ARCHEGOS, ARCHE-WENT

Case overview

On 26 March 2021, Archegos Capital Management (Archegos), a family office owned by billionaire investor Bill Hwang, collapsed after defaulting on margin calls issued by investment banks including Credit Suisse, Morgan Stanley and Nomura. Prior to its collapse, Archegos had used equity swaps to leverage its exposure to equities, profiting from the bull market in technology stocks since 2013. However, in March 2021, several companies which Archegos had invested in experienced sharp declines in share prices. This triggered margin calls from Archegos' prime brokers. As Archegos was unable to raise sufficient capital to meet margin requirements, it was forced to liquidate its positions in companies such as Viacom CBS, Discovery Inc., and Tencent Music. Due to the nature of equity swaps, the prime brokers which held the underlying shares on behalf of Archegos were forced to liquidate their positions, resulting in large financial losses. It was reported that Hwang lost a total of US$20 billion during the collapse, while the losses suffered by the investment banks amounted to US$10 billion.

The objective of this case study is to facilitate a discussion of issues such as the regulation and oversight of family offices; fit and proper criteria for those in fiduciary and management roles; role of regulatory authorities; Know-Your-Client and risk management practices in banks; and the nature of swaps.

Rags to riches

Professional life – Aggressive Tiger Cub

> "He was the best salesman we had. He introduced us to Korea. No one was focusing on Korea back then and we hired him soon after."
>
> – *Julian Robertson, hedge fund legend*[1]

This case was prepared by Chen Xiao Min, Chloe Menendez, Christian Spenninger, Christopher Mak Jun-Min and Tammy Tan Xin Ning, and edited by Isabella Ow under the supervision of Professor Mak Yuen Teen. The case was developed from published sources solely for class discussion and is not intended to serve as illustrations of effective or ineffective management or governance. The interpretations and perspectives in this case are not necessarily those of the organisations named in the case, or any of their directors or employees.

Sung Kook Hwang, who went by the name of Bill, was a South Korean immigrant who moved to the U.S. as a teenager. He came from humble beginnings – his father was a pastor and his mother was widowed when he was a teenager.[2] Hwang claimed that when he had first arrived in the U.S., he was unable to speak or write in English. It was only while working part-time at a fast food chain that he picked up the language. With grit and determination, he went on to earn an economics degree from the UCLA and an MBA from Carnegie Mellon University.[3]

After graduation in the early 1990s, Hwang worked as an equity salesman in Hyundai Securities Co., Ltd., which was part of Hyundai Group, a Korean conglomerate.[4] During this period, he attracted the attention of hedge fund superstar and billionaire investor Julian Robertson. Robertson is the founder of Tiger Management, a world-renowned hedge fund.[5] Between 1980 and 2000, Tiger Management delivered average annual returns of over 25%, consistently outperforming the U.S. market. Hwang was offered the opportunity to join Tiger Management and became one of Robertson's 'Tiger Cub' protégés.[6]

Many 'Tiger Cubs' later went on to become founders of their own funds and achieve great success in the hedge fund industry.[7] A year after Tiger Management closed its doors in 2000, Hwang founded his own hedge fund, Tiger Asia Management LLC (Tiger Asia). This was done with the support of Robertson, who invested US$23 million in the fund.[8] Based in New York, Tiger Asia subsequently became one of the largest Asia-focused hedge funds, managing assets valued at more than US$5 billion at its peak.[9]

Personal life – Religious and modest

Despite his Wall Street career and unlike other finance high rollers, Hwang is known to live rather modestly. He reportedly lived in a suburban New Jersey home and drove an unassuming Hyundai SUV.[10] Hwang also "wears his Christian faith on his sleeve"[11] and is devoted to his church. Speaking in a video for the Fuller Foundation, Hwang said: "It's not all about money. God certainly has a long-term view. It's really helping a lot of people learn how to invest well and use capitalism to help human society advance."[12]

Motivated by his strong religious beliefs, Hwang was driven to give generously. This was reflected in the activities of the Grace and Mercy Foundation (GMF), a non-profit grant-making organisation he founded in 2006 which was almost entirely funded by him. Hwang has reportedly given US$591 million to GMF, of which over US$500 million was contributed from 2015 to 2018. Most of the money Hwang put into the foundation came in the form of blue-chip growth stocks such as shares in Netflix, Amazon, and Facebook. Public records of the GMF disclose that it has distributed US$79 million to theological seminaries, Christian humanitarian charities and other religious-affiliated institutions and non-profits from 2007 to 2018, with payments growing in size in recent years.[13,14]

Trouble with the law

> "Hwang today learned the painful lesson that illegal offshore trading is not off limits from U.S. law enforcement…"
>
> – *Robert Khuzami, U.S. SEC enforcement director*[15]

Running his own hedge fund was not all smooth sailing for Hwang. The fund's returns were volatile, and Hwang suffered a string of high-profile losses in the late 2000s, having been impacted by the bankruptcy of Lehman Brothers and the breakdown of the proposed merger between Porsche and Volkswagen AG.[16]

In 2012, the U.S. Securities and Exchange Commission (SEC) launched an investigation into Tiger Asia for insider trading in several stocks listed on the Hong Kong Stock Exchange. In a federal court hearing, Hwang pleaded guilty to using information disclosed in confidence by investment banks as part of private placements on at least three occasions to make profitable securities trades. Investment bankers had approached Tiger Asia's head trader, Raymond Y. H. Park to gauge the company's interest in joining a block sale of stock. Although Park agreed to keep the information confidential and not trade on it, Tiger Asia used this confidential information to short shares of Bank of China Ltd and China Construction Bank Corp, making close to US$16 million in illicit profit.[17,18]

As a result, Tiger Asia, Hwang, and Park were forced to pay US$44 million to settle the U.S. SEC's charges. Sanjay Wadhwa, Associate Director of the U.S. SEC's New York Regional Office and Deputy Chief of the Enforcement Division's Market Abuse Unit, said: "Hwang betrayed his duty of confidentiality by trading ahead of the private placements, and betrayed his fiduciary obligations when he defrauded his investors by collecting fees earned from his attempted manipulation scheme."[19] Tiger Asia also forfeited US$16.3 million of gains made from the illegal trades to resolve the criminal case made against it in New Jersey, and the fund was placed on probation for a year.[20] In 2014, it was announced that Tiger Asia and Hwang were banned from trading securities in Hong Kong for four years.[21]

