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RESEARCH

Argo Blockchain

19th November 2019

Updated financial model confirms complete disconnect between market price and underlying value

Argo Blockchain plc is a global data centre business that provides a purpose-built and flexible platform for the mining of leading cryptocurrencies in the enterprise-scale and institutional sectors worldwide from operational centres in Quebec, Canada. Following a change of strategy earlier this year the company is now focused on mining cryptocurrency for its own book and providing an enterprise level Mining as a Service (MaaS) product.

Strategic shift further vindicated by recent updates

Argo's results for the six months to June 2019 showed revenues growing by 283% to £2.93 million as the company turned to mining cryptocurrencies for its own book and as the Bitcoin price rose strongly over the period. This helped the company to post a maiden pre-tax profit of £0.95 million. The third quarter (to end-September) saw revenues of £3.63 million generated from cryptocurrency mining operations, up 75% from Q2 2019, with mining margins for the period of c.73%.

Further investment in hardware made to accelerate growth

An existing order for 5,000 Antminer S17 machines costing $13.09 million has been replaced by an order for 10,000 Antminer T17s costing $9.51 million. This decision has been made as the amended order is significantly superior in terms of total mining efficiency and enables the Argo to grow further its overall mining capacity**. Argo expects the amended order will be delivered in batches from early December this year and will increase the size of the mining estate to 17,000 machines or 640 PH by the end of Q1 2020, increasing total mining capacity by 240%.**

Shares look cheap on a range of valuation metrics

With a current market cap of less than £18 million Argo trades at a discount of 20% to net assets of £22.38 million as at 30th June 2019. On a price/earnings basis the shares currently trade on a multiple of just over 3 times our 2020 forecasts. Taking into account Argo's growth profile and efficient operations, we remain of the belief that a multiple of 8 times earnings & cash & crypto assets would be a reasonable value to place on the shares. **On our 2020 forecasts for c.1.83p of earnings, that equates to a value of 23.33p per share, implying 286% upside**. **Conviction Buy.**

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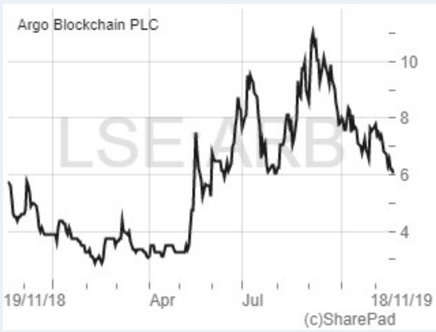
CONVICTION BUY – Target price 23.33p

Key data

EPIC	ARB
Share price	6.05p
52 week high/low	11p/2.875p
Listing	Main Market
Shares in issue	293,750,000
Market Cap	£17.77m
Sector	Crypto Mining

12 month share price chart



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Valuation model update

Variables can change quickly in the crypto markets. So following on from our re-initiation of coverage note of 7th August 2019 we are updating our financial model for Argo Blockchain, taking into account recent corporate developments and changes in cryptocurrency prices and difficulty rates.

Main corporate developments

Interims

On 17th September, Argo's results for the six months to June 2019 showed revenues growing by 283% to £2.93 million as the company turned to mining cryptocurrencies for its own book and as the Bitcoin price rose strongly over the period. Mining revenues were £2.77 million with the residual income coming from the company's now closed MaaS services. **Importantly, these results only included four months where the company was mining for its own account.**

A reduction in the cost base following the launch of the new strategy resulted in a 35% fall in the annual mining cost base. Total admin costs for the first half were down from £3.73 million in FY 2018 to just £0.63 million as the listing cost dropped out. This helped the company to post a maiden pre-tax profit of £0.95 million, against a loss of £4.12 million for the year to December 2018.

On the balance sheet, Argo held just over £3 million worth of cryptoassets at the period end, based on a BTC price of $10,817. Net cash equivalents (excluding cryptocurrency) amounted to £5.6 million, down from £16 million six months previously, reflecting the ramp up in investment in mining infrastructure.

