

Alpha small company research

25 August 2022

Don't miss out on the authentication boom

This Aim-traded company is a leading player in the booming market for authentication technologies and should deliver strong returns for shareholders in the coming years.

Simon Thompson's view:

With a cash-adjusted forward PE ratio of 10 and a 7.2 per cent dividend yield, this small technology company is below the radar of many investors at the moment. However, the company is in an earnings upgrade cycle, having forced analysts to push through three upgrades already this year, and that follows a decent outperformance in 2021. A thumping 8.5 per cent free cash flow yield and an asset-light business model with eye-watering cash conversion rates support the case for further growth in the dividend pay-out.

Bull points

1. High gross margins reflect pricing power
2. Patented technology creates barrier to entry
3. End markets still growing despite increase in digital payment platforms
4. High quality customer base
5. Solid revenue visibility offers defensive qualities
6. Strong pipeline of potential contract opportunities
7. Cash generation underpins progressive dividend policy and share buy-backs
8. Cash-rich balance sheet
9. High dividend yield
10. Negligible bad debts

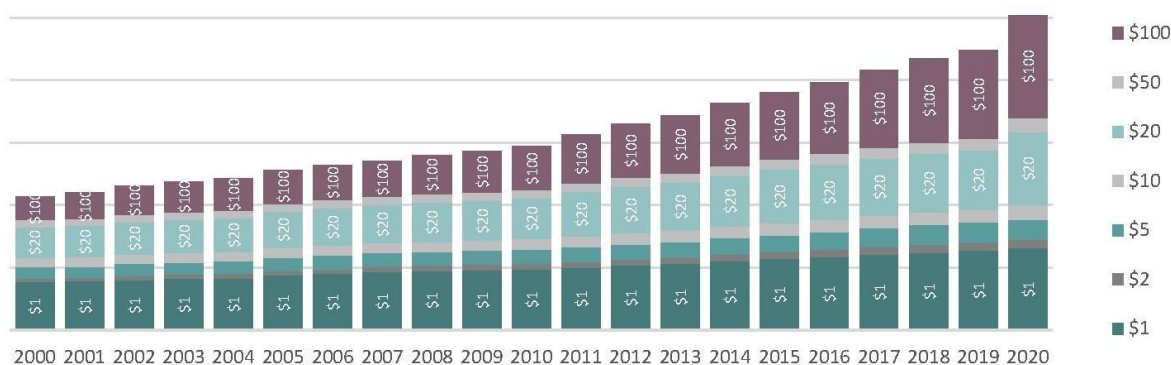
Bear points

1. Liquidity in shares
2. Lumpiness of contracts
3. Risk of new market entrants

Spectra Systems (SPSY)	
Ticker	SPSY
Current price	130p
Bid-offer spread	126 to 134p
Target price	200p
Market cap	£58.5mn
52 week high	173p
52 week low	121p
Net cash	\$16.8mn (December 2021)
Net asset value	\$27.3mn (includes intangible assets of \$7.2mn)
Shares in issue	45mn
Financial year end	31 December
Next event	interim results Sept 2022
Website	spsy.com

In recent years, the increasing use of non-cash-based payment methods has raised concerns that the number of banknotes in circulation may start to decline. However, even in advanced economies the opposite has been the case, with both the total and mix of banknotes in circulation continuing to increase in both the USA and UK.

US Federal Reserve: Volume of banknotes in circulation (\$21.3bn in 2020 to \$50.3bn 2020)



Source: www.federalreserve.gov/paymentsystems/coin_currircvolume.htm

The estimated number of banknotes in circulation increased by 12 per cent for the US Federal Reserve and 14 per cent for the Bank of England in 2020/21. Furthermore, there has been relative growth in high-denomination notes (that would contain covert security features) as part of the mix – these are more likely to be held outside standard banking systems – highlighting the importance of central bank currencies as stores of value where these are Reserve Banks.