With a tarnished reputation after pleading guilty to insider trading, Hwang decided to return all his outside money,[22] and in 2013, he converted the Tiger Asia fund into a family office to manage his personal wealth, signifying the birth of Archegos Capital Management (Archegos).[23] Hwang started off with around US$200 million of his personal assets, which eventually grew to a staggering US$30 billion at its peak.[24]

Despite the significant amount of assets held by Archegos, it did not show up in regulatory filings which disclose major shareholders of public stocks. This was primarily because family offices are generally outside regulatory scrutiny in the U.S., and most of their information is not made publicly available.[25] Unless they exceed certain thresholds for disclosure based on the size of their stakes in public companies, or they make the decision to reveal their investments, family offices keep their information private.[26]

A spectacular implosion

The week of 22 March 2021 saw Archegos suddenly losing US$20 billion.[27] Over the course of a few days, two stocks that Archegos had significant exposure to – ViacomCBS Inc. (VIAC) and Discovery Inc. (Discovery) – lost over 30% of their value.[28] VIAC's sharp drop in share price came after the company announced a US$1.93 billion sale in common shares and US$1.13 billion in Series A mandatory convertible preferred shares.[29] Meanwhile, Discovery's shares closed down more than 13% after investment bank UBS Group downgraded the stock to 'sell' over its concern about "the ultimate scalability of the service in relation to the decline of the linear business".[30]

The sudden plunge in share prices prompted margin calls from Archegos' banks, requiring the fund to add more collateral to cover its increased exposure on the swaps undertaken on the stocks. Due to the extent of the drop in share prices, Archegos did not have sufficient liquidity to meet the calls,[31] which meant it had little choice but to sell the shares or put itself at risk of a default.[32]

On Thursday, 25 March, meetings were held between Hwang and the banks, during which some banks reportedly appealed to Hwang to sell shares to prevent a default. Hwang, however, requested that the banks delay the sale of shares that underpinned his swap trades and wait for share prices to recover, so as to avoid incurring massive losses. A number of banks – such as Credit Suisse Group AG (Credit Suisse) and Nomura Holdings – were agreeable to this, while others were sceptical that the share prices would bounce back.[33]

The share prices of VIAC and Discovery continued to nosedive. By Friday, 26 March, VIAC and Discovery had fallen by about 50% and 45% respectively for the week.[34] That day, Goldman Sachs Group Inc. (Goldman Sachs) sold over US$10.5 billion of shares in VIAC, Baidu Inc., and others. Morgan Stanley also disposed shares worth US$8 billion, while Deutsche Bank offloaded US$4 billion of shares.[35]

The following week, on 29 March, Archegos released a written statement through a company spokeswoman. The statement said, "This is a challenging time for the family office of Archegos Capital Management, our partners and employees. All plans are being discussed as Mr. Hwang and the team determine the best path forward."[36]

Two days later, on 31 March, the U.S. SEC and the U.K.'s Financial Conduct Authority were reported to have started an examination of the actions of several banks involved with Archegos over their block trades after Archegos failed to meet margin calls.[37] The next day, the U.S. SEC commenced a preliminary investigation into Hwang and the Archegos trades.[38]

A recipe for disaster

Despite managing US$36 billion in invested capital, Archegos was subject to little direct regulatory scrutiny due to its operations as a family office and its usage of certain types of lightly regulated swaps to avoid other reporting rules.[39] These contributed to Hwang's ability to lay low without disclosing his positions to other market participants while amassing.[40]

The nature of swaps

In swap contracts, the value or cash flow of an asset held by one party is swapped with that of the asset held by another party where there is no exchange of principal between both parties. This gives investors exposure to the gains or losses in an underlying asset without them owning it directly. They are traded over the counter and are customisable and adaptable to an investor's needs. Archegos took substantial, concentrated positions in companies and held positions via total return swaps, which are "contracts brokered by Wall Street banks that allow a user to take on the profits and losses of a portfolio of stocks or other assets in exchange for a fee".[41] The off-balance sheet transactions merely required agreement to meet margin calls, instead of full payment of the purchase price.[42] Such financial derivatives allowed Hwang to take extremely outsized positions on limited funds, akin to borrowing from banks. This was evident in Archegos' holdings with Credit Suisse, where only 10% of the total sum borrowed was held as collateral.[43] Capital investment was also extremely low for Archegos as it was able to synthetically increase its exposure to equities using derivative contracts.[44]

The use of swap contracts also allowed Hwang to fly under the radar, even as Archegos allegedly had exposure to over 10% of various companies' shares. Investors that own more than 10% of a public company's shares are considered to be insiders and are subject to greater regulation around disclosures and profits.[45] Through utilising these swap contracts, no transfer of shares occurred – Archegos did not legally own the shares and ownership of the shares remained with the bank. This concealed both Hwang's identity and the size of his positions. Even the banks that financed his investments did not have full visibility of his portfolio.[46]

Under the radar

At its peak, Archegos amassed US$30 billion worth of assets, which would have placed Hwang in the top ranks of the wealthiest investors in the world.[47] However, given Archegos' classification as a family office and the nature of the financial derivatives it took on, it was exempt from certain filings and regulations imposed by the SEC and other regulatory bodies. Notably, Archegos was exempt from filing a form PF, which hedge funds and private-equity firms are required to file in order for regulators to assess the risks posed to the financial system.[48]

Due to the lack of disclosure and the use of swap agreements, the banks Archegos dealt with had limited visibility on the Archegos' leverage. Further, although U.S. rules prevent individual investors from purchasing securities with more than 50% of the money borrowed on margin, this does not apply to hedge funds and family offices. Hwang took advantage of the situation to continuously pile on leverage.[49] Consequently, little was known about Hwang and Archegos until the time of its collapse.

