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RESEARCH

Argo Blockchain

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Unique play on cryptocurrency Mining as a Service (MaaS)

Argo Blockchain plc is a recently formed company which was established to develop a global datacentre management business facilitating cryptocurrency Mining as a Service (MaaS). The company recently listed on the Standard Listing segment of the Official List of the London Stock Exchange in conjunction with a £25 million placing at 16p per share.

■ Rise in blockchain technology and cryptocurrencies stimulates demand for a new industry

Blockchain technology, which underlies cryptocurrencies such as Bitcoin and Ethereum, requires significant computing power to solve complex mathematical equations associated with the administration of transactions. This process ("mining") is undertaken by members of the online community known as "miners" who are rewarded for their efforts with cryptocurrency. However, set up costs for crypto mining infrastructure can be prohibitive.

■ MaaS democratises the mining process and lowers entry costs for the general public

Mining as a Service (MaaS) offers consumers the chance to mine for cryptocurrencies without them having to spend the time and money required to set up and maintain crypto mining infrastructure. Instead of buying the equipment themselves users pay a fee to buy computing power, (also known as "hashing power") from a MaaS provider which has acquired infrastructure at scale.

■ Growing and global operational presence

Argo's operations will initially be located in Canada, China & Northern Europe, locations where electricity costs are low, supported by a UK Head Office. Argo intends to launch a number of "pay for what you use" mining plans within the coming months, initially focusing on four cryptocurrencies. **Ranging in value from \$49 to \$599 per month, the recurring monthly plans offer more flexibility to users compared to current competitor offerings.**

■ Valuation suggests upside of 195%

Working together with management we have put together a number of assumptions to highlight Argo's potential over the next three years. Applying a multiple of 10 times forecast 2020 profits implies a valuation of £112 million or 38.12p per share. Weighted equally with our peer based valuation of 35.55p this results in our target price of 36.84p. **With the shares currently trading at 12.5p we therefore initiate coverage of Argo Blockchain with a Conviction Buy stance.**

CONVICTION BUY
– Price target
36.84p



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Corporate Background

Argo Blockchain plc (ARB) is a recently formed company which was established to develop a global datacentre management business facilitating cryptocurrency Mining as a Service (MaaS). Initially incorporated as GoSun Blockchain Limited on 5th December 2017, the company changed its name to Argo Blockchain Limited on 21st December and re-registered as a public limited company, becoming Argo Blockchain plc. On 12th January 2018 it further extended its global reach by incorporating wholly owned subsidiary, Argo Canada, which commenced trading shortly after.

To date, the company has been funded by an initial equity fundraising of £90,000 at a price of 0.1p per share, a £100,000 fundraise at 1p per share in January 2018 and in February 2018 a pre-IPO raise of £2.5 million at 8p per share.

Argo listed on the Standard segment of the Official List of the London Stock Exchange on 3rd August 2018 raising £25 million in a placing at a price of 16p per share. The net proceeds of £22.78 million will be used to expand the company's MaaS business, with major areas of expenditure being the purchase of hardware, marketing costs and working capital. With 293,750,000 shares in issue following the IPO, Argo is capitalised at £47 million. **As part of the listing, each of the directors has agreed not to dispose of any shares for a period of 12 months from the date of Admission, subject to certain limited exceptions.**

Argo Blockchain has commenced initial operations in Quebec, Canada, using certain hardware acquired through Chinese partner, GoSun. The company currently has 7 racks, each comprising 10 servers with 8 GPUs (graphic processing units) in each operation. **As at 23rd July 2018 Argo had 407 "early adopter" paying customers. With a full service offering expected to be launched over the course of 2018, and following the deployment of the IPO proceeds, significant growth is expected over the coming months and years.**



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Market Background

Blockchain and cryptocurrencies

While having much wider applications, blockchain is perhaps best known for being the technology which underpins cryptocurrencies such as Bitcoin and Ethereum. Since Bitcoin was first created in 2009 there has been an explosion in the number of cryptocurrencies created, each of which has its own blockchain, with 1,707 such currencies currently listed on industry data website coinmarketcap.com.

