nikko am
Nikko Asset Management

QUARTERLY INSIGHTS FROM THE NIKKO AM GLOBAL EQUITIES TEAM

September 2017

Adapting to Change

Johnson Matthey (JMAT) is celebrating its 200th birthday this year. Over the course of that long history, the business has faced several challenges but always found new ways to keep itself relevant – based on their core competencies in metallurgical science. We firmly expect this to continue.

The latest challenge to face this business is the threat posed to traditional carmakers (and their suppliers, like JMAT) by the ongoing push towards newer, less polluting vehicles – especially electric vehicles. A combination of the loss of driver trust caused by Volkswagen's 'diesel-gate' scandal and a better understanding of the health impacts of particulate matter released by older diesel cars has seen the market share of diesel drop quickly in Europe.

Chart 1: Diesel's Share of New Passenger Cars in Western Europe is falling (fast)

New passenger cars in the EU-15 by fuel type
In units

ACEA European Automobile Manufacturers Association

	H1 2017	H1 2016	Change in units
Petrol	3,658,088	3,329,473	328,615
Diesel	3,491,430	3,643,753	-152,323
Alternative powertrains	392,954	289,739	103,215
Of which LPG/NGV/E85	98,933	94,549	4,384
Of which HEV	198,579	125,535	73,044
Of which ECV	95,442	69,655	25,787

Source: European Automobile Manufacturers Association, September 2017

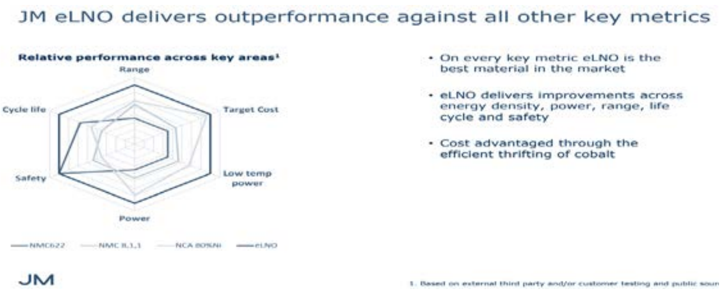
We are not pretending that diesel losing 8% market share in 2 years (with more likely to come) does not pose a challenge for JMAT. European diesel catalysts are among their most profitable business units. We do think, however, that investors are focusing too intently on this risk and not considering the longer-term opportunities this may present for JMAT, nor the exciting developments elsewhere in their business.

Before setting out those opportunities, it is worth sizing the risk. Diesel cars remain mostly a European phenomenon, driven by tax breaks introduced at a time when carbon dioxide was seen as public health enemy number one. As such, we are discussing diesel's 46% share of the 25% of Global auto production that comes from Western Europe. JMAT's own forecasts assume that diesel continues to decline to 25% by 2025 but that their European car business can still deliver flat sales against this backdrop, thanks to the continued growth of gasoline and electric vehicles[1]. The rest of their car business is expected to keep growing nicely.

We are firm believers in the future growth of electric vehicles. We also believe, however, that new products and technologies will be needed if these vehicles are to really become the dominant powertrain over time. In particular, substantial battery cost and energy density improvements will be needed to improve affordability as existing subsidies are gradually withdrawn[2].

Until September's Capital Markets Day, it had been generally assumed that JMAT had little to offer in this regard. The revelation that they have developed a new battery cathode material eLNO (enhanced Lithium Nickel Oxide) - one that could substantially lower the cost of batteries and extend their range (see below) was a real bolt from the blue. Shares in JMAT rose almost 15% as a result.

[1] Source: Johnson Matthey Capital Markets Day September 2017
[2] See US Republican proposal to scrap a $7,500 electric vehicle credit, reported on Reuters November 2nd, 2017, for instance.

