of on-the-job training, but having a basic background in these areas is very helpful. Since rates of change are often of interest, calculus is also important. Counterparty credit risk is dependent on market conditions and therefore it helps to understand markets. Issuer credit risk is more focused on financial statement analysis because these statements reflect a company's financial health. Therefore, here, an understanding of basic accounting is essential. An understanding of corporate finance and how firms manage their capital structure is also helpful.

## Education & qualifications for a risk management job

Even though risk is a support role in a financial services firm, it still requires a similar educational background to the front-office. When we analyzed Morgan Stanley and Deutsche Bank risk juniors, the most popular degrees were in economics and finance, although law and accounting graduates were also represented in the junior cohorts.

There are additional qualifications that can supplement your risk career, too. Although some risk professionals carry a Chartered Financial Analyst (CFA) qualification, the more specifically relevant qualifications in the field are the Financial Risk Manager's (FRM) qualification and the Professional Risk Manager's (PRM) qualification.

Although both are based in the US, both are also recognized worldwide. The PRM especially is seen as a prerequisite to a career in the field. But it's worth nothing that both require two years of work experience, however, so it's probably the sort of thing you'd want to think about a few years into your career.

## Salaries & bonuses in risk management

Compensation in risk roles are not as good as they are in front-office roles such as investment banking and sales & trading, but they're still pretty healthy.

Our 2024 salary and bonus report showed that salaries for risk management professionals increase at a similar rate to front-office roles (albeit from a lower base). It was when it came to bonuses that risk professionals lagged behind: bonuses in risk are an average of 30 to 40% of salary compared with the 50 to 100% ratios we see for front office jobs like sales and trading.

### Average compensation by rank in financial risk management, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst + Associate | $120,313 | $43,750 | $164,063 |
| Vice President | $145,000 | $41,667 | $186,667 |
| Director | $236,667 | $68,333 | $305,000 |
| Managing Director | $356,250 | $175,000 | $531,250 |

# How to get a financial services technology job

Author: eFinancialCareers

**Prestige**

5

**Pay**

6

**Grind**

4

**Competitiveness**

7

- Bank technology jobs are considered some of the most prestigious outside of the front office.
- Bank technologists work in a wide variety of roles and can encompass some quant roles as well as simple network engineering.
- Technology jobs are increasingly being offshored to destinations with cheaper labor costs, with only the very best remaining in western HQs.
- Bank technology jobs are some of the best paid in the industry, and often offer the best work-life balance.

## What do bank technologists do, and why do banks need them?

It's hard to say exactly what bank technologists do. The term "technologist" is rather generic, covering dozens if not hundreds of roles in a bank – everything from infrastructure, to cybersecurity, to the cutting edge of research, including quantum computing and AGI.

For the most part, what technologists do is support the rest of their company. Banks are huge employers of technology talent and they spend accordingly. JPMorgan, for example, spends $7.6bn in technology in total and $2bn on market making technology for its sales and trading business alone according to its most recent investor letter. Of that $7.6bn, $4.5bn goes to platforms and user experiences while a further $3.1bn goes on modernizing technology, maintaining existing technology and technology to protect the firm and its customers. Banks have large "legacy" code systems to support their operations.

They're trying to retire old applications and to move as much as possible to the cloud. They're also trying to automate and to use AI as much as possible. On a day-to-day basis, what this means for you also varies. Working as a technologist supporting the trading floor will be very different to working as a technologist creating a user interface for a wealth management app, or deep in an ancient payments system.

Banks have historically been quite bad at allowing technologists to remain at the coal face, coding, and have tried to promote them into management roles. However, this has changed with the introduction of "distinguished engineers," which are roles allowing banks best developers recognition for their development skills.

## What sort of bank technology jobs are there?

There are a number of roles available in a bank's technology team.

### Front office technology jobs

A lot of people want to work in this space when they first start out. Front office technology is sexy. It's closest to the bank's sources of revenue – and in fact, the "front office" is usually defined by the roles in the bank that are in themselves revenue-generating. Think commodities,

equity derivatives, rates, portfolio managers in asset management, or maybe even a banking team.

As a front office technologist, you'll be developing tools like trade and position blotters or creating pricing engines in partnership with quantitative research (see our section on quant careers) and market data teams.

Sounds great, right? Well, the bad news is that front office technology teams often run very lean. They can have arduous support rotas and a lack of investment in adopting strategic frameworks and renewing tech stacks. The most important work is given to trusted individuals, and work tends to be very atomized. Front office technology can be both stressful and boring.

## Core technology jobs

Core technology teams are where the long-term strategic work is done. This is about long-term planning rather than day-to-day functioning. A core team might embark on a technical strategy for a user interface and develop a framework that starts to be used by business-aligned teams. If you're someone who mostly wants to interact with other developers and be able to keep up with industry trends, then core teams are the way to go.

## Middle- and back-office technology jobs

If you work in the middle or back office, you'll find a whole host of teams doing different types of work. There are compliance and regulatory technology teams who often have to work to externally mandated deadlines. You also have market risk, payments and settlements, valuation control, and capital management.
If you work on middle- or back-office technology requirements, your clients will be teams in operations, in financial control, in compliance, or in any other non-revenue generating team. Things tend to be a bit more relaxed than front office, and you'll be more likely to use industry standard

tools and languages. Some of the roles in compliance (RegTech) can be interesting and involve the use of natural language processing (NLP) Artificial Intelligence (AI), or Quantum Computing.

### Infrastructure technology jobs

Infrastructure technologists work on the technological framework that underpins the bank. This includes cybersecurity and cloud computing. If you work in infrastructure technology, your clients are other developers. There will typically be highly skilled specialists hired in this area – with 'fellows' or 'distinguished engineers' more common than elsewhere in banks' technology teams.

### Business analyst jobs

Business analysts are the people who intermediate between the business and developers. This is a role that's going out of fashion - banks want 'T-Shaped' developers. What they mean by this is that they want to cut costs and have developers talk to the business directly – pretending that complexity and interaction over multiple silos doesn't exist. There are fewer people working in business analysis now than before: graduate tracks for business analysis no longer exist at some banks.

### Project management jobs

Project managers can be some of the most infuriating people for the average developer to deal with - they put meetings into developers' calendars to talk about project timelines, why things are late, and delivery milestones. Project managers are often used to arbitrate between different teams for complex projects. To a large degree they are little more than secretaries, but the senior ones are paid like technical architects. If you're a developer, this can be particularly infuriating.

### Data science jobs

Data science jobs arguably need an entire section of their own in this guide because, as data proliferates, banks and funds are building armies of data specialists. Hedge funds especially are increasingly trying to get an edge by looking at "alt data" sources, like information on footfall in shopping malls, or sentiment on social media.

Broadly speaking, there are three types of data-related roles in finance: data analysts, data engineers, and data scientists. Data analysts interface with the business to find out what the data needs to do, and develop visualizations to show that information. Data engineers take raw data and prepare it for analysis – cleaning it, moving it, tagging it, and so on. And data scientists create the models that are able to extrapolate from the data in a way that is presentable to the business.

Data science has become more important in the age of AI and machine learning. Large Language Models (LLMs) rely on accessible data in the cloud and banks have been constructing "data lakes' for this reason.

## How are bank technology jobs changing?

For a long time, the biggest challenge that any bank employee in a support role could face was offshoring. This is when jobs are moved from London and New York to the likes of Bangalore, where Goldman Sachs has its office employing the most people. Nearshoring, or moving staff to lower cost offices away from expensive capital cities is also popular. Goldman also has technologists in Warsaw, Birmingham, Dallas, and Salt Lake City.

The biggest change to banks' technology jobs, however, is artificial intelligence (AI). Goldman Sachs' CTO Marco Argenti told CNBC that "developers are already using some of the assisted coding technology," and that at the time (March 2023), developers were already managing to write 40% of their code using generative AI.

Ex-Goldman Sachs tech MD Kwame Nyanning said earlier this month that AI would replace junior coders, with more experienced technologists guiding and debugging the process based on holistic needs. The "pipeline of hiring people and maturing them is going to be dramatically impacted," Nyanning said. That means that there might be fewer technologists in the future – and those that are left will be more business-minded than before.

Because Large Language Models are general and financial services firms use a lot of specialist terms and proprietary data, some firms are large language models of their own. Bloomberg for example, has developed "BloombergGPT", which will "assist Bloomberg in improving existing financial NLP tasks, such as sentiment analysis, named entity recognition, news classification, and question answering, among others", in its own words.

Not all financial services firms are taking that path, however. Goldman Sachs indicated last year that, while it was exploring potential AI use cases, the company had no intention to build its own LLM from scratch, according to Venture Beat, a tech-focused news site. Goldman announced in June of this year that it had developed something called "GS AI Platform", based on ChatGPT (OpenAI) and Gemini (Google) frameworks, which uses Goldman's proprietary data within existing LLM model frameworks.

The rise of LLMs has created a new genre of job for "prompt engineers," experts in the hyper-specific form of English that is required to efficiently extract data from an AI. Argenti recommended his daughter study philosophy as well as engineering, for example, and said that "ambiguous or not well-formed questions will make the AI try to guess the question you are really asking, which in turn increases the probability of getting an imprecise or even totally made-up answer." As such, the leading engineers of the future won't be asked if they can code, but rather "can you get the best code out of your AI by asking the right question?"

Not all AI is related to LLMs, though. JPMorgan has an AI called "Moneyball", which the Financial Times reported as being a tool that shows portfolio managers how they reacted in similar situations to similar news, as well as "help them correct for bias and improve their process." Moneyball is part of JPMorgan's "SpectrumGPT" portfolio management platform, which, however, is based on OpenAI's GPT-4.

In the future, there may be more jobs in banking for quantum computing engineers. JPMorgan and its head of global technology applied research, Marco Pistoia, are very much at the forefront of this new wave of innovation. Many of the quantum computing jobs in banks relate to quantum cryptography, or systems to prevent banks' security walls being penetrated from a new generation of quantum computers.

## What qualifications do I need for a bank technology job?

You might imagine, with the variety of jobs available in a bank's technology team, that the qualifications you need to get a job there vary rather wildly. You'd be wrong. When we analyzed Goldman's tech analysts (juniors), there was one degree that outnumber all others: computer science.

There were some exceptions, but mostly for software engineering graduates – computer science was the clear king of that particular hill. A lot of the junior class held master's degrees, too. Master's degrees in financial technology, such as those offered by Imperial College London and the University of Hong Kong, could be particularly valuable here.

Financial engineering, despite usually being associated with quantitative roles, is also a strong option, especially in data roles. Our ranking of financial engineering courses put Baruch College, in New York, on top, followed closely by Princeton and Carnegie Mellon. Imperial College London topped the UK rankings.

In the age of AI, however, that might not be enough to make the big leagues. Some bank roles, such as the most cutting-edge machine learning roles, can require a PhD. These will mostly put you in the "labs" that banks have set up to develop their AI capabilities.

It's also possible to get directly into a banking role before your bachelor's degree even starts. Some banks and universities, mostly in the UK, have partnered to offer degree apprenticeships, which are a combination of formal university education and work experience. They're very difficult to get into, however; a participant in the scheme that we spoke to last year said that 4,000 people applied to the 28 places on his course, indicating an acceptance rate of 0.7%, less than most investment banking summer internship roles, including Goldman Sachs and JPMorgan's.

Additional qualifications for technology are harder to pin down, but depend on what you want to specialize in. In a lot of cases, they simply aren't necessary – but if, for instance, you want to work in network engineering, it can help to have a Cisco-issued qualification such as a CCNA or CCNP.

Another entry point for a bank technology role is via the cloud. Banks works with different and varied cloud computing providers - such as Goldman and Amazon, or Deutsche Bank and Google - and specializing in their respective cloud services isn't unheard of as a way to get into the industry. Goldman, for example, hires a lot of people from AWS, including its current Chief Information Officer, Marco Argenti, who joined the bank from AWS directly back in 2019.

All major cloud providers also offer qualifications and certifications to prove knowledge, and there are internships that also offer them in the process.

## Coding languages you'll need to know for a bank technology job

When we analyzed the most popular coding languages in financial services – based on analysis of job listings and their requirements – the most popular languages were, by quite some margin, SQL, python, and Java. SQL was top, with nearly a full quarter of technology financial services roles advertising for specialists in the language. Python and Java were sought in 18% and 14% of applications, respectively. All other languages were below 6%.

