



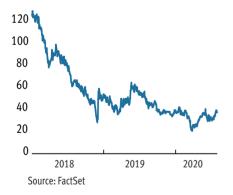


Exploit Allied Minds' huge margin of safety

There is significant hidden value in Allied Minds' small portfolio of early-stage and pre-IPO venture capital technology investments

Allied Mi	inds (AL	M)			
Ticker		ALM			
Current price	!	38.5p			
12-month ta	rget price	55p			
Market cap		£93.2m			
52-week hig	h	57.4p			
52-week low		19.3p			
Net cash	\$34m (a	\$34m (adjusted for special dividend,			
follow-on inve	stments & o	verheads in first half of 2020			
Shares in issue		242.1m			
Financial yea	r-end	31 December			
Company we	bsite	www.alliedminds.com			

Allied Minds' share price suffered in recent years



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Simon Thompson's view:

llied Minds is a classic Ben Graham recovery play. The company fell out of favour under previous management, but shareholders' fortunes have turned a corner under a new board who have the mandate to realise value from the portfolio. There are some exciting investments that have attracted the interest of heavyweight technology investors in recent funding rounds, adding substance to the likelihood of making profitable exits. This is simply not being priced in with the shares trading on a huge discount to the read through portfolio valuation.

Bull points

- Board restructured and operating costs significantly reduced.
- Disposal of HawkEye 360 and payment of special dividend high lights policy to return cash from disposals.
- Net cash position provides three-year runway to optimise portfolio realisations.
- Largest holding and net cash worth more than Allied Minds' market capitalisation.
- Follow on funding rounds for investee companies supports fair valuations at significant premium to book value.
- Activist shareholder Crystal Amber has significant board representation.
- Portfolio companies impacted little by the Covid-19 pandemic.

Bear points

- Chequered history.
- Only one major portfolio company realisation since IPO.
- Operating costs still high relative to asset base.

"There are reasons to believe that not only has the de-rating gone too far, but more importantly the company has turned the corner"

The patient capital investment sector has come under intense scrutiny in the past couple of years. Sentiment has been severely undermined by the implosion of the former Woodford funds, which held a large number of illiquid early stage venture capital investments. Investors in those funds have suffered severe financial losses.

The same is true of investors who backed the IPO of **Allied Minds (ALM)**, a Boston-based intellectual property (IP) commercialisation company focused on investing in early stage companies with disruptive technologies in large and growing markets. The investments were sourced through the company's network of US Federal laboratories, universities and leading US corporations. Having raised US\$130m of net proceeds at 190p a share in the IPO (June 2014) to value the company at £398m, subsequent write-downs on its portfolio and further erosion of shareholder value through an inflated cost base, has seen the share price plunge 80 per cent.

However, there are reasons to believe that not only has the de-rating gone too far, but more importantly the company has turned the corner. Shareholder activism has played no small part. Last year, Aim-traded investment fund Crystal Amber (CRS) built up an 18 per cent stake and then set about engaging with Allied Minds' management to change the company's investment strategy. After protracted and heated negotiations, which led to a major boardroom clear-out, the new directors are adopting a managed approach to monetising the value in the remaining portfolio of seven investee technology companies. Allied Minds will no longer make any new investments apart from supporting existing portfolio companies, and annual operating costs have been cut by 20 per cent to US\$6m.

Allied Minds has also made its first major exit, selling off its shareholding in Radio Frequency (RF) data analytics company HawkEye 360 for an aggregate cash consideration of \$65.6m in November 2019. The sale was highly profitable, representing a 5.6 times return on invested capital, and generating an internal rate of return (IRR) of 96 per cent over four years. The proceeds from that disposal enabled the payment of a special dividend of \$40m to shareholders in February 2020, a sum equating to 12.6p a share.

After taking account the payment of the US\$40m special dividend, US\$13m of cash used this year to make further investments in the existing portfolio, and an estimated US\$3m of overheads for the first half of 2020, current net cash is around US\$34m (11p a share), down from US\$90.5m reported in the 2019 accounts. That should be ample to support the company's operations over the next

three years and enable the directors to take advantage of monetisation events by selling down stakes in portfolio companies, with a view to distributing the proceeds to shareholders.