Q3 and strategy updates

On 8th October, a brief but positive update revealed that the third quarter (to end-September) saw revenues of £3.63 million generated from cryptocurrency mining operations, up 75% from Q2 2019, with mining margins for the period of c.73%. Margins were down from c.80% seen in H1 following a rise in mining difficulty and network hash rates, and a softening in the Bitcoin price. Nevertheless, Argo continued to be one of the most efficient miners in the industry. **No specific details were given on the period end cash/crypto balance but Argo commented that during the quarter it adopted a policy to exchange its mined Bitcoins into fiat currency on a regular basis to avoid additional exposure to Bitcoin pricing. We believe this is a very sensible approach and one that market has not awarded Argo appropriate credit for.**

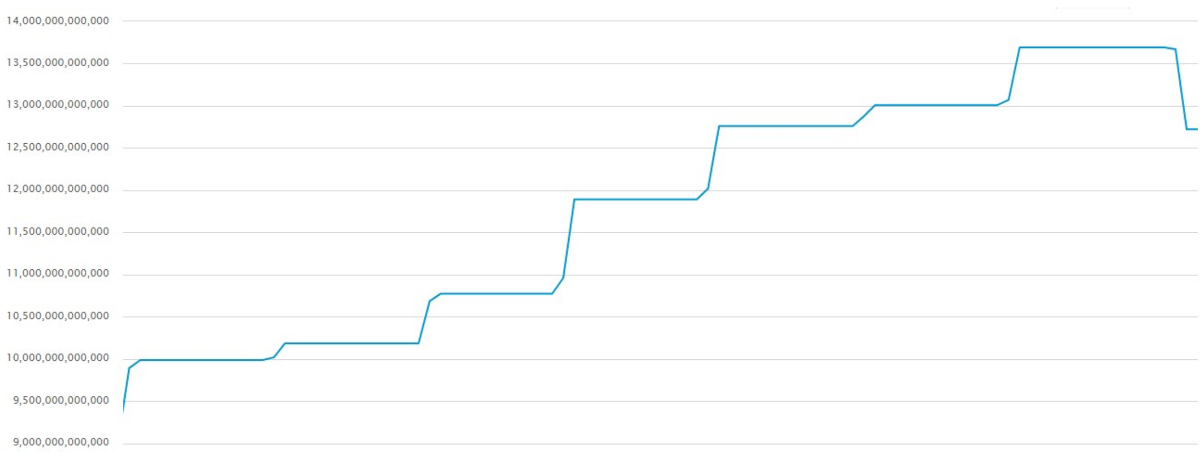
On 30th October Argo announced it had amended and expanded an existing order for mining equipment from supplier Bitmain. The existing order for 5,000 Antminer S17 machines costing $13.09 million has been replaced by an order for 10,000 Antminer T17s costing $9.51 million. An existing down payment of $6.546 million will be applied to the order, with the balance fully fundable from Argo's cash resources. This decision has been made as the amended order is significantly superior in terms of total mining efficiency and enables the Argo to grow further its overall mining capacity. Argo expects the amended order will be delivered in batches from early December this year. **It will increase the size of the mining estate to 17,000 machines or 640 PH by the end of Q1 2020, increasing total mining capacity by 240%.**

Finally, on 11th November Argo announced that 500 new Bitmain S17 Antminer machines were brought onstream in the previous week, increasing the total number of machines currently in production to 7,000. Also, 1,026 S17 Antminers that commenced production in late May 2019 are reported to have already achieved a 100% payback on their investment.

Cryptomarket developments

The Bitcoin (BTC) price is a key driver of Argo's revenues, with every $1 increase in the price all falling through to gross margins as there are no additional direct costs incurred. BTC was hovering around the $12,000 level at the time of our re-initiation note, before falling to trade at around the $10,000 mark for much of September. A further fall took the price down to between $8,000 - $8,500 for the first few weeks of Q4, before a sharp rise back up to $9,500 was seen at the end of October. As we write, BTC has slipped back to around $9,000.