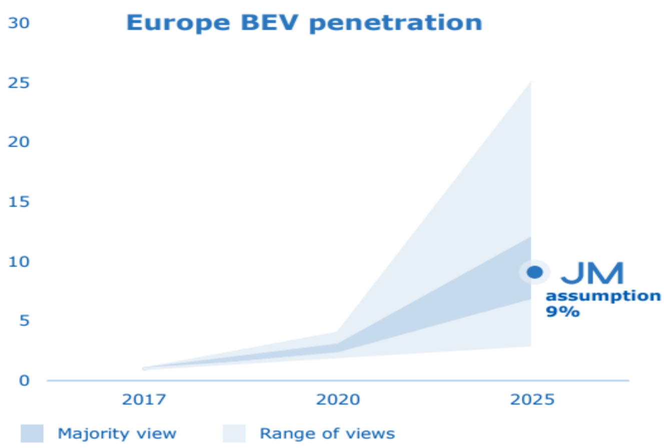


Source: Johnson Matthey presentation as at September 2017

The degree of excitement about all things electric this year is evident in the price of cobalt – long seen as one of the bedrocks of any battery. JMAT's technology requires substantially less cobalt than any of the alternatives and this is likely one the sources of its cost advantage – particularly relative to nickel manganese cobalt (NMC).

Although this technology is unlikely to be available in commercial scale until 2021, this could be perfectly timed for when most analysts expect the real mainstream uptake in electric vehicles to really take off. With the battery cathode material market expected to be worth anything between $15b and $100b by 2025, depending on how quickly European and Chinese car fleets are electrified, you can see why investors are excited.

Europe Battery Electric Vehicle (BEV) penetration



Source: Johnson Matthey presentation as at September 2017

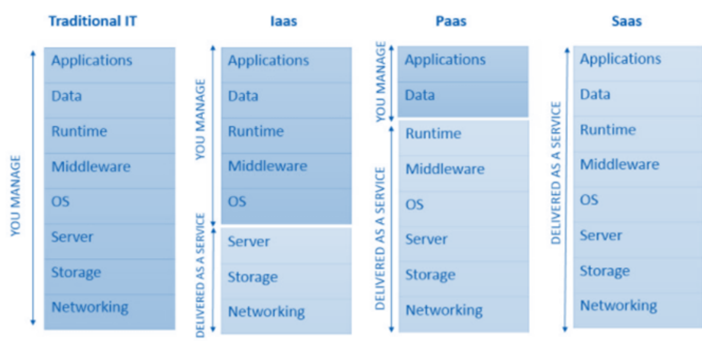
All of this is not to say that JMAT is now a pure play on the uptake of electric cars. They have several other potential growth drivers, ranging from catalysts that reduce the greenhouse gas emissions from factories and refineries, the invention of low carbon chemicals and plastics and the manufacturing of complex active pharmaceutical ingredients for the healthcare industry.

JMAT is a good example of the Future Quality that we look for in a stock – offering underestimated technological knowhow, great customer relationships and strong management. All of these factors suggest to us that this business will still be around and making impressive returns for much longer than the current valuation suggests.

The Evolution of Cloud Computing

Cloud computing receives a lot of investor attention today, due to its rapid growth, but the initial public cloud computing concept was actually introduced in the 1960s. It wasn't until Amazon launched Amazon Web services in 2002, that the first truly accessible cloud computing infrastructure was available to customers. In reality, it was the launch of Amazon's Elastic Compute cloud in 2006 that made a suite of cloud services fully available to a wider audience.

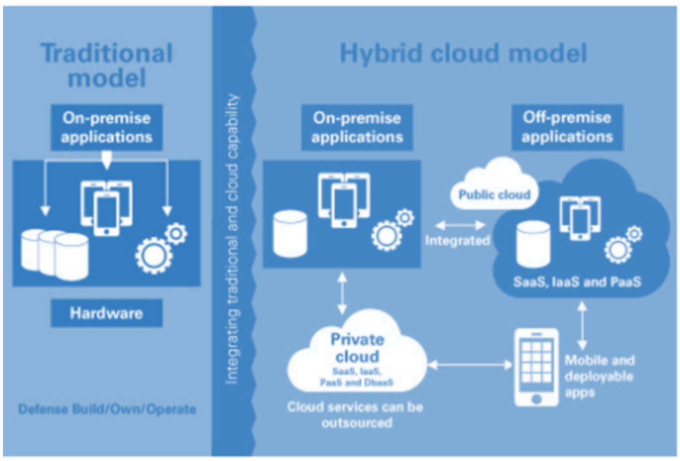
This market is defined as Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS). Essentially these describe the type of services customers can buy from their public cloud computing vendor. A broader definition can also include Software-as-Service (SaaS) and its offshoot Business Process-as-a-Service (BPaaS). IaaS includes server, storage and networking resource and the end client is responsible for managing and maintaining the software. In contrast PaaS is a more comprehensive solution and the client pays for hardware and software capacity and maintenance.



