

Boku

Extending the reach of digital content merchants

Boku's direct carrier billing platform provides an alternative customer acquisition network for digital content merchants and has been adopted by leading names such as Apple, Google, Microsoft and Spotify. This is driving strong transaction growth across the platform, which we forecast will generate a revenue CAGR of 29% from FY16 to FY20 with rapid expansion of EBITDA margins to 38.7% by FY20. The valuation reflects the strong growth potential, particularly in terms of cash generation.

Year end	Revenue (\$m)	EBITDA* (\$m)	EPS* (c)	DPS (c)	P/E (x)	EV/EBITDA (x)
12/16	17.2	(12.3)	(40.8)	0.0	N/A	N/A
12/17e	24.0	(2.5)	(9.3)	0.0	N/A	N/A
12/18e	32.7	4.9	0.8	0.0	140.0	47.0
12/19e	40.1	11.6	3.2	0.0	36.1	19.9
12/20e	47.8	18.5	5.8	0.0	20.0	12.4

Note: *EBITDA and EPS (diluted) are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Using payments to drive customer acquisition

Boku's direct carrier billing (DCB) platform connects merchants with the billing, identity and sales systems of mobile network operators (MNOs). Supporting merchants to offer DCB helps them to acquire customers and convert them to loyal, paying customers. For example, Apple's shift to DCB has driven a step change in paying users and Spotify saw a 20% uplift in activation rates when setting DCB as the default payment mechanism. Boku has signed up the leading merchants in key digital content categories (music, app stores, games) and, after a period of investment to connect merchants and MNOs to its platform, is seeing strong volume growth and achieved EBITDA profitability in H217.

Platform built to scale

Boku's recent FY17 trading update confirmed that total payments volume (TPV) grew at least 200% y-o-y to \$1.7bn, resulting in revenue growth of at least 40%. We forecast continued strong growth in TPV over FY18-20 as existing merchants extend the carrier billing option to more countries and more carriers and the adoption of digital content continues. With a relatively flat operating cost base, we forecast a rapid acceleration in profitability. We expect Boku to reach operating profitability in FY18 and by FY20 to be generating a free cash flow yield of 7.3%.

Valuation: Reflects strong growth potential

Near-term EV/EBITA and P/E multiples are at a premium to peers, but in our view are justified by the company's strong sustainable earnings growth potential. Data points to evidence that Boku is meeting or beating its current plan include updates on new major merchant wins, existing merchant roll-outs to new carriers and/or new geographies, TPV growth, and tracking the performance of current key merchants. In the longer term, we expect to see new products developed to extend the services that can be offered by merchants and MNOs, and could see bolt-on acquisitions to acquire technology or customer relationships.

Initiation of coverage

Software & comp services

28 February 2018

Price **82.5p**

Market cap **£176m**

\$1.40:£1

Net debt* (\$m) at end H117 14.2
*Pre-IPO

Shares in issue 213.5m

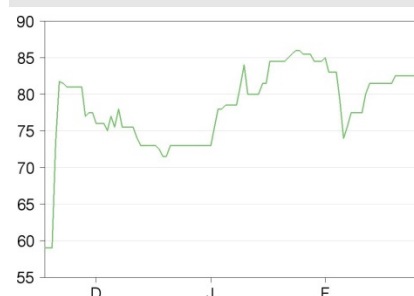
Free float 35.4%

Code BOKU

Primary exchange AIM

Secondary exchange N/A

Share price performance



% 1m 3m 12m

Abs (3.5) 1.9 N/A

Rel (local) 1.3 3.0 N/A

52-week high/low 86p 59p

Business description

Boku is the largest independent direct carrier billing (DCB) company. DCB uses a consumer's mobile bill (pre-paid credit or post-paid monthly bill) as the means to pay for digital content or services. Boku operates a billing platform that connects merchants with mobile network operators (MNOs) in more than 50 countries. It has 148 employees, with its main offices in the US, UK, Germany and India.

Next events

FY17 results 10 April 2018

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Investment summary

Customer acquisition network for digital content

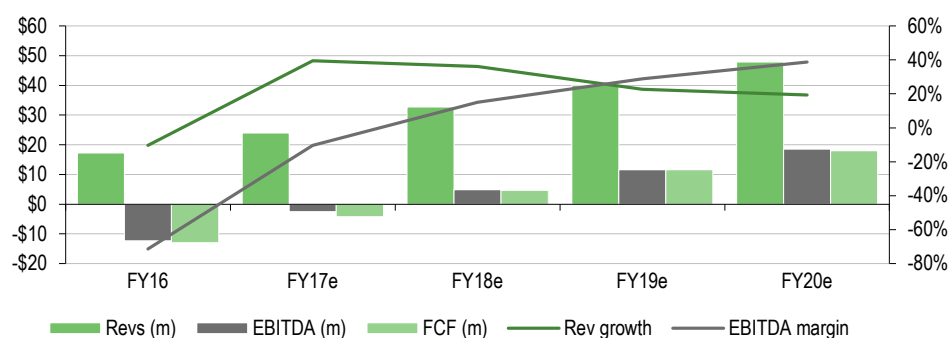
Boku has developed and operates a direct carrier billing (DCB) platform that serves as an alternative payment method for companies selling digital content. Key investment considerations are as follows:

- The business is well established with 173 carrier connections in 51 countries. While DCB is often used in markets where credit/debit card ownership is low, Boku is more focused on developed markets. In developed markets, the ease of setting up and making DCB payments is a powerful tool for expanding the customer base for digital content to users unwilling or unable to pay by credit/debit card.
- Boku has signed up major merchants in key digital content categories, eg Apple and Microsoft for app stores, Spotify for music, Facebook and Sony for games. By focusing on the largest merchants in each category, it is able to more efficiently scale as transaction volumes grow.
- The management team has many years' experience across the payments market.
- The company should see growth from its existing merchant base over the next three years, as they complete their geographic roll-out plans and as consumers continue to adopt digital content via app stores and merchant websites, as well as through subscription services such as music or video streaming.
- Longer-term growth will depend on the pace of digital content growth plus the company's ability to introduce new products that take advantage of the information and experience it has gained in servicing large numbers of mobile subscribers.

Shifting into profitability as volumes accelerate

Through the course of 2017, the value of transactions processed has accelerated, from \$0.6bn in H1 to \$1.1bn in H2, and growing 200% y-o-y, as several key merchants have expanded the availability of DCB for their content. As a large element of the TPV growth was generated by merchants on the transaction business model, which attracts a lower margin, this is likely to result in revenue growth of at least 40% for FY17. Boku recently confirmed that it achieved EBITDA profitability H217. Based on strong TPV growth in FY18-20 and a relatively fixed cost base, we forecast a rapid acceleration in EBITDA profitability over that time period, to reach a margin of 28.9% by FY19 and 38.7% by FY20. With low capex requirements, we forecast strong cash generation and a net cash position of \$31.9m by the end of FY19. The company has no current plans to pay a dividend. We expect returns to be invested in driving growth, either internally or through targeted acquisitions.

Exhibit 1: Summarised financials: 2016-20e



Source: Boku, Edison Investment Research

The stock is currently trading on an FY19e EV/EBITDA multiple of 19.9x and a normalised P/E multiple of 36.1x. While this is at a premium to payment processing peers (16.4x and 23.6x respectively), in our view this reflects Boku's strong growth trajectory and cash-generating potential. With growth forecast to continue in FY20, we expect the FY20e EV/EBITDA multiple to fall to 12.4x and normalised P/E to fall to 20.0x.

