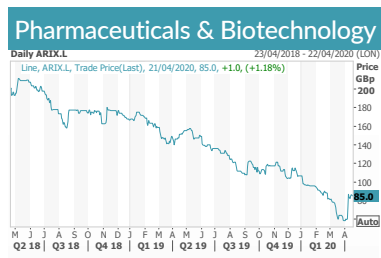




23 April 2020



Source: Refinitiv

Market data

EPIC/TKR	ARIX
Price (p)	86
12m High (p)	159
12m Low (p)	60
Shares (m)	135.6
Mkt Cap (£m)	116.6
NAV/share (p)	137
Premium/discount to NAV	-37%
Free Float	69%
Market	Main

Description

ARIX is a publicly listed biotechnology venture capital (VC) company. It provides an opportunity for all investors to participate in a balanced portfolio of diverse biotech innovation via a single stock. With a global portfolio of 16 companies and five IPOs achieved since launch in 2016, ARIX is a dynamic and modern approach to life sciences VC investing.

Company information

Executive Chairman	Naseem Amin
MD	Jonathan Tobin
COO	Robert Lyne
Finance Director	Marcus Karia
	+44 20 7290 1050
	www.arixbioscience.com

Key shareholders

Directors	0.1%
Link Fund Solutions	19.8%
Fosun	8.2%
Ruffer	6.1%
Takeda Ventures	5.5%

Diary

3 Jun	AGM
Aug'20	Interim results

Analyst

Martin Hall	020 7194 7632
	mh@hardmanandco.com

ARIX BIOSCIENCE

Resetting the stage

Arix Bioscience (ARIX) is a listed global venture capital (VC) company that presents an opportunity for institutional and retail investors to participate in the high risk-return profile of early-stage biotech investing. ARIX minimises risk through a combination of an expert investment team and portfolio diversification, sourced via its extensive network and partners. The company has announced a restructuring of its Board and executive team recently, which has resulted in a significant and sustainable reduction in its operating overhead, and greatly extended its cash runway.

- **Strategy:** ARIX sources investments from an established network and a strong scientific reputation. The portfolio is diversified by therapeutic area, treatment modality, stage of discovery/development and geography to balance the risk-reward profile. Value is realised when ARIX successfully exits its investments.
- **Change at the top:** ARIX has made two separate announcements recently that have greatly reduced the size of its Board, refocused the investment team, and resulted in a significant reduction in operating costs. This has greatly increased its cash runway, which is important in the current global economic environment.
- **Reducing annual overhead:** In fiscal 2019, ARIX reduced its administrative overhead by 17% to £9.7m. Recent changes to the management team and Board of Directors are expected to see this fall further, to ca.£7.0m (-28%) in fiscal 2020 and a normalised and sustainable £5.5m (-21%) in fiscal 2021.
- **Autolus update:** On a separate note, investee company Autolus (AUTL.OQ) announced that the US Food & Drug Administration (FDA) had accepted its investigational new drug (IND) application for AUTO1, its lead CAR-T product candidate for the treatment of adults with acute lymphoblastic leukaemia (ALL). This will allow Autolus to initiate a pivotal trial with AUTO1-AL1.
- **Investment summary:** ARIX shares are currently impacted by the global macroeconomics affected by COVID-19 and some negative sentiment towards biotech. This has resulted in some volatility in the share prices of some of its listed portfolio companies, which is likely to remain the case until there is greater clarity regarding the easing of the global lockdown. Meanwhile, the market responded very favourably to ARIX's reduction in operating costs, with its share price rising ca.40%.