Credit Suisse investigates

Four months after the collapse of Archegos, Credit Suisse – one of its main prime brokers – published a report by law firm Paul, Weiss, Rifkind, Wharton & Garrison LLP (Paul, Weiss) which the bank had commissioned, describing the bank's shortcomings in dealing with the crisis and over-exposure to risk.[50]

Credit Suisse's sneaky link

> "If you come from a Tiger pedigree, it helps convince anyone to do business with you,"
>
> *– A prime broker at an unnamed bank which lost money from the Archegos collapse*[51]

Hwang's relationship with Credit Suisse dated back to his Tiger Asia days. He had been a client of Credit Suisse while managing Tiger Asia and continued using their services after converting his fund into a family office. Despite Hwang's previous charges of insider trading and market manipulation, Credit Suisse did not place any additional scrutiny on Archegos due to Archegos' "strong market performance and self-proclaimed "best in class" infrastructure and compliance". The charges against Hwang were dismissed as one-time events. Although Credit Suisse Compliance initially raised concerns about having Hwang as a client, its concerns were put aside without any in-depth evaluation of the potential reputational risks to the bank, with no conditions or limitations were imposed on Credit Suisse's business dealings with Archegos.[52]

Credit Suisse's relationship with Archegos was centred on its Prime Brokerage and Prime Financing business units. Prime Brokerage handled Archegos' cash trading while Prime Financing handled Archegos' synthetic trading, which included the use of derivatives and other types of synthetic leverage exposure. Both Prime Brokerage and Prime Financing were intended to be low-risk businesses in which "counterparty risk should be assessed and then offset through effective margining, and market risk should be evaluated and offset through hedging".[53]

Credit Suisse's risk management policies

Credit Suisse's risk management policies involve several lines of defence.[54]

The first line of defence is its Prime Services function, which deals with hedge fund and family office clients. To manage the bank's risk, Prime Services has a dedicated in-business risk unit called Prime Services Risk (PSR) that is responsible for setting margin rates and communicating any necessary margin increases directly to the client. PSR's also runs software designed to flag client exposures that are of concern and reviews any potential loss scenarios, while monitoring client portfolios to ensure that they do not exceed risk limits prescribed by the risk management function, which is the second line of defence.[55]

Credit Risk Management (CRM), the next line of defence, is independent from PSR and responsible for assessing credit risk across all Credit Suisse businesses. Among other functions, CRM was responsible for setting risk-related counterparty trading limits, such as limits on the potential exposure and stress scenario exposure, which are risk management tools relied upon by both the Prime Services business and CRM to manage Archegos' counterparty credit risk.[56]

Additionally, Credit Suisse has to perform an annual counterparty risk review of Archegos and assign Archegos an internal credit rating. CRM's annual credit reviews characterised Archegos as having a "solid capital base," "experienced management team," "strong performance," and "appropriate use of leverage". At the same time, it identified Archegos' weaknesses as "key man reliance," "volatile performance," "mediocre operational management practices/fraud risk," and "poor risk management practices and procedures." It also observed that "Archegos [did] not operate with a formalised set of risk management policies and procedures, operates off informal concentration guidelines, and does not use stop loss limits". Despite these deficiencies, CRM's internal credit rating for Archegos improved between 2012 and 2016, from B- to BB-, partially because of its increasing net asset value.[57]

No margin for error

In 2019, Archegos requested Credit Suisse to materially lower its swap margins in order to take on greater leverage. Archegos argued that another prime broker had offered lower margin rates and allowed it to be covered by a single margin call. Credit Suisse agreed to the request and lowered the swap margin rate to 7.5% despite a stress scenario analysis showing severe levels of margin debt. Credit Suisse ignored this key risk, drawing comfort from the fact that the bank had the contractual right to terminate the swaps on a daily basis and change initial margin amounts at its discretion. However, this contractual right was an illusion as the bank had no intention of invoking it for fear of alienating Archegos.[58]

Heightened alert

CRM's annual credit review of Archegos in November 2019 reiterated a BB- rating despite a 40% net asset value decline due to poor performance. Archegos' portfolio also became much more concentrated, with its top ten long Prime Brokerage positions constituting 75% of its gross market value (GMV).[59]

In February 2020, the late head of PSR was replaced by a managing director who was acquainted with Archegos from a previous sales and marketing role for several years. The new head became PSR's main point of contact with Archegos going forward.[60]

Throughout 2020, Archegos' risk profile increased significantly and it began regularly breaching its stress scenario limits. Rather than making additional margin calls, Credit Suisse attempted to re-balance Archegos' portfolio by requiring it to add market shorts to its portfolio. Although Archegos did add some index shorts, its riskier long bias in its swap portfolio persisted. Archegos' portfolio fluctuated between 63% and 95% in long positions almost every week until its eventual default in March 2021.[61]

By 1 September 2020, Archegos' overall holdings at Credit Suisse had ballooned to US$9.5 billion – of which over 75% consisted of long positions. Archegos' swaps were margined at merely 5.9% on average compared to its initial margin of 15% to 25%.[62]

Risk management falls on deaf ears

In August 2020, Archegos' scenario exposure stood at US$800 million, exacerbated by new long positions put on that month. By the end of the month, CRM insisted that Archegos not expand its "already outsized" long positions, given the potential exposure and scenario limit breaches. However, for internal credit assessments, Prime Services urged Archegos to be evaluated based on a more relaxed risk scenario given that its portfolio comprised liquid large-cap stocks and Credit Suisse had a daily termination right to its swap contracts.[63]

Around this time, an analyst at CRM raised concerns about PSR's management of counterparty risk, specifically involving Archegos. He observed that the PSR team was not "adequately staffed to be reliable" as experienced PSR employees who had previously left Credit Suisse had not been replaced. He further criticised the team for being "run by a salesperson" who "did not have a backbone" to push back on Archegos' demands. After his complaint, he was told by PSR that "progress was being made". Despite PSR's assurances that it would insist on higher margins, it allowed Archegos to renew long swap positions at the same rate of 7.5%.[64]

Credit Suisse assembles its avengers – The CPOC

Credit Suisse had created a new committee, the Investment Bank (IB) Counterparty Oversight Committee (CPOC), co-chaired by the IB's Chief Risk Officer (CRO) and Chief Operating Officer (COO), and whose membership included several IB senior executives, such as the global head of equities. The purpose of CPOC was to analyse and evaluate counterparty relationships with significant exposure relative to their revenue generation and to direct remedial measures where appropriate.[65]

At the request of CRM, Archegos was one of a handful of counterparties covered at the inaugural September 2020 CPOC meeting. The meeting materials observed that Archegos "makes substantial use of leverage relative to peer [long/short] equity funds and exhibits a highly volatile performance pattern"; that Archegos "has generated some of the largest scenario exposures in global [hedge fund] portfolio"; and that Archegos had "[c]hunky single-name stock exposures (a number of positions > US$750 mm and > 10% GMV) albeit in liquid name". The Head of PSR, who represented Archegos during the meeting, noted that PSR and CRM had already agreed on actions to address Archegos' limit breaches and observed that Archegos had never missed a margin call, even during the tumultuous markets earlier in the year.[66]

As a result, CRM was requested to "notify of any changes with the counterparty and revisit the counterparty at a future meeting." CPOC did not discuss Archegos again for nearly six months, until 8 March 2021, at which point Archegos' risk exposure had skyrocketed.[67]