**SQL:** Although SQL might not seem like the obvious choice for the financial services industry's favorite coding language, it makes perfect sense with a bit of thought. It can deal with huge amounts of data. It integrates beautifully with Excel. It allows for complex queries, data analysis, and reporting. It might not be as useful in some front office capacities (and therefore likely not as well paid) as Python and Java, but it's a silent workhorse.

**Python:** Man Group, the biggest hedge fund in the UK (and Europe), once said that its first language was English – and that its second language was Python. The language's influence in finance can't be understated, and with good reason: it's incredibly intuitive, easy to use, and has a huge ecosystem of libraries that can be tapped into. It also integrates easily into other languages.

**Java:** Java has its own uses in the finance ecosphere. For one, Java (in certain iterations) and especially its "grandfather", C++, are considered very low latency languages. That means that you can build code that executes its instructions faster than other languages – and that's an extremely valuable trait in fields such as high-frequency trading, where microseconds can cost millions or even billions of dollars.

Python and Java aren't the only languages, however. There's a host of them: Rust, R, C#, Q, KdB, and so on. Generally, these are niche languages, with specific uses. Some big banks even have their own internal programming language, most famously Goldman Sachs', called "Slang", which is an internal proprietary coding language similar to Python, and underpins much of Goldman's front-office technology. It was built to work with SecDB, Goldman's risk and pricing engine, and it's very good and that – even if Goldman is moving away from it, and towards Python and Java.

## Salaries & bonuses in bank technology jobs

Technology roles in banks (and financial services in general) don't pay as well as front-office roles such as those in M&A or sales & trading, but they pay very handsomely regardless, as figures below from our 2024 salary and bonus survey show.

As with many other support roles, such as those in risk or compliance, the majority of a technologist's compensation is in their salary. A technologist can expect a bonus of around 25 to 50% of their annual salary on average for the majority of their career, until they reach Managing Director (MD) level.

Because banks are generally quite protective of the MD title, very few technologists reach this rank. However, those that do are extremely well paid – although that also usually comes with extensive leadership and management responsibilities. The further away you are from the code, the more money you make.

One benefit of working in bank technology, as opposed to at a fully-fledged tech firm (or in a bank's revenue-generating roles), is that the hours are usually pretty good, and the pay is higher than other support roles – meaning that bank technologists have some of the best lifestyles in the business.

### Average compensation by seniority in finance technology, US$

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $72,727 | $37,500 | $110,227 |
| Associate | $104,032 | $50,000 | $154,032 |
| Vice President | $164,338 | $48,134 | $212,473 |
| Director | $218,966 | $84,483 | $303,448 |
| Managing Director | $250,000 | $204,167 | $454,167 |

# How to get a compliance job in banking and finance

Authors: Ken Abbott & Zeno Toulon

**Prestige**
4

**Pay**
5

**Grind**
6

**Competitiveness**
6

- Compliance professionals are like the police of the banking industry: they exist to make sure banks follow the regulatory rule books.
- Compliance jobs can be stressful but the compliance profession has risen in stature since the financial crisis.
- Law can be a starting point for a job in compliance, but banks run training programs too.

## What do compliance jobs in banking and finance involve?

In financial services, the compliance function serves two key purposes. Firstly, it ensures that the institution operates within all applicable laws, rules, regulations, and standards. Secondly, it creates and maintains a "compliance culture".

The compliance team ensures that an institution operates within the rules and regulations applicable to its specific lines of business. You could say that compliance operates as an internal police force, monitoring behavior and tracking adherence to specific rules and regulations. Laws are typically created by government bodies and administered and enforced by government agencies. These agencies create rules that firms must obey. The interpretation of these rules requires both a thorough understanding of the law and an appreciation of the practicalities of the businesses affected. The compliance function provides this interpretation.

Compliance is also responsible for the establishment and maintenance of an appropriate compliance culture within a firm. That involves not only line-by-line review of the rules and regulation, but also the education process as well as the creation, along with senior management and the Board of Directors of a compliance program for the entire company. This notion of a "compliance culture" goes well beyond employee training. It's about influencing behavior and setting expectations so that adherence to rules and regulations becomes second nature.

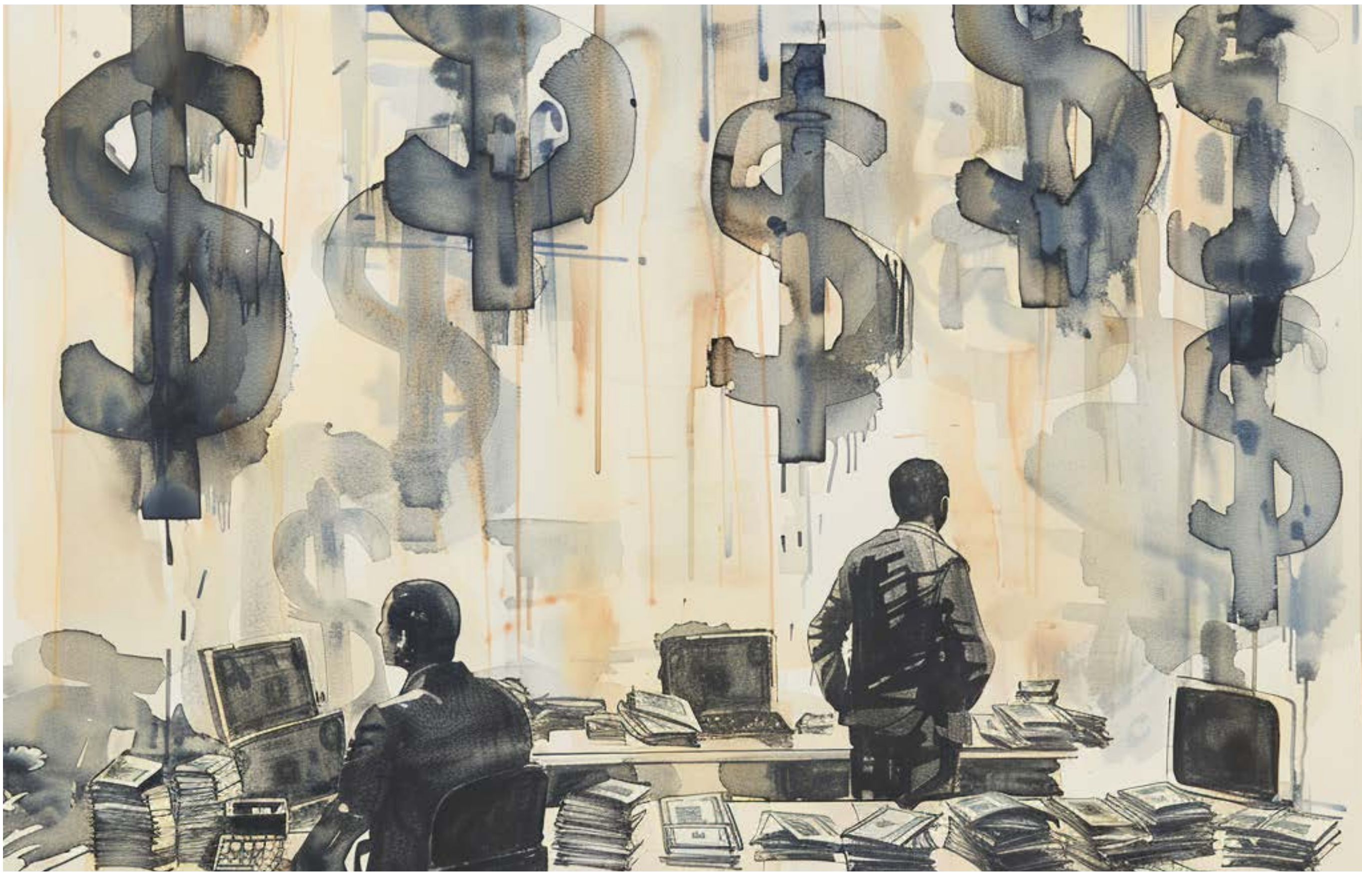
The importance and influence of the compliance function within financial institutions has grown dramatically since the financial crisis of 2008. While compliance has always been important, the explosive growth of regulation as a result of the weaknesses exposed by the crisis has brought compliance needs into sharp focus.

## Jobs available in financial compliance

There are a number of jobs available in compliance.

### Anti-Money Laundering (AML) and Know Your customer (KYC)

KYC due diligence is conducted for both new and existing clients and investors. It's an ongoing process: the origins of investors' funds can change over short periods of time. There are two key objectives to each due diligence exercise: a) the identification and verification of investor's identity and b) determining the ultimate purpose of the investment.



Anti-money laundering (AML) programs are a key to compliance. AML staff review the details about new and existing clients in terms of their locations, their relationships with others, and the laws applicable to them. The key elements of AML include training staff to spot money laundering issues, client due diligence, the designation of an AML officer, independent testing, and governance documentation (policies and procedures).

## Compliance Risk Management

Financial institutions of all kinds require governance processes to be carried out and monitored to reduce the risk that regulations are infringed. Compliance risk managers look at everything from the compliance reporting, to roles and responsibilities within the compliance function, the disclosure of information about transactions, insider trading prevention, secrecy and privacy, record keeping of transactions and complaints, and potential conflicts of interest.

## Business conduct

These jobs are about embedding a firm's culture of compliance and code of ethics into specific business practices. Adherence to the specified requirements is constantly reviewed.

## Compliance monitoring, documentation, and reporting

Information flow is a key part of the compliance process. If you work in monitoring, documentation, and onboarding, your job will involve keeping an eye on how clients are being on-boarded, on transaction flow and on policies and procedures to maintain an effective control environment. Technology has made these roles much easier: compliance monitoring professionals now have easy access to data about trades, clients, conflicts, and market practice. Their role is to aggregate, report and interpret this data. They also manage the information flow to the board of directors and senior managers, ensuring that they're fully aware of the compliance risk profile at the heart of the bank.

## Career paths in compliance

There's no specified background for a career in compliance, but it's also not uncommon for people with a background in law, business, accounting, or finance to move into compliance jobs. If you have a legal background, for example, you might find it possible to immediately apply your knowledge of relevant securities laws and regulations.

If you're not coming from a legal position and are looking for an entry-level compliance job, you might find that you start out in the "control room". The control room is responsible for the maintenance of the information "wall" between the public side of the institution dealing directly with investors and the private side which has access to non-public, confidential information.

Other entry-level compliance jobs include screening clients for criminal activity (KYC), ensuring that anti-fraud checks are carried out; performing due diligence on payments to make sure funds aren't being used to finance illicit activities (AML); or providing information to regulators and law enforcement agencies. Ultimately, these functions are all managed by senior compliance managers, but there are plenty of junior opportunities too. The nature of your job in compliance will depend partly on the kind of firm you work for. For example, in a small institution like a startup hedge fund, a compliance officer could wear several hats including customer and payment screening, managing people and writing policies. If you have a compliance job in a big bank, your work is likely to be much more specialized.

Ken Weiller, a veteran compliance and operating professional with experience in both banks and the hedge fund industry says compliance professionals in hedge funds have become more prominent in recent years. "The compliance staff interacts regularly with the rest of the firm on multiple levels; by setting policies and being the point person for their implementations," says Weiller. He says that compliance professionals in hedge funds have responsibilities spanning everything from approving and regulating employees' personal trades to participating in decisions about the allocation of expenses to investors.

At many firms, compliance personnel are involved in daily trading/research meetings as well as being members of firmwide committees dealing with areas such as valuations and conflicts of Interest," Weiller adds. If you want to get ahead in compliance, there are various professional certifications for compliance officers that can differentiate you. The American Bankers Association offers one in the U.S., for example, as does the Independent Community Bankers Association (if you want to work for a community bank). In the UK, compliance qualifications are offered by The Chartered Institute for Securities and Investment and International Compliance Association.

## Which skills do I need for a career in compliance?

If you want a job in compliance, it will help if you have the following skills.
Legal and regulatory skills: More than anything else, you'll need an understanding of the legal and regulatory framework surrounding both the business you cover and the overall financial services industry. The regulatory environment is constantly changing. You'll also need to be acutely aware of the changes and the implications for the way business is done. Failure to do so may have severe financial and reputational costs.

**Communication skills:** Good compliance people have excellent communication skills. While this requirement is not unique to compliance, it is particularly important given that a major component of the job involves the explanation of often-complex rules and regulations. Compliance is often called to provide interpretations of complicated rules that must be understood by everyone from new hires to senior management.