To give a simple explanation, a cryptocurrency is a form of encrypted and decentralised digital currency, transferred directly between peers across the internet, with transactions being processed, confirmed and recorded in a *distributed public ledger* by a process known as “mining”. Anyone who holds a compatible “e-wallet” can hold and transfer that cryptocurrency to facilitate transactions.

Cryptocurrencies have risen in popularity for a number of reasons over the past few years, with users recognising the potential advantages they have (or could eventually have once they become more established) over traditional fiat currencies. **These include the elimination of middlemen from transactions, faster processing times, lower fees, anonymity and the elimination of counterfeiting.** Of course, investment speculation has also played a major part in the rise of their popularity over the past few years, with the rise in the value of currencies such as Bitcoin, Ethereum and Ripple during 2016-2017 being well documented in the media.

The concept of the distributed public ledger is key to cryptocurrencies and blockchain technology

When a cryptocurrency holder wants to transfer their coins, a transaction is created on the cryptocurrency network. These transactions are recorded in a shared public ledger in a continuous series of “blocks” (aka the blockchain). The blockchain is not held within one central location but within many computers or networks and managed by an online community, or “nodes” in the network. This is in contrast to traditional centralised ledgers which are controlled by an individual entity such as a bank. Cryptography is used to ensure that users can only edit the parts of the blockchain that they “own” by possessing the private “keys”. It also ensures that all copies of the distributed blockchain are identical. The record makes it possible to track the ownership of every coin from its issue to the current holder, and effectively, records of all account balances.

Miners/Mining

Members of the online network (or “miners”) are encouraged to maintain the blockchain by using computer hardware (“rigs”) to solve (or cryptographically “hash”) complex mathematical equations and add another “block” of transactions to the existing chain to establish a common digital history. The latest block created is linked to the previous block to create a chain of blocks, with each one being time-stamped for verification purposes. **Crucially, miners are rewarded for their efforts, which require significant computing power, with cryptocurrency.**

In the early days of crypto mining, when competition was lower, miners used general computer processors to carry out the calculations. However, the increased popularity has resulted in the adoption of so called ASICs, or “application specific integrated circuits”, and GPUs, “graphic processing units”, to carry out the calculations required to solve a block. These are more powerful technologies in terms of speed and efficiency compared to general computing hardware. While ASICs are the principal technology used for mining Bitcoin they are application specific and restricted to processing the particular algorithm for which they were designed so cannot be repurposed for the algorithm required for an alternative cryptocurrency. **In contrast, GPUs, a specialist electronic circuit which has been adopted for crypto-mining, can mine many different types of cryptocurrencies and have the flexibility to switch between them.**

A miner that successfully verifies and solves a new block is awarded a newly generated quantity of coins in accordance with the protocols governing the cryptocurrency, plus the transaction fees of the underlying transactions. If an individual miner solved the block by themselves they would receive the entirety of the reward. However, due to the processing power required to do this miners often work in “mining pools” which aggregate their combined computing power with a view to solving the next block first and then sharing the rewards amongst participants. **According to data from Blockchain.info, Bitcoin alone had resulted in cumulative mining revenues of \$2.07 billion (if immediately converted to US dollars) by the end of 2016.**

Mining as a Service (MaaS)

Mining as a Service, or MaaS, offers consumers the chance to mine for cryptocurrencies without them having to spend the time and money required to set up and maintain crypto mining infrastructure. Until now the set up process has been reserved for those with a strong technical background and the resources to buy large amounts of server space.