Source: SAP 2017

As recently as 2010 the public cloud IaaS and PaaS market totalled just $3B globally. In 2016 that number is now over $30B and by 2020 an estimated $85B will be spent globally on these services. Amazon Web Services and Microsoft Azure are the market leaders and have, 45% and 10% revenue market share respectively, Google Cloud Platform and IBM Softlayer are significantly smaller players and the other 39% of the market is very fragmented.

The Hybrid cloud concept



Source: KPMG International, 2016

The benefit to clients of cloud solutions is the ability to scale up as when its needed, cost efficiencies from using a shared infrastructure and better reliability than an in-house solution. However the perceived drawbacks from customers are security concerns, the cost and difficulty associated with moving large amounts of data in and out of the public cloud, potential performance issues if data transmission is compromised and, most importantly, the risk of being "locked in" by the public cloud provider.

As a result many organisations enjoy the flexibility of using the public cloud but are unwilling and often unable to commit all their resources to this infrastructure. Typically we see organisations using public and private cloud infrastructure. The private cloud offers the same benefits of the public cloud but with better security (and higher costs). The preference by large enterprises and increasingly SMEs for a public and private cloud infrastructure is typically referred to as the Hybrid cloud model.

Why use open source?

Source: Red Hat Analyst Day, May 2017

The IaaS and PaaS public cloud market is growing at 35% a year CAGR through 2022 and because of the preference for hybrid cloud solutions, the private cloud is growing at a similar rate. While the hybrid cloud model has many advantages it is far more complex to manage. IT managers need solutions and services that help them manage the IT infrastructure efficiently and effectively, such that they can harness the many benefits that a hybrid cloud infrastructure brings to an organisation.

Red Hat provides software solutions that help organisations manage their cloud infrastructure. Red Hat is the leading paid for open source software provider with about 75% of the paid for Linux operating system (OS) market. Open source software is the fastest growing segment within the software industry. Organisations increasingly prefer the flexibility provided by open source software particularly as it relates to cloud computing.

The Red Hat Linux OS accounts for over 70% of sales but its emerging applications, which consists of cloud tools such as OpenShift and OpenStack are growing rapidly, at about 40% year on year in recent quarters. The Linux OS now sits at the heart of cloud computing and as a result, growth in this business is also accelerating as customers migrate to cloud computing infrastructure.

Red Hat's product suite not only helps customers migrate from legacy IT infrastructure to a more flexible cloud solution but also allows customers to more easily manage their cloud computing infrastructure and in particular the hybrid cloud model. OpenShift is a container application platform that allows customers to develop and deploy containers, essentially a common platform for the firm to develop applications. OpenShift is ideal in a hybrid cloud environment as a single container platform can be deployed across the private and public cloud. OpenStack is an open source tool that allows customers to pool virtual resources to create and manage public and private clouds.

The giant cloud providers now all partner with Red Hat, including Amazon Web Services, Microsoft Azure and Google Cloud Platform and recently they have also formed a partnership with Alibaba which will help potentially extend their products across China. These partnerships help cement Red Hat as a leading hybrid / multi-cloud solution for customers.

Red Hat is very well positioned to benefit from the multi-year secular shift to hybrid cloud architecture. 84% of firms that have migrated to a cloud strategy in the US use a hybrid cloud solution. The company's open source solutions provide firms with flexibility and its cloud tools prevent customers from being "locked in" to a single provider and help IT engineers manage multi cloud strategies.