Bitcoin difficulty rates meanwhile, the key factor in how many Bitcoins can be mined for a given level of hashing power, increased from 9.55 trillion hashes (TH) per second in August to 13.69 TH in October. However, in early November difficulty fell to 12.72 TH, the first fall in three months, on the back of a lower network-wide hashrate.



Source: [*https://www.blockchain.com/en/charts/difficulty*](https://www.blockchain.com/en/charts/difficulty)

Zcash meanwhile, which Argo mines in much smaller quantities, has seen its price fall from around $65 at the beginning of August to a current price of $37. Difficulty rates have risen from c.83 million to a current level of c.106 million h/s.

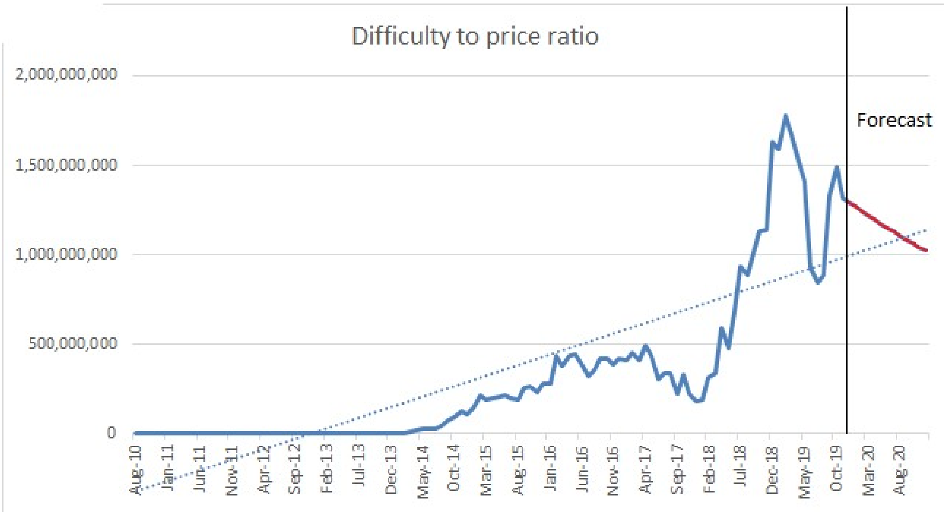
Updated Forecasts

Using the new information from the events above we have updated our financial model, which covers the 2019 and 2020 financial years. The key changes are:

- H1 2019 figures are now actual rather than forecast.

- number and type of machines in operation have been updated for the revised order. We are now looking for c.17,000 machines to be in operation in Q1 2020, with T17s being the most common machine (11,500) given the recent revised order.

- Bitcoin/Zcash price and difficulty figures have been reset at current levels in our model. We use a BTC price of $9,000 beginning in November 2019 and the current BTC difficulty level of 12.72T. Given that prices have underperformed over the past few months in relation to difficulty, we now assume that BTC prices rise by 5% a month to the end of 2020, with difficulty expected to rise at 3% a month. According to our figures, this would take growth in the difficulty to price ratio back to its historic trendline (see chart below) in 2020. Zcash prices are assumed to be flat over the forecast period with a 6% increase in difficulty.



Bitcoin difficulty to price ratio. Source: Align Research

- exchange rates have been updated for the latest figures.

- capex forecasts have been revised downwards slightly to reflect the lower price of the revised order.

- finally, in discussion with management, we have tweaked the specs of the Antminer T17s from 40Th/s to 42Th/s given Argo's specialism and focus on improving equipment efficiency.

Findings

On the updated figures we are now looking for Argo to make a pre-tax profit of £6.53 million in 2020. This is down from our previous forecast of £10.44 million, mainly as the BTC price has not performed in line with our previous expectations and as difficulty levels, while having recently fallen back, are also ahead of our original forecasts.