Under MaaS, also known as “cloud mining”, instead of buying the equipment themselves users pay a fee to buy computing power for crypto mining from a MaaS provider which has acquired infrastructure at large scale. The business model sees the risks and rewards of successfully mining coins passed to the consumer, with the MaaS provider earning fee income from renting out its infrastructure. **The provider thus earns a more predictable level of income and hopes to benefit from economies of scale associated with its investment in mining infrastructure.**

By accessing pre-installed and pre-configured hardware and software made available by MaaS the user is able to commence cryptocurrency mining more quickly and cheaply compared to them building their own physical server platform, installing and configuring the necessary software and obtaining network connectivity, which could take several months, by which time the client’s mining advantage could be obsolete. **In addition, users do not need an in-depth knowledge of the mechanics of mining cryptocurrencies to be able to use the services.**

Operations & Strategy

Argo Blockchain was founded with the intention of building a business offering MaaS to the general public from a global network of company managed datacenters focused on the crypto mining sector. The company is currently at the set-up stage of its development but expects to ramp-up the launch its services over the course of 2018 following the success IPO and fundraise.

The core planned offering is a cloud based platform which enables users to access and manage the mining services they need via the internet. Users will sign up through the company's website and select an appropriate mining plan. **Revenue will be based on a "pay for what you use" model, with users subscribing for a set amount of mining capacity (or hashing power) which will be available, on demand, via the company's cryptocurrency mining infrastructure.** This capacity is then managed and maintained by the company and located across the world.

All plans to be offered by Argo will be on an automatically recurring monthly basis. This is in contrast to the typically longer term contracts offered by the company's competitors which usually have either a 12 month or 24 month minimum term. Users will pay for the services in fiat currency via established payment processing providers, with Argo having entered into arrangements with Payfirma and Shopify. Users will be able to choose the location in which the MaaS takes place, the size of the hashing power given to mining a particular cryptocurrency and the type of cryptocurrency they wish to mine at any given time. **Users will be responsible for the storage and security of their cryptocurrency as Argo does not intend to offer a custody service.**

Argo has decided to target four cryptocurrencies initially, Bitcoin Gold, Ethereum, Ethereum Classic and Zcash, and is looking at other coins for further potential opportunities. The initial mining plans expected to be available to users are as follows, with a one-time launch discount of up to 50% expected to be offered on the small mining package for the first month of service.

Plan name	Small	Medium	Large
Plan price per month	\$49	\$99	\$599
Bitcoin Gold (BTG) (H/s)	200 H/s	600 H/s	2,800 H/s
Ethereum (ETH) (MH/s)	20 MH/s	600 MH/s	280 MH/s
Ethereum Classic (ETC) (MH/s)	20 MH/s	60 MH/s	280 MH/s
Zcash (ZEC) (H/s)	200 H/s	600 H/s	2,800 H/s

Table 1: Initial mining plans. Source: Company

Note: H/s refers to Hashes per second – the number of mining computations performed in one second, also known as hash rate. This "hashing power" is the unit of measurement for Argo's contracts. 1 MH/s = 1 million hashes per second.

1. Register Your Account



Register for free by submitting some basic personal information.

2. Select a Mining Package



Pick from one of our packages and then select a wallet to receive your coins in.

3. Start Mining & Get Coins



Sit back, relax and watch your newly mined coins come in as argo goes to work.

Sign up process. Source: Company

Argo will endeavour to match its available mining capacity to its users as closely as possible but expects to generally run at a higher capacity to account for unexpected downtime and for maintenance. Should the company find that its equipment is being under-utilised, it may mine cryptocurrencies on its own account, although this level of activity is not expected to be significant. Additionally, the equipment used in crypto mining has alternative uses including server capacity for virtual desktops, gaming, industrial design, 3D modelling and genomics. While opportunities to derive revenues from these have not been explored to date they may provide an alternative source of income in the future.

Marketing

Argo will initially target individual users, and small scale industrial miners looking for a cost advantage, in order to achieve its sales targets in the first two years of operation. To attract users and increase brand awareness amongst relevant consumers, marketing will almost exclusively be conducted on web-based platforms such as major social media channels and websites. To that effect, Argo has hired Flatiron Collective, Inc. as a media buyer to manage and review its marketing spend, with Tancredi Intelligent Communication Ltd hired to manage communication messaging and manage media enquiries. The marketing strategy will also see the company develop a forum and 'Bloomberg' type commentary on cryptocurrencies which will be exclusively available for free to users signed up to the plans.