The painful collapse in the value of cryptocurrencies in the past 12 months also highlights that the vast majority of digital currencies do not act as a store of value, nor for that matter a medium of exchange given the difficulty in carrying out transactions using them. They lack the security offered by fiat currencies, too, as the spate of cryptocurrency thefts from digital exchanges shows.

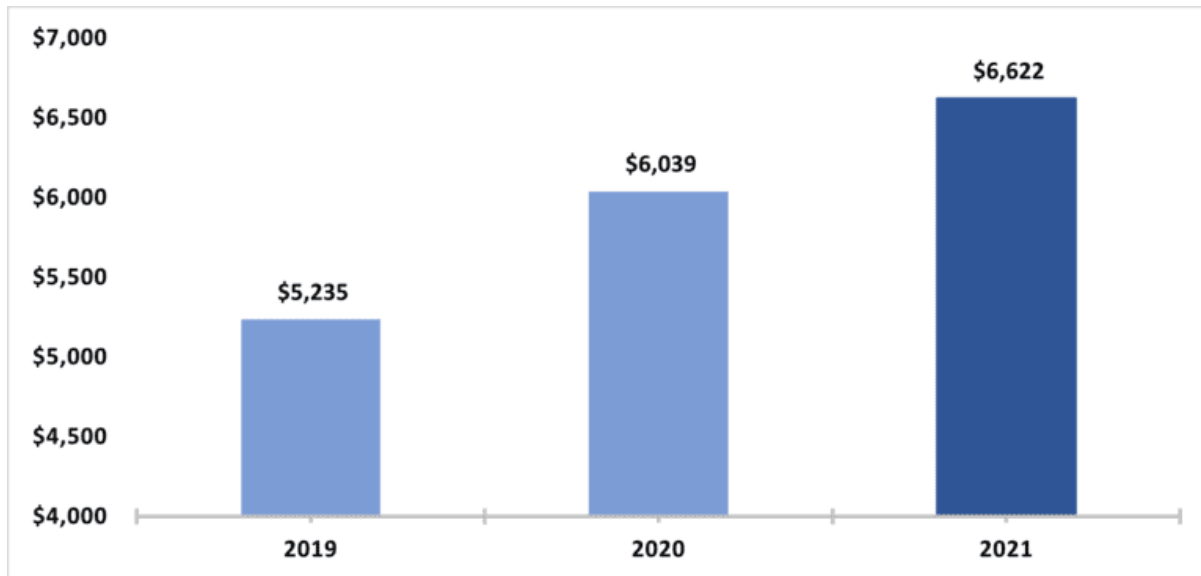
In his keynote speech at this year's Banknote and Currency Conference, the Federal Reserve Chief Payments Executive Mark Gould discussed cash and the Federal Reserve's payment strategy, concluding the importance of banknotes as a store of value, and the trust that a high portion of the population place in banknotes, as evidenced by increases of cash withdrawals of higher denomination banknotes. The war in Ukraine and the heightened geopolitical uncertainty can only support demand for hard currencies given the perception they are a store of value.

Of course, the growth in new digital payment mechanisms and legitimising platforms has changed the landscape, but equally there is a recognition that future cash usage will, for many central banks (and specifically reserve banks), be measured in decades (Federal Reserve suggests 50 years, and Pakistan even longer than that). So, whilst the volume of notes and coins may gradually decrease in volume over time, the complete replacement of cash is a long, long way off. Indeed, over 150bn banknotes are manufactured each year and banknotes are still used in 85 per cent of all transactions. To paraphrase Mark Twain's famous quote, "Rumours of the death of cash are greatly exaggerated".

If anything, central banks have an even greater need now to protect their currencies to retain trust in the overall financial system. This backdrop is highly supportive for a below the radar Aim-traded company, **Spectra Systems (SPSY)**, a leader in machine-readable high speed banknote authentication, brand protection technologies and gaming security software.