In a nutshell, any investment made in Allied Minds shares today is based on the directors being able to realise a significant proportion of the inherent value in the portfolio that is not reflected in the company's IFRS reported net asset value in our table below. Of course, we need a decent "margin of safety" to skew the risk reward towards a positive outcome materialising over a realistic 12-18 month holding period. In my opinion, this margin of safety exists in spades as this is a classic Ben Graham recovery play.

Allied Minds (ALM)

 Ord Price: 38.5p
 Market Value: £93.2m

 Touch: 38-38.5p
 12-Month High: 57.4p Low: 19.3p

Dividend Yield: nil

Net Asset Value: 37p* Net Cash: \$34m**

Year to 31 Dec	Reported net asset value (\$m)	Pre-tax profit (\$m)	Diluted earnings per share (¢)	Dividend per share (p)
2014	235	-58	-24	nil
2015	162	-98	-36	nil
2016	135	-129	-44	nil
2017	71	-111	-32	nil
2018	102	45	16	nil
2019	153	50	21	nil
2018-19 % change	50%	11%	31%	-

*IFRS NAV stated post payment of special dividend of 12.6p a share in February 2020

**Pro forma net cash stated after payment of special dividend of \$40m in February 2020, follow on investments made in portfolio companies since December 2019 financial year-end, and allowing for operating costs in first half of 2020 SETS Beta: 0.66 Conversion rate: £1: \$1.27

Source: Allied Minds annual report, London Stock Exchange

Unravelling Allied Minds' hidden value

In chapter seven of *The Intelligent Investor*, the seminal 1949 work of Ben Graham, the father of value investing explains: "If we assume that it is the habit of the market to overvalue common stocks which have been showing excellent growth or are glamorous for some other reason, it is logical to expect that it will undervalue – relatively, at least – companies that are out of favour because of unsatisfactory developments of a temporary nature. This may be set down as a fundamental law of the stock market, and it suggests an investment approach that should be both conservative and promising." Mr Graham's theory was that a strong balance sheet will usually see a company through any short-term difficulties and provide a "margin of safety".

To quantify the "margin of safety" in the case of Allied Minds you need to delve deep into the company's

"The investment portfolio and investments held in associates only account for US\$68.7m of reported NAV"

accounts to look at the investee companies and how they are being valued by external investors who have been putting up hard cash in recent funding rounds. That's because Allied Minds' 2019 year-end reported net asset value (NAV) of US\$152.5m (49.5p a share, or 37p a share after adjusting for the February 2020 special dividend of 12.6p) is incredibly conservative. The investment portfolio and investments held in associates only account for US\$68.7m of reported NAV.

However, Allied Minds' portfolio has a read through valuation of US\$213.6m based on valuations at the last funding round of each investee company, the difference between the US\$68.7m reported carrying value in the 2019 accounts and the much higher fair valuation of these holdings equates to US\$145m (£114m). That's more than Allied Minds' own market capitalisation of £93m. Please note that the post-money valuations disclosed for each entity do not represent IFRS 13 fair values, but are based on the pre-money valuation set by the investors in the latest funding round plus the total money raised in that round. There can be no guarantee that Allied Minds will be able to realise the post-money valuations of the portfolio companies in the event of a sale of its ownership interest in such portfolio companies.

That said, the company doesn't need to because you are getting a free option on the directors monetising at least some of the US\$145m (47p a share) hidden value in the investment portfolio. Even taking into consideration the maximum potential dilution of Allied Minds' ownership interests in its portfolio companies, which clips US\$38.5m (12.5p a share) off the undiluted fair valuation of US\$250.8m (80.6p), then the shares are still trading on a 44 per cent discount to cash and the fair valuation of the portfolio companies.

Not only is the scale of the share price discount to NAV the most extreme amongst listed peers, but there is a decent chance of investment upside to Allied Minds' three largest portfolio investee companies: Federated Wireless, Spin Memory and BridgeComm. The stakes account for the majority of the portfolio valuation.