As at 23rd July 2018 Argo had 407 "early adopter" paying customers in addition to a waiting list of 52,611 interested customers who will be offered access once live.

Infrastructure

Argo Blockchain's operations will initially be located in Canada, China and Northern Europe, supported by a Head Office in the UK. Amongst other things, these locations have been chosen due to their lower operational and electricity costs, lower requirements for hardware cooling (hot climates can cause hardware failure) and skilled workforces.

In **Canada**, prior to forming wholly owned subsidiary Argo Canada in January 2018, the company entered into a memorandum of understanding (MoU) with Victory Square, a CSE listed crypto holding company, for 600Gh/s of crypto mining capacity.

Further, on 23rd February 2018 Argo Canada entered into a lease with Vernon Blockchain Inc. for a 1,000 square foot facility in Quebec which has the ability to support up to 200 racks (2,000 servers) of mining equipment. Argo started operations from this property on 14th February 2018, having been granted early access to the premises by the landlord, and intends to use this space to cover the majority of its first year mining activity.

In **China**, Argo entered into a definitive agreement with GoSun, a Shenzhen stock exchange listed infrastructure and networking companies, on 22nd February 2018. The agreement covers an initial capacity of 10 MW and 5,000 servers, and increases to 100 MW and 50,000 servers by December 2018. Further capacity will be added at a minimum of 10 MW and 5,000 servers per quarter until the end of 2019 for a total minimum capacity available of 140 MW and 70,000 servers.

This deal will enable the company to secure low cost electricity and operational costs on a long term basis, provide the potential for scale to be established over multiple established datacentre locations already operated by GoSun, reduce hardware acquisition costs and tariffs using GoSun's procurement and purchasing power and build local relationships with an established local partner.

China is an ideal location for crypto mining infrastructure. **Notably, the country offers low electricity costs due to an abundance of hydro-electric power, with costs of around \$0.04 (USD) per kilowatt hour in the second half of 2017, one of the lowest electricity costs in the world.**

In **Northern Europe** (namely Iceland) Argo is attracted to low ambient temperatures and reliable power supplies, often derived from sustainable sources such as geo-thermal or hydro-electric power. The company is currently exploring opportunities to locate its cryptocurrency mining operations in these territories. Argo expects that MoUs will be entered into in Q4 2018, with definitive agreements with one or more partners signed during the course of the year.

Hardware

Argo intends to lease the majority of its hardware to minimise the need for significant capital to be invested in the initial stages of its operations and to be able to respond more quickly to changes in customer demand - **additional hardware and equipment will only be procured and installed once there is demand for it**. The balance of the hardware will be acquired outright.

The company will use GPUs to provide the basis for its MaaS offering as a result of their ability to mine multiple cryptocurrencies using the same hardware but different software, the wider availability of GPU hardware (as opposed to ASICs) from multiple vendors and the longer lifespan of GPUs against the relatively short period of competitiveness from ASICs.

The original Argo Blockchain data centres will consist of racks of 10 servers each containing 8 GPUs, for a density of 80 GPUs per rack. The company has to date acquired for itself 7 such racks which are in operation in its Quebec facility and are available to early adopters. Argo has also ordered, but not yet received, 100 servers, sufficient for 10 racks, for its Quebec facility.

Software

The company's servers are used together with optimisation software. Argo has selected Apply Digital as its principal software vendor and has entered into a master services agreement and statement of work with the business. The software and hardware combined have the capability to mine any GPU-based algorithm. In addition, Argo anticipates establishing an in-house software development team with the change expected to be cost neutral and complete by the end of Q3 2018.

Current Progress and Growth Targets

As at 23rd July 2018 Argo had 407 paying customers, with a full service offering expected to be launched over the course of 2018. By September 2018, Argo intends to have 250 servers, being 25 racks, in production, which will serve an estimated 2,822 users.