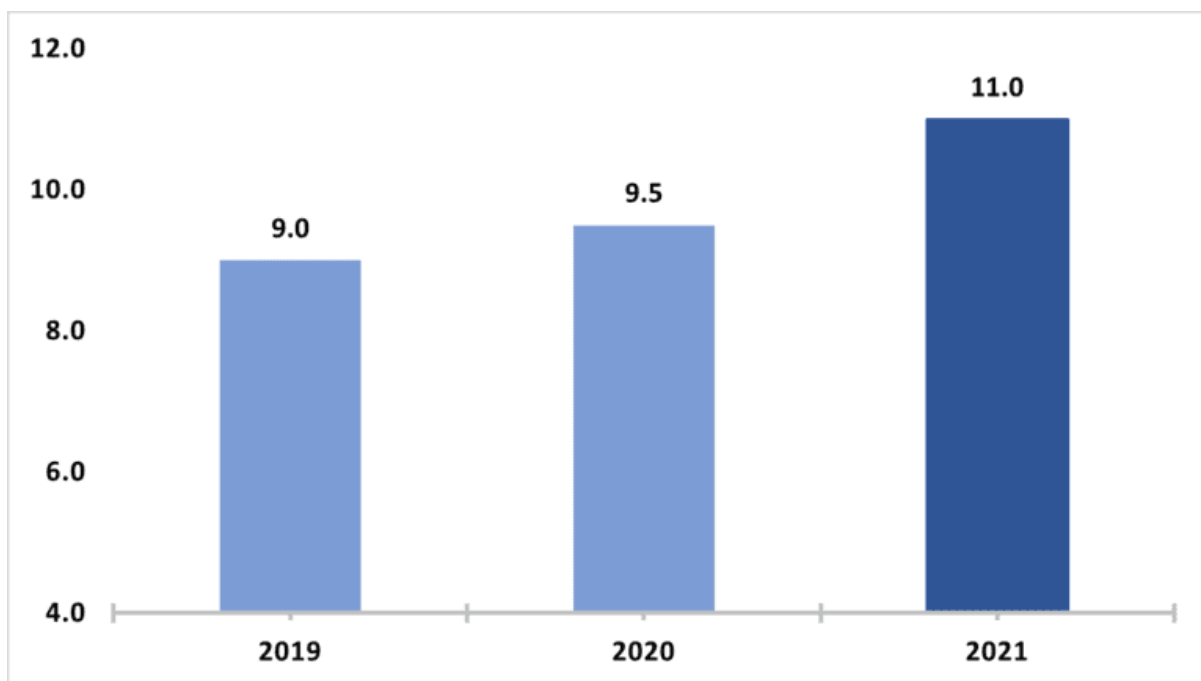
The company has not only been delivering bumper profit growth in recent years, but is in a strong earnings upgrade cycle: a factor that supports a continuation of the board's highly progressive dividend policy.

Spectra Systems adjusted pre-tax profits (2019-2021)



Source: Spectra Systems annual accounts

Spectra Systems progressive pay-out



Source: Spectra Systems. (Dividends started in US cents.)

Analysts have pushed through three earnings upgrades in the first half of this year and that follows a robust showing in 2021 when Spectra delivered 10 per cent growth in its pre-tax profit to \$6.6mn. The latest upgrades by joint house broker WH Ireland in mid-June 2022 are highlighted in the table below.

Spectra Systems financial forecasts

Y/E Dec	2020A	2021A	Rev: 2022E	Rev: 2023E	Rev: 2024E
Sales (\$m)	14.7	16.6	17.5 17.2	18.8 17.8	20.4 19.7
EBITDA (\$m)	6.4	6.9	7.5 7.3	7.9 7.5	8.0 7.7
WHI PTP (\$m)	6.0	6.6	7.2 7.0	7.7 7.2	7.8 7.5
WHI EPS (c)	11.9	12.0	11.8 11.5	12.3 11.5	12.5 11.9
P/E (x)	14.0	13.8	14.1	13.6	13.3
EV/EBITDA (x)	9.3	8.3	7.7	7.2	7.0
DPS (c)	9.5	11.0	11.3	11.5	11.8
Yield (%)	5.7	6.6	6.8	6.9	7.1
Net cash (\$m)	14.0	16.8	16.2	16.6	15.3

Source: WH Ireland. Net cash excludes \$0.5mn of restricted cash for 2021. Pre-tax profit stated before amortisation of intangibles and share-based payment costs. Exchange rate of £1:\$1.25 used for conversion. Current spot rate is £1:\$1.175.