Company	Business description	Latest funding round	Post-money value (100%)	Allied Minds ownership value	Undiluted value per share	Allied Minds holding	Basis of estimate for fair value assessment
5 1 . INC 1			* 04.5	¢00 =	22.4		V 1 61 .
Federated Wireless	Cloud-based SaaS business	Apr 2020	\$215m	\$92.7m	30.1p	43%	Valuation of last roun
Spin Memory	MRAM semiconductor memory	Jul 2020	\$180m	\$77.5m	25.2p	43%	Valuation of last round adjusted for follow on \$8.25m investment in July 202
							July 202
BridgeComm	Optical communications service provider	Sep 2018	\$38m	\$30.9m	10.1p	81%	Valuation in last roun
BridgeComm	Optical communications service provider	First half 2020	-	\$2.0m	0.7p	-	Convertible loan stock
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TableUp	Restaurant supply chain software provider	Apr 2018	\$12m	\$4.3m	1.4p	36%	Valuation of last roun
Orbital Sidekick	Space-based hyperspectral imaging and analytics	Apr 2018	\$11.7m	\$3.9m	1.3p	33%	Valuation of last roun (third party)
Spark Insights	Property insurance analytics	Apr 2019	\$3.2m	\$2.3m	0.7p	71%	Valuation of last roun
SciFluor	Developer of a topical eye droplet treatment	Nov 2019	\$130.7m	-	-	63%	Written down to zero
	D (5 !! 5 ! - 1 (1 2000)			****			
	Portfolio fair value (July 2020) Net cash (31 December 2019)			\$213.6m \$90.5m	69.5p 29.4p		
	Post 2019 year-end cash adjustments			1110.06¢	29.4μ		
	Payment of special dividend (February 2020)			-\$40.0m	-12.6p		
	Portfolio investments in 2020			-\$13.2m	-4.3p		
	Cash burn			-\$3.0m	-1.0p		
	Proforma net cash (July 2020)			\$34.3m	11.2p		
	Proforma portfolio fair value (July 2020)			\$213.6m	69.5p		
	Estimated NAV (undiluted)			\$250.8m	80.7p		
	Estimated NAV (fully diluted)			\$212.3m	68.2p		
	Latest share price				38.5p		
	Share price discount to fully diluted NAV				44%		

Federated Wireless

- **Date of last funding round:** September 2019 and second close round in April 2020.
- **Post-money valuation:** \$215m.
- Co-investors: American Tower (NYSE: AMT), GIC, Singapore's sovereign wealth fund, Pennant Investors and SBA Communications (NASDAQ: SBAC).
- **Allied Minds' ownership:** 43.1 per cent (Fully-diluted: 36.6 per cent).

Founded in 2012, Federated Wireless operates at the cutting edge of shared spectrum Citizens Broadband Radio System (CBRS) technology that support the

explosive growth of wireless data. The company has delivered the industry's first 4G/5G private wireless solution, Connectivity-as-a-Service. Offered as an end-to-end managed service to business enterprises, the solution provides customers with a low-cost subscription, high performance secure private wireless network that is delivered from the cloud.

4G/5G secure private networks are a must to connect everything from robots, cameras, signage and machinery to virtual reality application. Federated Wireless' customer base already boasts companies spanning the telecommunications, energy, hospitality, education, retail, office space, municipal and residential verticals. The end-to-end managed service includes planning, design, build, operation and support for a private wireless network, enabling enterprises to reap the benefits of private wireless with minimum risk and capital expenditure.

In addition, Federated Wireless partners with cloud ecosystem marketplaces, opening up access to a plethora of Internet of Things (IoT) and other applications including:

- Industrial automation private wireless connectivity supports a wide range of applications across manufacturing, warehousing and logistics, including shop floor automation, robotics, and bar code scanning.
- Mission critical communications adding ruggedized laptops and push-to-talk devices to the network ensures that mission-critical communication is maintained throughout a business.
- **Safety and security** from smart cameras that learn through artificial intelligence (AI) to digital signs that respond to changes in real-time, the private wireless network adds enhanced security in any environment.

Federated Wireless' partner ecosystem now has more than 40 device manufacturers and computer edge partners. The list includes some big names. Earlier this year, Federated Wireless announced a new Connectivity-as-a-Service offering that lets US enterprises buy and deploy private 4G/5G networks with a single click through Amazon Web Services (AWS) and Microsoft Azure marketplaces.

The new service offering was developed with specific attention to the needs of cloud-native enterprises who have come to depend on seamless integration between their own IT departments and global public clouds. Moreover, AWS-enabled private networks are an ideal



Wireless at Cloud Scale – Accelerating 4G and 5G Private Networks for the enterprise through Amazon Web Services and Microsoft Azure.

"In April 2020, Federated Wireless raised \$13.7m to accelerate the expansion and adoption of its partnerships with Amazon and Microsoft" solution for industrial and manufacturing IoT environments in which device types and locations vary, and wireless interference using legacy WiFi networks is common and detrimental to business performance. Federated Wireless' managed service delivers seamless integration with the full range of IoT applications provided by the Amazon Partner Network.