Factors influencing growth and profitability

As well as the usual risk factors relating to competition, regulation and the company's technology platform, we see potential for merchant-related factors to influence our forecasts and the share price, both on the upside and downside. For existing merchants, this includes the pace of roll-out to new carriers and countries, the rate of growth in the underlying adoption of digital content, the competitive positioning of major merchants, customer concentration, and the fact that some contracts contain short notice periods. We note that while our forecasts include a certain level of growth from new merchant wins, we have not factored in any major new merchant wins – these could add materially to our earnings forecasts.

Company description: Direct carrier billing platform

Boku has developed and operates a platform to support direct carrier billing (DCB). The platform has connections to more than 170 mobile network operators (MNOs) covering and c 100 merchants, enabling those merchants to offer their customers DCB as a payment option. Boku manages the payment transactions on behalf of the MNOs and merchants but, more importantly, provides a route to market to a section of consumers who may be more difficult to reach via traditional customer acquisition methods. Boku has seen rapid growth in transactions processed via its platform, and we believe that this growth should continue as more carriers and merchants join the network.

Boku: A short history

Boku was founded in 2008 by Mark Britto, Erich Ringewald and Ron Hirson. In 2009 Boku acquired direct carrier billing companies, Mobilcash and Paymo, and shortly after launched its direct carrier billing service. The first product was Boku Checkout, which enabled a consumer to enter their mobile phone number as a payment credential – this would then add the cost of the items acquired to the consumer's mobile phone bill, or reduce the consumer's pre-paid credit. This was popular with gamers, as it enabled them to pay for games on the PC, social gaming on Facebook and multi-player online games. In 2012, Boku acquired Qubecell, an Indian DCB company, which gave the company access to Indian MNOs and, more importantly, development resource. With the signing of Sony as a merchant in 2013, Boku enabled purchases to be made from games consoles. In 2014, Boku acquired Mopay, its main competitor, for \$24m. In 2015 Boku launched its second product, Boku Account, which provides the phone equivalent to "card on file", supporting upgrade and repeat purchases. In 2016, the company launched Boku Acquire, which supports the bundling of additional products and services within a subscriber's carrier plan. Boku listed on AIM in November 2017, raising £15m at 59p per share and placing an additional £30m of shares. The company has 148 employees, with its main offices in the UK, US, Germany, and India (the development hub is in Mumbai).

Growth strategy: Exploit the network

In the short to medium term, the company should benefit from the network effect. With a wide network of carriers connected to the platform, and more coming online all the time, this offers an attractive way for merchants to access new customers. In turn, as more merchants sign up, it

makes the Boku platform more attractive to carriers. While Boku has more than 100 merchants using its platform, we expect the majority of revenues will come from a small number of large merchants. We expect the company to see growth from the following factors:

- **Connecting more carriers with an existing merchant**, ie adding more potential subscribers for the merchant to market to. This includes additional carriers in existing countries and adding carriers in new countries.
- **Adding more merchants**. Boku has already signed some of the largest merchants in key digital content categories. As other forms of digital content become popular, we would expect Boku to target the key merchants in those markets.
- **Adding more services**. Use the existing network to sell other low-ticket items such as insurance, transportation, ticketing, regulated gambling and social media advertising.
- **Growth from existing connections**. Growth in the adoption of digital content, eg music streaming should drive growth in transactions. In addition, it can take 20 months for a merchant to see optimal adoption from existing carriers – initially only new users will be using the service but as existing users' cards expire, they are made aware of the DCB option. Better understanding of the risk profiles of subscribers can enable MNOs to lift monthly credit limits and therefore drive increased transaction volumes.

Longer term, the company is planning to expand its product range to take advantage of its expertise and the wide network of carrier and merchant relationships. It has identified products related to authentication, location and identity as key areas for development.

Management: Strong background in payments

The members of Boku's board and senior management team have many years of experience in the payments industry. Non-executive Chairman Mark Britto is currently SVP and general manager for credit at PayPal (having joined in mid-2017). CEO, Jon Prideaux, joined Boku in 2012 and was appointed to the CEO role in 2014. Previous experience includes roles as the deputy CEO at Secure Trading (a privately owned payment processor) and as EVP Marketing at Visa Europe. Stuart Neal was Boku's CFO from 2012-14, and rejoined in early 2017 to resume the CFO role. He was previously chief commercial officer at Vocalink Zapp (since acquired by Mastercard). Jon and Stuart are supported by chief operating officer Mike Cahill and chief revenue officer Adam Lee.

Non-executive directors Dr Richard Hargreaves, Clint Smith and Keith Butcher bring experience in venture capital investing and the payments industry (Keith Butcher was CFO at Optimal Payments, which became Paysafe, and DataCash Group, which was acquired by Mastercard).

Direct carrier billing market

The direct carrier billing (DCB) market came into existence as an alternative payment method – it uses a consumer's mobile bill (pre-paid credit or post-paid monthly bill) as the means to pay for digital content or services. The market started before the widespread adoption of smartphones with the provision of premium SMS. That market ended up hitting regulatory roadblocks – too many people did not realise they had signed up for them and there were unscrupulous operators. DCB then evolved as a means to pay for products on PCs, mainly computer games. It offers a good way to make smaller payments as these typically do not hit carrier monthly credit limits, and it provides a simpler way to pay for things than repeatedly having to enter card details. With the advent of the smartphone came a new market – digital content consumed on the mobile, and therefore paid for on the mobile. Having a simple, frictionless way to pay is even more important on a phone. Typical content that is paid for with DCB includes games for computers, consoles and phones, music, video and apps. To a lesser extent, DCB can be used for physical goods.

Based on data from Worldpay, the DCB market makes up c 1% of the total e-commerce payments market by value of transactions processed. Card payments are still the single largest method of payment, at c 40% of payment volume, followed by eWallets at c 30% (eg PayPal, Alipay) and bank transfers at c 10%. According to estimates from Ovum in 2015, the direct carrier billing market processed transactions worth \$14.5bn in 2014 and this was forecast to grow to \$24.7bn by 2019 (CAGR 11.2%). We note that these forecasts were made before Apple launched carrier billing for its App Store. Juniper Research estimates that digital content transactions paid for via carrier billing totalled \$11.3bn in 2015 and forecasts this to rise to \$47.0bn by 2020 (CAGR 33%). The GSMA estimates that there was an installed base of 3.8bn smartphones at the end of 2016 (roughly half of mobile connections) and this is likely to grow to nearly 6bn by the end of 2010. As more subscribers upgrade to smartphones, this is likely to increase demand for digital content that can be consumed on the mobile.

We summarise below the key benefits of DCB for consumers, merchants and MNOs.

Consumer: Frictionless payment method

DCB provides a payment method to consumers who do not have a debit or credit card but do have a mobile phone, who are concerned about the security risks of using their card online or do not want the inconvenience of entering card details every time. According to the GSMA, there are 5.1 billion unique mobile subscribers globally. With roughly 5.6 billion of the global population aged 15 or over, there are c 2 billion adults who do not have a bank account.¹ As Boku is focused on developed markets, the lack of a bank account is less of an issue. Instead, the ease of use tends to be the most appealing factor, particularly when using Boku Account.