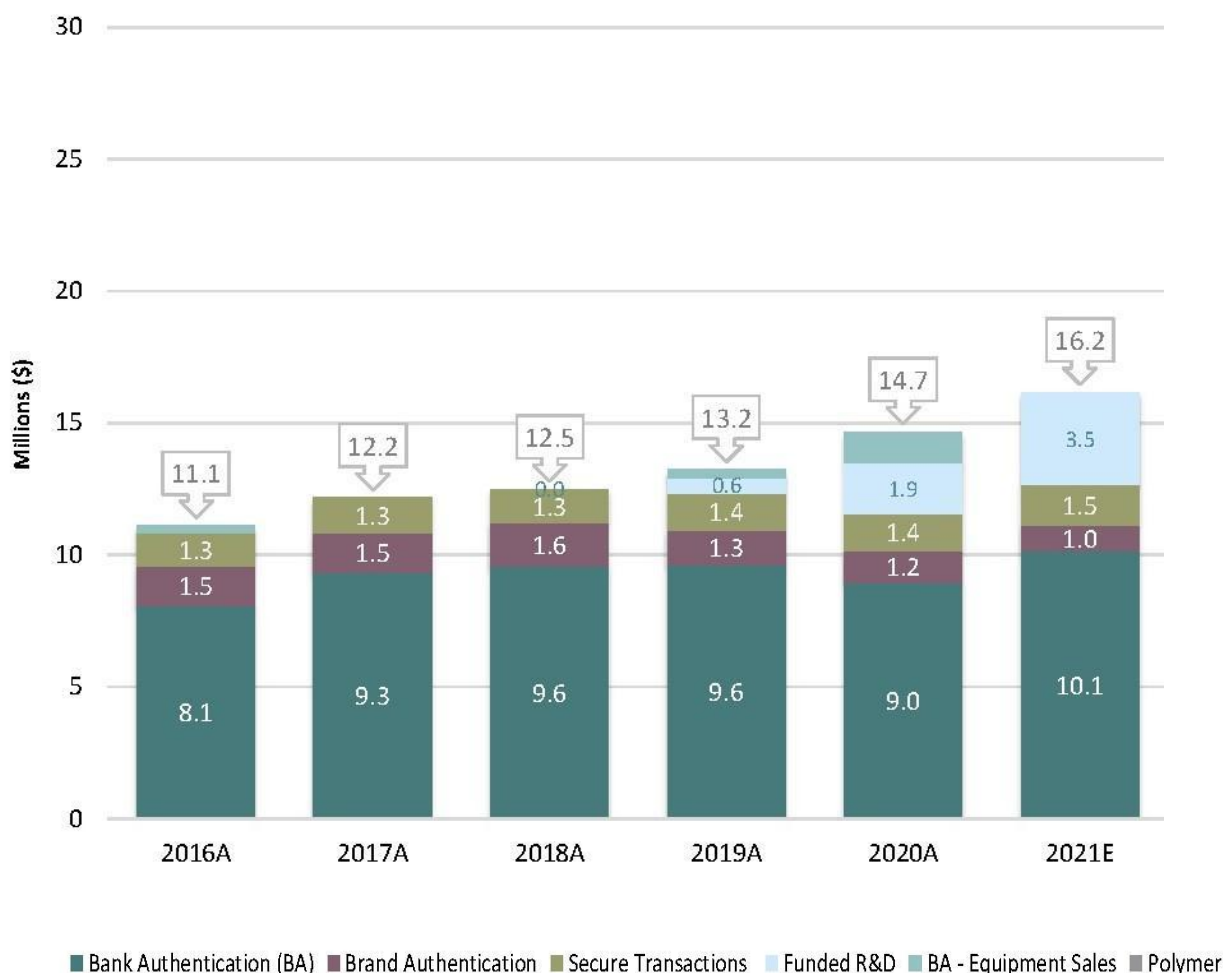
Given the contract momentum across the business, it's not unreasonable to expect the upgrade cycle to continue for some time yet, a possibility that is simply not reflected in the company's valuation – £58mn market capitalisation. Indeed, the shares trade on a modest enterprise valuation (market cap plus net debt) that is seven times 2023 forecast Ebitda (earnings before interest, taxation, depreciation and amortisation). Forthcoming interim results in September are likely to be well received.