In April 2020, Federated Wireless raised US\$13.7m in additional Series C funding to accelerate the expansion and adoption of its partnerships with Amazon and Microsoft. The proceeds will also enable expansion into the 6 GHz band for 5G services, thus providing a new path to 1,000 MHz of spectrum for private wireless networks. It's easy to see why Federated Wireless has attracted the backing of heavy weight investors including GIC, Singapore's sovereign wealth fund, as it builds a significant annual recurring revenue base from its scalable cloud enterprise solution.

Allied Minds contributed US\$6.85m in April's funding round and has a 43.11 per cent equity interest (36.61 per cent on a fully-diluted basis) worth US\$92.7m (30.1p a share), a holding that backs up almost 80 per cent of its own market capitalisation. It's not the only valuable investment.

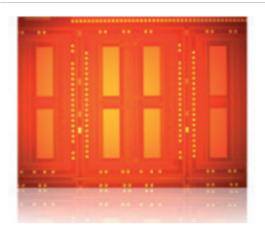
Spin Memory

- **Date of last funding round:** July 2020 (Series B funding on same terms as last close in April 2019).
- **Post-money valuation:** \$180m (post-July 2020 funding round).
- Co-investors: Arm Technology Investments, Applied Ventures, LLC, Abies Venture Fund, Woodford Investment Management (now succeeded by Schroder Investment Management Limited) and Invesco Asset Management.
- **Allied Minds' Ownership:** 43.01 per cent (Fully-diluted: 33.98 per cent).

Founded in 2006, California-based Spin Memory is a pre-eminent MRAM IP provider. Through collaboration with industry leaders, the company is transforming the semiconductor industry by addressing the biggest challenge – memory – in next-generation electronics systems such as AI, autonomous driving, 5G communication and computing at the edge.

The increase of IoT devices at the edge of the network is producing a massive amount of data to be computed at





Spin Memory is using MRAM to solve the scaling and power problems of today's memories

data centres, pushing network bandwidth requirements to the limit. Despite the improvements of network technology, data centres are struggling to guarantee acceptable transfer rates and response times. These are a critical requirement for many applications. The aim of edge computing is to move the computation away from data centres towards the edge of the network, exploiting smart objects, mobile phones or network gateways, to perform tasks and provide services on behalf of the cloud. By moving services to the edge, it is possible to provide content caching, service delivery, storage and IoT management to improve response times and data transfer rates.

These technological advancements are not only emerging at a blistering pace, but are exposing the limitations of existing memory capabilities. So, to solve the scaling and power problems of existing memories, Spin Memory is developing disruptive, dense and low-power STT-MRAM IP to replace large, power-hungry on-chip SRAM. Ultimately, it will challenge DRAM as a lower-power, easier-to-use mass-storage solution. The technology was sourced originally from New York University and has more than 200 patents issued or pending. Importantly, Spin Memory has achieved significant technical milestones in its partnerships with chip makers Arm and Applied Materials.

With Arm, the company completed the design of a prototype demonstration vehicle of Spin's Endurance Engine™ coupled with a working MRAM array to show an order of magnitude improvements in MRAM endurance, one of the key challenges in the industry. In the area of magnetics, Spin and Applied Materials are delivering state-of-the-art MRAM solutions for the semiconductor industry. Both companies believe MRAM will displace most on-chip memory, both long-term storage (Flash) and working memory (SRAM). High-temperature data retention, critical for most long-term memory storage applications, has already been demonstrated with good yield.

A fortnight ago, Spin raised US\$8.25m in additional Series B funding (on the same terms as the last close in April 2019) to support ongoing MRAM research. It was backed by Arm, Applied Ventures, LLC (the venture capital arm of Applied Materials) and Abies Ventures, as well as Allied Minds, which contributed US\$4m. This implies a read through US\$77.4m (25.2p a share) valuation for Allied Minds' 43 per cent stake.

The ongoing financial support from Arm and Applied Ventures is clearly positive for Spin, as are the commercial and licensing agreements with both companies. It's also



worth noting that Spin has been appointed subcontractor to a leading US semi-conductor company on a multi-year, multi-million dollar US government project, adding further weight to the value of its cutting edge IP.