Things got complicated

Following the September CPOC meeting, Credit Suisse made very little progress in reducing Archegos' counterparty risk. In January 2021, in connection with its 2020 annual credit review, CRM downgraded Archegos' credit rating from BB- to B+, which put Archegos in the bottom-third of Credit Suisse's hedge fund counterparties by rating.[68]

In February 2021, Credit Suisse finally asked Archegos for US$750 million in additional initial margin. While Archegos refused to post the amount requested, it did agree to provide US$500 million in additional margin. The next day, CRM held a due diligence call with Archegos, during which Archegos told CRM that it had unencumbered cash as well as margin excess at its prime brokers totalling US$6.6 billion. While this provided CRM some comfort, the CRM analyst for Archegos was becoming increasingly concerned that Archegos held the same positions with other prime brokers and that if other banks also increased margins, it might force a liquidation. CRM recommended that Archegos be addressed at the next CPOC meeting.[69]

Credit Suisse loses its credit

On 8 March 2021, Credit Suisse's leaders once again convened at the CPOC meeting to discuss about potential risks to the business. Archegos was once again highlighted as an outlier with GMV exposures of US$20 billion. The next-largest client had GMV exposures of US$5 billion. Archegos also had a net-long bias of over US$7 billion, while the next-largest long-biased client was at US$1.5 billion. Furthermore, Archegos held large, concentrated positions, which might result in Credit Suisse having difficulty liquidating these outsized positions quickly. Despite these red flags, the CPOC concluded that Archegos should be moved to dynamic margining with add-ons for concentration and liquidity as well a request for an additional US$250 million from the counterparty.[70]

In response, Archegos refused to accept the new dynamic margining proposal but continued doing business with the bank. On 12 March, Credit Suisse renewed US$13 billion in net long positions with Archegos for two additional years, mostly at the existing 7.5% margin. The bank also permitted Archegos to execute US$1.48 billion of additional net long positions at a higher average margin rate of 21.2%.[71]

Archegos broke the bank

Apart from Credit Suisse, many of the world's largest investment banks also found themselves entangled with Archegos during its collapse. The extent of losses each bank suffered varied – while some managed to cut their losses early, others learnt very painful lessons. Deutsche Bank and Goldman Sachs were two banks which were quick to act to limit their losses,[72] with Goldman Sachs reporting that the effects of the incident on the company were immaterial.[73] However, other banks such as Credit Suisse and Nomura Holdings that had initially hesitated in selling exposed shares were left reeling. Credit Suisse reportedly recorded losses amounting to US$5.5 billion[74] while Nomura Holdings and UBS Group took hits of US$2.9 billion and US$774 million respectively.[75]

Spring cleaning at Credit Suisse

> "Within the organisation as a whole, we have failed too often to anticipate material risks in good time in order to counter them proactively and to prevent them."
>
> – *Axel Lehmann, Chairman of Credit Suisse*[76]

In early April 2021, Credit Suisse announced that Investment Bank CEO Brian Chin and Chief Risk and Compliance Officer Lara Warner were to step down from their positions.[77] This was followed by a string of other departures, including Paul Galietto, head of equities trading; Parshu Shah, head of prime service risk; Ryan Atkinson, head of credit risk; Ilana Ash, head of counterparty credit risk management; and Manish Mehta, head of counterparty hedge fund risk.[78]

However, this was not enough to appease shareholders, who indicated that they would vote for the dismissal of key board members at Credit Suisse's annual general meeting.[79] Chairman of the Risk Committee Andreas Gottschling did not seek re-election after prominent investors and proxy advisor Glass Lewis[80] indicated their intention to oust him.[81] Chairman Urs Rohner – who helmed the Credit Suisse board for 12 years[82] – also stepped down and apologised for the losses suffered, calling it "inexcusable".[83]

It was reported in November 2021 that about 90 senior employees parted ways with Credit Suisse in the aftermath of the Archegos collapse. The bank also cut its senior executives' bonuses by a whopping 64%. During the bank's third-quarter earnings call on 4 November 2021, it announced that it planned to scale back its investment bank and exit most of its prime services business in January 2022.[84,85]

The following year, during Credit Suisse's AGM on 29 April 2022, 59.95% shareholders rejected the board of directors' proposal to discharge the directors and executives for FY2020, which would have absolved them from the trading losses suffered during Archegos' collapse.[86] Incumbent Credit Suisse Chairman Axel Lehmann – Rohner's successor – admitted during the AGM that "the challenges of the past were not solely attributable to isolated poor decisions or to individual decision makers". It was further reported that Credit Suisse employees attributed the bank's failings to its risk department which was often overruled by "commercially minded executives who were chasing higher returns from riskier deals". The bank's structure also apparently made it difficult to obtain a big picture of the total global risk.[87]

Dusting down Nomura Holdings

As at the end of April 2021, Nomura Holdings had exited about 97% of its remaining positions relating to Archegos.[88] However, it was a little too late. The extreme losses resulted in the Japanese bank's decision to shut down its cash prime-brokerage operations in the U.S. and Europe, which was a setback to CEO Kentaro Okuda's plans to expand its business in the U.S., which has the largest pool of banking fees worldwide.[89]

Nomura Holdings also saw the exit of several senior executives and the replacement of a top risk official. In late April 2021, Dougal Brech, global head of the prime-brokerage division that caters to hedge funds, together with U.S. prime head Joshua Kurek and co-head of global equities Michael Caperonis, were suspended from their positions. Additionally, global head of credit risk, Douglas Lyons, was replaced by Patrick McGarry· Nomura Holdings also named Christopher Willcox – a former J.P. Morgan executive – as the new CEO of its New York-based subsidiary Nomura Securities, in a move to strengthen the company's risk management.[90,91]

Paying the bills

> "None of this trading was based on a principled view of the true value of a particular issuer and instead was intended to artificially inflate share prices."
>
> – *U.S. SEC*[92]

Ever since Archegos defaulted on its margin calls in March 2021, the U.S. SEC had been investigating both Archegos and Hwang, with a focus on Archegos' trading activity and whether it concealed the size of its investments in public companies to avoid regulatory scrutiny. The SEC also investigated potential market manipulation that Hwang was involved in even before Archegos' collapse, tracing all of the family office's business that had not been previously disclosed.[93]

On 27 April 2022, the U.S. authorities charged Hwang with racketeering, fraud and market manipulation over the Archegos meltdown. It also accused Hwang of ignoring his research analysts and directing Archegos to trade before markets opened or during the last half hour of trading days to maximise market impact. However, observers commented that it would be an uphill battle for the U.S. authorities, given that the burden of proof is on the U.S. authorities and the "huge evidentiary challenge" of distilling the pile of evidence and trading data into a comprehensible format for jurors. The involvement of U.S.-listed corporate giants also added to the complexity of the case. In response to the accusations, Hwang's lawyer said he was "entirely innocent of any wrongdoing" and that the allegations were "overblown".[94,95]

Reforms ahead?