Merchant: One connection to access customer acquisition network

Through one connection to Boku's platform, a merchant can access a large number of carriers and their subscribers; there is no need for the merchant to connect individually to each carrier. Boku's carrier connections currently encompass 3.2 billion subscribers globally. This gives merchants access to a market that might not otherwise buy their products. This also explains why merchants are willing to offer DCB despite its high cost compared to card payments, as they view the fees as a combination of a payment processing fee and customer acquisition cost. Billing success rates tend to be higher than with cards, as there is the ability to retry a consumer when they have topped up their credit, and phones do not suffer from expiry dates. Active monthly users have grown 140% over the last year, from 3.4 million at the end of 2016 to more than 8 million at the end of 2017, highlighting Boku's success in bringing on board paying end-customers.

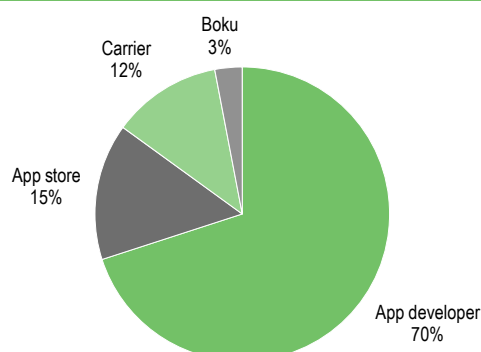
Carrier: One connection to access incremental revenue opportunities

Through one connection to Boku, a carrier can support a variety of merchants and drive incremental revenue streams. The carrier can typically earn 5-15% of the transaction value for delivering customers to merchants. It can also access anonymised and aggregated data on subscriber demographics and behaviour, to aid in customer acquisition and retention. Offering subscription services as part of a bundled contract can also increase subscriber retention.

The chart below shows an example of the revenue split for content acquired from an app store using DCB, with both the merchant and the carrier benefiting from a material proportion of the value of the content sold. Boku's margin will vary in size depending on the work undertaken to enable the payment (see page 13 for further detail on the business model).

¹ Global Index database 2014, World Bank.

Exhibit 2: Content monetisation – example of percentage of revenue earned



Source: Edison Investment Research

Competitive landscape

Boku competes with several third-party DCB operators as well as with carriers connecting directly to merchants to provide DCB. Over time, we would expect more carriers to migrate to the third-party model, in order to more easily access merchant connections. The table below summarises the main third-party operators. The company also competes with other alternative payment methods such as PayPal and Klarna.

Exhibit 3: Competitive environment – third-party DCB operators

Competitor	Ownership	Background
Bango	AIM listed; market cap £124m	Key merchants include Amazon, Google, Microsoft and Samsung. Exited CY17 with annualised end user spend >£400m/\$520m.
Dimoco	Private	Was a mobile messaging company; acquired Italian DCB OneBip in 2016. Focused on Europe and Latin America.
Fortumo	Private, investors include Intel Capital & Greycroft	Founded in Estonia in 2007, profitable since 2009. Present in 100 countries, with 350 carrier connections; used particularly by merchants in Europe and Asia
Docomo Digital	NTT Docomo	IT subsidiary of NTT. Also provides marketing and consulting services. Connected to >200 carriers. Any merchant wanting to connect to NTT Docomo has to connect into the Docomo Digital platform. Note that Boku supports NTT Docomo's carrier billing for Apple, Sony & Spotify.
Zong	PayPal	Bought by PayPal in 2011 for \$240m; since then has disappeared from view. Supported Facebook, alongside Boku, although no longer appears to do so.

Source: Edison Investment Research

Regulatory considerations

As Boku operates globally, it comes under the remit of a number of different regulatory regimes. It must also comply with anti-money laundering (AML) regulations in the countries in which it operates.

- **Europe:** Payment services in Europe are covered by the Payment Services Directive (PSD) and its successor PSD2 (which became effective in January 2018). This provides an exemption for carrier billing when used for digital content as long as certain transaction limits are respected. These are €50 per transaction and €300 per billing month. We note that Boku's average transaction value is c \$10/€8. Instead, carrier billing falls under the remit of national telecoms regulators such as ComReg in Ireland, the Ethics Commission in Belgium and Phone-paid Services Authority in the UK. Boku is authorised as an electronic money (e-money) institution by the FCA in the UK and this has been passported throughout the EEA. Where transactions fall outside the PSD2 exemption (for example, transaction sizes exceed the limits or are for physical goods), Boku can use this to facilitate purchases for physical and digital goods and services. It is unclear how passporting will work after Brexit, although we note that this makes up less than 5% of revenues for Boku.
- **US:** Boku has worked with state regulators to ensure that its contractual and operating model with carriers and merchants falls within recognised exceptions to money transmission

regulations or is completely outside the regulatory framework. It also ensures it is compliant with the Children's Online Privacy Protection regulations by restricting services to adults of 18 or over, or children of 13 and older with parental permission.

- **Asia/Australia:** In Japan, Boku has arranged its contractual and operating model to fall within exceptions to money transmission regulations. It has created an entity in Australia as well as branch offices in Japan, Singapore, China and Taiwan to minimise the level of withholding taxes and complex regulation to which it is subject. It is registered with the Australian Communications and Media Authority, which regulates the selling of media (including software) to Australian customers.

Boku's approach to direct carrier billing

Product range

Boku offers three products to merchants:

- **Boku Checkout:** this was the first product launched by Boku and is integrated into the MNO's billing system. When a consumer reaches the payment page for an online merchant using Boku Checkout, they are presented with the "Pay by mobile" option, which allows them to charge the cost of the item to their mobile phone bill (pre- or post-paid). Once the consumer has entered their mobile phone number, they will be sent a text message asking them to confirm the transaction.
- **Boku Account:** the integration with an MNO is deeper for this product, connecting to the operator's identity verification systems. This product provides "phone number on file" capability, much like the "card on file" functionality offered by many online retailers. The consumer follows the same process as for Boku Checkout, but in this case the phone number will be used for all subsequent purchases without confirmation required from the consumer. This product is particularly useful for merchants who want to improve their activation rates. For example, merchants offering freemium subscription services can use Boku Account as a way of capturing a consumer's payment details at the start of the relationship, making the step to upgrading to a paid subscription easier.
- **Boku Acquire:** supports operator-led customer acquisition. It enables carriers to bundle third-party products and services into their plans. For example, several operators provide free trial periods of Apple Music or Spotify as part of a monthly plan that will hopefully result in a subscriber signing up for the paid service after the trial period.

The table below shows the services provided by Boku for each product.

Exhibit 4: Services available for each product

	Boku Checkout	Boku Account	Boku Acquire
Authenticate	x	x	x
Compliance & regulatory	x	x	x
Standing authorisation		x	x
Service provisioning			x
Risk profiling service	x	x	
Reporting	x	x	x
Mobile account status updates		x	x
Service activation			x
Pricing management	x		
Merchant settlement	x	x	
Refunds		x	
Service status updates			x
Charge	x	x	x
Eligibility check		x	x
Account reconciliation		x	x
Breakage reporting			x

Source: Boku

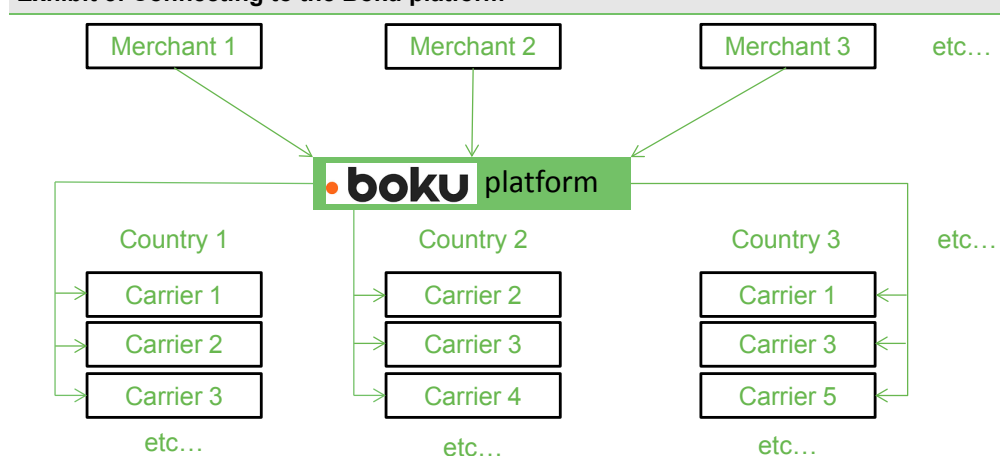
Boku signs up merchants through a direct sales approach and also through relationships with payment service providers (PSPs) such as Worldpay, Adyen, SafeCharge and Ingenico.