BridgeComm

- Date of last funding round: September 2018.
- Post-money valuation: \$38m.
- **Co-investors:** Boeing HorizonX Ventures (venture arm of Boeing Company).
- **Allied Minds' ownership:** 81.3 per cent (Fully-diluted: 62.9 per cent).

Launched in 2015, BridgeComm was the first organisation to commercialise optical wireless communications (OWC) systems and commence development of a global network of optical ground stations.

OWC is a wireless technology offering rapid point-to-point data transmission via beams of light that connect from one telescope to another using low-power, safe, infrared lasers in the terahertz spectrum. It holds huge potential to augment RF, fibre and mmWave technologies and extend the capabilities of the terrestrial fibre grid, particularly in hard-to-access environments and in areas where mobile phone towers do not exist.

Analytics firm Research and Markets predicts the global OWC market, worth US\$229m in 2017, will grow at a compound annual rate of 33.49 per cent between 2017 and 2023. In addition to space exploration and use in 4G/5G networks, prominent applications for the technology include use in intelligence, surveillance and reconnaissance.

BridgeComm has also developed ground-breaking OTM technology which provides ultra-high-speed mesh connectivity for terrestrial, airborne and space systems that require 10-100+ Gbps throughput. Building on the basic connectivity that traditional optical terminals provide, OTM offers a much-needed new option for high-speed connectivity in environments where RF spectrum is limited or congested. Both BridgeComm and Boeing HorizonX Ventures are pioneering the development of these applications via a joint development agreement, which is expected to be completed in phases over the next 24 months.

Allied Minds' 81 per cent ownership interest in BridgeComm had a read through valuation of US\$30.9m

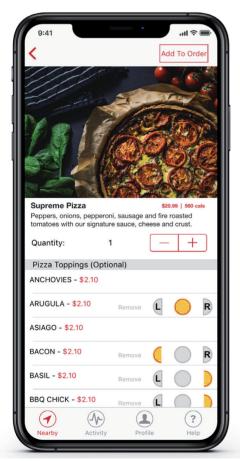


BridgeComm is developing technology that has huge potential to extend the capabilities of the terrestrial fibre grid





TableUp's iPad app helps restaurants improve operational efficiency



TableUp's online ordering-app should be in demand in the current environment

(10.1p a share) at the last funding round in September 2018. Since then, BridgeComm secured US\$1m from Boeing HorizonX in the form of convertible debt financing at the end of 2019, with an additional US\$1.5m committed subject to achieving conditions precedent. Post Allied Minds' 2019 financial year-end, the company subscribed for \$2m of convertible debt, too.

TableUp

- Date of last funding round: April 2018.
- Post-Money Valuation: US\$12m.
- Co-Investors: na
- **Allied Minds' ownership:** 35.5 per cent (Fully-diluted: 30.2 per cent).

TableUp is a revenue-generating software provider that has developed technology to improve inventory and operations management in restaurant supply chains.

The company's front of house module is fully customisable, offers built-in analytics, and is completely accessible through an easy-to-use iPad interface. It aims to increase table turnover, decrease waiting times, manage online reservations and waiting lists, and provide a more personalised dining experience, thus offering tangible benefits to clients.

The online ordering function is of interest in the current environment as it enables restaurants to avoid hefty commission fees from other online ordering services, power their guest experience through the latest mobile technology, deliver a brand experience across all channels (desktop, mobile, app) and run payments through existing credit card processors.

The other major benefit of TableUp's technology is that it enables restaurant operators to store guest data including their preferences, historical spend, and loyalty activity and then leverage the data to create tailored and fully automated marketing campaigns via e-mail and mobile push notification.

During 2019, the company entered into a partner agreement with Upserve, a leading point of sale (POS) vendor, which expanded its partnering relationships as it transitioned away from a direct sales model. TableUp is forecast to achieve cash flow break even in 2020 under this new sales strategy.

Based on the last funding round in April 2018, which implied a fair valuation of US\$12m to TableUp, Allied

Minds' 36 per cent stake has a read through value of US\$4.3m (1.4p a share), a valuation that could offer upside if the software company turns cash flow positive this year.

Orbital Sidekick

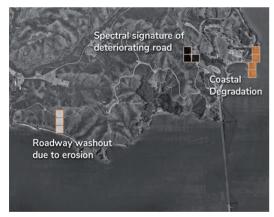
- Date of last funding round: April 2018.
- Post-money valuation: \$11.7m.
- **Co-investors:** 11.2 Capital.
- **Allied Minds' ownership:** 33.2 per cent (Fully-diluted: 29.7 per cent).