> "The lies fed the [stock price] inflation and the inflation fed more lies. Round and round it went. But last year the music stopped, the bubble burst, the prices dropped, and when they did billions of dollars nearly evaporated overnight."
>
> – *Damian Williams, U.S. attorney for the Southern District of New York*[96]

The Archegos meltdown has attracted much criticism from regulators and watchdogs.[97] The incident exposed the potential threats building up in the economy, and served as a warning to regulators not to be complacent when dealing with such threats.[98] Gary Gensler, chair of the SEC, called for greater transparency in swaps markets. In December 2021, the SEC proposed new rules that would require investors to make additional public disclosures on swap positions once they exceed US$300 million or account for five percent of a company's shares.[99] In February 2022, it further proposed that hedge funds and other activist investors would have half the amount of time to report substantial shareholdings, and to tighten the rules around multiple investors working together.[100] The proposals sparked anger among activist investors and their backers, which felt that the rules would "hamstring the industry by allowing other investors to front-run their strategies and give companies more time to plot defences against shareholders agitating for change".[101]

Archegos, or "the one who leads the way"[102], was founded with the intention of managing Hwang's personal wealth as well as becoming a vehicle for philanthropy. Despite its connotation, Archegos ended up being a textbook example of an investment vehicle that was out of control. Perhaps the sliver of light which has come out of the meltdown was that it has paved the way for regulatory improvements in the family office space and reminded investors about the importance of risk management policies in financial institutions.

Discussion questions

1. Bill Hwang reportedly lived modestly despite being enormously wealthy and apparently gave away a lot of his money. What do you think motivates a person like Bill Hwang to do the things he did? What were the red flags relating to him and why were these ignored by those dealing with him?
2. Discuss the corporate governance issues which existed in Archegos, Bill Hwang's family office. What other factors played a role in the downfall of Archegos?
3. Critically evaluate Bill Hwang's investment strategy and the use of derivatives such as equity swaps for leverage. To what extent was it successful and what were the pitfalls?

4. What risks do banks face when dealing with wealthy and influential clients such as Bill Hwang? What are some precautions and considerations that banks should take into account to balance the risks and rewards from working with such clients?
5. Discuss Credit Suisse's different lines of defence and the role that it played in risk management. Which of these lines failed in the context of Archegos?
6. Discuss Credit Suisse's actions undertaken (or lack thereof) to mitigate the risks presented by Archegos. How could the bank have done better in terms of its risk management? What would you recommend to Credit Suisse to avoid crises relating to counterparty risk in the future?
7. What are some of the existing regulatory exemptions given by the U.S. SEC to family offices? How are family offices regulated in your country? Critically evaluate any differences. Do you believe that the regulation of family offices should be tightened? Explain.

Endnotes

1 Burton, K., Parmar, H., & Tse, C. (2021, March 29). 'Tiger Cub' stumble leaves banks with giant trading losses. *Al Jazeera.* Retrieved from https://www.aljazeera.com/economy/2021/3/29/bb-tiger-cubs-stumble-leaves-banks-with-giant-trading-losses

2 Pidgeon, E. (2021, September 20). Who is Bill Hwang – the Wall Street investor who lost US$20 billion in two days?. *CEO Magazine*. Retrieved from https://www.theceomagazine.com/business/finance/bill-hwang/

3 Burton, K., Parmar, H., & Natarajan, S. (2021, April 2). God and man collide in Bill Hwang's duelling lives on Wall Street. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-04-02/god-and-man-collide-in-bill-hwang-s-dueling-lives-on-wall-street

4 Li, Y. (2021, March 30*).* Meet Bill Hwang, the man behind Archegos, the fund that sent shockwaves through Wall Street. *CNBC.* Retrieved from https://www.cnbc.com/2021/03/30/meet-bill-hwang-the-man-behind-archegos-capital-management.html

5 Burton, K., Parmar, H., & Natarajan, S. (2021, April 2). God and man collide in Bill Hwang's duelling lives on Wall Street. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-04-02/god-and-man-collide-in-bill-hwang-s-dueling-lives-on-wall-street

6 Fletcher, L., & Agnew, H. (2021, June 4). Tiger Cubs: How Julian Robertson built a hedge fund dynasty. *Financial Times*. Retrieved from https://www.ft.com/content/e1d1c558-9a87-4843-9cd8-29ab203b7911

7 *Ibid*.

8 Taub, S. (2012, August 27). Familiar tale as high-flying Bill Hwang's Tiger Asia closes. *Institutional Investor.* Retrieved from https://www.institutionalinvestor.com/article/b14zpnzrl0m72f/familiar-tale-as-high-flying-bill-hwangs-tiger-asia-closes

9 Chung, J., & Farrell, M. (2021, March 28). Ex-Tiger Asia founder triggers $30 billion in large stocks sales. *The Wall Street Journal*. Retrieved from https://www.wsj.com/articles/ex-tiger-asia-founder-triggers-30-billion-in-large-stocks-sales-11616973350

10 Schatzker, E., Natarajan, S., & Burton, K. (2021, April 8). Bill Hwang Had $20 Billion, Then Lost It All in Two Days. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/features/2021-04-08/how-bill-hwang-of-archegos-capital-lost-20-billion-in-two-days

11 Gould, M. (2021, May 21). EXCLUSIVE: The 'modest' and reclusive life of billionaire gone bust Bill Hwang: Archegos founder and wife live in a quiet New Jersey suburb, read the Bible 'three hours a week' and 'rarely socialized' despite his wealth. *Mail Online*. Retrieved from https://www.dailymail.co.uk/news/article-9424195/Bill-Hwang-Billionaire-Archegos-founder-lived-modestly-despite-worth-10billion.html

12 Gould, M. (2021, May 21). EXCLUSIVE: The 'modest' and reclusive life of billionaire gone bust Bill Hwang: Archegos founder and wife live in a quiet New Jersey suburb, read the Bible 'three hours a week' and 'rarely socialized' despite his wealth. *Mail Online*. Retrieved from https://www.dailymail.co.uk/news/article-9424195/Bill-Hwang-Billionaire-Archegos-founder-lived-modestly-despite-worth-10billion.html