Within 6 months of admission Argo expects it will provide c.120 server racks (each comprising 10 servers with an average of 8 GPUs per server) in three datacentres with an aggregate mining capacity of between 350,000 Mh/s and 400,000 Mh/s, with these servers being purchased rather than leased. Each rack will be able to service approximately 80 subscribers in the first year, rising to c.110 in year 2 and 145 in year 3 based on assumptions regarding a mixture of the available service plans and expected increases in hardware efficiency.

In the first year of operations Argo is looking to provide 186 server racks in eight datacentres in China, Canada and Northern Europe with an aggregate mining capacity of between 2,750 and 3,250 Gh/s. It is expected that this capacity will serve approximately 31,752 customers. The contract with Vernon Blockchain provides capacity for up to 200 racks, with Argo planning to enter into contracts for 3-10MW of power in Quebec by end of Q4 to allow for further server deployments.

In the second year of operations Argo is looking to provide 1,990 server racks in up to 26 datacentres in China, Canada and northern Europe with an aggregate mining capacity of between 30,000 and 40,000 Gh/s, enough to serve an estimated c.140,000 customers. In addition to the Vernon Blockchain agreement, the agreement with GoSun, in relation to over 140MW and 70,000 servers, is expected to be sufficient for the expected requirements of year one and year two.

IPO proceeds

Argo intends to use the net proceeds of the IPO as follows:

Expenses	Estimated amount in first 12 months (£)
Hardware acquisition and leasing costs	8,865,600
Operation costs - (electricity, support, local expenses)	1,838,111
Directors salaries	519,996
Head office costs	869,074
Marketing costs	2,993,140
Development costs	926,827
Working capital	6,772,196
SUB-TOTAL	22,784,944
IPO expenses	2,215,056
TOTAL	25,000,000

Management

Jonathan Bixby - Executive Chairman

Jonathan Bixby is a serial entrepreneur, active investor, board member, and speaker. Jonathan has helped raise over \$100 million in venture capital and has been involved in over 10 successful exits. In addition to his investing efforts in Stanley Park Ventures, Jonathan has been active in the crypto world since 2012 as an investor and entrepreneur. Jonathan was previously an entrepreneur-in-residence at Vancouver-based startup accelerator GrowLab. Prior to GrowLab, he was the CEO and cofounder of both Strangeloop Networks, a networking company focused on providing a hardware appliance in data centres to speed up web based properties, which was acquired by Radware (RDWR) and IronPoint, a technology based provider of Content Management Services which was acquired by the Active Network (ACTV). He is a Business in Vancouver Top 40 Under 40 award recipient and is an investor and advisor to numerous other networking and technology companies, including but not limited to TSO Logic, Rubikloud, Neurio and Layerboom.

Mike Edwards - Executive Director and President

Mike Edwards has started and invested in technology companies for over 20 years. Mike invests in smart people with big ideas, and thrives on helping other entrepreneurs turn a napkin sketch into a prosperous business. He has invested in more than 40 technology startups including Punch'd, which was sold to Google, Summify, which was acquired by Twitter, Wander, which was acquired by Yahoo, AreaConnect, which was sold to Marchex, Wylie Interactive, which was acquired by Zynga, and PasswordBox, which was acquired by Intel.

Mike is actively involved in growing and supporting the crypto currency startup community and connecting local entrepreneurs with the right investors, mentors and influencers in Silicon Valley, New York, Europe and Asia. Mike co-founded Growlab, a seed stage accelerator focussing on consumer facing digital product, which later merged with Extreme Startups to create Canada's Highline accelerator, and co-founded and is a board member of Creative Labs, a venture capital backed startup foundry that builds consumer technology companies by leveraging the Creative Artist Agency's access to talent and audience.

Timothy Le Druillenec - Executive Director and CFO

Timothy Le Druillenec is a Fellow of the Chartered Institute of Management Accountants and has provided management consultancy and accounting services to a number of public and private companies over many years in some cases fulfilling the role of director and/or company secretary. He has acted in this capacity for several AIM companies and also companies listed on the Main Market and he is currently a director of Dukemount Capital Plc. Most recently Timothy was the finance director and company secretary of Hemogeynx Pharmaceuticals PLC. From 2005 to 2012, he was CEO of Richards Walford & Company Ltd, a fine wine importer, until it was sold to Berry Bros. & Rudd. Prior to that, from 1995 to 2004, he was the group finance director and company secretary of Pacific Media Plc, a Main Market company, and during that time occupied the same roles at Bella Media Plc, an AIM listed company.