**Problem solving and critical thinking skills:** You'll need to be a good problem-solver. The rules are not static. Compliance officers are charged both with addressing current issues and anticipating potential new ones. They must have a good sense for the direction of business practice and the evolution of the laws and regulations.

**People skills:** Compliance issues affect everyone in an organization and staff must be able to establish good relationships from the top to the bottom. This requires an ability to "read" individuals and to develop relationships that span the organization. This can be tricky; compliance sometimes has to say "no."

**Business acumen:** Compliance people need to understand the functions they cover. They must be seen as promoting the interests of their internal clients and not labelled as the "business prevention department." Being called "commercial" is one of the highest compliments a compliance officer can receive.

**Technical knowledge:** Technology is changing rapidly in financial services. Compliance professionals need to understand technology infrastructure. The rise of crowdfunding, use of cryptocurrency, growth of digital banking, and increased reliance on cloud storage mean that today's compliance professionals increasingly need technical expertise. Compliance is increasingly about the way that data is collected, aggregated, processed, and stored.

**Personal integrity:** Compliance officers are often called upon to make difficult decisions. They need a keen sense of right and wrong. Banks rely on compliance to define the often-vague restrictions written into laws. Compliance professionals need to be "above the fray", and capable of making the right call even when it may be unpopular.

## Education & qualifications for financial compliance jobs

Compliance holds a unique place in the banking recruitment ecosystem because it does not usually recruit finance graduates. When we took a glance at JPMorgan's junior compliance personnel, for instance, we saw that a significant number studied law in some capacity (although not all). That's a natural byproduct of a less numerically focused profession than other roles in an investment bank.

There are a number of additional qualifications that can be done in pursuit of your compliance career, too. In the UK, there's the CISI Diploma in Investment Compliance There's also the International Compliance Association's (ICA) Compliance certificate, which is also UK-focused, although not as widely recognized as CISI's. Specialization further into your career is also possible. In private banking, for example, there's the Certified Anti-Money Laundering Specialist (CAMS), issued by the US-based Association of Certified Anti-Money-Laundering Specialists.

## Salaries and bonuses in compliance

Compliance professionals, like those in many other control functions, are not the best paid in financial services. However, compliance is still lucrative, especially as you climb the hierarchy.

Our 2024 salary & bonus report found that compliance professionals in financial services can expect bonuses of between 33 and 64% of their salary, depending on their seniority, which is on par with other control functions such as risk. It's also below the 50 to 100% ratios we see in revenue-generating roles such as M&A or sales & trading.

## Average compensation by rank in financial services compliance, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $75,000 | $25,000 | $100,000 |
| Associate | $89,286 | $39,286 | $128,571 |
| Vice President | $146,429 | $66,667 | $213,095 |
| Director | $208,333 | $100,000 | $308,333 |
| Managing Director | $350,000 | $225,000 | $575,000 |

# How to get an accounting job in banking and finance

Author: Ken Abbott

Prestige

4

Pay

5

Grind

5

Competitiveness

5

- Accounting and finance jobs involve keeping the bank's own financial pipes flowing nice and smoothly.
- Roles and responsibilities can be very different from one another in accounting and finance.
- Although banks have special rules they need to follow they are, at the end of the day, also very large companies.
- Although accounting and finance roles can be very lucrative and offer great work-life balance, they're not considered among the best-compensated in the industry.

## What do finance and accounting jobs in investment banks involve?

The finance and accounting teams in banks fulfill four discrete purposes. They are:

**Commentators:** Commentators explain the numbers. They describe what took place during an accounting period and why.

**Business partners:** Business partners work closely with the business on value creation and the planning process. The also ensure the completeness and accuracy of transaction reporting and the accuracy of P&L (profit and loss reporting).

**Scorekeepers:** Scorekeepers maintain the firm's books and records for investors and regulators. In this way, they provide investors and other external people a method by which to assess the bank's performance.

**Custodians:** Custodians are about governance. They ensure that policies, procedures and regulations are strictly adhered to with respect to financial reporting.

These are the broad functions. If you're joining as a trainee, you'll likely get an opportunity to rotate between different jobs in accounting and finance, but it's good to have an idea of what might suit you best from the outset.

## Jobs available in accounting and finance

There are a number of jobs available in accounting and finance.

### Financial control jobs

It's the financial controllers who are responsible for the accounting processes within a firm. They produce financial reports and maintain official books and records. They establish controls to reduce risk and enhance the accuracy of reported financials. They make sure the bank complies with accounting regulations like GAAP. The duties of a controller involve ensuring the business operates efficiently and records its transactions accurately.

Financial controller responsibilities often also include reporting and payments to taxing authorities.

## Financial reporting jobs

The financial reporting function is responsible for the disclosure of financial information to stakeholders (such as shareholders) about the financial performance and overall financial position of the firm. The reporting function provides regular information about the firm's position and performance to a broad array of users. It provides information to management for the purpose of planning, benchmarking and decision making. It provides information to investors, and to creditors about the financial condition of the company. And it provides information to shareholders and the public.

## Product control jobs

Product Control is responsible for keeping track of daily profit and loss (P&L), along with its explanation and attribution for a particular area. They also monitor transactions to ensure they are within specified size and risk limits. They are also responsible for ensuring that traders in investment banks mark their trading books to fair value prices. If you have a job in product control, you can therefore expect to produce, analyze, explain and validate daily P&L for trading books. You will also need to ensure the appropriate establishment, classification, and maintenance of books according to GAAP and regulatory requirements.

### Business planning and analysis jobs

BP&A develops and implements business plans. These are strategic jobs within the accounting and finance division: you'll be defining business strategy to meet performance objectives. The people in BP&A identify and propose solutions for business needs, analyze complex risk and mitigation procedures, and keep an eye out for potential issues for which they develop solutions.

### Tax jobs in banks

The people in the tax department are responsible for ensuring that tax returns and financial records are prepared and reported in compliance with tax law. Their job is to minimize tax liabilities within the rules established by tax authorities. They consult with the business on structuring issues as well as maintain a tax-efficient booking model.

### Accounting policy jobs

The accounting policy team is responsible for maintaining the principles, rules and procedures that are chosen and followed by management in creating and reporting financial statements. They look at issues like the consolidation of accounts, impairment, revenue recognition, depreciation methods, goodwill, fair value principles, disclosure, and pricing.
Investor relations jobs
Investor relations are for multi-talented people. They require knowledge of finance plus communication, marketing, and compliance. Investor relations is all about enabling clear and effective communication between a company, its shareholders, and the investing community. IR coordinates meetings for shareholders and the press, releases financial information, and provides financial briefings.

### Office of the Chief Financial Officer (CFO) jobs

The office of the CFO develops financial strategies at the enterprise level (i.e. the level of the whole bank) by combining financial and accounting information with analysis to manage the strategic direction of the firm. The CFO advises management on issues regarding performance, forecasting and budgeting, headcount and compensation levels, balance sheet management, and profitability.

### Treasury jobs

The primary purpose of the treasury team is to ensure the prudent management of cash in line with board approved directives and strategies, as well as managing the bank's regulatory capital position. The treasury function spans asset/liability management (ensuring that liabilities can be paid-off with assets) and capital management (overseeing the issuance of debt and equity to maintain an appropriate capital position).

## Which skills do I need for a career in accounting and finance in a bank?

It goes without saying that finance professionals need strong accounting backgrounds. People in accounting and finance roles tend to be very analytical, process-oriented and inclined to pay great attention to detail. A company's books and records are the primary vehicle through which it presents itself to the public, and so accuracy is paramount. Regulatory authorities are stringent about the accuracy of corporate disclosure, and there's little room for mistakes.

If you work in accounting and finance, you'll also need to be intrigued by the management of process and inclined towards problem solving. There are often many ways of addressing complex pricing and accounting issues, from which product controllers must choose. This must be done carefully and with an eye towards accuracy and transparency. Most of all, though, you'll need to care a great deal about detail.

## Education & qualifications for accounting and finance jobs in a bank

Your university degree is important but not critical for an accounting role. Taking a look at Bank of America's accounting and finance juniors, for example, most graduates are in economics and finance and mathematics.

Accountants take professional qualifications as they train. The relevant qualifications include the Associate Chartered Accountant (ACA) in the UK, as well as the Association of Chartered Certified Accountants (ACCA), Chartered Institute of Management Accountants (CIMA), or the Chartered Public Accountant (CPA) in the US. The exact qualification depends on the accounting role you do and its location.

## Salaries and bonuses in accounting and finance jobs

Compensation in accounting and finance is on par with other middle-office functions as risk and compliance, and tracks closely with lifestyle opportunities (work-life balance) in those professions.

Our own compensation figures indicate that pay for accountants in banks ranges between $53k for junior and $320k for senior accountants at financial services firms, with bonuses between 10 and 50% of salary, depending on seniority.

# Day in the life: Software engineer, Citadel Securities, New York

**Kelly He is a software engineer at Citadel Securities in New York. She graduated from MIT with a bachelor's degree in electrical engineering and computer science in 2022 and completed an internship at Facebook before interning at Citadel Securities and joining the firm full time two years ago. This is what a day in her life is like.**

**8am.** Last year I had a big window in my bedroom and would wake up with the sunrise, but since moving to another apartment in Lower Manhattan, I'm able to avoid that these days. Now, I wake up at 8am and quickly get ready for work. To save some time, I take the subway to the office instead of taking a 30-minute walk.

**8.30am.** I'm usually in the office around 8.30am. I work within the business at Citadel Securities responsible for client execution services for equities and options. - What I do helps power the work of our traders and salespeople. I'm on the User Interface (UI) team and we own multiple applications that have a variety of use cases and internal users from across the organization. UI is important – if you have a great system but can't easily interface with it, it won't be very helpful to the people it's intended to serve.

**9am.** I have a meeting with some of the colleagues who use one of our apps. My role includes talking to our internal users about their needs. I have meetings with various users throughout the day so that we can understand how to develop the apps that meet the needs of as many people as possible. This can be complicated – the users have different needs depending on their business line, role, or focus – but it's also really satisfying. I'm talking directly to the users and can quickly see the impact of my work.

**10am.** I'm back at my desk working on an issue with one of our apps. Some of my time is spent firefighting. Because my team interfaces most closely with the users, if an issue comes up, we're usually the first ones to hear about it and we move quickly to address the issue. During market hours, part of my role involves solving problems and providing support. This can mean there's a lot of context switching; it also means that I never get bored.

**10.30am.** I'm doing some quick work to improve the functionality of our data pipeline. Because most of my work involves apps, I typically code in React or Javascript for our web apps.

**11.45am.** We have our first release of the day. Some days we will have up to three releases. Because we're working on internal tools, we can release frequently and see the impact of our work immediately. This keeps things interesting. Everything goes according to plan, thanks to our strong testing environment.

12pm. Lunch! The firm provides lunch every day and there are a lot of healthy options, which is great for avoiding food comas. Most of the time I eat at my desk, but sometimes I'll take time out for a coffee chat.

1pm. I'm shadowing some of the traders. I've never been a trader, so I watch them work to understand what they're doing and the kind of issues they're facing. If I were working on something I personally use, like Instagram, I'd have a lot of experience as a user and could intuit improvements myself. By shadowing the traders, I get to understand the reality of their processes and develop the UI based on their experiences rather than my own assumptions.

The traders make some suggestions for improvements, and I return to my desk and consider how I can best implement them.

2pm. I have a short stand-up meeting with my immediate team every weekday at around 2pm where we discuss what we're working on. Once a week, we also have a whole dev team meeting of 30-40 people to get a broader perspective. Our leadership likes us to be aware of everything that's happening so that we can build the best overall systems and be creative in our approach to UI.

2.30pm. I spend some more time addressing the feedback the users provided earlier in the day.

3.30pm. We have another bug to fix. This one is more complex; it's about an hour before I can get back the improvements I was working on.

4.45pm. We have another release.

5pm. When the market closes, I get a chance to focus on coding. Some days are busier than others, but often there is a chunk of time where I can sit down and learn new things or think through a new solution. That's something that's really encouraged here. Since engineering is seen as key to the firm's competitive advantage, what we do is about much more than pursuing great code; it's about thinking commercially and identifying and pursuing projects with real business value. That mandate extends to everyone, regardless of how long you've been at the firm. It creates some exciting opportunities for more junior team members like me.