13 Vardi, N. (2021, April 2). How Troubled Trader Bill Hwang Quietly Amassed $10 Billion. *Forbes*. Retrieved from https://www.forbes.com/sites/nathanvardi/2021/04/02/how-troubled-trader-bill-hwang-quietly-amassed-10-billion/?sh=10a8688d7c09

14 Tucker, H. (2021, March 31). Archegos Capital's Bill Hwang Put $590 Million In His Charitable Foundation. Here's Where It Went. *Forbes*. Retrieved from https://www.forbes.com/sites/hanktucker/2021/03/31/archegos-capitals-bill-hwang-put-590-million-in-his-charitable-foundation-heres-where-it-went/?sh=2d494b38730a

15 Bloomberg. (2012, December 13). Bill Hwang guilty of illegal trading at Tiger Asia Management. *South China Morning Post.* Retrieved from https://www.scmp.com/business/money/markets-investing/article/1104927/bill-hwang-guilty-illegal-trading-tiger-asia?module=inline&pgtype=article

16 Flitter, E., & Herbst-Bayliss, S. (2012, December 13). "Tiger Cub" manager pleads guilty in insider trading case. *Reuters*. Retrieved from https://www.reuters.com/article/us-crime-insidertrading-tiger-idUSBRE8BB1RG20121212

17 Bray, C., & Albergotti, R. (2012, December 12). Fund pleads guilty to wire-fraud charge. *The Wall Street Journal.* Retrieved from https://www.wsj.com/articles/SB10001424127887323981504578175381113803630?mod=article_inline

18 Bloomberg. (2012, December 14). Bill Hwang guilty of illegal trading at Tiger Asia Management. *South China Morning Post.* Retrieved from https://www.scmp.com/business/money/markets-investing/article/1104927/bill-hwang-guilty-illegal-trading-tiger-asia?module=inline&pgtype=article

19 U.S. Securities and Exchange Commission. (2012). Hedge Fund Manager to Pay $44 Million for Illegal Trading in Chinese Bank Stocks. Retrieved from https://www.sec.gov/news/press-release/2012-2012-264htm

20 Bloomberg. (2012, December 14). Bill Hwang guilty of illegal trading at Tiger Asia Management. *South China Morning Post.* Retrieved from https://www.scmp.com/business/money/markets-investing/article/1104927/bill-hwang-guilty-illegal-trading-tiger-asia?module=inline&pgtype=article

21 Cao, B. (2014, October 10). Tiger Asia, Hwang Banned from Trading in Hong Kong for 4 Years. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/articles/2014-10-09/tiger-asia-hwang-banned-from-trading-in-hong-kong-for-4-years

22 Taub, S. (2012, August 27). Familiar Tale As High-Flying Bill Hwang's Tiger Asia Closes. *Institutional Investor*. Retrieved from https://www.institutionalinvestor.com/article/b14zpnzrl0m72f/familiar-tale-as-high-flying-bill-hwangs-tiger-asia-closes

23 Williams, A. (2021, April 1). Archegos Meltdown: What happened at Bill Hwang's firm and how it is affecting global markets. *The Straits Times.* Retrieved from https://www.straitstimes.com/business/banking/archegos-how-a-little-known-us-investment-firm-shook-global-financial-markets

24 Schatzker, E., Natarajan, S., & Burton, K. (2021, April 8). Bill Hwang Had $20 Billion, Then Lost It All in Two Days. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/features/2021-04-08/how-bill-hwang-of-archegos-capital-lost-20-billion-in-two-days

25 Williams, A. (2021, April 1). Archegos Meltdown: What happened at Bill Hwang's firm and how it is affecting global markets. *The Straits Times.* Retrieved from https://www.straitstimes.com/business/banking/archegos-how-a-little-known-us-investment-firm-shook-global-financial-markets

26 Martin, K., Wigglesworth, R., & Fletcher, L. (2021, April 3). 'They can do what they want': Archegos and the $6tn world of the family office. *Financial Times.* Retrieved from https://www.ft.com/content/c319839d-d185-4e8a-bbc7-659bebe58031

27 Schatzker, E., Natarajan, S., & Burton, K. (2021, April 8). Bill Hwang Had $20 Billion, Then Lost It All in Two Days. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/features/2021-04-08/how-bill-hwang-of-archegos-capital-lost-20-billion-in-two-days

28 Sherman, A. (2021, March 26). Why investors are struggling to value media stocks like ViacomCBS and Discovery. *CNBC*. Retrieved from https://www.cnbc.com/2021/03/25/why-investors-struggle-to-value-media-stocks-like-viacomcbs-discovery.html

29 Businesswire. (2021, March 24). ViacomCBS prices offerings of class B common stock and mandatory convertible preferred stock. Retrieved from https://www.businesswire.com/news/home/20210324005438/en/ViacomCBS-Prices-Offerings-of-Class-B-Common-Stock-and-Mandatory-Convertible-Preferred-Stock

30 Bursztynsky, J. (2021, March 24). ViacomCBS stock closes down 23% as Wall Street expresses doubt about streaming execution. *CNBC*. Retrieved from https://www.cnbc.com/2021/03/24/viacom-stock-drops-as-investors-express-doubt-on-streaming-execution.html

31 Marshall, E. D., & Scuffham, M. (2021, April 2). Diary of a meltdown: How the Archegos Capital fire sale went down. *Reuters.* Retrieved from https://www.reuters.com/article/usa-markets-blocktrades-timeline-idUSL1N2LS332

32 Folger, J. (2020, December 14). What happens if I cannot pay a margin call? *Investopedia.* Retrieved from https://www.investopedia.com/ask/answers/12/what-happens-cannot-pay-margin-call.asp

33 Marshall, E. D., & Scuffham, M. (2021, April 2). Diary of a meltdown: How the Archegos Capital fire sale went down. *Reuters.* Retrieved from https://www.reuters.com/article/usa-markets-blocktrades-timeline-idUSL1N2LS332

34 Bursztynsky, J. (2021, March 26). ViacomCBS, Discovery stock each close down more than 27%. *CNBC*. Retrieved from https://www.cnbc.com/2021/03/26/viacomcbs-discovery-stock-continues-to-plunge.html