Building the network

Exhibit 5 shows how the platform works. The merchant makes its connection to the platform. Carriers separately connect in via APIs and integrate with their own billing systems – this process can take three to six months. This tends to be done on a country-by-country basis within a carrier group. Boku currently has connections to 173 carriers in 51 countries.

Typically a merchant specifies which carriers it wants in which geographies and will develop a roll-out plan with Boku. In some cases, Boku suggests to merchants that certain carriers should be considered. Boku will also suggest particular merchants to carriers. In order to help the MNOs with their integration into the platform, Boku offers a tool called Boku Connect, with the aim of reducing the time it takes to deploy the service. Once the service is up and running, Boku also offers its Boku Optimise tool, which provides data analytics, transaction scoring and a programme of carrier recommendations to help the carrier maximise the value of each connection. This helps the carrier to improve the number of approved good transactions while reducing the number of failed transactions and identifying users with the best potential to have their spending limits increased.

Exhibit 5: Connecting to the Boku platform



Source: Edison Investment Research

Boku's service supports 32 currencies and provides first-line support in 24 languages. The platform uses two data centres, with failover available in each data centre as well as to the other data centre. The platform has been tested up to 400 transactions per second (more than twice the current peak level needed).

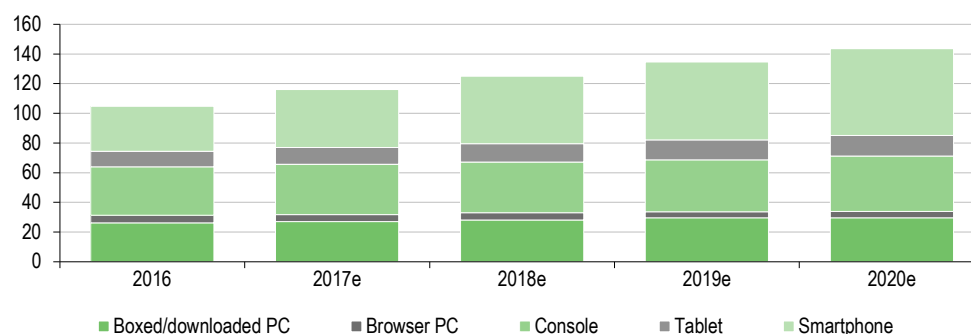
DCB by end-market

Boku has been successful in signing up the largest merchants in several key digital content categories. In some cases, Boku is the sole DCB provider. In others, the merchants split the carriers across two or more providers.

Games: Well established demand for DCB

The games market was one of the first to make use of DCB. The games market can be divided into those games downloaded to play on consoles (PlayStation, Xbox, Wii), those played on a PC and those played on a mobile device (smartphone, tablet). The chart below shows forecasts for the growth of the gaming market by the device used. The overall CAGR from 2016 to 2020 is forecast at 8.2%, with particularly strong growth for smartphone games of 17.7% (source: NewZoo).

Exhibit 6: Revenues from sales of games (US\$bn)



Source: NewZoo, Q417

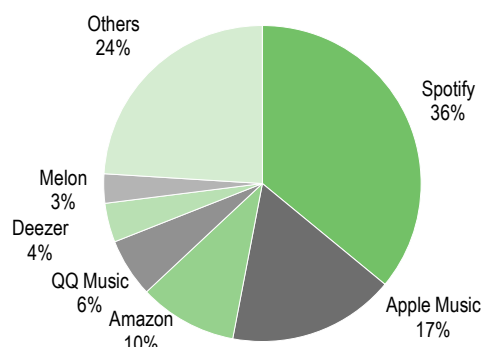
Boku supports Sony and Microsoft, which together made up at least 75% of the console market in terms of combined hardware, software and services revenues in 2016 (source: IHS). Boku has worked with Sony since 2013, providing its service in Belgium, France, Germany, Japan, Spain Switzerland and the UK. Boku has also signed up a large number of games companies that often sell their games via their own websites. This includes companies such as Activision Blizzard, Electronic Arts and Riot Games. In many cases, gamers subscribe to services that entitle them to upgrades and access to other online players, making Boku's subscription payment services ideal for this application.

A longstanding customer for social gaming is Facebook, which has historically also used Zong (acquired by PayPal in 2011) for carrier billing. While the size of this market is in a slow decline, we understand that Boku has now taken over nearly all of Zong's connections. This should enable Boku to generate relatively stable revenues from this market in the medium term.

Music: Rapid growth in paid streaming services

The streaming market has turned the tide of declining revenues for the music industry. The majority of music streaming services offer a free, ad-supported service, which can then be upgraded to a premium paying account which is ad-free. Although Apple had a head start in the music market with its iTunes download service, Spotify has become the leader in terms of paid subscribers. The table below shows market shares as at June 2017. Since then, Spotify has grown its paid subscriber base from 57 million to 70 million.

Exhibit 7: Music streaming market share by paid subscribers, June 2017



Source: Statista

According to the IFPI,² by the end of 2016 paid music streaming subscriptions totalled 97m, which were used by 112 million subscribers. This drove 60% growth in music streaming revenues³ to \$4.6bn, making up 59% of digital revenues, which in turn made up 50% of total recorded music revenues. According to Statista, music streaming companies generated revenues of \$6.6bn in 2016 and this is forecast to increase to \$12.4bn by 2022 (CAGR 11%).

DCB offers a convenient way for mobile subscribers to upgrade their accounts from basic to premium, and the subscription nature of the payment fits well with the monthly payments subscribers are used to making for their mobile phone service. Several operators bundle music services with their monthly plans, with free trial periods for services such as Spotify or Apple Music.

Boku has a strong position in this market. It has worked with Spotify for a number of years, initially demonstrating the power of DCB as a customer acquisition tool. Spotify saw a 20% uplift in activation rates by defaulting to Boku as the payment mechanism. The relationship started in the UK and has since rolled out into other European countries (France, Germany, Italy, Switzerland, Turkey), Asia Pacific (Australia, Japan, Malaysia, the Philippines and Taiwan) and the US.

Boku also works with Deezer in Germany, Ireland and the UK. Through the Apple relationship, Boku also supports the Apple Music streaming service as well as music downloads from iTunes. We understand that Boku also works with a number of smaller streaming services.

App stores: Apple later to the DCB party

The two main app stores, Apple's App Store and Google Play, generated gross consumer spending of \$34bn and \$17bn respectively in 2016 with other Android-based app stores generating a further \$10bn in spending (source: App Annie). This is expected to grow at double-digit rates to 2021. For now, Google Play is unable to operate in China, whereas Apple's App Store is present there. Many Android-based app stores operate in China, for example Tencent's myapp and Xiaomi's app store.