Financial summary and valuation

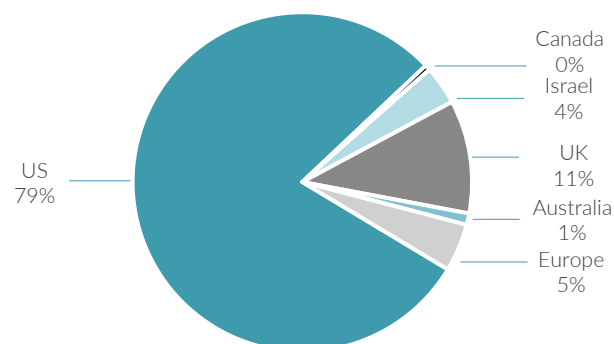
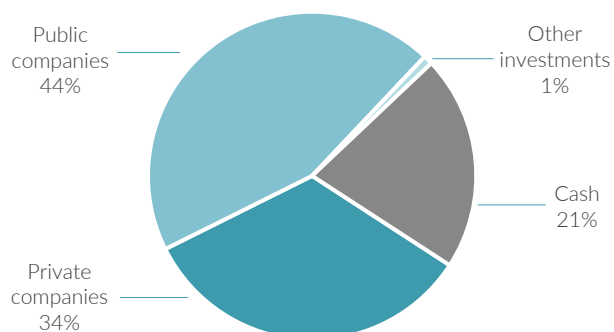
Year-end Dec (£m)	2017	2018	2019	2020E	2021E	2022E
Change in FV of investments	5.5	51.2	-58.6	*-9.2	*0.0	*0.0
Other income	1.9	1.3	0.5	0.2	0.2	0.0
Administrative expenses	-11.0	-11.7	-9.7	-7.0	-5.5	-5.6
Operating profit/(loss)	-7.2	37.5	-70.6	-17.9	-7.2	-7.6
Profit/(loss) before tax	-7.7	38.2	-69.9	-17.5	-6.9	-7.3
Underlying EPS (p)	-9.5	27.2	-49.9	-11.8	-4.7	-5.0
Net cash/(debt)	74.9	91.2	53.7	37.4	25.8	14.0
Capital increase	105.1	83.5	0.0	0.0	0.0	0.0
NAV/share (p)	152	200	149	137	-	-

*Based on share prices and forex at close of business on 20 April 2020

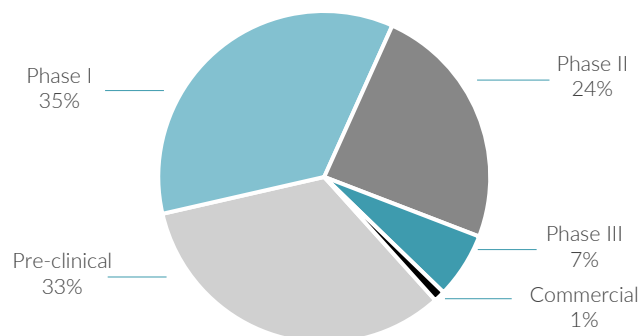
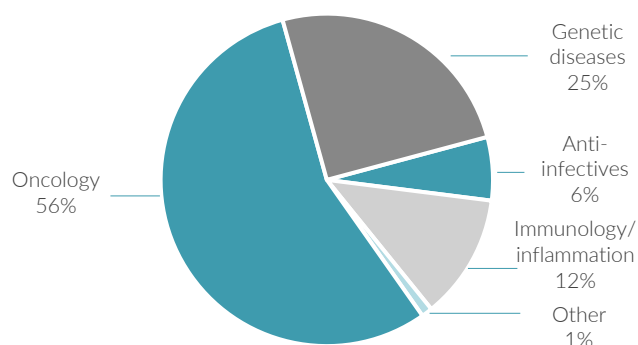
Source: Hardman & Co Life Sciences Research

Arx Bioscience

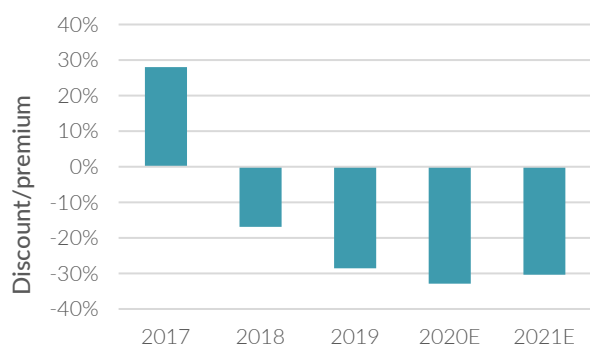
Composition of NAV by asset and geography, 2019



Portfolio diversification by therapeutic area and stage, 2019

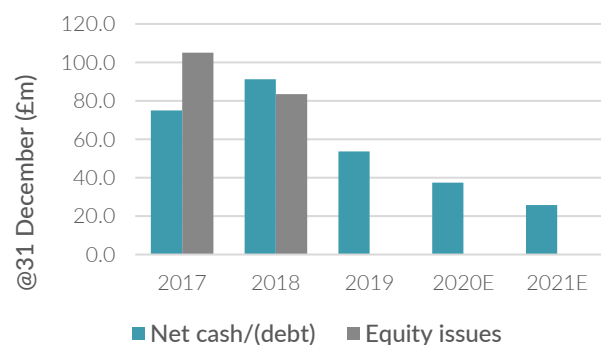


Trading premium/discount to NAV



- ▶ ARIX floated on 17 February 2017
- ▶ General market sentiment towards global biotech stocks has caused ARIX to trade at a discount to NAV since 2018
- ▶ ARIX's reported NAV/share was 149p at full-year 2019