Gil Penchina - Non-Executive Director

Gil is an experienced investor who has invested in LinkedIn, PayPal, Cruise Automotive, Dollar Shave Club, Hooked, Wealthfront, AngelList, Indiegogo, Fastly and others. Gil is currently a partner at Ridge Ventures, formerly IDG Ventures USA. Prior to this, Gil was a board member at Fastly, the CEO of Wikia.com, a wiki hosting service which derived its revenue from advertising and sold content and became a top 50 web property and previously worked for eBay where he held a number of roles progressing from Manager in Business Development to VP and General Manager, International with responsibility for France, Italy, Spain, Poland and Eastern Europe and Expansion in Europe

Major Shareholders

Name	Shares	Percentage
Durban Holdings Ltd. ¹	38,700,000	13.17%
Banque Heritage SA	28,125,000	9.57%
Miton Asset Management	25,000,000	8.51%
Hadron Capital LLP	15,625,000	5.32%
Adrian Beeston	12,600,000	4.29%
Janus Henderson Investors	11,000,000	3.74%
First Equity	10,000,000	3.40%
IronPort Blockchain Financial Inc	9,000,000	3.06%
Second Wave Capital LP	9,000,000	3.06%
Jupiter Asset Management	9,000,000	3.06%

¹ *Durban Holdings Ltd. is a company under the joint ownership and control of Jonathan Bixby and Mike Edwards, directors of the company.*

Key Risks

Cryptocurrency price volatility

Argo Blockchain's business model is not focused on cryptocurrency mining for its own book so revenues are not directly affected by changes in the prices of cryptocurrencies. However, demand for its MaaS offerings from customers may be affected by such movements as the level of return users can make, along with sentiment towards the sector, is linked to cryptocurrency prices, which are notoriously volatile. For example, after peaking at just under \$20,000 on 17th December 2017 the Bitcoin price then proceeded to fall by c.69% by 6th February 2018. If the award of coins for mining activities are not sufficiently high, miners may not have an adequate incentive to continue mining and may cancel their MaaS service with Argo. Argo mitigates against this risk by offering user plans across a range of cryptocurrencies.

Regulatory risks

The rise in popularity of cryptocurrencies has caught the attention of various financial regulators around the world who are concerned about their potential impact on investors and potential for the facilitation of financial crime. In the UK, the Financial Conduct Authority (FCA) warned consumers in September 2017 about risks associated with Initial Coin Offerings (ICO), highlighting the lack of regulatory protections and potential for fraud and capital losses. Additionally, Bank of England Governor Mark Carney said in a recent speech, *"The time has come to hold the crypto-asset ecosystem to the same standards as the rest of the financial system..."*. Any changes in the regulatory environment across the countries in which the company operates could have a material adverse effect on its operations. By spreading its mining capabilities across three jurisdictions (Canada, China and Northern Europe) Argo expects to mitigate against the risk of adverse regulations in any one geography.

Hardware supply risks

Core to the company's MaaS offering are the hardware units through which crypto mining is done. Therefore the company's operations and growth plans are reliant upon being able to acquire such hardware solutions, some of which are in limited supply. Argo seeks to mitigate against this risk by ensuring it has access to multiple vendors, and that its software development permits the use of hardware from different vendors.

Electricity supply and cost risks

Cryptocurrency mining is highly dependent on having access to a stable and reliable supply of electricity at a price which makes the activity economic. Argo will look to mitigate against this risk by housing its operations in a number of datacentres in different locations and jurisdictions with good connectivity to the electrical grid, low cost power and by purchasing power from multiple suppliers.