Exhibit 8: Gross consumer spending by app store

\$bn	2016	2017e	2021e	CAGR 16-21e	CAGR 17e-21e
iOS	34	40	60	12.0%	10.7%
Google Play	17	21	42	19.8%	18.9%
Other Android stores	10	20	36	29.2%	15.8%

Source: App Annie, Edison Investment Research

Other large app stores include the Microsoft Store, the BlackBerry World store, and Amazon Appstore. There are a number of country-specific app stores, eg Yandex in Russia, and a number of MNOs and handset manufacturers have their own app stores.

² International Federation of the Phonographic Industry.

³ Revenues earned by the music industry, as opposed to those generated by the streaming companies.

Boku's most significant customer in this market is Apple. Until 2015, Apple did not offer DCB as a payment method for its App Store. Towards the end of 2015, Apple launched DCB for subscribers of O2 in Germany and Beeline in Russia. It has since expanded the service to cover 29 countries, with a total of 48 operators offering the service. While not exclusive, so far we believe Boku is the sole provider of DCB to Apple. We expect that Apple will continue the geographic roll-out.

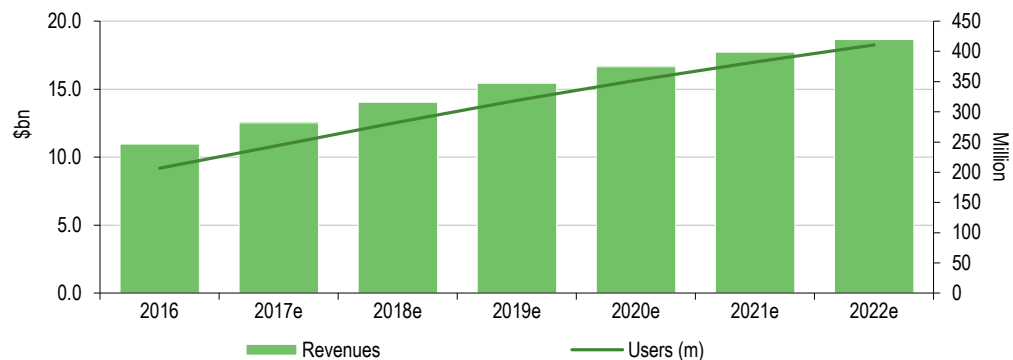
The revenues Apple generates from the App Store are reported within its Services revenues line – this saw y-o-y growth of 23% in 2017 and 18% in Q118. After Q417 results, Apple CFO Luca Maestri was quoted as saying *“As I mentioned, particularly on the App Store, which is very important to us, the number of paying accounts has grown a lot. It's grown a lot because, as you said, the installed base has grown, but also because we have made a number of changes that have made it easier for our customers around the world to participate on the App Store and be able to transact on the App Store. We are accepting, for example, more forms of payment than we were twelve months ago, or even six months ago”*, confirming that the use of alternative payment methods is having a direct positive effect on Services revenues.

Boku also supports the Microsoft Store (previously known as Windows Store), where consumers can buy software, apps and games. Boku supports Google Play in six countries. Google Play leaves the choice of whether to offer carrier billing to the carriers. It has a variety of carrier billing providers serving it as well as a number of direct connections to the carriers.

Video streaming: Less exposure to date

Video streaming is another key digital content market. Exhibit 9 shows the expected growth in revenues and subscribers from 2016 to 2022. The largest video streaming company, Netflix, had 93.8 million subscribers at the end of 2016, increasing to 117.6 million by the end of 2017 (+25%).

Exhibit 9: Video streaming on demand, revenues and subscribers



Source: Statista

The market is made up of content aggregators and content producers. The largest players, Netflix and Amazon Prime, both aggregate and produce content, whereas YouTube and iTunes are content aggregators and Hulu is owned by four major US TV studios (21st Century Fox, Comcast, Walt Disney Company and Time Warner). Smaller, local players tend to be content producers, eg HBO Now in the US, ALTBalaji in India. Netflix has not yet formally adopted a DCB partner, although some carriers have connected to Netflix via their existing DCB partners and the Netflix API. We believe this remains a potential opportunity for Boku. Amazon Prime uses Bango for DCB. Boku supports Apple iTunes and signed up ALTBalaji last year. In our view, the market is more fragmented than the music streaming market, and we would therefore expect Boku to build a portfolio of video streaming merchants, with no single merchant having as material an impact as some of Boku's existing merchants.

Other applications

Boku has signed merchants for other applications, although these have made a limited contribution to revenues to date. Applications include online publishing (IPC Media), e-books, regulated gambling (Neteller), ticketing, transport and, to a lesser extent, physical goods. For example, the company has recently started supporting DCB for EE's mobile phone accessory store and also supports UCC Coffee in Japan, where consumers can top up their coffee cards using DCB.

Growth plans

Medium term: Growth from existing product line

The company believes it has a good medium-term growth opportunity from its **existing merchant base**, mainly through connecting them to more potential consumers. Boku is currently connected to c 170 carriers. It tends to be merchant-led, particularly with merchants like Apple, which decide where they want to offer carrier billing, but it also suggests new connections to merchants, both in terms of new countries or adding carriers in existing countries. Boku's main focus is on Europe, Asia and the Middle East, as this balances the addressable market with the ability to do business efficiently. It has connections to MNOs in North America, but the US in particular is not as keen on DCB as some other countries, so Boku only focuses on connections that are important to particular merchants. Boku also has some Latin American connections, but regulatory and political issues can make it difficult to operate in those countries effectively. It has good relationships with operator groups such as Deutsche Telekom, EE, Telefonica and 3. In Asia, it is seeing strong growth in Japan and Taiwan and has a good position in Malaysia and Singapore, with South Korea and Hong Kong areas where it would like to do more. By the end of 2017, it expects Japan to be its largest market by TPV and revenue. It has connections in India, Indonesia and the Philippines – these are not yet big markets for Boku but could be promising. The company could also benefit from consolidation in the carrier billing market – currently many carriers connect into more than one third-party DCB platform, usually at the behest of the larger merchants. It may be possible to persuade carriers to switch all their business to one DCB provider and, as Boku has some of the largest merchants on its roster, it could be the beneficiary of this switch.

The company will also continue to sign up **new merchants**, with a particular focus on those that have a strong position in their given market.

Longer term: Develop new products

With the volume of transactions passing through its platform, Boku has access to a large amount of data relating to consumer behaviour – this could potentially be monetised. The use of the phone as an authorised payment mechanism means that Boku knows the identity of users. This knowledge could be used to provide identity verification and authentication services to third parties. The phone user's location can be identified by the carrier and this could be used for location-specific services. All of these additional services would need to take into account regulations around consumer consent for data to be used,⁴ but if the services are beneficial to users (eg simplifying authentication processes for payments or identifying where the user is for delivery services) then we would expect the user to provide consent. The company may also consider providing the ability for consumers to pay via their bills with other service providers such as ISPs, where monthly billing is typical.

⁴ In particular General Data Protection Regulations (GDPR), which become effective on 25 May 2018 and protect the personal data of all EU citizens, no matter where held.

Financials

Business model

Boku offers two models to merchants, either settlement or transaction.

- **Settlement:** Boku sits between the merchant and carrier, collecting payment from the carrier and passing it on to the merchant. The amount paid to the merchant is net of both the carrier's and Boku's fees. As Boku manages the cash flows, it is able to earn a higher margin (take rate) on each transaction processed, although this has implications for Boku's working capital management.
- **Transaction:** The carrier pays the merchant directly, net of their fees. Separately, Boku invoices the merchant for its fees. The only cash flow for Boku in this case is the receipt of its fees. As there is less involvement from Boku, it earns lower margins on these transactions.