Orbital Sidekick is developing aerial and space-based hyperspectral imaging and analytics, initially for the oil and gas industry, a market estimated to be worth over US\$4 billion annually. The company's Spectral IntelligenceTM platform is designed to enable more efficient monitoring of natural resource assets and infrastructure integrity.

Current optical imagery space-platforms only capture a handful of wide colour bands in the visible spectrum and rely on high spatial resolution or temperature data, which severely limits their ability to distinguish objects, materials, and chemical compounds. In contrast, Orbital Sidekicks' technology captures hundreds of narrow contiguous colour bands in the visible and infrared spectra, providing a unique chemical fingerprint of each target in its data set. Effectively, they claim, with Orbital Sidekick's Spectral IntelligenceTM you can see the unseen.

During 2019, Orbital Sidekick expanded its pilot programs to additional oil and gas pipeline operators to deliver Spectral Intelligence™ for asset integrity and regulatory compliance monitoring via web-based user interface. The company captured over 12m square kilometres of earth imaging data from its first-generation hyperspectral system on-board the International Space Station.

Allied Minds led the seed round of Orbital Sidekick in April 2018, making an investment of US\$3.5m for a minority stake. Venture capital firm 11.2 Capital, which specialises in breakthrough technologies, invested alongside Allied Minds. The company's 33 per cent stake is worth US\$3.9m (1.3p a share).



Hyperspectral technology can provide target detection and space awareness in areas of restricted access

Spark Insights solutions improve risk assessment and claims automation in the insurance industry

Spark Insights

- Date of last funding round: April 2019.
- Post-money valuation: \$3.2m.
- Co-investors: na
- **Allied Minds' ownership:** 70.59 per cent (Fully-diluted: 60 per cent).

Spark Insights is an advanced analytics company that is developing data products for the rapidly growing insurance analytics market. Allied Minds formed Spark Insights in 2018 and subsequently completed a \$3.2m Series Seed funding round in April 2019 to value its 71 per cent stake at £2.3m (0.7p a share).

The increasing prevalence of catastrophic events, including hurricanes, floods, and wildfires, has meant that property insurers are struggling to quantify the impact on their insurance policies, both before and after a catastrophic event occurs. Spark Insights is leveraging unique data sets, including satellite imagery and weather data, and then using proprietary analytics to improve its clients' insurance analytics and catastrophe modelling platforms.

During 2019, Spark Insights built a core data science and machine learning team consisting of six data scientists, engineers and machine learning experts. The company also sourced and labelled thousands of satellite and aerial images to support modelling efforts, built initial machine learning models and achieved initial research & development performance milestones for accuracy.

SciFluor Life Sciences

- **Date of last funding round:** November 2019 (convertible debt into preferred equity round).
- Valuation: na
- **Co-investors:** Various third parties.
- Allied Minds' issued and outstanding ownership: 62.6 per cent (Fully-diluted: 54.1 per cent).

SciFluor is a drug development company focused on creating best-in-class compounds, initially targeting the field of ophthalmology. Its lead clinical asset, SFo166, is a topical eye droplet treatment for Age-related Macular Degeneration (AMD) and Diabetic Macular Edema (DME),



both widely prevalent retinal diseases that lead to blindness if left untreated.

SciFluor sought to raise external equity financing over the course of 2018 and 2019 to fund Phase II trials for SF0166, on the back of safety and preliminary efficacy data from the Phase I/II trials. This process was not successfully completed. As a result, clinical development activities have been pared back, and are now focused exclusively on the toxicology studies necessary to initiate the Phase II trials for SF0166.

In the final quarter of 2019, SciFluor raised \$1.325m of convertible debt financing from third parties and continues its fundraising efforts for an external equity financing to fund Phase II trials. It is uncertain if SciFluor will be successful in securing further funding, so Allied Minds 62.6 per cent stake has been attributed nil value in our sum-of-the-parts valuations.

Major shareholders

Allied Minds major shareholders Name Invesco	Percentage of issued share capital
	Percentage of issued share capital
Invocco	
HING2CO	22.97%
Crystal Amber	18.21%
InterTrader	12.75%
GIC Private Limited	8.02%
Mark Pritchard	6.29%
Total	68.24%
Source: Allied Minds 2019 annual report and accounts, and London Stock	c Exchange RNS

Five shareholders control just over two-thirds of the 242m shares in issue, but the shares are still liquid on a bid-offer spread of 38p to 38.5p and tradable in decent bargains. Last week, individual trades as large as 100,000 shares plus went through the market. Over the past three months, average daily volume has been around 455,000 shares, so there is decent liquidity in the stock.