6pm. I usually finish between 18.00 and 18.30 and walk home to decompress. Occasionally, I'll stay a bit later to get extra work done.

After work, I usually go to the gym or hang out with my friends. I also try to keep up with creative hobbies: I sew and do some woodworking. I recently checked into a makerspace where I'm trying to make a ladder. I watch a lot of DIY on YouTube and really enjoy crafts – it's a sharp contrast to my day job!

1am. I tend to stay up pretty late. I'm a night owl and will be ready to face the day after six or seven hours of sleep.

# How to get an operations job in banking and finance

Author: Ken Abbott & Zeno Toulon

**Prestige**

3

**Pay**

4

**Grind**

5

**Competitiveness**

4

- Operations deals with the core "plumbing" systems upon which the financial services business relies.
- Operations jobs are dedicated to ensuring the efficiency and the accuracy of each element of a transaction.

## What do operations jobs in banking and finance involve?

Operations jobs have traditionally been seen as less prestigious than the "front office" client-facing jobs like M&A or sales and trading. However, this is an increasingly outdated way of thinking about how banks work.

Rodney Sunada-Wong, a former chief risk officer at Morgan Stanley's broker dealer business, says banks are like a human organism. In Sunada-Wong's schema, senior management, risk and finance are the brain. Salespeople, traders, and investment bankers are the muscles. Technology is the skeleton and bones. Treasury is the lungs. And the operations division is the heart and circulatory system. "All the parts have to work together," says Sunada-Wong. "The better and more efficient your operations, the more profitable, and efficient your bank will be." Banks increasingly recognize this, and getting operations right is increasingly important for profitability.

The nature of your job in operations will depend upon the area of the banking business that you support. For example, if you work in securities operations and support the trading floor your role will involve the settlement, clearance, and reconciliation (checking that buyers' and sellers' documentation matches up) processes associated with all the traded instruments (e.g., equities or bonds). But, if you work in loan operations, you'll be involved with all the administrative processes associated with the lending business from the time loan proceeds are dispersed to the borrower until the loan is repaid.

Similarly, investment banking operations jobs help with the running of the M&A and capital markets functions. Retail banking operations jobs are concerned with transactions involving individuals and are usually carried out at bank branches. Operations jobs can also be known as "back-office jobs." In other words, you won't be dealing with clients directly.

## Jobs available in financial operations

If you want to work in operations, you have a number of options available to you.

### Operations jobs in securities businesses

If you work in an operations job in a securities business, you'll be supporting the trading floor. You might be working on:

- **Clearance:** Updating accounts of trading counterparties, matching buys and sells, and arranging for settlement (ie. payment).

- **Settlement:** Exchanging money and securities between the seller and the buyer on the trade settlement date.

- **Trade confirmations:** Documenting the specific commercial terms of a transaction to which the parties agreed, including pricing.

- **Reconciliation:** Ensuring that the buys match the sells. Resolving errors, or checking the validity of transactions.

Operations jobs in banks are about monitoring existing processes and procedures. They're also about creating improvements and increasing efficiency. In the U.S., most are sponsored by their companies to sit for the Series 7 and Series 63 securities exams. For a long time, securities operations jobs were the most numerous in investment banks. There were far more people processing transactions on the trading floor than actually working in sales and trading. These days, much of what happens in the operations division is now controlled by technology, but human beings are still needed to help with exceptions when processes don't run smoothly. Those humans might not be in London or New York. Securities operations jobs are typically located away from large Western financial cities, where premises and people are usually less costly.

If you have a job in commodities operations, you'll carry out many of the same processes as in securities operations – but you'll also have to deal with the idiosyncrasies of the commodities markets. People with jobs in physical commodities operations need an understanding of what's involved in buying or selling an actual barrel of oil, for example.

## Loan operations jobs

Loan operations jobs ensure the accurate and timely operations of a bank's loan process. This includes booking loans on the loan system, maintaining loan documents, verifying and auditing key data elements (including financial, tax, and business information, assembling and maintaining credit files on borrowers) managing loan collateral, exception resolution, and performing regulatory reporting. The loan operations function also performs loan research to resolve problems associated with borrowers or transactions, and processes loan payoffs.

Loan operations managers design and administer procedures and systems. They also ensure that each stage of the loan process is carried out in accordance with federal, state, and local laws and regulations, particularly in consumer loans where errors can be very costly.

## Investment banking operations jobs

Investment banking operations jobs are all about helping the front-office complete M&A and underwriting transactions. If you work in investment banking operations, you might be involved in the due diligence surrounding a deal or working on the graphics of a pitchbook.

In capital markets operations, your job will involve supporting the debt capital markets and equity capital markets units as they underwrite the launch of new securities. You'll assist in data analysis, data presentation, documentation and due diligence and will ensure that the transaction proceeds smoothly. In many ways, your job will be similar to that of securities operations professionals. – You'll work on client onboarding, trade capture, settlement and clearance, and general client support.

## Skills you'll need for operations jobs in banks

Operations people need strong product and industry knowledge to facilitate transactions and address any processing problems.

You'll also need to be a strong communicator. Operations professionals deal with everyone from traders to auditors to investment bankers and need to describe complex processes in simple terms. They also deal extensively with other control functions, including compliance, credit, risk, and technology.

Technical skills are also a critical part of the operations skillset: operational processes are now controlled by complex technology systems and even if you're not coding these systems yourself, you'll need to understand them.

Operations careers can progress along several different paths. Many operations professionals find that they are called upon to broaden the scope of their activities as they progress. Others become specialists in a particular aspect of the operations process like settlement, clearance or project management. Some move into the front office in areas like sales and trading (although this can be a tough move to make, so don't count on it happening).

## Education & qualifications you'll need for operations jobs in banking

Operations professionals are very different to other people that work closer to the money in financial services, and they therefore have different educational requirements.

That is to say, they have fewer specifics – when we analyzed the junior ranks of Goldman Sachs' operations team, there was an extremely varied range of graduate backgrounds, with law, economics, history, business, and management science all represented.

In the past, financial services firms have recruited a wide variety of people for is operations positions - hedge fund DE Shaw, for instance, is known to have hired painters and poets.
Fine arts masters aside, there's also the Investment Operations Certificate (IOC) from CISI, although like all CISI qualifications, it's primarily a UK-recognized qualification. It can also feed into CISI's global operations management qualification, a Level 6 diploma, which is hypothetically equivalent to a bachelors degree. CFA institute's IMC qualification might also be useful here.

## Salaries & bonuses in financial services operations

Operations jobs aren't very well paid by their colleagues' standards. Although operations professionals do enjoy lower working hours than most of their peers, their low pay means that they also earn some of the lowest compensation per hour, our 2024 salary and bonus report found.

Our report also found that operations professionals were paid bonuses approximately 25 to 50% of their salary, depending on seniority. That's more or less on par with their colleagues in middle-office functions such as risk and compliance, but far below the potential bonuses reached by their investment banking or sales & trading peers.

### Average compensation by rank in financial services operations, 2023/24

| Rank | Average Salary | Average Bonus | Total Compensation |
|---|---|---|---|
| Analyst | $50,000 | $33,333 | $83,333 |
| Associate | $90,625 | $68,750 | $159,375 |
| Vice President | $129,545 | $31,818 | $161,363 |
| Director & MD | $238,778 | $125,278 | $364,056 |

# What are financial services custody jobs and how do you get one?

Author: David Rothnie & Zeno Toulon

**Prestige**
3
**Pay**
3
**Grind**
5
**Competitiveness**
3

- Global custody jobs keep track of a client's money, assets, and make sure that all activity that happens is universally recognized.
- Technology is changing custody and making it more proactive – using technology, and especially data manipulation, is now considered a paramount skill in global custody jobs.
- As custodians are expanding their activities and offering services such as risk and compliance to clients, more client-facing roles are developing.

## What do financial custodians do?

A global custodian is a financial institution responsible for the safekeeping and reporting of their clients' domestic and global financial assets. Historically, this meant the actual physical protection of stock and bond certificates, but today, the physical certificates have largely been replaced by electronic records. These electronic records need continuous management to ensure all dividend and interest payments are received. Both the client base and the range of assets that custodians deal with have also evolved in recent years.

Custodians' client base has broadened from being traditional fund managers and the trading arms of investment banks to encompass hedge funds, alternative asset management firms and the family offices of high-net worth individuals. The assets custodians look after have also expanded range from cash and shares to derivatives, real estate and digital assets such as crypto-currencies. The services provided by big global custodians – State Street, Northern Trust, BNY Mellon, JPMorgan, Citi and others – have evolved with the changing needs of their clients. As the custodian industry moves to a more digital footing, the big custodians are trying to provide extra services to clients beyond the core business of simply settling trades.

What extra services are these? Custodians were traditionally seen as providers of "back-office" solutions and while that's still the case they have also moved towards the "middle-office," offering services that go beyond settlement of transactions and into areas like regulatory performance measurement or compliance and risk monitoring.

The result is that jobs in custody today vary between data-driven processing and administration roles and more client-facing jobs where you will deal with the needs of clients.

Brian Allis, a Senior Vice President at State Street, said that "at its heart, securities services is a client facing industry. Client facing roles in custody go beyond traditional sales, relationship management and client service. Roles in product, operations, network management and technology are often client facing. The traditional role of custody provider has transformed over the last three decades from focusing on safekeeping to covering the entire investment life cycle."

## What jobs are there in financial custody?

When you work in custody you'll be fundamentally working in operations, the engine room for processing client activities. Operations is also known as the back office. Junior jobs in global custody have historically been very process-driven but that is changing, with the most repetitive tasks becoming automated.

"The main job of the custodian is to take away all of the administration and processing work that their fund management clients don't want to do," said James Manders, managing director of CassonX, a leading recruitment firm for middle and back-office operations jobs. Custody covers a broad range of activities but jobs fall into three categories – trade life cycles, fund accounting and administration and distribution processing.

## Trade life cycle jobs

These are the classic bread-and-butter roles in custody. They include jobs in trade settlement and confirmation, transaction reporting and asset servicing. Asset servicing covers corporate actions, which includes proxy processing, securities borrowing and lending and the transfer of shares related to corporate spin-offs or acquisitions.

## Fund accounting and administration jobs

The core of global custody jobs focuses on the accounting and administration of client funds in key global custody centers such as Ireland and Luxembourg. Here, the custodian will ensure all income is received into the fund and that the net asset value (NAV) is correctly computed with the appropriate frequency, often daily. Global custodians may also be responsible for ensuring the smooth delivery of additional securities added to the fund and for reconciliations, making sure there are no discrepancies in trading.

## Distribution processing jobs

Distribution processing covers client servicing, performance production and client reporting. This area is the most client facing of all custody roles as it involves dealing with the day-to-day information needs of clients. With custodians now looking after the entire life cycle of an asset, State Street's Allis says client service roles have expanded to match this increased solution set. "Staff in these functions now have an unprecedented opportunity to be involved in every stage of the investment life cycle throughout their career, if they have a curious mindset and an appetite for a steep learning curve. Once they have built their knowledge, they become a critical interface between the client and the provider."

## Prime services jobs

For most large custodians, prime services will make up a significant proportion of the business. Prime services involves providing advice and assistance to hedge fund clients. Within prime services there will be business analysts, assisting the client and introducing appropriate securities services, all with the ultimate aim of improving profitability for the hedge fund.

## How custody jobs are changing

Jobs in custody can also be split by functional area rather than high level job categories. These functional areas include client relationship management and sales (e.g. helping to prepare Requests For Proposal (RFP) for prospective clients), product development, delivery, and technology.

What's common across each of these areas i data and technology. "Data collection, storage and analysis will become the basis for all future service offerings and business models. Technology is changing to support this paradigm shift, as a result investment service providers are increasingly becoming their clients' investment data custodian. This requires client service staff to become familiar with the processes to source, curate, and analysis data across the entire investment cycle, including custody, for the benefit of their clients seeking operational alpha," Allis explained.

This is having a big impact on custody jobs and the skillsets custodians require. "The digitization of custody is enabling a far more focused view on value add and differentiated services that are dependent on people to execute. Staff need to be engaged in the end-to-end business process and move away from the traditional functionalized view of custody," Allis added.