We expect Red Hat to grow revenues at 20%+ for the next few years as it benefits from these secular tailwinds and new products. New applications in mobile edge computing will also help generate growth in the coming years. Importantly the company's new products are far more strategic for customers whereas initially Linux was seen more as a cost saving initiative. Red Hat Linux and the associated applications are now becoming an integral part of the new IT infrastructure ecosystem.

Conclusion

Electric vehicles are still in their infancy and words such as edge computing are only just beginning to enter our language. However, we have found something in common with an historic yet evolving Materials business like Johnson Matthey and a young IT business at the forefront of cloud computing such as Red Hat. That is 'Future Quality'.

We believe both these names have sustainable franchises that can deliver attractive cash flows while achieving the right balance between reinvestment in growth, and the return of surplus capital via dividends. These investments could have gone by unnoticed, as their growth is not reflected in current valuations. However, by delving into the detail, we were able to uncover a traditional company which is changing with the times and a young company on the cusp of tomorrow's technology, both with attractive growth characteristics.

Our detailed bottom-up research process leads us to fresh, less known winners and away from the accepted growth stocks where returns are already priced in. The rewards for Future Quality stocks may not be short term, but the long term rewards are worth it.

Portfolio positioning

The table below highlights our Global Equity Strategy holdings as of the end of September 2017.

	Portfolio Weight
Consumer Discretionary	**5.35**
Sony Corporation	2.18
LKQ Corporation	1.59
Whitbread PLC	1.58
Consumer Staples	**8.79**
Estee Lauder Companies Inc. Class A	2.42
Philip Morris International Inc.	2.18
Treasury Wine Estates Limited	2.11
Henkel AG & Co. KGaA Pref	2.08
Energy	**1.86**
Occidental Petroleum Corporation	1.86
Financials	**14.53**
Progressive Corporation	3.11
AIA Group Limited	2.60
Huntington Bancshares Incorporated	2.32
SVB Financial Group	2.23
KeyCorp	2.18
Housing Development Finance Corp Ltd	2.10
Health Care	**22.30**
LivaNova Plc	3.56
Celgene Corporation	3.18
Royal Philips NV	2.82
Laboratory Corporation of America Holdings	2.48
Sinopharm Group Co., Ltd. Class H	2.34
ResMed Inc.	2.32
ICON Plc	2.01
Cooper Companies, Inc	1.93
Shire Plc	1.65

	Portfolio Weight
Industrials	**15.65**
TransUnion	2.73
Siemens AG	2.68
Ryanair Holdings Plc	2.49
Schneider Electric SE	2.28
BAE Systems	2.26
Weir Group PLC	1.95
HD Supply Holdings, Inc	1.25
Information Technology	**14.78**
Microsoft Corporation	4.52
Facebook, Inc. Class A	4.14
Tencent Holdings Ltd.	3.79
Red Hat, Inc.	2.32
Materials	**6.24**
Summit Materials, Inc. Class A	2.41
Johnson Matthey Plc	1.93
CRH Plc	1.91
Real Estate	**7.29**
American Tower Corporation	2.79
Merlin Properties SOCIMI S.A	1.81
Daiwa House Industry Co., Ltd.	1.39
Ichigo Inc.	1.31
Telecommunication Services	**1.93**
AT&T Inc.	1.93
Utilities	**0.00**
[Cash]	**1.30**
Total	**100.00**

The holdings shown above are based on a representative account managed by the investment team. Reference to individual stocks does not guarantee their continued inclusion in the portfolios managed by the team. Any references to particular securities are for illustrative purposes only and are as at the date of publication of this material. This is not a recommendation in relation to any named securities and no warranty or guarantee is provided.