Delivering patented technology

The company was founded in 1996 by chief executive Dr Nabil Lawandy, a prominent academic and scientist, to commercialise technology licensed from Brown University, a highly respected Ivy league university based in Rhode Island. Lawandy had been Professor of Engineering and Physics at the university for 20 years before entering the commercial arena, during which time he published hundreds of scientific papers and was the named inventor to more than 140 US and other patents. Importantly, Spectra is not a one-man band, as the company is led and staffed by teams of well-established scientists and researchers.

In the past 25 years, Spectra has developed into a profitable and highly cash-generative security technology provider for banknotes, secure documents, tax stamps, brand protection and secure online lottery transaction systems. Through a series of strategic supply and licensing agreements with governments, institutions and corporate partners, the company has become an industry leader in the currency and document authentication markets, and one of the world's leading suppliers of high-speed currency authentication sensors. In fact, around 45bn banknotes worldwide and 155mn US passports contain Spectra's security technologies, and no fewer than 20 central banks are customers, including two G7 central banks.

Spectra Systems revenue components (2016 to 2021)

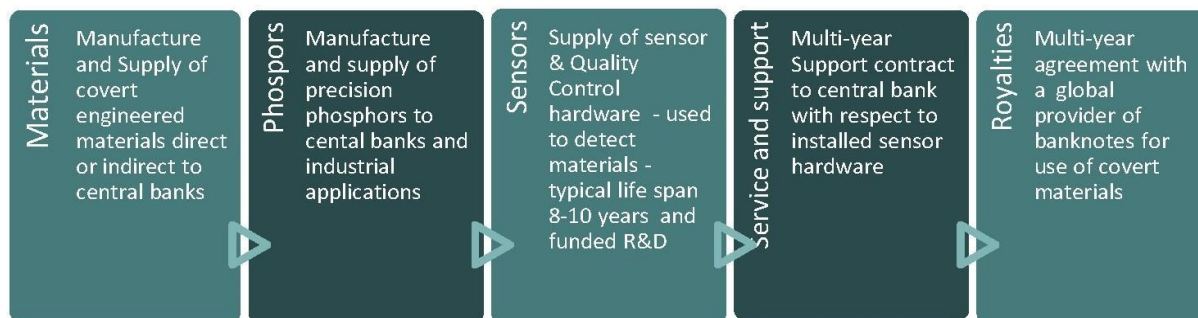


Source: WH Ireland research/company data

Bank authentication revenue accounted for around \$10mn of Spectra’s total revenue in 2021 and is mostly generated from the supply of covert security features to central banks – both the supply of highly engineered material for inclusion in banknotes, and development and supply of sophisticated hardware to detect the materials in banknotes based on paper substrates. The materials are typically included in higher-denomination notes to protect currencies from criminal or state-sponsored counterfeiting. Spectra supplies one central bank customer directly, having established a multi-year trusted relationship, and other central banks through a global provider of banknotes.

In addition to material and royalty revenues, Spectra manufactures and supplies high-grade phosphors, the key customers being central banks, which generates around \$2mn each year for the company in revenue. This is seen as a material growth area, specifically in industrial applications, due to the innovation in new, enhanced phosphors.