Customer take up and renewal risk

To enjoy the economies of scale that come with building up a MaaS operation Argo must attract a sufficient number of customers to subscribe to its plans. Customer renewal rates are also important in this respect, with the company being exposed to existing customers not renewing their monthly rolling contracts. Failing to attract and retain customers will therefore have a material adverse effect on the company's operations. Mitigating this risk, Argo has built up a list of 52,611 interested individuals who will initially be offered the plans upon their launch.

Forecasts

Having been formed in December last year Argo has not yet released a full set of accounts. For the period from incorporation to 31st March 2018 administrative expenses of £638,949 were incurred, with the balance sheet showing net assets of £2.27 million, this mainly consisting of £1.65 million of cash.

Working together with management we have put together a number of assumptions to highlight Argo's potential over the next three years:

Over-riding assumptions

- the figures are based on a £20 million IPO raise so with a £25 million raise completed they could prove to be conservative if all other assumptions are met.
- Global mining demand will continue to be reliable and is elastic for the 3 year forecast period.
- The primary constraints on revenue are the ability to finance and operate server racks specialised in crypto currency data mining and to attract users.
- The primary constraint on profitability is the ability to operate these Server Racks with high efficiency in the lowest cost geographic locations.
- Marketing campaigns are successful in attracting the forecast number of users.

Key financial assumptions

- for simplicity, all revenues are derived from the Ethereum mining plans with revenues and MH/s per plan assumed as per Table 1 on page 6. We assume a 50%, 30% and 20% split across the small, medium and large plans respectively.
- Respective local electricity costs in US\$ per kWh in China, Canada and Iceland of \$0.05, \$0.038 and \$0.04.
- cost per server rack of £30,959.
- we do not expect the company to take on any borrowings to fund its operations although interest will be paid on leased servers.
- no dividends paid as all cash is reinvested.

Other key assumptions are:

ASSUMPTION	2018	2019	2020
China server racks	1	101	5,126
Canada server racks	431	1,451	6,476
Iceland server racks	0	0	5,025
TOTAL Server Racks in Data Centres	432	1,552	16,627
MH/s produced (1,000s)	3,575.0	27,739.5	238,020.0
Mining Plan Subscribers	30,411	109,509	1,173,201

The table below shows the resulting P&L outputs from our assumptions:

Year to Dec	(£m)	2018	2019	2020
Revenues		3.5	36.2	271.6
COGS		0.8	5.0	37.9
GROSS PROFIT		2.7	31.2	233.7
Sales & Marketing Expenses		1.2	8.0	72.1
Research & Development Expenses		1.2	1.0	2.2
Administration Expenses		1.4	1.4	1.5
TOTAL ADMIN EXPENSES		3.7	10.4	75.8
EBITDA		(1.1)	20.8	158.0
Interest (inc. lease interest), tax, amortisation, non-cash items		1.7	15.0	146.8
NET PROFIT		(2.8)	5.8	11.2

With a market cap of £47 million at IPO, assuming our figures for 2019 are met Argo will be trading on a price to earnings multiple of 8.1 times, falling to 4.2 times in 2020. While these figures look cheap they reflect the risks mentioned on page 12, especially with regard to achieving the targeted number of customer sign ups. **However, should Argo successfully meet these forecasts we believe a multiple of 10 times 2020 profits would be a reasonable valuation to apply to the business, implying a valuation of £112 million. Divided by 293,750,000 shares in issue this results in a value per share of 38.12p.**

Listed Peer Comparisons

While there are many listed companies around the world operating in the blockchain and cryptocurrency sectors we identify the following two companies as Argo's closest listed peers.

DMG Blockchain Solutions

One listed company which operates in the MaaS sector, but also provides other blockchain related products and services, is TSX Venture Exchange listed **DMG Blockchain Solutions (TSXV.DMGI)**. The company listed in early February 2018 following the effective reverse takeover of AIM Explorations and also completed a C\$28 million (£15.75 million) fundraise in December 2017.