Source: Nikko AM, FactSet as at 30 September 2017

Global Equity Strategy Composite Performance to Q3 2017

Quarterly gross Returns % USD	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14
SWIP Global Equity Portfolio	0.9	-19.4	9.4	14.2	-3.1	5.4	3.6	8.5	3.8	7.9	8.8	-0.1
MSCI World Index	0.5	-16.6	7.6	11.6	-5.1	6.7	2.5	7.7	0.6	8.2	8.0	1.3
MSCI AC World Index	0.2	-17.4	7.2	11.9	-5.6	6.8	2.9	6.5	-0.4	7.9	7.3	1.1
Alpha vs MSCI World Index	**0.5**	**-2.8**	**1.8**	**2.6**	**2.0**	**-1.3**	**1.1**	**0.8**	**3.2**	**-0.3**	**0.8**	**-1.3**
Alpha vs MSCI AC World Index	**0.7**	**-2.0**	**2.2**	**2.3**	**2.5**	**-1.4**	**0.7**	**2.0**	**4.2**	**0.0**	**1.5**	**-1.1**

Quarterly gross Returns % USD	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
Nikko AM Global Equity Portfolio	4.2	4.7	1.8	-5.5	3.7	-0.7	-0.2	6.9	-0.2	5.8	6.8	6.6
MSCI ACWI ex AU Index	0.5	2.3	0.5	-9.3	4.9	0.2	1.0	5.2	1.2	6.8	4.4	5.2
MSCI AC World Index	0.4	2.3	0.3	-9.5	5.0	0.2	1.0	5.3	1.2	6.9	4.3	5.2
Alpha vs MSCI ACWI ex AU Index	**3.7**	**2.4**	**1.3**	**3.8**	**-1.3**	**-0.9**	**-1.2**	**1.6**	**-1.4**	**-1.0**	**2.3**	**1.3**
Alpha vs MSCI AC World Index	**3.8**	**2.4**	**1.4**	**3.9**	**-1.4**	**-0.9**	**-1.2**	**1.6**	**-1.4**	**-1.1**	**2.5**	**1.4**

	SWIP	Benchmark	Excess
Since inception ann (%)	12.38	10.23	2.15
3 Years ann (%)	12.38	10.23	2.15
1 Year (%)	21.81	19.07	2.74

	Nikko AM	Benchmark	Excess
Since inception ann (%)	11.45	7.53	3.93
3 Years ann (%)	11.45	7.53	3.93
1 Year (%)	20.17	18.65	1.52

*The track record for SWIP is based on a composite portfolio managed by the investment team whilst at SWIP from 31 March 2011 to 31 March 2014. The team was subsequently acquired by Nikko AM in August 2014. The benchmark for this composite was the MSCI World Index.

The track record for Nikko AM portfolio is based on a composite portfolio from 01 October 2014 to 30 September 2017. The benchmark for this composite is MSCI AC World Index. The benchmark was previously the MSCI All Countries World Index ex AU since inception of the composite to 31 March 2016.

Source: Nikko AM, FactSet, Bloomberg

Nikko AM Global Equity: Strategy profile and available funds (as at 30 September 2017)

Key Features		
Investment Objective	+3% vs MSCI AC World	
Key Features		**Guidelines**
No. holdings	42	40-50
Active share	94%	90-95%
Cash	1.3%	0-3%
Available strategies	Global ACWI, Global EAFE, Global ex specific country, Sharia, Dividend	
Available vehicles	UCITS-SICAV, Country domiciled mutual funds, unit trusts, investment trusts and segregated accounts	

This is provided as supplementary information to the performance reports prepared and presented in compliance with the Global Investment Performance Standards (GIPS®). Nikko AM Representative Global Equity account. Past performance is not indicative of future performance.
Source: Nikko AM, FactSet.

Nikko AM Global Equity Team

Nikko Asset Management's Global Equity team is based in Edinburgh, Scotland and comprises of six portfolio managers/analysts. The team's flat structure is designed to maximise their ability to capture the best ideas in client portfolios and to minimise any behavioural biases that may prevent them from achieving the best results for clients.

Experience

Significant diversity of background and combined breadth of experience through a variety of market cycles/crises across global investment markets enables the team to 'join the dots', applying their knowledge to think laterally and pragmatically to find the best available investment opportunities.