35 Marshall, E. D., & Scuffham, M. (2021, April 2). Diary of a meltdown: How the Archegos Capital fire sale went down. *Reuters.* Retrieved from https://www.reuters.com/article/usa-markets-blocktrades-timeline-idUSL1N2LS332

36 Parmar, H. (2021, March 30). Archegos breaks silence, saying 'all plans are being discussed'. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-03-30/archegos-breaks-silence-saying-all-plans-are-being-discussed

37 Griffiths, K., & Jones, C. (2021, March 31). Regulators query fire sale of shares after Archegos fell. *The Times*. Retrieved from https://www.thetimes.co.uk/article/regulators-query-fire-sale-of-shares-after-archegos-fell-nx2srmg2m

38 Robinson, M., & Bain, B. (2021, April 1). SEC opens probe into Archegos trades that triggered rout. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-03-31/sec-opens-investigation-into-archegos-trades-that-sparked-rout

39 Price, M. (2022, April 27). Explainer: Why Archegos Capital was in U.S. regulators' blind spot. *Reuters*. Retrieved from https://www.reuters.com/business/why-archegos-capital-was-us-regulators-blind-spot-2022-04-27/

40 Robinson, M., Bain, B., & Bloomberg. SEC opens probe into the Archegos trades that clobbered markets. *Fortune*. Retrieved from https://fortune.com/2021/04/01/sec-opens-probe-archegos-trades-that-clobbered-markets/

41 Webb, Q., Osipovich, A., & Santilli, P. (2021, March 30). What is a total return swap and how did Archegos Capital use it?. *The Wall Street Journal.* Retrieved from https://www.wsj.com/articles/what-is-a-total-return-swap-and-how-did-archegos-capital-use-it-11617125839

42 Das, S. (2021, June 29). Archegos revealed flaws of markets that still need to be tackled. *Financial Times*. Retrieved from https://www.ft.com/content/267d00fb-f623-4850-a82b-4ef88a41d4b5

43 Halftermeyer, M. (2021, May 3). Credit Suisse gave Archegos big leverage for collateral. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-05-03/credit-suisse-gave-archegos-big-leverage-for-little-collateral

44 Das, S. (2021, June 29). Archegos revealed flaws of markets that still need to be tackled. *Financial Times*. Retrieved from https://www.ft.com/content/267d00fb-f623-4850-a82b-4ef88a41d4b5

45 Chung, J., & Patrick, M. (2021, April 6). What Is Archegos and How Did It Rattle the Stock Market?. *The Wall Street Journal.* Retrieved from https://www.wsj.com/articles/what-is-archegos-and-how-did-it-rattle-the-stock-market-11617044982

46 Schatzker, E., Natarajan, S., & Burton, K. (2021, April 8). Bill Hwang Had $20 Billion, Then Lost It All in Two Days. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/features/2021-04-08/how-bill-hwang-of-archegos-capital-lost-20-billion-in-two-days

47 Pidgeon, E. (2021, September 20). Who is Bill Hwang – the Wall Street investor who lost US$20 billion in two days?. *CEO Magazine*. Retrieved from https://www.theceomagazine.com/business/finance/bill-hwang/

48 Robinson, M., Bain, B., & Bloomberg. SEC opens probe into the Archegos trades that clobbered markets. *Fortune*. Retrieved from https://fortune.com/2021/04/01/sec-opens-probe-archegos-trades-that-clobbered-markets/

49 Schatzker, E., Natarajan, S., & Burton, K. (2021, April 8). Bill Hwang Had $20 Billion, Then Lost It All in Two Days. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/features/2021-04-08/how-bill-hwang-of-archegos-capital-lost-20-billion-in-two-days

50 Credit Suisse Group AG. (2021, July 29). Credit Suisse Group Special Committee of the Board of Directors Report on Archegos Capital Management. Retrieved from https://www.credit-suisse.com/media/assets/corporate/docs/about-us/investor-relations/financial-disclosures/results/csg-special-committee-bod-report-archegos.pdf

51 Agnew, H., & Fletcher, L. (2021, June 4). Tiger cubs: How Julian Robertson built a hedge fund dynasty. *The Financial Times*. Retrieved from https://www.ft.com/content/e1d1c558-9a87-4843-9cd8-29ab203b7911

52 Credit Suisse Group AG. (2021, July 29). Credit Suisse Group Special Committee of the Board of Directors Report on Archegos Capital Management. Retrieved from https://www.credit-suisse.com/media/assets/corporate/docs/about-us/investor-relations/financial-disclosures/results/csg-special-committee-bod-report-archegos.pdf

53 *Ibid.*

54 *Ibid*.

55 *Ibid.*

56 *Ibid.*

57 *Ibid.*

58 *Ibid.*

59 *Ibid.*

60 *Ibid.*

61 *Ibid.*

62 *Ibid.*

63 *Ibid.*

64 *Ibid.*

65 *Ibid.*

66 *Ibid.*

67 *Ibid.*

68 *Ibid.*

69 *Ibid.*

70 *Ibid.*

71 *Ibid.*

72 Farrell, M., Patrick, M., & Chung, J. (2021, March 29). Goldman, Morgan Stanley limit losses with fast sale of Archegos assets. *The Wall Street Journal.* Retrieved from https://www.wsj.com/articles/goldman-morgan-limit-losses-with-fast-sale-of-archegos-assets-11617062028

73 Chan, C. (2021, March 29). Goldman said to see immaterial effect from Archegos. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-03-29/goldman-sachs-is-said-to-see-immaterial-losses-from-archegos

74 Hetzner, C. (2021, July 29). Credit Suisse report into $5.5 billion Archegos loss shows bank has a massive culture problem. *Fortune*. Retrieved from https://fortune.com/2021/07/29/credit-suisse-report-archegos-loss-bank-massive-culture-problem/

75 Ray, S. (2021, April 27). Nomura Reports $2.9 Billion Hit As Total Losses From Archegos Collapse Climb Past $10 Billion. *Forbes*. Retrieved from https://www.forbes.com/sites/siladityaray/2021/04/27/nomura-reports-29-billion-hit-as-total-losses-from-archegos-collapse-climb-past-10-billion/?sh=4e9419e56bef

76 Walker, O. (2022, May 11). Credit Suisse admits lax approach led to scandals. *Financial Times.* Retrieved from https://www.ft.com/content/afdaaf7f-e4f0-477a-a52a-3e7e0692db4d

77 Smith, E. (2021, April 6). Credit Suisse takes $4.7 billion hit from Archegos hedge fund scandal; execs step down. *CNBC.* Retrieved from https://www.cnbc.com/2021/04/06/credit-suisse-cuts-dividend-on-hit-from-hedge-fund-scandal-investment-bank-head-and-chief-risk-officer-step-down.html