Until recently, Boku signed up most merchants on a settlement basis - the settlement margin is a multiple of the transaction margin. Some of the more recent merchants have contracted on a transaction basis, and are driving the bulk of the TPV growth. Therefore revenue growth is lagging TPV growth due to the lower margins earned under the transaction model. The mix of settlement versus transaction volumes will depend on new merchants' choice of business model and the growth of volumes from existing merchants.

Income statement

Exhibit 10: Revenue and operating profit forecasts								
		FY14	FY15	FY16	FY17e	FY18e	FY19e	FY20e
TPV	\$m	311	345	554	1,662	3,500	4,835	6,240
Margin	%	5.89%	5.57%	3.10%	1.44%	0.93%	0.83%	0.77%
Revenues	\$m	18.3	19.2	17.2	24.0	32.7	40.1	47.8
Cost sales	\$m	(4.1)	(4.0)	(2.8)	(2.0)	(2.4)	(2.7)	(3.1)
Gross profit	\$m	14.2	15.2	14.4	22.0	30.3	37.4	44.7
Opex	\$m	(23.8)	(26.5)	(26.7)	(24.5)	(25.4)	(25.8)	(26.2)
EBITDA	\$m	(9.6)	(11.4)	(12.3)	(2.5)	4.9	11.6	18.5
D&A	\$m	(0.1)	(1.0)	(1.5)	(1.5)	(1.6)	(1.3)	(0.5)
Normalised operating profit	\$m	(9.8)	(12.4)	(13.8)	(4.0)	3.3	10.2	18.0
Amortisation of acquired intangibles	\$m	(0.8)	(1.9)	(1.7)	(1.2)	(1.2)	(1.2)	(1.2)
Share-based payments	\$m	(1.7)	(1.8)	(2.1)	(1.1)	(1.2)	(1.2)	(1.2)
Exceptional items	\$m	(2.1)	(0.1)	(2.4)	(0.5)	0.0	0.0	0.0
Reported operating profit	\$m	(14.4)	(16.2)	(19.9)	(6.8)	0.9	7.8	15.7
TPV growth	%		10.8%	60.6%	199.9%	110.6%	38.1%	29.1%
Revenue growth	%		4.7%	-10.4%	39.5%	36.1%	22.7%	19.4%
Gross margin	%	77.6%	79.1%	83.9%	91.8%	92.8%	93.3%	93.5%
EBITDA margin	%	-52.5%	-59.2%	-71.4%	-10.4%	15.0%	28.9%	38.7%
Normalised operating margin	%	-53.2%	-64.4%	-80.0%	-16.8%	10.0%	25.5%	37.7%
Reported operating margin	%	-78.6%	-84.2%	-115.8%	-28.4%	2.7%	19.6%	32.7%

Source: Boku, Edison Investment Research

We have modelled revenues on the basis of settlement and transaction-based TPV, applying different take rates (ie margins) to each. The table above shows the blended margin, which is decreasing as transaction volumes make up a growing proportion of volumes. We note that four customers contributed at least 10% of revenues in FY16, for a total of \$8m (46.5% of revenues). This reached \$6.7m in H117 (65.6% of revenues) as some of the more recently signed merchants have driven strong growth in volumes processed.

Looking at the historic revenue trend, the company saw an increasing proportion of transaction-type business from 2014 – this resulted in a declining average take rate and drove a revenue decline in 2016, despite TPV growth of 61% in the year. However, the bulk of this transition has now taken effect, and the pace at which transaction TPV is growing is now more than compensating for the

lower take rate. For FY17, Boku expects to report TPV of \$1.7bn, which highlights how transactions have accelerated through the year (H1: \$0.6bn, H2: \$1.1bn), and revenues of \$24-24.5m.

Both types of contract require limited cost of sales, mainly the cost of messaging subscribers. H117 results showed a gross margin of 90.1%, up from 83.9% in FY16, as the company benefited from purchasing efficiencies. We forecast this to rise marginally as the company sees scale benefits.

Boku's operating cost base consists to a large degree of staff costs (69% of operating costs in FY16). We do not expect to see a material increase in headcount in the forecast period. The company invested heavily in 2014-16 to connect merchants and carriers to its network. Much of this work is now complete, with the company in a good position to generate increasing transaction volumes from its existing customer base. This should mean that operating costs do not need to grow materially from the current level. We would only expect to see a material increase in the cost base if revenue growth is higher than expected.

In its January trading update, the company commented that it had achieved positive EBITDA for H217. We forecast EBITDA and operating profitability from FY18.

Balance sheet and cash flow

At the end of FY17, the company had gross cash of \$20m, although the company has not yet disclosed its year-end debt position. Prior to the IPO, Boku had bank debt of \$6.7m (as at end H117) and convertibles outstanding of \$15.1m. The convertibles converted prior to the IPO, leaving the bank debt outstanding. We note that Boku uses factoring for a small proportion of its receivables. With the IPO proceeds, the company intends to close the factoring facility and reduce the level of bank debt.

The company has a number of intangible assets on its balance sheet arising from previous acquisitions – we have excluded the amortisation on these assets from our normalised profitability calculations. The company has only capitalised limited amounts of development costs to date and expects to capitalise small amounts going forward. Depreciation related to office and IT equipment is minimal at c \$0.2m per annum.

Under the settlement business model, Boku receives cash from the carriers before it pays it across to the merchants, hence it operates a positive working capital model. Under the transaction model, the company records its fees in accounts receivable, and is paid according to the merchant's payment schedule.

The company has paid minimal tax to date as it has been loss-making. At the end of FY16, it had accumulated tax losses of c \$146m (\$129m in the US and \$17m elsewhere), which could be used to offset future profits. As a US company, Boku should benefit from the recent changes to the US corporate tax rate.

Sensitivities

Our forecasts and the share price will be sensitive to the following factors:

- **Pace of growth from existing merchants:** this will depend on the rate at which merchants complete their roll-out plans, the pace of growth of paid-for digital content and the competitive positioning of major merchants.
- **Customer concentration:** we estimate that customers contributing >10% of revenues will make up around two-thirds of revenues in FY18-20. The loss of any one major merchant could have a material impact on revenues and profitability. In addition, some of the contracts between Boku and merchants or carriers have short notice periods.

- **Data protection and robustness of the platform:** any loss of customer data or significant downtime for the platform could negatively affect the company's reputation and lead to additional costs in terms of fines and litigation.
- **Competitive environment:** Boku's platform needs to remain competitive with respect to other third-party DCB providers as well as carriers that connect directly with merchants. The company will also need to stay abreast of changes in the payment market, where it will need to compete with other alternative payment methods.
- **Regulation:** changes to money transmission, privacy or anti-money laundering regulations in the countries in which Boku operates could impact on revenue generation or increase the cost base.

Valuation

As the company is in a high growth phase and only just moving into profitability, comparison with peers on near-term forecasts is not particularly useful. Bango, its closest peer and the only other listed DCB company, is also just about to move into profitability (according to consensus forecasts) and is trading on inflated multiples for FY17 and FY18. We have compared Boku's valuation metrics to the wider payment processing market on a three-year view – by FY19, Boku is trading on an EV/EBITDA multiple of 19.9x, compared to its peer group average of 16.4x. By FY20, we expect this to reduce to 12.4x.