Net cash/(debt)



- ▶ ARIX recycles cash to its balance sheet on divestment of holdings in its portfolio companies
- ▶ Reduced operating costs have significantly extended the cash runway

Source: Company data, Hardman & Co Life Sciences Research

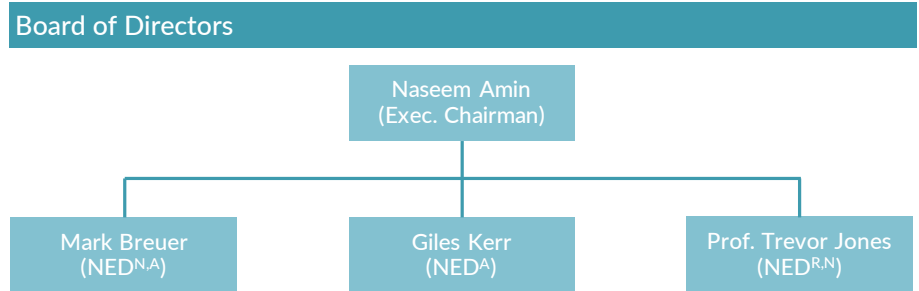
Lean and focused structure

In early April, ARIX announced major changes to its Board of Directors and operating/investment team; these have resulted in a lean, focused structure, and significantly lowered the running costs of the business.

Major changes

Board of Directors

- ▶ **Chairman:** Naseem Amin, a qualified medical practitioner and experienced VC entrepreneur, who joined the Board in December 2019 as a non-executive director (NED), has stepped up to Executive Chairman, replacing co-founder Jonathan Peacock, who will leave after the AGM in June 2020.
- ▶ **NEDs:** Changes and retirements will see the number of NEDs reduced to three, thereby creating a small, focused group of directors, at greatly reduced cost.

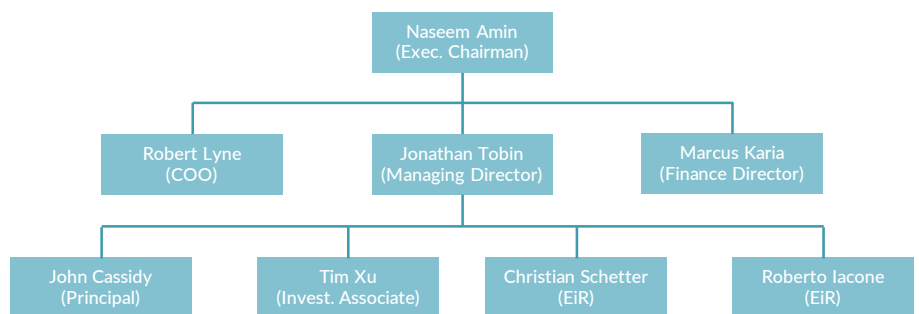


A=Audit Committee, N=Nominations Committee, R=Remuneration Committee
Source: Company reports

Operations

- ▶ **CEO:** Co-founder and CEO, Joe Anderson, together with two members of the investment team, have left the company with immediate effect. Costs will again be reduced, but the full potential will not be realised until fiscal 2021, due to severance packages.
- ▶ **Managing Director (MD):** Experienced investment director, Jonathan Tobin, a specialist in biotechnology investments, has been promoted to MD.
- ▶ **Entrepreneur-in-Residence (EiR):** The core investment team will be supported by two EiRs, who are responsible for helping to source and evaluate academic opportunities from various universities and research institutes based in Europe.

New operating structure



EiR = Entrepreneur-in-Residence
Source: Hardman & Co Life Sciences Research

Normalised operating costs have been reduced to ca. \$5.5m p.a.

Cost analysis

Over the last two years, ARIX has been reducing costs, as evidenced by the 17% reduction in overall costs to £9.7m in 2019, which included £0.45m of non-cash depreciation and amortisation. However, only a modest further reduction (-7%), to £9.0m, had been anticipated for 2020 and 2021. By resetting the scene with a smaller Board of Directors and a leaner investment team, the reduction in costs has been accelerated and is now expected to stabilise at around £5.5m on a normal annualised basis in 2021, as shown in the following table. Severance packages will not see the full benefit in 2020. Excluding the Board, ARIX is now expecting to operate with a team of about 10-12 people (some are part-time), including the EIRs.