Spectra Systems: Bank authentication revenue components



Source: WH Ireland research/company data

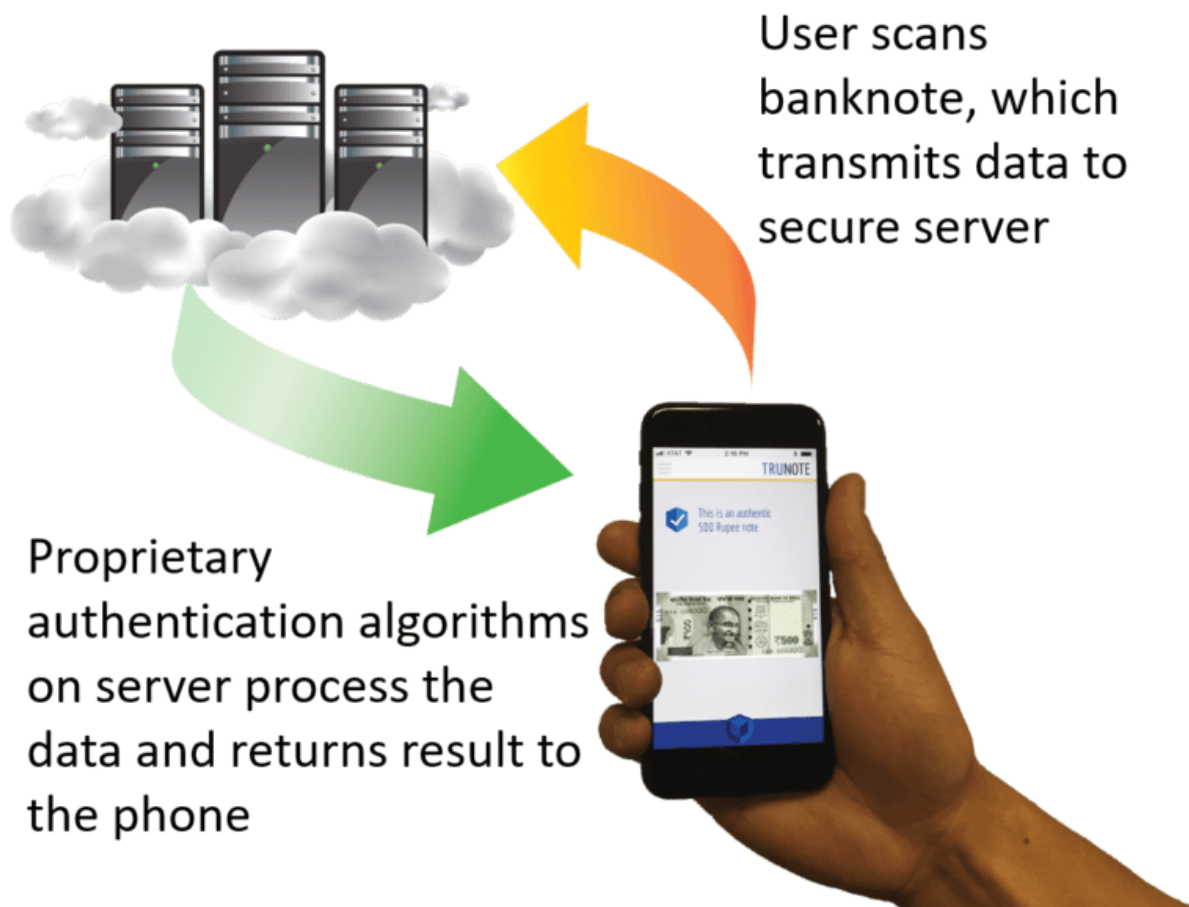
Spectra also provides its customers with a range of other services to protect the security of banknotes in circulation. For instance, its highly sophisticated sensors are embedded in banknote sorting machines, which are used by major central banks. Using taggant materials, Spectra also provides security features, which are embedded in the banknotes, making this a closed loop, with the sensors able to detect fake banknotes, and eradicating a major problem for central banks. Given the requirements of modern banknote printing, Spectra's sensors are designed to operate within a central bank's cash sorting machines at speeds of 40 banknotes per second.