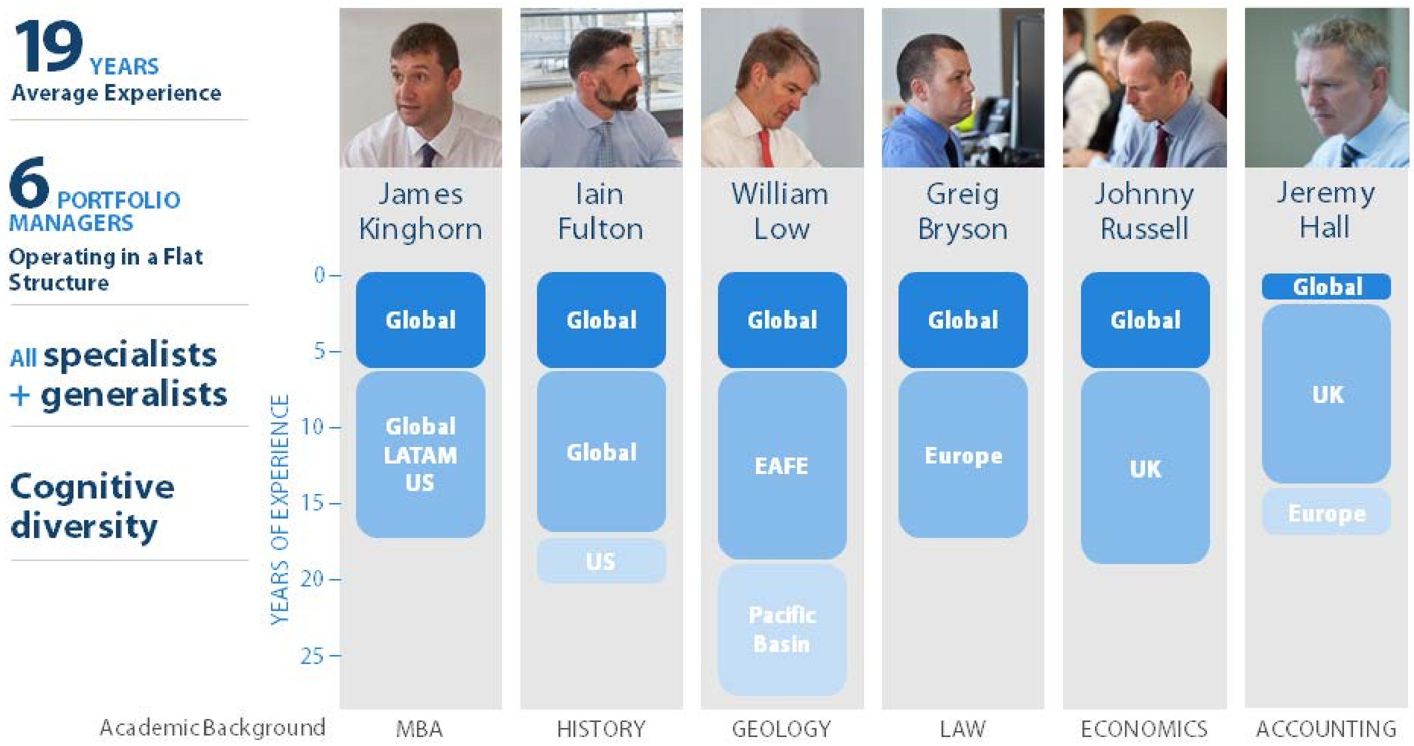
Free-thinking

The team does not believe there is a single pre-determined 'recipe for success' in idea generation. Experience and mutual trust allows them to keep an open mind about each investment case, often considering opportunities from different perspectives to the more rigid structures/cultures of other investment managers.

Execution

The team believes that effective execution of the process relies on a culture of focused collaboration to achieve one goal: high conviction portfolios that aim to achieve the best outcomes for clients.

It is this combination of extensive experience, flexible free-thinking and effective execution that offers a compelling and differentiated outcome for our clients.



About Nikko Asset Management

With US$194.1 billion (21.85 trillion yen)* under management, Nikko Asset Management is one of Asia's largest asset managers, providing high-conviction, active fund management across a range of Equity, Fixed Income, Multi-Asset and Alternative strategies. In addition, its complementary range of passive strategies covers more than 20 indices and includes some of Asia's largest exchange-traded funds (ETFs).

*Consolidated assets under management and sub-advisory of Nikko Asset Management and its subsidiaries as of 30 September 2017.

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