The obvious risk of a tightly controlled shareholder base is that price moves can be accentuated. However, with Allied Minds' new board of directors looking to monetise the hidden value in the portfolio, and the companies reporting positive news flow, then it's reasonable to expect investors to react positively, too. The effect should be to accelerate the re-rating of the shares.



Meet the management

Crystal Amber's shareholder activism paid off at the end of last year when Allied Minds announced that it would change investment strategy and focus solely on monetising the commercial value of its existing portfolio companies. The board was radically changed, too.

- Co-chief executive Mike Turner and chairman Jeff Ruher both stepped down in March 2020. Mr Ruher was replaced by Harry Rein who has extensive experience in the venture capital sector, most recently serving as General Partner for the past decade at Foundation Medical Partners, an early stage venture capital firm focused on the healthcare sector. He previously served as Managing Partner at venture capital firm Canaan Partners where he was responsible for life sciences investments. Prior to Canaan, Mr Rein was President of GE Venture Capital Corporation. He has served on the board of over 20 public and private entrepreneurial companies.
- Chief executive **Joe Pignato** continues in his current role, having joined Allied Minds as chief financial officer in 2015, and served as co-chief executive from June 2019. Prior to joining Allied Minds, Mr Pignato amassed more than 20 years of experience at venture capital firms Prism Venture Works and Charles River Ventures, and advanced nuclear fuel technology company Lightbridge (NASDAQ: LTBR).
- All of Allied Minds' former non-executive directors have left. They are replaced by two new appointments, **Bruce Failing** and **Mark Lerdal**.

- Mr Failing is the General Partner of private equity and venture capital firm Alerion Partners and has over 30 years of management and investment experience in media and consumer products, applied technology and logistics management. He is a director of Instadium, a sports marketing network for scoreboard advertising, and executive chairman of both Enviroscent, an eco-friendly scent company, and DeliverCareRX, a home delivery pharmacy services business.
- The appointment of Mark Lerdal is very interesting. He brings more than 30 years of executive leadership experience to his new role. Mr Lerdal played a major part in the crystallisation of significant value for shareholders at Aim-traded investment company Leaf Clean Energy Company (LSE: LEAF) by overseeing the disposal programme of the company's assets. He played a similar role at another Aim-traded investment company Trading Emissions (LSE: TRE) until January 2019. In the past, I have placed buy-ratings on shares in both companies, and shareholders were duly rewarded with hefty capital returns. It's a major asset having Mr Lerdal on the board of directors.

Importantly, the interests of outside shareholders and the directors have been realigned. No further allocations under Allied Minds' Phantom Plan will be made until gross proceeds from future portfolio company liquidity events exceed an invested capital threshold of US\$109m, representing the total invested capital in the technology portfolio to date. Bonuses of directors have been reduced from 150 per cent to 100 per cent of base salary, too.

Peer group comparison

Allied Minds trades on the deepest share price discount to NAV amongst its listed pre-IPO and venture capital peer group. Please note that the discount is calculated in relation to the company's fully diluted adjusted NAV based on fair valuations of portfolio companies at the last funding rounds. Based on equity shareholder funds, the share price is trading in-line with NAV as the IFRS accounting measure fails to take account of the higher read through investee company valuations. This explains why there was a sharp recovery in Allied Minds' equity shareholders' funds last year, buoyed by net gains on investments as well as the deconsolidation of Federated Wireless after Allied Minds' equity interest fell below 50 per cent. Previously the company had been treated as a subsidiary.



Importantly, the portfolio looks well placed to continue delivering investment upside as further exits are made. As last autumn's disposal of Hawkeye highlights, there is scope for material upside to the carrying value in the accounts in the event of a liquidity-driven event.