Cost analysis				
Year-end Dec (£000)	2018	2019	2020E	2021E
Salary and bonus	5,651	4,808	3,728	3,099
Social security	580	532	424	317
Pension/benefits	306	297	204	151
Total employee costs	6,537	5,637	4,357	3,567
Consultancy fees	512	320	0	0
Recruitment costs	563	147	0	0
Other expenses	4,086	3,605	2,650	1,950
Total admin. expenses	11,698	9,709	7,007	5,517
Change	+6%	-17.0%	-27.8%	-21.3%
Board and consultants	3,004	2,367	930	310
% total employment costs	42.6%	39.7%	21.3%	8.7%
% total operating costs	25.7%	24.4%	13.3%	5.6%

Source: Company reports, Hardman & Co Life Sciences Research

Board and consultant costs have been running at ca.25%...

...but are now expected to be only 5%-6% from 2021

Board of Directors and consultants

The positive impact of the changes can be seen in the significant fall in the costs of the Board, and the use of consultants. In 2018, these totalled £3.0m and represented 42.6% and 25.7% of employment and operating costs, respectively. Although the salary of the Executive Chairman has not been disclosed, Hardman & Co estimates that the equivalent figures will be 8.7% and 5.6%, respectively, in the first normalised fiscal year (2021).

Cash runway

At the end of 2019, ARIX had a net cash position of £53.7m. As a consequence of the recent changes, the forecast net cash position at the end of fiscal 2022 has more than doubled, significantly extending the company's cash runway.

Net cash* position				
Year-end Dec (£m)	2019	2020E	2021E	2022E
Previous forecast	53.7	35.4	20.9	6.6
New forecast	-	37.4	25.8	14.0
Change	-	+2.0	+4.9	+7.4

*includes financial lease liabilities

Source: Hardman & Co Life Sciences Research

Portfolio news

Autolus (AUTL.OQ)

AUTO1 granted IND status by FDA in April...

...allowing first pivotal trial

On 16 April, Autolus announced that the FDA had accepted the company's application for IND status for AUTO1, its lead CAR-T drug candidate aimed at adults with acute lymphoblastic leukaemia (ALL). This acceptance allows Autolus to commence recruitment of US sites for its first pivotal study, AUTO1-AL1.

In the same statement, Autolus provided the market with an update on the impact of COVID-19. While there had been some effect on the ability to recruit and operate clinical trials in some centres, the overall impact had been minimal. In addition, the company has been able to continue manufacturing, without interruption, from its operations at the Cell and Gene Therapy Catapult laboratory, located in Stevenage, UK, for the supply of material into the US for its AUTO3-ALEXANDER trial on patients for the treatment of diffuse large B-cell lymphoma (DLBCL).

As we previously reported, Autolus raised ca.\$80m in January 2020 to fund its ongoing working capital requirements. Arix did not participate in this funding round, maintaining its stake at 3.37m shares (6.5%), which is currently valued at \$37.2m/£29.8m.

Imara (IMRA.OQ)

Imara is trading around its IPO price

In March, Imara Inc announced the pricing of its initial public offering (IPO) on NASDAQ of 4.7m shares of common stock at a public offering price of \$16.0 per share, raising \$75.2m. The IPO resulted in a £4.3m rise in the value of ARIX's existing holding in Imara, which was valued at £10.7m on 31 December 2019. In addition, ARIX agreed to invest a further \$3.0m in the company at IPO. The stock has been trading around the IPO price since the company listed.

Imara is a clinical-stage pharmaceutical company working on small molecule phosphodiesterase inhibitors, which are orally active, for the treatment of sickle cell disease. A Phase I trial indicated that lead compound, IMR-687, was well tolerated and safe in healthy volunteers. It is currently being evaluated in a multinational Phase IIa study in adult patients with sickle cell disease. IMR-687 has been granted both Orphan Drug Designation and Rare Paediatric Designation by the FDA.

Financial summary

The largest component of the income statement for each reporting period is the revaluation of ARIX's investments under IFRS9. Its investments are considered to be long-term financial assets, and ARIX classifies them using a fair-value hierarchy that reflects the significance of the inputs used in generating the related fair value. ARIX adopts the most conservative approach, ascribing the lowest-level input with the fair-value hierarchy framework to each of its investments.