On a free cash flow basis, we forecast that Boku will be yielding 4.7% compared to the 5.4% average for the peer group (excluding First Data, which is heavily indebted). As Boku moves into FY20, we forecast a free cash flow yield of 7.3%, although consensus forecasts are not available for this period.

Exhibit 11: Peer financial metrics

	Share price	Market cap	EV	Rev growth (%)				EBITDA margin (%)				EBIT margin (%)			
	List ccy	List ccy	Rep ccy	2016	2017e	2018e	2019e	2016	2017e	2018e	2019e	2016	2017e	2018e	2019e
Boku	82.5	176	230	-10.4	39.5	36.1	22.7	-71.4	-10.4	15.0	28.9	-115.8	-28.4	2.7	19.6
Bango	169	118	112	101.8	56.2	97.6	N/A	-121	-32.9	24.7	N/A	-176.4	N/A	N/A	N/A
Ingenico*	73.02	4,553	6,069	5.2	8.6	11.5	7.4	19.4	19.2	20.3	20.9	15.4	14.8	16.5	17.3
SafeCharge	303.5	446	510	4.3	7.0	12.7	12.1	29.1	30.0	30.3	30.5	25.1	27.8	27.7	27.5
Worldline*	43.0	5715	5,581	6.7	21.7	7.5	6.9	20.2	17.3	22.2	23.0	16.0	11.6	17.0	17.8
Wirecard	99.4	12,282	11,503	33.3	41.8	26.3	22.5	29.9	28.1	28.7	29.6	22.8	22.4	23.4	24.9
FIS*	99.82	33,058	41,265	40.1	-1.3	-6.2	3.4	26.8	31.6	36.7	37.6	14.0	16.4	28.5	29.6
First Data Corp*	16.04	14,857	33,629	1.0	3.7	-3.0	4.8	34.0	34.3	41.9	42.4	20.4	21.1	27.0	28.1
Fiserv*	146.19	30,204	34,779	4.8	3.5	2.9	4.7	33.7	34.5	36.3	36.4	26.2	26.9	31.2	31.8
Global Payments*	114.46	18,223	22,352	4.5	37.2	-0.6	9.8	21.1	25.4	34.9	35.4	14.7	14.1	31.3	31.8
PayPal*	79.69	95,641	90,946	17.2	20.8	16.4	16.3	21.3	22.4	26.4	26.7	14.6	16.2	20.8	21.8
Square	44.86	17,431	16,920	51.8	41.0	32.7	29.6	-19.3	14.1	18.9	24.9	-24.8	-5.4	1.0	10.5
Worldpay	78.02	24,585	29,298	13.3	11.2	79.6	12.9	44.0	47.9	39.9	43.1	29.8	43.1	38.8	44.4
Average payment processors				16.6	17.7	16.4	11.9	23.7	27.7	30.6	31.9	15.9	19.0	23.9	26.0

Source: Edison Investment Research, Bloomberg (as at 26 February). Note: *FY17 is actual.

Exhibit 12: Peer group valuation metrics

	EV/Sales (x)			EV/EBITDA (x)			P/E (x)			FCF yield (%)		
	2017e	2018e	2019e	2017e	2018e	2019e	2017e	2018e	2019e	2017e	2018e	2019e
Boku	9.6	7.0	5.7	N/A	47.0	19.9	N/A	140.0	36.1	-1.7	1.9	4.7
Bango	27.4	13.9	N/A	N/A	56.2	N/A	N/A	845.0	N/A	N/A	N/A	N/A
Ingenico	2.4	2.0	2.0	12.6	10.7	9.7	16.8	14.3	12.6	5.9	9.3	10.4
SafeCharge	4.6	4.1	3.7	15.4	13.5	12.0	21.9	19.9	17.8	0.1	0.1	0.1
Worldline	3.5	3.3	3.0	20.2	14.6	13.2	42.2	31.4	26.8	3.1	5.3	5.9
Wirecard	7.9	6.2	5.1	28.1	21.7	17.2	46.1	35.1	27.4	4.1	4.7	5.6
FIS*	4.5	4.8	4.7	14.3	13.2	12.4	40.6	19.3	17.3	4.8	7.3	8.4
First Data Corp*	2.8	4.3	4.1	12.1	10.2	9.6	15.1	11.5	10.3	10.3	10.2	11.4
Fiserv*	6.1	5.9	5.7	17.7	16.3	15.6	31.7	23.6	20.7	3.9	4.7	5.6
Global Payments*	5.6	5.7	5.2	22.1	16.2	14.5	46.4	22.8	19.5	1.9	5.3	5.8
PayPal*	6.9	5.0	5.1	31.0	22.6	19.2	46.6	34.9	28.8	1.9	5.0	5.5
Square	17.5	13.2	10.2	124.2	69.6	40.8	176.6	100.8	59.8	0.6	1.9	2.0
Worldpay	13.8	7.7	6.8	28.9	19.3	15.8	23.3	21.2	18.1	4.6	3.1	4.5
Ave. payment processors	6.9	5.8	5.0	29.7	20.7	16.4	46.1	30.4	23.6	3.8	5.2	5.9
Exclude First Data										3.1	4.7	5.4

Source: Edison Investment Research, Bloomberg (as at 20 February). Note: *FY17 is actual.

As a sense check, we have performed a reverse DCF to estimate what the market is currently factoring in for growth and profitability. We use our explicit forecasts to 2021, a WACC of 10% and a long-term growth rate of 3%. Assuming a CAGR for revenues of 8.9% for FY22-26 and EBITDA of 44.5% for FY22-26, we arrive at the current 82.5p share price. This assumes Boku does not start paying tax at the full rate for some years due to losses carried forward, and assumes a gradual decrease in the impact of the settlement business model on working capital. The table below shows the sensitivity of the estimated value of the company to variation in the assumptions in bold. The higher growth case assumes that Boku maintains a higher rate of revenue growth in FY19-26, and also assumes faster growth in the cost base to support this. Despite higher costs in absolute terms, we expect this will ultimately drive a higher EBITDA margin. The lower case assumes a lower rate of revenue growth from FY20 and ultimately a lower EBITDA margin.

Exhibit 13: DCF sensitivity analysis

	Revenue CAGR		Average EBITDA		WACC	Per share (p)	Upside/ downside
	FY16-21e	FY22e-26e	FY16-21e	FY22e-26e			
Base case	26.1%	8.9%	23.4%	44.5%	10%	82.48	0.0%
	26.1%	8.9%	23.4%	44.5%	9%	97.56	18.2%
	26.1%	8.9%	23.4%	44.5%	11%	71.27	-13.6%
Higher growth case	29.9%	10.9%	22.3%	45.4%	10%	104.96	28.8%
Lower growth case	24.6%	6.6%	21.5%	38.0%	10%	61.63	-24.4%