"Custody has continued to evolve into a technology-first business," Melíosa O'Caoimh, head of Northern Trust in Ireland, explained. "As a result, our hiring practices and the talent we recruit has changed to keep pace with innovation. That innovation also requires us to consider graduates and talent from different backgrounds and offer career paths through the organization that may cross through a number of different related areas and even include an exchange program – for example to our India business, and vice versa."

Innovation in areas like cryptocurrency and blockchain, along with the automation and digitization of custody processes, is changing the landscape, O'Caoimh said. "This creates different career paths and opportunities for people across our organization, whether they are looking to expand a range of skills or specialize in a particular area. I don't think there's ever been a more exciting time to be part of a custodian and fund administrator – the pace of change has been accelerated through the pandemic and we continue to see evolutions in AI and machine learning enabling us to expand roles in other advancing areas."

Data has become the tool by which custodians can offer higher value services to their clients, and that is redefining many jobs in the sector. "Roles are becoming increasing dependent on solution engineering and data analytics, being able to understand how to translate a clients operating model to a target state operating model and articulating the benefit of the transition is now at the heart of what we do," Allis concluded.

## What to expect in custody when you start as a graduate

If you start your career in custody as a graduate trainee, you may find yourself on a "rotational training program." These allow graduates to gain experience in a number of different areas over a four- or five-year period, and then specialize later on.

"We've run a successful graduate program on a global basis for a number of years and graduates are given the opportunity to work alongside industry specialists to gain first-hand experience in the different areas of our global securities services business," said Bryan Murphy, global head of financial institutions CSM, treasury and trade solutions, at Citi.

Candidates with technical skills and experience in global custody are highly sought after, as are those with subject material expertise (SME) in individual products such as derivatives. "Successful candidates typically have a broad understanding of global capital markets. They also need to demonstrate the ability to apply this knowledge to join the dots between the broader macro and operating environment and client requirements and solutions," Murphy explained.

Meanwhile, Northern Trust recruits candidates from a wide variety of backgrounds, including business and accounting, but also areas such as engineering, hospitality or retail. "Successful candidates are usually positive, resilient, with attention to detail who are open to continuing their professional development with Northern Trust through the various in-house training and support networks provided," added O'Caoimh.

## Career progression in the custody industry

Like banks, global custodians often use the job titles of analyst, associate, Vice President (VP) and Managing Director (MD) to signify different levels in the hierarchy. You'll start out as an analyst looking at ways of creating solutions for products "from a technical perspective." As an associate, you'll have a broader remit and will look at the solution in terms of market practice and servicing the client with roles such as a client operations specialist.

As a VP, you'll work across different products and will prioritize each one based on client requirements, and as an MD you'll be responsible for making sure a solution gets implemented by working with all different parts of the business to coordinate the product's development and launch.

## Education and qualifications for custody jobs

Educational requirements for custody jobs are similar to operations roles in investment banking contexts, even though the day-to-day activity is very different. For that reason, no degree is really strictly needed, although it won't hurt to have a finance or business-related background. When we analyzed custody analysts at State Street, we found that finance and law were the most popular degree choices, although the pool of graduate hires by degree subjects was varied.

If you're in the UK, the Investment Operations Certificate (IOC) from CISI might be useful, as might the diploma in Investment Operations (DIO), from the same organization. Manders also recommends the Investment Management Certificate (IMC) an entry-level qualification that provides a strong foundation for a career in the investment industry.

## Pay in global custody jobs

Jobs in custody aren't as well paid as directly revenue-generating roles such as sales & trading or investment banking, which pay higher bonuses related to performance, but they offer greater job security and much more reasonable working hours.
"It's very structured, very corporate, and safe as houses," Manders said. "If you're looking for more variety and want to provide a bespoke service to clients, there are a growing number of small and medium-sized custodians outside of the global heavyweight."

Big banks have outsourced their custody businesses to cheaper regional hubs outside of big cities, and salaries can vary considerably depending on location. As a typical rule of thumb, a graduate in London can earn between $30k and $45k if they work in a trade life cycle or fund administration role, while in distribution that could rise to between $40k and $50k.

# Day in the life: Akhila Chaganti, Associate, Deutsche Bank Singapore

**Akhila Chaganti is an Associate in the Product Management team for Securities Services in the Corporate Bank at Deutsche Bank Singapore. She graduated from the National University of Singapore with a major in Economics in 2020 and joined Deutsche Bank's Graduate Programme a few months later. This is what a typical day looks like for her.**

7am. I wake up early but not too early and try to reflect and do a bit of journaling before I get out of bed. I usually leave for the office around 8.45am, so the mornings aren't too rushed.

9.15am. I arrive in the office and my working day begins. I'm a generalist in Product Management and I help build new products and enhance existing products for our large Securities Services client base. My role spans everything from product governance (making sure we are aware of the risks and have controls applied to our products) to meeting with the digital and data partners. We're usually working on a few new products and technology integration projects simultaneously.

9.30am. I have an ad-hoc catch-up with some of my team. I help look after product governance and approvals for Asia Pacific and the Middle East. Whilst assembling a new product approval request, I ensure that it covers the scope of what we're offering to clients and that it' has the necessary approvals. For example, right now we're working on a platform enhancement. Part of my role is all about ensuring that the changes are captured properly and that governance procedures are applied.

10.30am. I also work on marketing communications for the team, so that our salespeople know how our products are evolving. I spend an hour working on a piece of communication about product updates with my colleagues in the regions – India, China and ASEAN for example.

11.30am. I'm onboarding a new application and ensuring that all the legal agreements have been signed. For this, I need inputs from our legal team, technology team and our governance team.

12.30pm. I usually take 45 minutes or so for lunch, although when there are team lunches we'll take an hour plus. Sometimes I'll bring food from home and I'll eat in the pantry in the office. This is a really nice room with a kitchen and a seating area. Other times, we'll go out. The office is well located for Lau Pa Sat, which is one of the oldest hawker centres and has some of the best food in Singapore.

1.15pm. I'm working on a presentation that I'm making to a client later in the day.

2pm. While my mornings are spent meeting colleagues in the APAC region, my afternoons are more often spent in conversations with our API leads and colleagues across other regions. It's always good to get an update about what they're working on.

3pm. I have a meeting with a client. With some clients I will have a weekly or biweekly catch-up so that we can look at how products are evolving, how testing is proceeding and whether there are any potential roadblocks.

4pm. I'm talking to our external vendors or internal developers for a few demos of the new platform. I want to understand whether we have the right product approvals, the status of production testing and when it can go live.

5pm. I have a meeting with colleagues in other regions such as Europe.

6pm. I spent some more time working on new product requests and preparing communications about products we plan to launch in the next week.

7pm. I'll also work on a client deck or have a meeting with clients or work on a few trackers and updates for the team.

7.30pm. I usually end my day between 7.30 and 8pm and am back home at around 8.30pm. I'll have some dinner and do some journaling or some dancing – I like to do a 15-20 minute high intensity dance workout from YouTube and if I don't do that I'll have a walk around the block. Then I'll come back and have a shower and read my book, although I also procrastinate a lot and end up looking at my phone and emails!

On Friday evenings, I'll sometimes go out with the team from work. We try our best to organize a fun event every quarter if not we usually go out to get an ice cream or some food together.

# How to get a job in fintech in 2024

Author: Alex McMurray

**Prestige**
6

**Pay**
6

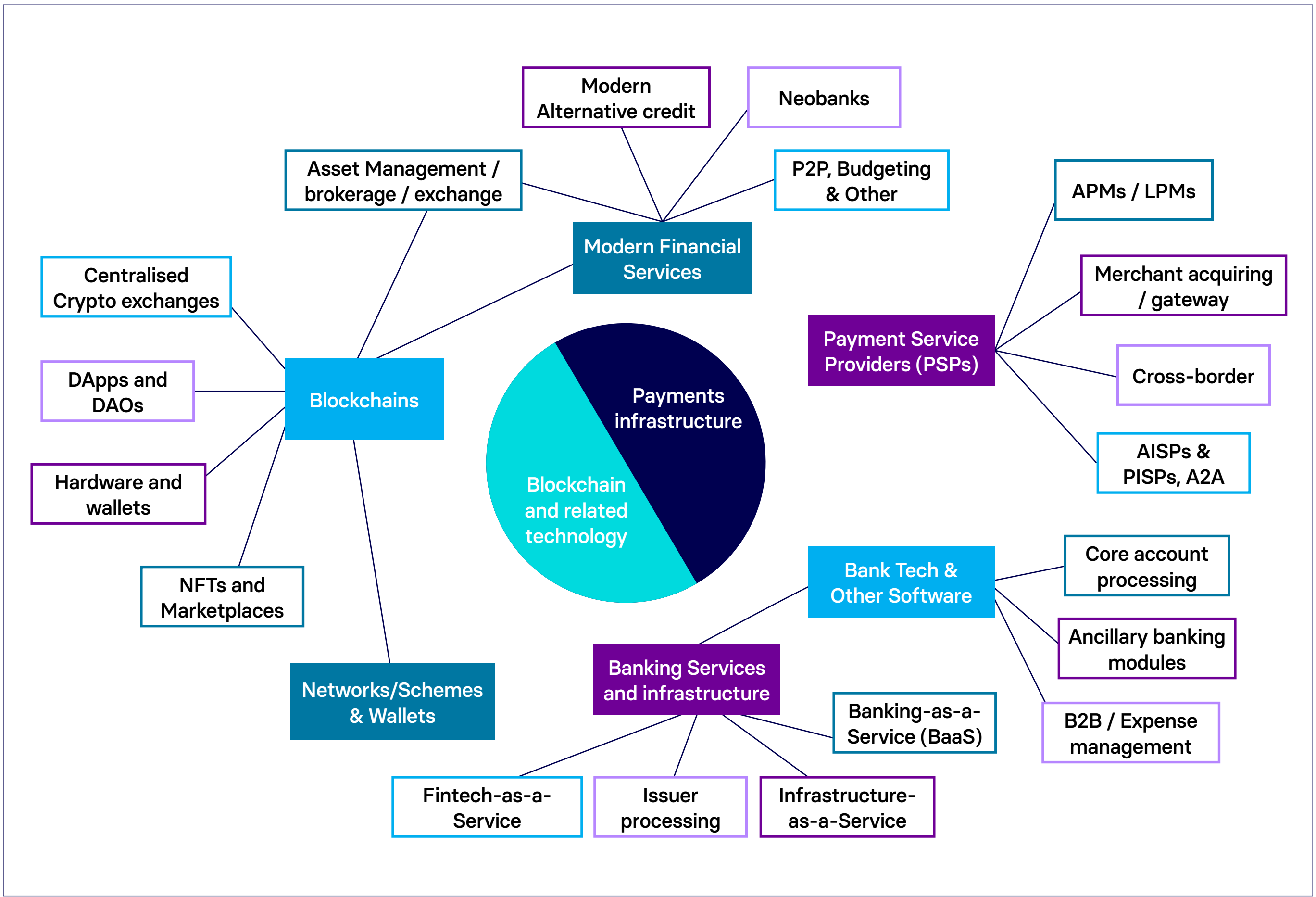
**Grind**
5

**Competitiveness**
6

- Fintechs might seem to exist at the intersection of finance and technology, but they're more like technology companies that operate in finance.
- Most but not all fintech firms are focused on payments.
- If you're interested in a fintech job, you'll probably need to be a technologist first and a financier second.
- Working for a fintech can be very lucrative, especially if you're given stock and are subsequently given a chance to sell it for a far higher price.

## Payments, FinTech and Blockchain landscape

*Source: Credit Suisse*



## What do fintech jobs involve?

So you want a job in fintech in 2024? Perhaps you're a computer science student looking at alternative career paths, perhaps a finance student in search of something more innovative than banking. No matter who you are, there are things you need to know before you apply.

An understanding of the broad fintech ecosystem, and indeed what 'fintech' actually is, is essential to understanding where your employer of choice operates within it. This is a look at fintech, the kinds of firms out there, what makes jobs in the sector unique, and how much money you can stand to earn from working in fintech.

## What is fintech?

As the name implies, fintech is a combination of finance and technology. While incredibly simple at face value, it becomes more complex the deeper you look. Technology is evident in nearly all functions of finance in 2024, but a fintech can be loosely categorized as a startup (or team within a broader organization) that provides a service or product fundamentally enabled by proprietary technology.

The above diagram from Credit Suisse is as all-encompassing a snapshot as you can get in regards to what kind of fintechs are out there. As you can clearly see, payments is king in the fintech space. That being said, this diagram does not accommodate for more fringe-aspects of the sector such as eCommerce.