78 Walker, O., Morris, S., & Fontanella-Khan, J. (2021, April 6). Credit Suisse removes senior executives after $4.7bn Archegos losses. *Financial Times*. Retrieved from https://www.ft.com/content/c10d0b81-f2ef-48c3-8e9c-17419f4af21b

79 Winters, P. (2021, April 26). Credit Suisse top holders seek to oust directors over Archegos. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-04-26/credit-suisse-top-shareholders-call-for-removal-of-board-members

80 CNBC. (2021, April 30). Credit Suisse board member Andreas Gottschling to exit after Greensill, Archegos losses. Retrieved from https://www.cnbc.com/2021/04/30/credit-suisses-gottschling-to-exit-after-greensill-archegos-losses.html

81 Business Standard. (2021, April 30). Credit Suisse board member Gottschling to exit after Archegos debacle. Retrieved from https://www.business-standard.com/article/international/credit-suisse-board-member-gottschling-to-exit-after-archegos-debacle-121043000648_1.html

82 Credit Suisse AG. (2020, December 1). Press Release - António Horta-Osório proposed for election as Chairman of the Board of Directors at the Annual General Meeting on April 30, 2021. Retrieved from https://www.credit-suisse.com/about-us-news/en/articles/media-releases/antonio-horta-osorio-proposed-for-election-as-chairman-of-the-bo-202012.html

83 Halftermeyer, M., & Winters, P. (2021, April 30). Credit Suisse Chairman Says Sorry for Losses as He Exits. *Bloomberg*. Retrieved from https://www.bloomberg.com/news/articles/2021-04-30/credit-suisse-chairman-says-sorry-for-losses-as-he-exits

84 Stokes, S. (2021, November 11). Credit Suisse has lost nearly 90 senior bankers and traders post-Archegos. Here's our running list of departures. *Business Insider*. Retrieved from https://www.businessinsider.com/names-credit-suisse-bankers-traders-leaving-archegos-greensill-bonuses-hiring-2021-6

85 Walker, O. (2022, March 10). Credit Suisse slashes executive bonuses after scandals at Archegos and Greensill. *Financial Times*. Retrieved from https://www.ft.com/content/3dcd9e5f-f7b0-4299-aad5-65d63f001470

86 Wong, J. (2022, May 4). Credit Suisse directors, executives held accountable for Archegos, Greensill. *Citywire Asia*. Retrieved from https://citywireasia.com/news/credit-suisse-directors-executives-held-accountable-for-archegos-greensill/a2386497?ref=international_Asia_community_list

87 Walker, O. (2022, May 11). Credit Suisse admits lax approach led to scandals. *Financial Times.* Retrieved from https://www.ft.com/content/afdaaf7f-e4f0-477a-a52a-3e7e0692db4d

88 Ray, S. (2021, April 27). Nomura Reports $2.9 Billion Hit As Total Losses From Archegos Collapse Climb Past $10 Billion. *Forbes*. Retrieved from https://www.forbes.com/sites/siladityaray/2021/04/27/nomura-reports-29-billion-hit-as-total-losses-from-archegos-collapse-climb-past-10-billion/?sh=4e9419e56bef

89 Arons, S. (2021, July 6). Nomura axes cash prime brokerage in U.S., Europe after Archegos. *Bloomberg.* Retrieved from https://www.bnnbloomberg.ca/nomura-axes-cash-prime-brokerage-in-u-s-europe-after-archegos-1.1625907

90 Griffin, D., Chan, C., & Hu, B. (2021, April 28). Nomura suspends executives, replaces Risk Head post-Archegos. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-04-27/nomura-suspends-executives-replaces-risk-head-in-archegos-rout

91 *Ibid*.

92 Palma, S. (2022, April 29). Bill Hwang case puts prosecutors' market manipulation claim to the test. *Financial Times.* Retrieved from https://www.ft.com/content/eae52748-9c26-4d03-91ba-c423741d1547

93 Ponciano, J. (2021, October 8). SEC Reportedly Probing Archegos For Potential Market Manipulation Before $30 Billion Firesale. *Forbes*. Retrieved from https://www.forbes.com/sites/jonathanponciano/2021/10/08/sec-reportedly-probing-archegos-for-potential-market-manipulation-before-30-billion-firesale-/?sh=696b4c243c15

94 Palma, S. (2022, April 29). Bill Hwang case puts prosecutors' market manipulation claim to the test. *Financial Times.* Retrieved from https://www.ft.com/content/eae52748-9c26-4d03-91ba-c423741d1547

95 Price, M. (2022, April 27). Explainer: Why Archegos Capital was in U.S. regulators' blind spot. *Reuters*. Retrieved from https://www.reuters.com/business/why-archegos-capital-was-us-regulators-blind-spot-2022-04-27/

96 Nikkei Asia. (2022, April 28). Archegos founder Bill Hwang arrested on U.S. fraud charges. Retrieved from https://asia.nikkei.com/Business/Finance/Archegos-founder-Bill-Hwang-arrested-on-U.S.-fraud-charges

97 Natarajan, S., Farrell, G., & Griffin, D. (2021, May 27). Justice Department Opens Probe Into Archegos Blowup. *Bloomberg.* Retrieved from https://www.bloomberg.com/news/articles/2021-05-26/justice-department-is-said-to-open-probe-into-archegos-blowup

98 *Ibid.*

99 Palma, S., & Platt, E. (2021, December 16). SEC proposes greater transparency for swaps at centre of Archegos collapse. *Financial Times*. Retrieved from https://www.ft.com/content/ad7d7a30-9e7b-476c-80e4-493199bd20dc

100 Masters, B., & Palma, S. (2022, February 11). Hedge funds and activists threatened with new US disclosure rules. *Financial Times*. Retrieved from https://www.ft.com/content/f6a52518-92c9-4250-9f53-b0883927b4d8

101 Megaw, N. (2022, April 21). Hedge funds and brokers take aim at post-Archegos trading reforms. *Financial Times.* Retrieved from https://www.ft.com/content/1809f070-6f51-4743-b3dd-233640c854e3

102 Rukhaiyar, A. (2021, March 31). What is Archegos and what does it mean for Indian markets, explained. *Moneycontrol.* Retrieved from https://www.moneycontrol.com/news/business/what-is-archegos-and-what-does-it-mean-for-indian-markets-explained-6709061.html