- **Key driver:** The financial performance is dictated largely by the quoted investments in the portfolio of 16 companies, which are marked-to-market.

Forecast summary						
Year-end Dec (£m)	2017	2018	2019	2020E	2021E	2022E
Profit & Loss						
Other income	1.9	1.3	0.5	0.2	0.2	0.0
Change in FV of investments	5.5	51.2	-58.6	*-9.2	-	-
Operating income	7.4	52.5	-58.1	-9.0	0.2	0.0
Administrative expenses	-11.0	-11.7	-9.7	-7.0	-5.5	-5.6
Share-based payments	-3.7	-3.3	-2.8	-2.0	-2.0	-2.0
Operating profit/(loss)	-7.2	37.5	-70.6	-17.9	-7.2	-7.6
Net interest	0.0	0.7	0.8	0.5	0.3	0.2
Profit before tax	-7.7	38.2	-69.9	-17.5	-6.9	-7.3
Tax payable/credit	0.2	-5.9	5.9	1.5	0.6	0.6
Net income	-7.5	32.3	-64.0	-16.0	-6.3	-6.7
Weighted av. shares (m)	78.7	118.8	128.1	135.6	135.6	135.6
Underlying EPS (p)	-9.5	27.2	-49.9	-11.8	-4.7	-5.0
Fully diluted EPS (p)	-9.5	25.1	-46.4	-11.0	-4.3	-4.6
Balance sheet (@31 Dec)						
Investments at fair value	71.3	184.0	151.9	156.0	160.4	170.0
Intangible assets	2.1	1.8	0.7	0.4	0.1	0.0
Non-current assets	73.9	186.1	153.4	157.1	161.2	170.8
Cash & deposits	74.9	91.2	54.6	38.4	26.7	14.9
Receivables	1.3	2.2	1.1	1.1	1.1	1.1
Current assets	76.2	93.4	55.8	39.5	27.9	16.1
Total liabilities	-3.7	-9.3	-7.1	-10.5	-9.4	-13.8
Net assets	146.4	270.2	202.1	186.1	179.8	173.1
NAV/share (p)	152	200	149	137	-	-
Cashflow						
Underlying EBIT	-7.2	37.5	-70.6	-17.9	-7.2	-7.6
Change in FV of investments	-5.5	-51.2	58.6	9.2	0.0	0.0
Other non-cash items	4.2	3.8	3.2	2.3	2.2	2.2
Tax & interest	-50.2	-55.2	-26.1	-9.1	-6.1	-6.1
Operational cashflow	-8.8	-11.1	-9.4	-7.1	-5.5	-5.7
Equity investments	-50.2	-55.2	-34.9	-16.0	-6.1	-6.1
Disposals	0.0	0.0	8.8	6.9	0.0	0.0
Cashflow after investments	-59.0	-66.3	-35.5	-16.3	-11.6	-11.8
Equity issues	105.1	83.5	0.0	0.0	0.0	0.0
Change in net cash/(debt)	46.0	16.3	-37.5	-16.3	-11.6	-11.8
Opening net cash/(debt)	28.9	74.9	91.2	53.7	37.4	25.8
Closing net cash/(debt)	74.9	91.2	53.7	37.4	25.8	14.0

*Note: Based on share prices and forex at close of business on 20 April 2020
Source: Hardman & Co Life Sciences Research

Disclaimer

Hardman & Co provides professional independent research services and all information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable. However, no guarantee, warranty or representation, express or implied, can be given by Hardman & Co as to the accuracy, adequacy or completeness of the information contained in this research and they are not responsible for any errors or omissions or results obtained from use of such information. Neither Hardman & Co, nor any affiliates, officers, directors or employees accept any liability or responsibility in respect of the information which is subject to change without notice and may only be correct at the stated date of their issue, except in the case of gross negligence, fraud or wilful misconduct. In no event will Hardman & Co, its affiliates or any such parties be liable to you for any direct, special, indirect, consequential, incidental damages or any other damages of any kind even if Hardman & Co has been advised of the possibility thereof.

This research has been prepared purely for information purposes, and nothing in this report should be construed as an offer, or the solicitation of an offer, to buy or sell any security, product, service or investment. The research reflects the objective views of the analyst(s) named on the front page and does not constitute investment advice. However, the companies or legal entities covered in this research may pay us a fixed fee in order for this research to be made available. A full list of companies or legal entities that have paid us for coverage within the past 12 months can be viewed at <http://www.hardmanandco.com/legals/research-disclosures>. Hardman may provide other investment banking services to the companies or legal entities mentioned in this report.