We do point out however that Argo is a strongly cash generative business, with cash inflows being well ahead of reported profits. This is especially so in 2020 when we expect high levels of (non-cash) depreciation to be booked in the accounts. This is due to the large investment in mining machines made in 2019, with the assets being depreciated at the relatively high rate of 33% per annum. Adding back depreciation, we are looking for a £9.87 million cash inflow from operations for the year.

Valuation

Despite our lower forecasts, shares in Argo remain extremely cheap on a number of valuation metrics in our view. Firstly, with a current market cap of £17.77 million Argo trades at a discount of 20% to net assets of £22.38 million as at 30th June 2019. **With our forecasts suggesting NAV rising to £32.32 million (11p per share) by the end of 2020 the discount rises to 45%.**

On a price/earnings basis the shares currently trade on a multiple of just 3.3 times our 2020 forecasts. If we strip out forecast net cash and crypto assets the ex-liquid assets PE multiple turns, quite incredibly, negative as we expect cash and crypto at the end of the year to exceed the current market cap. **Similarly the EV/EBITDA multiple for 2020 turns negative for the same reason as above.**

Taking into account the risks involved, Argo's growth profile and efficient operations, we remain of the belief that a multiple of 8 times earnings would be a reasonable value to place on the shares. On our 2020 forecasts for c.1.83p of earnings, that equates to a value of 14.62p per share. **Adding in the value of forecast cash and cryptocurrency on the balance sheet adds another 8.71p per share for a total value of 23.33p per share.**

Assuming our forecasts are met then Argo should have significant distributable reserves available very early in 2020. Reasonably assuming a 30% payout ratio then investors are looking at a potential dividend of c.0.55p per share for the year, an event which should be a major catalyst for the shares. Given the cash generative nature of the business discussed above we believe that the payout ratio has the potential to be much higher - with a 50% payout ratio and an assumed yield application by the market of 6% this results in a value of 15.25p per share.

Conclusion

While some variables have gone against Argo since our initiation of coverage note the company remains one of the most efficient miners in the industry, with mining margins in the mid 70% levels at current prices. **To illustrate the sweet spot the company sits in within the industry we estimate that even if BTC falls to $2,000 Argo can still generate a profit, unlike almost every other listed peer.**

One upcoming event in the crypto world also provides opportunities not accounted for in our model. Around June next year Bitcoin block rewards are expected to fall from 12.5 to 6.25 per block. We believe that this halving will exclude most of the inefficient miners from the market (those with high power costs and older, less powerful hardware) which is currently estimated to represent over 50% of the total network hashrate.

These miners turning off their mining operations as they become unprofitable would be favourable for efficient miners like Argo as the difficulty rate would be expected to fall. If the BTC price increases significantly until the halving, everyone keeps mining and it is more profitable for Argo. Conversely, if the BTC price does not increase significantly until the halving the inefficient miners will have to turn their machines off and Argo will mine more BTC. Further, upside potential to our forecasts and target price comes from filling the newly received capacity from data centre provider GPU.One.

With our earnings + cash & crypto based target of 23.33p per share suggesting 286% upside from the current price of 6.05p we retain our stance of **Conviction Buy.**

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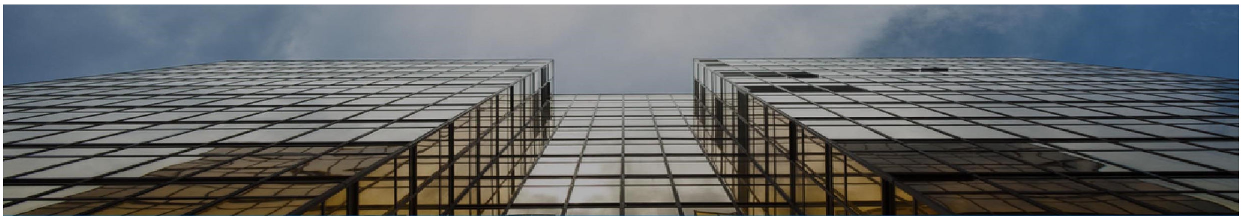

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