DMG is currently building a flagship facility in Canada with expected power capacity of up to 85 megawatts, making it one of the largest crypto mining facilities in North America. The mining facility will accommodate additional MaaS customers, as well as DMG's own mining, and address substantial demand from Asia. DMG made revenues of C\$3,344,699 in Q2 this year, with the majority coming from its MaaS service, and a loss of C\$9.9 million.

DMG is currently capitalised at C\$33.57 million (£19.57 million), the shares having fallen from a peak of C\$1.91 in February to the current \$0.36. With cash of C\$19.71 million as at the end of March 2018 the enterprise value is \$13.86 million (£8.08 million)

HIVE Blockchain

Argo expects that it will face competition from another Canada listed company, **HIVE Blockchain (TSXV:HIVE)**. HIVE, primarily a crypto miner, has a strategic partnership with Genesis Mining, a cryptocurrency mining hashrate provider and currently the world's largest MaaS provider, serving over 2 million customers from its datacentres in Iceland. For the year to March 2018 HIVE made revenues of C\$13.08 million and a loss of C\$26.16 million following a period of heavy investment in expansion and after booking in a one-time charge of C\$17.74 million for the consideration for the strategic relationship with Genesis.

HIVE currently has mining rigs with 3.8 megawatts of capacity in Iceland and a 20.4 megawatt facility in Sweden under an agreement to jointly construct two state-of-the-art data centres in the country with Genesis (which has a 30% equity stake in HIVE). A further 20 MW of capacity is expected to be installed by September 2018.

HIVE is currently capitalised at C\$289.4 million (£168.69 million) and with cash of C\$14.73 million as at 31st March 2018 has an enterprise value of C\$274.67 million (£160.1 million).

Considering the low valuation anomaly currently seen with DMG, we consider HIVE to be a more relevant comparable for Argo. Applying a 50% discount to HIVE's valuation to account for risks associated with Argo's business model this derives in an EV of £80 million. **This suggests a market cap of £104.43 million for Argo (£80 million + net IPO proceeds of £22.78 million and cash of £1.65 million as at 31st March 2018), or a value per share of 35.55p.**

Conclusion

While the risks to Argo's business strategy are clear, the company has a clear plan to grow its operations in what is an ever expanding area of the blockchain/crypto world. With the funds raised from the IPO it is now in a strong position to roll out its services and attract new users, with the Victory Square and GoSun agreements providing the capacity to significantly expand its infrastructure over the next few years.

We set our target price for Argo by equally weighting our profit multiple based valuation of 38.12p with the peer based valuation of 35.55p, to give a value of 36.84p. With the shares currently trading at 12.5p this implies potential upside of 195%. **We therefore initiate coverage with a stance of Conviction Buy.**

DISCLAIMER & RISK WARNING

It is the policy of ALIGN Research to only cover companies in which we have conviction in the investment case. Our “Conviction Buy” recommendation is derived from our conviction in either taking equity as payment for our research services, or applying our fee to the purchase of equity in a covered company whilst absorbing the cash cost of our freelance analyst payments.

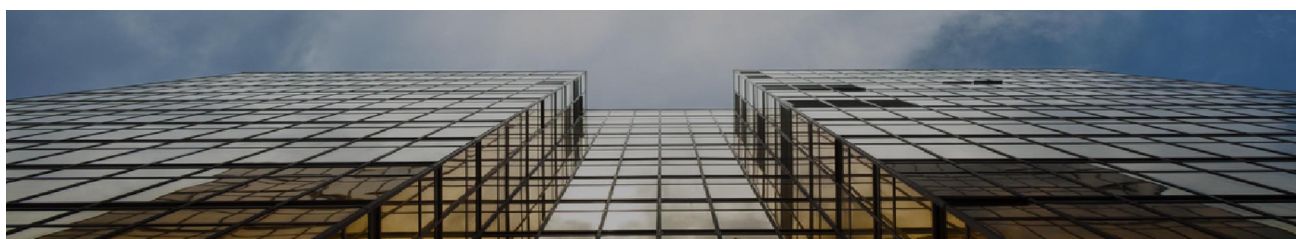
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