Hardman & Co has a personal dealing policy which restricts staff and consultants' dealing in shares, bonds or other related instruments of companies or legal entities which pay Hardman & Co for any services, including research. No Hardman & Co staff, consultants or officers are employed or engaged by the companies or legal entities covered by this document in any capacity other than through Hardman & Co.

Hardman & Co does not buy or sell shares, either for their own account or for other parties and neither do they undertake investment business. We may provide investment banking services to corporate clients. Hardman & Co does not make recommendations. Accordingly, they do not publish records of their past recommendations. Where a Fair Value price is given in a research note, such as a DCF or peer comparison, this is the theoretical result of a study of a range of possible outcomes, and not a forecast of a likely share price. Hardman & Co may publish further notes on these securities, companies and legal entities but has no scheduled commitment and may cease to follow these securities, companies and legal entities without notice.

The information provided in this document is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation or which would subject Hardman & Co or its affiliates to any registration requirement within such jurisdiction or country.

Some or all alternative investments may not be suitable for certain investors. Investments in small and mid-cap corporations and foreign entities are speculative and involve a high degree of risk. An investor could lose all or a substantial amount of his or her investment. Investments may be leveraged and performance may be volatile; they may have high fees and expenses that reduce returns. Securities or legal entities mentioned in this document may not be suitable or appropriate for all investors. Where this document refers to a particular tax treatment, the tax treatment will depend on each investor's particular circumstances and may be subject to future change. Each investor's particular needs, investment objectives and financial situation were not taken into account in the preparation of this document and the material contained herein. Each investor must make his or her own independent decisions and obtain their own independent advice regarding any information, projects, securities, tax treatment or financial instruments mentioned herein. The fact that Hardman & Co has made available through this document various information constitutes neither a recommendation to enter into a particular transaction nor a representation that any financial instrument is suitable or appropriate for you. Each investor should consider whether an investment strategy of the purchase or sale of any product or security is appropriate for them in the light of their investment needs, objectives and financial circumstances.

This document constitutes a 'financial promotion' for the purposes of section 21 Financial Services and Markets Act 2000 (United Kingdom) ('FSMA') and accordingly has been approved by Capital Markets Strategy Ltd which is authorised and regulated by the Financial Conduct Authority (FCA).

No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, mechanical, photocopying, recording or otherwise, without prior permission from Hardman & Co. By accepting this document, the recipient agrees to be bound by the limitations set out in this notice. This notice shall be governed and construed in accordance with English law. Hardman Research Ltd, trading as Hardman & Co, is an appointed representative of Capital Markets Strategy Ltd and is authorised and regulated by the FCA under registration number 600843. Hardman Research Ltd is registered at Companies House with number 8256259.

(Disclaimer Version 8 – Effective from August 2018)

Status of Hardman & Co's research under MiFID II

Some professional investors, who are subject to the MiFID II rules, may be unclear about the status of Hardman & Co research and, specifically, whether it can be accepted without a commercial arrangement. Hardman & Co's research is paid for by the companies, legal entities and issuers about which we write and, as such, falls within the scope of 'minor non-monetary benefits', as defined in the Markets in Financial Instruments Directive II.

In particular, Article 12(3) of the Directive states: 'The following benefits shall qualify as acceptable minor non-monetary benefits only if they are: (b) 'written material from a third party that is commissioned and paid for by a corporate issuer or potential issuer to promote a new issuance by the company, or where the third party firm is contractually engaged and paid by the issuer to produce such material on an ongoing basis, provided that the relationship is clearly disclosed in the material and that the material is made available at the same time to any investment firms wishing to receive it or to the general public...'

The fact that Hardman & Co is commissioned to write the research is disclosed in the disclaimer, and the research is widely available.

The full detail is on page 26 of the full directive, which can be accessed here: <http://ec.europa.eu/finance/docs/level-2-measures/mifid-delegated-regulation-2016-2031.pdf>

In addition, it should be noted that MiFID II's main aim is to ensure transparency in the relationship between fund managers and brokers/suppliers, and eliminate what is termed 'inducement', whereby free research is provided to fund managers to encourage them to deal with the broker. Hardman & Co is not inducing the reader of our research to trade through us, since we do not deal in any security or legal entity.



research@hardmanandco.com

35 New Broad Street
London
EC2M 1NH

+44(0)20 7194 7622

www.hardmanandco.com