Source: Edison Investment Research

Exhibit 14: Financial summary

	\$m	2014	2015	2016	2017e	2018e	2019e	2020e
31-December		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT								
Revenue		18.3	19.2	17.2	24.0	32.7	40.1	47.8
Cost of Sales		(4.1)	(4.0)	(2.8)	(2.0)	(2.4)	(2.7)	(3.1)
Gross Profit		14.2	15.2	14.4	22.0	30.3	37.4	44.7
EBITDA		(9.6)	(11.4)	(12.3)	(2.5)	4.9	11.6	18.5
Normalised operating profit		(9.8)	(12.4)	(13.8)	(4.0)	3.3	10.2	18.0
Amortisation of acquired intangibles		(0.8)	(1.9)	(1.7)	(1.2)	(1.2)	(1.2)	(1.2)
Exceptionals		(2.1)	(0.1)	(2.4)	(0.5)	0.0	0.0	0.0
Share-based payments		(1.7)	(1.8)	(2.1)	(1.1)	(1.2)	(1.2)	(1.2)
Reported operating profit		(14.4)	(16.2)	(19.9)	(6.8)	0.9	7.8	15.7
Net Interest		(0.6)	(0.4)	(1.2)	(2.3)	(0.8)	(0.6)	(0.6)
Joint ventures & associates (post tax)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exceptionals		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit Before Tax (norm)		(10.4)	(12.8)	(15.0)	(6.3)	2.5	9.7	17.5
Profit Before Tax (reported)		(15.0)	(16.6)	(21.1)	(9.1)	0.1	7.3	15.1
Reported tax		(0.4)	(0.4)	0.5	(0.2)	(0.1)	(0.4)	(1.5)
Profit After Tax (norm)		(7.8)	(9.6)	(11.2)	(4.8)	2.0	7.6	13.8
Profit After Tax (reported)		(15.4)	(17.0)	(20.6)	(9.3)	0.1	6.9	13.6
Minority interests		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued operations		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (normalised)		(7.8)	(9.6)	(11.2)	(4.8)	2.0	7.6	13.8
Net income (reported)		(15.4)	(17.0)	(20.6)	(9.3)	0.1	6.9	13.6
Basic average number of shares outstanding (m)		21.3	27.4	27.5	50.9	213.6	213.6	213.6
EPS - basic normalised (\$)		(0.36)	(0.35)	(0.41)	(0.09)	0.01	0.04	0.06
EPS - diluted normalised (\$)		(0.36)	(0.35)	(0.41)	(0.09)	0.01	0.03	0.06
EPS - basic reported (\$)		(0.72)	(0.62)	(0.75)	(0.18)	0.00	0.03	0.06
Dividend (\$)		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue growth (%)		N/A	4.7	(10.4)	39.5	36.1	22.7	19.4
Gross Margin (%)		77.6	79.1	83.9	91.8	92.8	93.3	93.5
EBITDA Margin (%)		(52.5)	(59.2)	(71.4)	(10.4)	15.0	28.9	38.7
Normalised Operating Margin		(53.2)	(64.4)	(80.0)	(16.8)	10.0	25.5	37.7
BALANCE SHEET								
Fixed Assets		32.7	30.8	26.8	24.5	22.4	20.4	18.3
Intangible Assets		32.5	30.1	25.7	23.4	21.1	19.1	17.9
Tangible Assets		0.2	0.7	0.5	0.4	0.3	0.3	0.2
Investments & other		0.0	0.0	0.6	0.6	1.0	1.0	0.2
Current Assets		72.5	53.0	48.9	78.0	91.0	115.2	143.4
Stocks		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debtors		59.7	43.3	37.1	57.5	66.5	79.7	90.6
Cash & cash equivalents		12.0	9.0	11.3	20.1	23.9	35.0	52.4
Other		0.7	0.6	0.5	0.5	0.5	0.5	0.5
Current Liabilities		(69.6)	(65.5)	(61.0)	(77.8)	(87.4)	(101.4)	(112.9)
Creditors		(64.6)	(60.4)	(54.9)	(74.7)	(84.3)	(98.3)	(109.8)
Tax and social security		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short term borrowings		(5.0)	(5.1)	(6.1)	(3.1)	(3.1)	(3.1)	(3.1)
Other		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long Term Liabilities		0.0	(0.3)	(15.2)	(0.1)	(0.1)	(0.1)	(0.1)
Long term borrowings		0.0	(0.2)	(15.1)	0.0	0.0	0.0	0.0
Other long term liabilities		0.0	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Net Assets		35.5	18.0	(0.4)	24.7	25.9	34.0	48.8
Minority interests		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity		35.5	18.0	(0.4)	24.7	25.9	34.0	48.8
CASH FLOW								
Op Cash Flow before WC and tax		(9.6)	(11.4)	(12.3)	(2.5)	4.9	11.6	18.5
Working capital		9.3	11.6	(3.4)	(0.6)	0.5	0.9	0.6
Exceptional & other		(1.6)	1.1	4.2	(0.5)	0.0	0.0	0.0
Tax		(0.0)	(0.0)	(0.0)	(0.2)	(0.4)	(0.4)	(0.7)
Net operating cash flow		(1.9)	1.3	(11.5)	(3.8)	5.0	12.0	18.4
Capex		(1.1)	(3.6)	(1.5)	(0.4)	(0.4)	(0.4)	(0.4)
Acquisitions/disposals		5.9	0.3	0.0	0.0	0.0	0.0	0.0
Net interest		(0.3)	(0.3)	(0.3)	(1.0)	(0.8)	(0.6)	(0.6)
Equity financing		0.2	0.1	0.1	16.9	0.0	0.0	0.0
Dividends		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other		0.6	(0.0)	0.1	0.0	0.0	0.0	0.0
Net Cash Flow		3.3	(2.2)	(13.1)	11.8	3.8	11.1	17.4
Opening net debt/(cash)		(4.9)	(7.0)	(3.6)	9.8	(17.0)	(20.8)	(31.9)
FX		(1.2)	(0.8)	(0.4)	0.0	0.0	0.0	0.0
Other non-cash movements		0.0	(0.4)	0.0	15.1	0.0	0.0	0.0
Closing net debt/(cash)		(7.0)	(3.6)	9.8	(17.0)	(20.8)	(31.9)	(49.3)

Source: Boku, Edison Investment Research

Contact details	Revenue by geography
2-6 Boundary Row London SE1 8HP United Kingdom https://investors.boku.com	N/A
Management team	
CEO: Jon Prideaux	CFO: Stuart Neal
Jon joined Boku in 2012 and was appointed CEO in 2014. Jon has more than 25 years of payments experience: he was an early Visa Europe employee, where he started Visa Europe's e-commerce division. He served on the board of EMVCo, was the chairman of the Compliance Committee and a member of Visa's Global Product and Brand Councils. After leaving Visa in 2006, Jon served as deputy CEO for SecureTrading, where he doubled transaction numbers and quadrupled profitability. He then led a management buy-in at Shopcreator, the e-commerce software platform.	Prior to rejoining Boku in 2017, Stuart was advising new technology ventures, bringing to market cutting-edge technology in AI, machine learning, crypto currency and blockchain. Previously, he was chief commercial officer at Vocalink Zapp (acquired by Mastercard), and also commercial director at Barclaycard. He has held senior commercial and finance positions in a number of blue-chip corporations including GlaxoSmithKline, Worldcom and Virgin Media. Stuart was previously CFO at Boku between 2012 and 2014.
Non-executive Chairman: Mark Britto	
Mark founded Boku after six years as the CEO of Ingenio, which he led to a 2007 acquisition by AT&T. Prior to Ingenio, Mark spent four years as SVP of worldwide services and sales at Amazon.com. Mark's first start-up, Accept.com, was bought by Amazon.com in 1999 and served as the primary backbone of Amazon's global payments platform. Mark is currently the SVP and general manager for global credit at PayPal.	
Principal shareholders	(%)
Khosla Ventures	9.47
Benchmark Capital Partners VI, LP	8.86
NEA Ventures	6.43
River & Mercantile	5.82
DAG Ventures	4.80
Index Ventures	3.69
Mark Britto	3.64
Legal & General Investment Management	3.58
Schroders	3.00
Companies named in this report	
Apple, Bango, Facebook, Google, Microsoft, Sony	

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