A simpler means of categorizing the fintech firms who might hire you is B2B and B2C. The former (Business to Business) provides a service or product, most often technological infrastructure, to another company. The latter (Business to Consumer) provides services directly to the public. The most prominent of these are the various types of digibank, as well as unorthodox loan providers such as those in the Buy Now Pay Later (BNPL) space.

## What's the state of the fintech industry?

Long story short... not great. Not terrible (depending on your sub-sector of choice), but not great. After a mammoth few years for investment, funding rounds were smaller and sparser in 2023. Initial Public Offerings (IPOs) were infrequent even during the sector's heyday; now they are exceedingly so.

That being said, 15 fintechs joined the illustrious Unicorn Club last year by earning a $1bn+ valuation. These came in a variety of subsectors, including payments, AI, blockchain and even the Metaverse. Compared to 2022's 331 new unicorns however... rising stars are in short supply.

2023 was bleak for crypto fanatics. What once was perhaps the most promising career path in all of finance has been relegated to just another part of the broad ecosystem, thanks in no small part to the collapse of FTX and Sam Bankman-Fried's crypto empire. However, fintechs in the industry have been performing well. Coinbase's stock price may have plummetted a little in the new year, but its still worth nearly quadruple its value from the start of 2023.

Buy now pay later (BNPL) was another star-child for fintech as firms like Klarna ballooned in popularity and value, and its future is similarly mixed. The UK is clamping down on its use now, though issues over profitability spelled uncertainty for BNPL even without regulators to worry about. However, multiple of 2023s unicorns were BNPL firms, indicating there may be a future for them after all.

Payments, on the other hand, looks rock solid. UK Finance predicted back in 2022 that "faster payments and other remote banking" will surpass cash payments in volume this year. This hasn't stopped valuations from plummeting in the sector.

## Who are the big players?

The three top locations for fintech unicorns (startups valued above $1bn),  are New York, London and San Francisco. Each is home to a number of the most prominent fintechs operating today. Each have too many to count, but one of London's most prominent fintechs is Revolut. New York has Ramp and San Francisco has Chime.

Many of the biggest fintechs come from outside the major hubs. Stripe, arguably the face of fintech in 2023, has its headquarters in Ireland. NuBank, one of the largest digibanks, is based in Brazil. Rapyd, another payments giant, is based in Israel. Grab is Asia's biggest fintech and is based in Singapore.

There are also a number of older, more established firms that aren't always considered among the fintech ecosystem. They include the likes of Visa, Mastercard, PayPal and, for eCommerce, eBay.

Major financial institutions have psuedo-fintechs as they pursue a number of side projects and products with a technological edge. Nomura has a crypto firm called Laser Digital, and JPMorgan is building a financial AI chatbot called IndexGPT. Digibanks and payments platforms have been the main outlet for them however, with HSBC's Revolut competitor Zing releasing just this year.

## What do fintech jobs involve?

Fintech jobs are fundamentally different to jobs in traditional finance, especially in a startup. While broader job titles are the same, much more is expected of you the lower your headcount is.

Software engineers and product managers (PMs) work on building and maintaining the infrastructure of the firm, as well as developing new products for it to begin selling. Sales and partnerships people look for institutions and clients to utilize their services or help broaden consumer awareness of the fintech.

If you found a fintech, you'll find yourself in an executive role far earlier than you would in traditional finance. While the size of your team may not exceed that of one run by a banking MD (or even some VPs), you're responsibilities will be much broader and could include liasing with venture capitalists, private equity firms and other possible investors in the company.

There are some duties required of all roles in a fintech. The most significant joint effort is making the company appear attractive to investors. "It's not just sales," says Adizah Tejani, a fintech portfolio manager of HSBC's venture capital arm, "it's everyone's job to be an advocate for the company."

Fintech departments also intermingle far more frequently than in banks. Engineers and product managers, for example, may work together much more often than in a bank and may be structurally intertwined.

The chain of seniority can also be far more ambiguous in a fintech. At Revolut, for example, young employees are handed senior leadership roles and allowed to bring their ideas to fruition far quicker than would be possible elsewhere.

As for working culture, it very much depends. Fintechs have a history of being work from home friendly, but there's been a push for a return to the office from major players like Stripe and Checkout.com. Elsewhere, fintechs offer amazing benefits like a four-day working week without sacrificing pay, but the additional workload can take its toll.

Pauline Sim, a member of the Singapore Fintech Association executive committee, says that, in fast-growing fintechs, "certain structures that provide stability for employees [such as HR practices] might not be in place." She warns that some  fintechs prioritize their investments in "growth, scaling and product building" over supporting employees. At Revolut, for example, the culture is a notoriously hardworking one that emphasizes results, leaving many employees ostracized in the past.

In 2024 however, those hypergrowth phases may be fewer and further between. Mike Turner, partner at law firm Latham & Watkins, says "startups now have smaller teams, much more focused teams."

## How to get a fintech job.

It's going to be tough. Nadia Edwards-Dashti, co-founder of fintech recruitment firm Harrington Starr, says there's now "many fishes in the pond," and that applications per job are up 35%. This means that "everyone that is hiring has more choice." Louisa Süsserott, head of talent advisory at VC firm Cherry Ventures, says "talent is still the top priority, but now it's less around the attraction and more about the performance." You need to let them know you have the right mindset, that you can perform.

What is a fintech mindset? Michael Abdul, a London based fintech recruiter at recruitment firm Volition, says it "would be building viable products, prototypes and proof of concepts; you should be trying to innovate." Süsserott says fintech employees must be "highly adaptive" with "great communication skills" and, interestingly, should be "very happy in ambiguous environments."

Working at a big name firm isn't always the same benefit to fintech as it would be in traditional finance, especially if you're moving to a startup from a bank. "People are more interested in what you're building and how new it is rather than the brand name," says Abdul. "Goldman are always building innovative stuff," for example, but are also plagued with legacy tech.

When it comes to education, university brand is key. "I put a lot of value on someone who's gone to a Russell Group in computer science over someone else," Abdul says.

As for your personal life, Abdul says, "Companies heavily love people that love tech, that do side projects and are passionate about it." They also love "hackathons and competitions; if I'm sending a CV over, and they have an active GitHub, I will include it"

Passing the interview is another matter, however, and each fintech operates differently. Scott Dawson, head of sales and strategic partnerships at payments fintech DECTA, emphasizes the personal aspect for interviews in his firm.

"You can learn payments; you can't learn to be a decent human being," Dawson says. In his interviews, he likes "having a very candid discussion," and to "avoid a list of questions." Dawson says a successful interview is when he "understands their experiences, but [is] interested in their potential."

Don't be afraid to ask questions. Dawson says a successful candidate has the "X Factor... they could be given an idea, and they could develop it, then come back with a question for me." Dawson says this helps him understand that he "could teach them what they need to be taught."

Some fintechs also offer student schemes, like NextGen from Adyen in Europe and Supernova from OKX in Hong Kong and Singapore. However, amid widespread cuts in the industry, many fintechs are shifting focus to more senior employees, making these roles rarer in 2023.

Fintechs with university recruitment teams include:

- Square
- Grab
- Wise

Fintechs with Graduate programs include:

- Revolut
- OKX
- Adyen

## What qualifications do you need for a job in fintech?

Fintech encompasses such a wide range of roles that your choice of course is largely dependent on the function you hope to work in. Software engineers should probably do computer science, finance staff should study finance or accounting. You get the gist.
But fintech, more than most sectors of finance, is often looking for generalists, people who can do a little bit of everything. Its hard to do that without wider business knowledge of the fintech ecosystem.

Luckily, there are a variety of courses, that we've looked at here. Oxford and Harvard both do a paid programs, while MIT and Copenhagen Business School offer free educational resources. These are often used by employees in TradFi looking to transition into fintech, but it wouldn't hurt to get a lay of the land even earlier in your career.

## How much do fintech jobs pay?

Depending on where you work, fintechs can be a gold mine. The biggest fintechs vary massively in pay and smaller ones have just as much variety.

Stripe has been well regarded as the top payer for fintech historically, but Plaid is particularly noteworthy for early stage fintech employees. An entry-level Plaid engineer earns $220k on average, while Stripe's average pay for its most senior engineers is a massive $940.7. Klarna has the opposite reputation. Pay is rather underwhelming at the BNPL unicorn, with entry level engineers making, on average, $77k.

Our list of the top global fintechs gives a rough expectation of pay at 50 of the top fintechs worldwide, but the compensation number is just one part of the story.

The USP of fintech pay is stock payments, usually in the form of restricted stock units (RSUs). $80k of Stripe's entry level engineer pay consists of RSUs, according to Levels, and it only gets larger as seniority grows. Owning stock seems a big positive, an opportunity to grow your income as the company grows, but as previously mentioned, IPOs are an increasingly rare occurrence.

Fintech pay is sometimes great, sometimes bad, often decent. Do your due diligence on each firm you are interested in working at and ask yourself if the culture makes up for the pay, or vice versa.
Good luck.

### Average total compensation and RSU rewards by fintech size

| Fintech firm size | Average compensation | Average RSU |
|---|---|---|
| 0-10 | $103,427 | $43,225 |
| 11-20 | $89,232 | $47,847 |
| 21-50 | $89,529 | $15,702 |
| 51-75 | $103,420 | $92,627 |
| 76-100 | $88,083 | $41,333 |
| 101-200 | $141,981 | $44,417 |
| 200+ | $130,256 | $35,697 |

# Day in the life: Matthew Low, Director of Product, Bolt, San Francisco

**Matthew Low is a Director of Product at Bolt, a San Francisco checkout technology and payments fintech, working remotely out of Toronto, Ontario, Canada. He leads the core product team, which includes its checkout, payments, risk and data products. Low also worked on product in the crypto industry with Kraken, and spent much of his earlier career as a corporate attorney.**

6:00am. I'm usually up by now, with a young family at home. I work on my first cup of coffee and catch up on Slack messages, emails and industry news before the kids' morning routine and drop off.

8:00am. Remote work has been a big plus in balancing both my work and personal life. I've been able to carve out more time for deep work/planning, and can work as early or as late as required. Bolt's tech teams are focused more on outcomes and writing than talking and facetime.

9:00am. I'm an early riser and a big believer in 'eating the frog', so my mornings are usually dedicated to the biggest, hardest and most important tasks. I'll dedicate most of my mornings to work related to planning, product strategy and development.

11:00am. A number of my coworkers are on the West Coast, so I'll usually pick up with the team over stand-ups or individually on 1:1s in the late morning and afternoon. Product engineering and design are connected at the hip, and we're always communicating about immediate term issues and long-term product vision. Product is a multi-faceted role, so we also collaborate with Go-To-Market, operations, sales and other teams.

Without an in-office culture, working remotely requires communication to be direct, succinct and deliberate, whether on async channels like Slack or live via Zoom. It gives some separation from groupthink and allows more time for introspection over those communications.

12:00pm. Given how distributed our team is across time zones, I'll graze through most of the day and have lighter working meals in the morning and afternoon between meetings.

2:00pm. Generally, my afternoons are spent addressing follow-up or open items in my product suite. I typically use this time to focus on more tactical deliverables and the meat and potatoes of leading a product team. As a director of product, I'm like a player-coach. I still get my hands dirty in leading our payments business, but I often have to zoom out and think more deeply about how our core products fit into Bolt's broader vision.

I also spend a lot more time mentoring

product managers, running product reviews and acting as a sounding board for our product team while they make tough product calls. Like in my early-career, these product managers are much more 'in the weeds', focusing more deeply on a specific features' strategy and measuring its success in the finer details of its execution.

**4:00pm** I usually carve out about an hour in the afternoons for school pick up, allowing me to get away from my screen and spend some uninterrupted time with family before I wind up my day.

**7:00pm** Finishing time varies somewhat from day to day, but I usually call it quits by 7pm. I end my days by clearing out my inbox and slack queue, then doubling back on any work that needs another review cycle.

**7:15pm** One of the great benefits of being remote is the time saved from commuting. Since I work in my home office, I'll usually head upstairs to either help with dinner, play, or read children's books on repeat. We'll sometimes go outside to run around in the park before dark, and I'll usually get a Peloton ride in. After catching up on financial markets and getting some quality time with my wife, I hit the sack by 10.