Allied Minds pre-IPO/Venture Capital peer group

Company	Market capitalisation	Share price (p)	Latest NAV (p)	Discount or premiumto NAV	NAV return 1 year	NAV return 3 years	Net cash
Augmentum Fintech	£129m	110p	116p	-5%	5.9%	na	£15m
Draper Esprit	£597m	504p	555p	-9%	6.0%	50.0%	£34m
IP Group	£730m	69p	108p	-36%	-6.1%	-20.6%	£112m
Merian Chrysalis Investment Co	£414m	123p	109p	15%	-4.2%	na	£81m
RTW Venture Fund	£204m	\$1.46	\$1.273	15%	na	na	\$11m
The Schiehallion Fund	£500m	\$1.33	\$1.03	29%	3.7%	na	\$319m
Mercia Asset Management	£86m	19.5p	32p	-39%	-22.8%	-20.5%	£30m
Allied Minds	£93m	38.5p	68p	-44%	48.1%	9.4%	\$34m

Source: London Stock Exchange RNS. Individual company annual accounts and latest interim accounts. Allied Minds fully diluted adjusted NAV based on fair valuations of portfolio companies at last funding round and proforma net cash estimate end July 2020

Although it's not realistic at this stage to expect a narrowing of the discount to that enjoyed by Augmentum Fintech and Draper Esprit, the former has scarcity value as the only listed fintech fund and the latter has an enviable track record (three year NAV return of 50 per cent). Allied Minds' strong bias to the rampant US technology sector means it is well placed to benefit from improving investor sentiment driven by further positive news flow from both Federated Wireless and Spin Memory. That's simply not being priced in.

Target price

Investors have rightly been wary of Allied Minds given the company's unenviable track record of shareholder value destruction since IPO. However, the boardroom clear out earlier this year and the appointment of well-respected directors within the industry, is a major turning point.

Indeed, with the cash pile providing a runway to optimise profitable exits, then it will only take the successful disposal of the stake in Federated Wireless or Spin Memory for Allied Minds' share price to be fully backed by cash. The directors could even have an opportunity to exit at valuation levels in excess of the last funding rounds assuming the companies maintain the progress they have been making to date.

On a 12-month basis, Allied Minds' share price has potential to deliver a 40 per cent return to my 55p initial target price to narrow the share price discount to around 20 per cent to my fully diluted adjusted fair valuation of 68.5p-a-share. From a technical perspective, a successful break-out above the 42p early June high would confirm the March 2020 price as a major low and could pre-empt a run-up to last autumn's highs of around 50p. **Buy.**



Risk assessment

There are several risks to consider before making an investment including:

- Failure of the science and technology being commercialised. The innovations and intellectual property being developed by portfolio companies could fail to deliver commercially viable products or technologies. There is also a risk that some portfolio companies may not succeed due to technical, product, market, fund-raising or other risks.
- Monetising the portfolio. There is no guarantee that any of the portfolio companies will become profitable prior to the achievement of a portfolio company sale or liquidity event, and, even if they do become profitable, it may not be sustainable. This would reduce the attraction of the investments to other co-investors, and make monetising Allied Minds' ownership interests more difficult.
- Portfolio concentration risk. Allied Minds has a small portfolio. Failure of either of its two largest investments, Federated Wireless and Spin Memory, would have a material impact. Arguably, this risk is already being factored in given that Allied Minds' share price is on a 44 per cent discount to the read through valuations of its underling investment portfolio and cash, and funding rounds earlier this year fully support the post money valuations in Allied Minds 2019 accounts.
- **IP rights.** If one or more of the IP rights relevant to a valuable business is terminated, it would have a material adverse impact on the overall value of the investments. To mitigate this risk, each portfolio company pursues a policy of generating and patenting additional intellectual property to provide additional protection and create direct IP ownership for the company. To mitigate this risk, Allied Minds negotiates IP ownership rights in any research and development agreement it enters with a network partner, such that Allied Minds becomes a part owner of the underlying IP to protect the company's interests.
- **Funding.** Allied Minds expects to remain operational through December 2023. However, if it is unable to generate sufficient revenue, manage expenses, attract co-investors to participate in follow-on portfolio company financings, or generate a sale or other liquidity event for any of its existing portfolio companies prior to the end of



such period, then its future viability could be adversely affected.

■ Covid-19. Although the virus has had limited impact on portfolio companies to date, there could be disruption to their operations if the pandemic negatively affects suppliers, customers and partners. The virus has already caused a downturn in the global economy, which may become worse as it continues to spread. This may make it difficult for portfolio companies to raise money, enter new strategic partnerships, and retain customers. That said, both Federated Wireless and Spin Memory have raised money in the past three months and at highly supportive valuations.



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