# The eFinancialCareers financial services glossary

If you want to work in banking, you have to talk like a banker. That means learning jargon, technical terms, and slang. You'll pick up a lot of it on the job, especially the more technical terms, but you'll do a lot better in an interview if you show some insight and initiatives. Here are some things you'll definitely want to know:

**Advisory:** Part of the Investment Banking Division. Similar to M&A, but with slightly more emphasis on providing advice and less on providing finance. Often the main or only business line of specialised boutiques.

**Analyst:** The most junior rank in a bank. At this point, you're basically on a graduate program – expect to break out to associate by your second or third year.

**Associate:** The second most junior rank in a bank. Associates are either promoted from the analyst program or recruited directly from a business school's MBA program.

**Back office:** The staff who are responsible for settlement, administrative tasks, and maintaining IT systems. Some back office jobs, particularly in IT development, can be very well paid, but in general they do not earn as much as the front office.

**Bank:** As a general definition, a corporation that takes customer (individuals and other corporates) deposits and lends the money in its custody to other customers. In an investment banking context, it's any institution which provides investment banking services – which includes, for instance, boutique banks, that do not take customer deposits (and are therefore not really banks at all).

**Bloomberg:** A company that specializes in market intelligence. Its best-known product is the Bloomberg Terminal, a computer program that allows access to information (such as pricing) on pretty much any financial instrument you could possibly imagine. Also known for its news service (Bloomberg News).

**Bond:** A loan to a government or company that has been split up to be traded on the market. Bonds are made up of small payments throughout its life (coupons) plus the final, full payment on the value (principal). To give an example: the US government borrows $100m for ten years. That loan is split into a million $100 bonds. Those bonds all pay a small coupon until the ten years are up, at which point the government pays back the $100 on each bond. These are the bread and butter of a Debt Capital Markets (DCM) team.

**Boutique:** A small, independent investment bank that offers a range of services usually limited to M&A advisory or restructuring.

**Brokerage:** A company which matches buyers and sellers of securities, making money either out of charging a percentage commission, or out of the spread.

**Buy side:** These are investment firms that acquire corporations or bonds as part of their regular business. Includes private equity firms, hedge funds, and asset managers, among others. Contrasted with the "sell-side", which is only involved in investment banking business.

**Capital Markets:** The part of the Investment Banking Division which is responsible for helping corporate clients to raise money from the bond and equity (capital) markets. Capital markets bankers need to gather feedback from investors, decide on the price of securities and liaise with Sales & Trading to get the securities sold.

**Cash market:** As opposed to “derivatives market”, the market in which “underlying” securities are bought and sold rather than derivative claims on them. Not to be confused with “money market”.

**Compliance:** The middle office team responsible for ensuring that other parts of the bank comply with all relevant laws and regulations. Compliance officers are responsible for arranging training, monitoring activity, and providing advice to employees.

**Corporate finance:** The team in a corporation that deals with finance. This means day-to-day budgeting and accounting, as well as liaising with investment banks to both raise capital and assist/execute a merger or acquisition.

**Coverage:** A team in an investment bank specializing in a particular sector (such as technology or healthcare). These teams often work across both advisory and capital markets.

**Credit:** In FICC divisions, “credit” refers to fixed income products other than government bonds and money market instruments, where the credit risk of the issuer is a major driver of the value of the security.

**DCM:** Debt Capital Markets.

**Derivatives:** Contracts between two parties which agree to exchange amounts of money based on something else. Most often, the “something else” (known as “the underlying”) is a securities price, so you have “equity derivatives” based on share prices and “rates derivatives” based on interest rates. This isn’t necessarily the case, though; there are “weather derivatives” which pay out based on average temperature or rainfall, and “credit derivatives” which pay out when a company defaults.

**Director:** The rank between Vice President and Managing Director. Directors will generally have significant management responsibility or be expected to look after clients of their own.

**Distribution:** The final stage of a capital markets transaction, coming after underwriting. This is the stage in which the securities are sold to investors.

**ECM:** Equity Capital Markets.

**Equities:** Shares; securities which represent part-ownership in a company. In an investment bank, the word on its own refers to part of the Sales & Trading division, which will generally trade equity derivatives as well as cash equities, and may include the Research and Prime Brokerage operations as well.

**Execution:** The activity of actually making a transaction happen once it has been agreed with the client. In Sales & Trading, this means finding a buyer to match the seller (or vice versa) at the best price possible. In IBD, it means carrying out the legal and administrative work to make the deal happen, and potentially conducting meetings to ensure that it has support from investors.

**FICC:** Fixed Income, Currencies and Commodities. One of the two main parts of a Sales & Trading division, and responsible for trading all instruments which aren’t equities or equity derivatives.

**FIG:** Financial Institutions Group, usually one of the largest teams within Investment Banking. FIG teams concentrate on providing capital markets and advisory services to other banks and insurance companies.

**Front office:** Refers to banking staff who either make decisions on applying the firm’s capital or have direct contact with clients. Front office jobs are usually (but not always) best paid, and often require regulatory authorization.

**Hedge Fund:** An investment fund marketed only to other institutional investors and very rich individuals. Hedge funds typically charge higher fees than retail mutual funds and have fewer restrictions on their investment strategies.

**Institutional investor:** A pension fund, mutual fund, hedge fund or sovereign wealth fund, investing in securities. The normal client of a Sales & Trading desk.

**Investment Banking Division:** Also known as IBD, this is one of the two main divisions in an investment bank. As opposed to Sales & Trading, IBD is concerned with providing financial solutions to issuers of securities rather than to investors. It is often further divided into Capital Markets and M&A Advisory. Note that "investment banking" is also often used as a generic term including Sales & Trading, so it's important to understand which sense someone is using it in.

**IPO:** An Initial Public Offering. The sale for the first time of a company's shares to the general public on a stock exchange. IPOs are run by the Equity Capital Markets team in an investment bank, and they can be extremely profitable transactions.

**M&A:** Mergers and Acquisitions. Bankers working in Investment Banking Division who provide advice to companies on taking over and buying other companies, either on an agreed or a hostile basis. This includes strategic advice on the actual deal, advice on the valuation of targets and arranging financing.

**MD:** Managing Director, almost always the most senior regular rank in an investment bank. MDs are generally expected to be able to originate deals and generate revenue for their bank.

**Middle office:** Generally refers to better-paid and more senior back office roles. Compliance and Risk Management staff would be considered middle office, as would senior prime brokerage staff who had contact with clients as well as managing admin tasks.

**Money market:** The market for short term fixed income securities, used by banks and industrial companies to smooth out differences in the timing of their incoming and outgoing payments.

**Origination:** In investment banking generally and particularly in capital markets, the process of persuading a client to carry out a transaction with your bank.

**Primary / Secondary:** The first time securities are sold to the public, this is the "primary" market. Trading in them afterwards is "secondary". The distinction roughly matches that between Capital Markets and Sales & Trading internally within banks. If a company sells shares without raising new capital (for example, because the founder wants to reduce their stake) this is also called a "secondary" issue.

**Prime brokerage:** Not to be confused with "Brokerage". Prime brokerage teams provide services to hedge funds, such as looking after their settlement and back office functions and providing financing to them.

**Private equity:** Investment funds which buy whole companies or large ownership stakes in specifically negotiated deals rather than shares quoted on a stock exchange. The term includes "venture capital (VC)", which is focused on new companies and startups) and "financial sponsors" or "leveraged buyout (LBO) firms", which is focused on taking over existing companies to be sold later on for a profit.

**Quant:** Short for "quantitative", this refers to a specialist in applied mathematics working on securities practices. There are "front office quants", who aim to design profitable trading systems, "middle office quants" who design systems for efficient execution of trades and "risk management quants" who measure probabilities of loss.

**Rates:** In FICC divisions, "rates" is the opposite of "credit" – it refers to bonds and derivatives where the value is driven by expectations about interest rates and credit risk can largely be ignored.

**Research:** The teams in Sales & Trading responsible for valuing securities and issuing recommendations to investors as to whether to buy or sell them. As well as company experts, research divisions will usually employ economic forecasters and "strategists" who attempt to forecast bond and equity markets as a whole.

**Risk Management:** The division responsible for measuring the bank's exposure to risks based on the securities it holds and the loans it has extended and setting limits on them.

**Sales and Trading:** One side of the most important divide in an investment bank. S&T divisions, sometimes called "Global Markets", deal with brokerage activities. Research divisions are generally within Sales & Trading, as is prime brokerage. Sales & Trading is generally further divided into Equities and FICC.

**Securities:** Tradeable claims on future payments. Shares (equities), bonds (fixed income) or derivatives.

**Securitization:** The process of buying a large number of smaller loans (mortgages or credit card debts, for example) and bundling them into a Special Purpose Vehicle which then issues bonds to the public, effectively transforming the loans into securities.

**Sell side:** People who work at investment banks, speaking to clients on the buy side.

**Settlement:** The activity of making sure that records are updated, and payments are sent to the right place after a securities transaction has been carried out.

**SPAC:** A Special Purpose Acquisition Company. Carries out an IPO despite having no actual business, to raise cash in order to acquire an existing company. A technique often used by financial sponsors as a way to get a stock market listing, SPAC teams cross the boundary between Capital Markets and M&A.

**SPV:** A Special Purpose Vehicle. A "brass plate" company formed by a bank in order to be the legal owner of some assets. An SPV generally has no staff or operations of its own. SPVs are a key building block in Structuring and in Securitization

**Spread:** The difference between the price quoted by a brokerage to buy securities (the bid) and the price quoted to sell the same securities (the ask). Buying at the bid and selling at the ask is how brokerages make money. The word "spread" can also refer to the difference between two interest rates.

**Structuring:** Designing complex securities (usually involving derivatives) to achieve particular goals for either the investor or the issuer – these can include specific tax treatment, particular mixtures of risk and reward, or the bundling up of small loans into a larger security which can be publicly traded. This activity crosses the divide between Investment Banking and Sales & Trading and might be found on either side depending on how a bank is organized.

**Syndicate:** A specialist team within Capital Markets which handles communication and relationships with other banks in transactions which involve a large number of investment banks – usually to fund a large bond issuance or stock offering.

**Underwriting:** The practice of buying securities from the issuer, then distributing them to the public. During an underwriting, the bank is at risk because it is holding the securities and so is exposed to movements in their value; it takes a fee to compensate for this. Underwriting is one of the activities managed by Capital Markets teams.

**VP:** Vice President, the rank above Associate and below Director. VPs usually have five to seven years' experience and are the most junior of the management roles.

# Directory

## Banks

| | |
|---|---|
| Asian Infrastructure Investment Bank | https://www.aiib.org/en/opportunities/career/job-vacancies/internship/index.html |
| Banco Santander S.A. Filiale Frankfurt | https://www.santander.com/en/careers |
| Bank of America | https://campus.bankofamerica.com/opportunities.html |
| Barclays | https://search.jobs.barclays/graduates |
| BNP Paribas | https://careers.bnpparibas.co.uk/early-careers/graduates/ |
| Centerview Partners | https://www.centerviewpartners.com/careers.aspx |
| Citigroup | https://careers.citigroup.com/students-and-graduates/ |
| Credit Agricole | https://www.credit-agricole.com/en/candidate |
| Credit Suisse | https://www.credit-suisse.com/careers/en/students.html |
| DBS | https://www.dbs.com/careers/internships/university |
| Deutsche Bank | https://careers.db.com/students-graduates/#/graduate/ |
| Evercore | https://www.evercore.com/careers/students-graduates/ |
| Goldman Sachs | https://www.goldmansachs.com/careers/students/ |
| Greenhill & Co | https://www.greenhill.com/en/careers/analysts |
| Guggenheim | https://www.guggenheimpartners.com/firm/careers |
| HSBC | Students and graduates \| HSBC Holdings plc |
| ING | https://www.ing.jobs/luxembourg-en/graduates-programme.htm |
| JP Morgan | https://careers.jpmorgan.com/us/en/students?search=&tags=location__EuropeMiddleEastandAfrica__UnitedKingdom |
| Macquarie | https://www.macquarie.com/uk/en/careers/graduates-and-interns.html |
| Moelis & Co | https://moelis.wd1.myworkdayjobs.com/University-Hires |
| Morgan Stanley | https://www.morganstanley.com/people-opportunities/students-graduates |
| Perella Weinberg Partner | https://pwpartners.com/careers/intern-graduate-recruitment/ |
| PJT Partners | https://www.pjtpartners.com/Students |
| Reichmuth & Co.Privatbankiers | https://www.reichmuthco.ch/en/private-clients/reichmuth-co/career/ |
| RW Baird | https://bairdcareers.com/ |
| Societe Generale | https://careers.societegenerale.com/en/students-graduates |
| Standard Chartered | https://www.sc.com/en/global-careers/early-careers/ |
| UBS | https://www.ubs.com/global/en/careers/recent-graduates.html |
| Wells Fargo | https://www.wellsfargojobs.com/en/early-careers/ |

## Hedge Funds

| | |
|---|---|
| AQR | https://www.aqr.com/About-Us/For-Students |
| BAM | https://www.bamfunds.com/careers/campus-recruiting |

| | |
|---|---|
| Brevan Howard | https://www.brevanhoward.com/careers/ |
| Citadel | https://www.citadel.com/careers/open-positions/positions-for-students/ |
| DE Shaw | https://www.deshaw.com/careers/internships |
| Farallon | https://www.faralloncapital.com/careers |
| Man Group | https://www.man.com/students-and-graduates |
| Marshall Wace | https://www.mwam.com/join-us/graduates/ |
| Millennium Management | https://www.mlp.com/careers/students/ |
| Point72 | https://point72.com/students-early-career/ |
| The Children's Investment Fund Management | https://careers.ciff.org/ |
| Two Sigma | https://www.twosigma.com/careers/internships/ |

## Private Equity

| | |
|---|---|
| 3i Group | https://www.3i.com/careers/why-join-3i/# |
| Abris Capital Partners | https://abris-capital.com/summer-internship/ |
| Advent International | https://www.adventinternational.com/global-reach/talent/ |
| Alpha Group | https://www.alphape.com/contact |
| Altor Equity Partners | https://altor.com/careers |
| Apax Partners | https://www.apax.com/people/careers/ |
| Ardian | https://www.ardian.com/join-us |
| Astorg | https://www.astorg.com/contact |
| Bain Capital | https://www.baincapital.com/news |
| BC Partners | https://www.bcpartners.com/contact |
| Bowmark Capital | https://www.bowmark.com/contact |
| Bridgepoint | https://www.bridgepoint.eu/about-us/joining-the-team |
| Capvis | https://www.capvis.com/en/jobs.html |
| Castik Capital | https://www.castik.com/career |
| CEE Equity Partners | http://cee-equity.com/contact/ |
| Cinven | https://www.cinven.com/media/media-contacts/ |
| CVC Capital Partners | https://www.cvc.com/about/working-at-cvc/ |
| Deutsche Beteiligungs AG | https://www.dbag.de/karriere/karriere |
| Enterprise Investors | https://www.ei.com.pl/en/contact/ |
| Epiris | Careers - Epiris |
| EQT Partners | https://eqtgroup.com/about/life-at-eqt/eqt-academy |
| Equistone Partners Europe | https://www.equistonepe.com/contact/london |
| Exponent Private Equity | https://www.exponentpe.com/contact-us |
| F2i Sgr | https://www.f2isgr.it/en/contatti.html |
| HG Capital | https://hgcapital.com/life-at-hg |
| Hitecvision | https://www.hitecvision.com/career/graduates-internships |
| IK Investment Partners | https://ikpartners.com/contact/ |
| Intermediate Capital Group | https://www.icgam.com/people-and-careers/careers/early-careers/ |
| Investindustrial | https://www.investindustrial.com/our-contacts/offices.html |

| | |
|---|---|
| KKR & Co. Inc. | https://boards.greenhouse.io/kkr |
| LDC Private Equity | https://ldc.co.uk/careers/ |
| Livingbridge | https://www.livingbridge.com/get-in-touch/ |
| Lone Star Funds | https://www.lonestarfunds.com/contact-us/ |
| MCI Group | https://careers.mci-group.com/ |
| Mid Europa Partners | https://mideuropa.com/recruitment/ |
| Montagu Private Equity | https://montagu.com/contact/ |
| Neuberger Berman Group LLC | https://nb.wd1.myworkdayjobs.com/nbcareers?q=intern |
| Nordic Capital | https://career.nordiccapital.com/jobs/1750112-internship-stockholmspring-2023 |
| PAI Partners | https://www.paipartners.com/contact-us/ |
| Partners Group | Partners Group AG Jobs |
| Permira | https://www.permira.com/contact-us |
| TDR Capital | https://www.tdrcapital.com/contact/ |
| The Blackstone Group Inc. | https://www.blackstone.com/careers/students/ |
| The Carlyle Group Inc. | https://www.carlyle.com/careers |
| Thoma Bravo | https://www.thomabravo.com/people-culture |
| TPG Capital | https://www.tpg.com/contact-us/ |
| Triton Partners | https://www.triton-partners.com/careers/ |
| Vista Equity Partners | Careers – Vista Equity Partners |
| Vitruvian Partners | https://www.vitruvianpartners.com/contact |
| Warburg Pincus LLC | https://warburgpincus.com/careers/ |

## Asset Management

| | |
|---|---|
| Aegon | https://www.aegon.co.uk/careers.html |
| Affiliated Managers Group | https://www.amg.com/contact-us/ |
| AllianceBernstein | https://www.alliancebernstein.com/corporate/en/careers/students.html |
| ARDIAN Germany GmbH | https://www.ardian.com/join-us |
| Artemis | https://www.artemisfunds.com/en/about-artemis/careers |
| Ashmore | https://www.ashmoregroup.com/en-gb/self-certify?dest=/en-gb/contact-us |
| Avaloq | https://www.avaloq.com/careers |
| Aviva Investors | https://careers.avivainvestors.com/starting-your-career/ |
| Baillie Gifford | https://earlycareers.bailliegifford.com/graduate-programmes/ |
| Barings | https://www.barings.com/en-gb/guest/about/careers |
| Blue Tree Group (IB) | https://bluetreegroup.de/news/ |
| BlueBay Asset Management | https://www.bluebay.com/en-gb/institutional/who-we-are/about-us/ |
| Charles Schwab Corporation | https://jobs.schwabjobs.com/internship-academy |
| Colchester Global Investors | https://colchesterglobal.com/united-kingdom/contact-colchester-global/ |
| Columbia Threadneedle Investments | https://www.columbiathreadneedle.com/en/about-us/?attested&country=global&language=en&investorType=all |
| Dimensional Fund Advisors | https://careers.dimensional.com/ |

| | |
|---|---|
| Dodge & Cox | https://www.dodgeandcox.com/financial-professional/gb/en/about-us/dei.html |
| Eaton Vance | https://global.eatonvance.com/contact.php?RP=contact&asp_role=Investment+Professional&asp_token=723600 |
| Edward Jones Investments | https://careers.edwardjones.com/career-areas/students-and-recent-grads/ |
| Fidelity Investments | https://fidelityinternational.tal.net/vx/lang-en-GB/mobile-0/brand-5/candidate/jobboard/vacancy/1/adv/ |
| Franklin Templeton Investments | https://www.franklintempletoncareers.com/ |
| Genesis Investment Management | https://www.giml.co.uk/contact/ |
| Geode Capital Management | https://www.geodecapital.com/careers |
| Guggenheim Partners | https://www.guggenheimpartners.com/firm/careers |
| Insight Investment | https://www.insightinvestment.com/uk/careers/graduates/ |
| Intermediate Capital Group | https://www.icgam.com/people-and-careers/careers/early-careers/ |
| Invesco Ltd | https://careers.invesco.com/emea/ |
| Investec | https://www.investec.com/en_gb/welcome-to-investec/Careers/graduates.html |
| J.O. Hambro Capital Management | https://www.johcm.com/uk/contact-us/sales |
| Janus Henderson | https://www.janushenderson.com/careers/ |
| Jupiter Asset Management | https://www.jupiteram.com/careers/opportunities/ |
| KKR & Co. Inc. | https://boards.greenhouse.io/kkr |
| Lazar | https://www.lazard.com/careers/students/ |
| Legal & General | https://careers.legalandgeneral.com/future-talent-careers |
| Loomis, Sayles & Company | https://careersloomissayles.com/students/ |
| Lord Abbett | Careers \| Lord Abbett |
| Majedie Asset Management | https://www.majedieinvestments.com/ |
| MassMutual | https://careers.massmutual.com/students |
| MetLife Investment Management | https://jobs.metlife.com/content/Intern/?locale=en_US |
| MFS Investment Management | https://www.mfs.com/en-us/individual-investor/about-mfs/careers.html |
| Mondrian Investment Partners | https://www.mondrian.com/graduate-program/ |
| New York Life Investments | https://jobs.newyorklife.com/go/Investment-Jobs/4451800/ |
| Newton Investment Management | https://www.newtonim.com/global/careers/ |
| Ninety One | https://ninetyone.com/en/united-kingdom/careers?ipnl=Graduates+and+interns&subTab=Graduates+%26+interns |
| Nuveen | https://careers.tiaa.org/nuveen/global/en/home |
| Pantheon Ventures | https://www.pantheon.com/careers/ |
| Record Currency Management | https://recordfg.com/careers/ |
| Rothesay Life plc | https://www.rothesay.com/about-us/working-here/careers/ |

| | |
|---|---|
| Royal London Asset Management | https://www.rlam.com/uk/contact-us/ |
| Russell Investments | https://russellinvestments.com/uk/careers |
| Savills Investment Management | https://careers.savillsim.com/ |
| Schroders | https://www.schroders.com/en/about-us/careers/graduates/ |
| SEI Investments | https://careers.seic.com/global/en/c/students-entry-level-jobs |
| Standard Life Aberdeen | https://www.standardlife.ie/about-us/careers |
| Swiss Life Asset Managers | https://uk.swisslife-am.com/en/home/careers/future-talent.html |
| T. Rowe Price | https://www.troweprice.com/corporate/uk/en/careers.html |
| TCW Group | https://www.tcw.com/Our-Firm/Careers |
| The Vanguard Group | https://www.vanguardjobs.com/students-and-recent-graduates/ |
| Veritas Asset Management | https://www.vamllp.com/contact/ |
| Voya Investments Management | https://www.voya.com/page/internships |
| Walter Scott | https://www.walterscott.com/careers/ |
| Western Asset Management Company | https://careers.westernasset.com/students |
| Winton Group | https://www.winton.com/working-at-winton |

## Cryptocurrency

| | |
|---|---|
| Anchorage Digital | https://www.anchorage.com/careers/ |
| B2C2 | https://www.b2c2.com/team/careers |
| Binance | binance.com/en-GB/careers |
| BlockFills | https://www.blockfills.com/contact/ |
| Bluesky Capital | https://www.blueskycapitalmanagement.com/careers/ |
| Chainanlysis | https://www.chainalysis.com/careers/job-openings/ |
| Ciphertrace | https://ciphertrace.com/jobs/ |
| Coinbase | https://www.coinbase.com/careers |
| Copper | https://copper.co/careers |
| Elliptic | https://apply.workable.com/elliptic/ |
| Elwood | https://boards.greenhouse.io/elwoodtechnologies |
| Eventus | https://www.eventus.com/careers/ |
| Fidelity Digital Assets | https://www.fidelitydigitalassets.com/careers |
| Fireblocks | https://www.fireblocks.com/careers/current-openings/ |
| Galaxy Digital | https://boards.greenhouse.io/galaxydigitalservices |
| Gemini | https://www.gemini.com/internships |
| GSR | https://www.gsr.io/careers/ |
| Inca Digital | https://inca.digital/careers/ |
| Kraken | https://www.kraken.com/en-gb/careers |
| NYDIG | https://nydig.com/ |
| Solidus Labs | https://www.soliduslabs.com/careers |

| | |
|---|---|
| Tagomi (Acquired by Coinbase prime) | https://www.coinbase.com/en-gb/careers |
| Talos | https://talos.com/join-talos/ |
| TRM Labs | https://www.trmlabs.com/careers |
| TSImagine | https://tsimagine.com/about/careers/ |

## Big Four

| | |
|---|---|
| Deloitte | https://www2.deloitte.com/uk/en/careers/programmes.html?icid=top_programmes |
| EY | https://www.ey.com/en_uk/careers/students/programmes/graduates |
| KPMG | https://home.kpmg/xx/en/home/careers/graduates.html |
| PWC | https://www.pwc.co.uk/careers/student-careers.html |