Implemented by 20 central banks, including two G7 banks, Spectra covert materials, high-speed authentication sensor and quality control systems provide the highest level of banknote security

In addition, Spectra's Level II authentication solutions can leverage smartphone-based technology, involving proprietary algorithm-based capabilities connecting smartphones (the reader) to a secure server. Coupled with the authentication software that runs on a secure

server, TruTrack, an integrated software component of Spectra's cutting edge TruNote™ authentication technology, collects the geographic location as well as the authentication status of each scan. The data can then be transmitted in real-time to government authorities for monitoring and analysis purposes.



Providing the public with a smartphone-based solution to examine banknotes for authenticity, Spectra's TruNote™ technology comprises a physical material for reliable detection and software algorithms running on secure servers for quick response to the user.

Furthermore, as the Covid-19 pandemic highlighted, removing contaminants from banknotes in circulation not only protects processing staff and users from hazardous materials, but extends the life of banknotes and can save central banks up to \$10bn (£8.5bn) annually. Leveraging its position as a trusted supplier of advanced authentication technology to central banks, Spectra developed a new system alongside its existing patented AeriTM banknote cleaning equipment to respond to the Covid-19 pandemic.

The world's first banknote cleaning technology, Spectra Banknote Disinfection System, utilises an oxygen-free environment and heat to eliminate a broad spectrum of pathogens from mould to Sars-Cov-2 on both paper and polymer banknotes. The removal of oxygen prevents oxidative

damage of the substrate and the costly security features from taking place. By extracting oxygen from the air and pumping pure nitrogen into the heating unit, the plug and play technology can disinfect up to 5mn banknotes in one hour.

Marketing the product jointly with Royal Dutch Kusters Engineering, the world's leading supplier of banknote destruction systems and engineering solutions for unfit currency, Spectra won its first order from an Asian central bank in August. It's likely to win many more given that central banks are seeing higher demands for cash with inflation rising across the world, while processing staff continue to struggle with pathogens ranging from common E. coli, Sars-Cov-2 and now monkeypox.



The world's first banknote cleaning technology, Spectra Banknote Disinfection System

Such is the high regard in which Spectra is held that its long-established relationship with a major world central bank continues to drive the introduction of more advanced products and a steady stream of hardware sales to authenticate its covert materials. In fact, having received \$8.8mn of funding from this customer to develop a new generation of sensors with deliveries anticipated to start in 2024 and running through to 2026, the central bank customer has increased the contract size to \$10.8mn this summer, the additional revenue to be booked across the 2022 to 2024 reporting period.

Spectra's management believes that its sensors will be the most advanced authentication sensors in the world with unmatched capabilities and provide anticipated hardware revenues of \$50mn and service contracts worth more than \$8mn over a 10-year period once the development phase of the contract completes. The implication being that Spectra will be in receipt of further large high-margin material sales spanning a decade. Such contract awards

offer Spectra an enviable amount of revenue visibility and a high degree of earnings security, highlighting its strong defensive qualities in the current uncertain macroenvironment.

Spectra's breakthrough in polymer banknotes

Although Spectra's largest central bank customer is fully invested in paper substrates, a growing number of central banks are now transitioning to polymer substrates, either partially (lower denominations) or increasingly fully. There are 15 note-issuing central banks that have transitioned to polymer notes, but this represents less than 10 per cent of the total market, highlighting the growth potential as more central banks transition. So, to capitalise on a market expanding at a compound annual growth rate of 18 per cent in recent years, Spectra launched its patented 'Fusion' machine-readable covert polymer substrate at the 2022 bi-annual Banknote Conference. The event was attended by representatives of the 180 central banks, key industry suppliers and technology enablers.

Polymer substrates offer increased wear resistance, so extend a banknote's life. However, without covert features, they lack the security necessary for higher-value denominations (as opposed to paper, which can have covert security features within the banknote substrate, if specified by a central bank). Spectra's technology embeds covert features within the polymer substrate so that printing polymer substrates can be produced with full opacification and conducting layers in all print format requirements.

This is a major advance, enabling the company to compete directly with the other two suppliers in the industry, De la Rue and CCL, even at the level of standard polymer substrates without machine readability. Moreover, the availability of an embedded covert security feature in the polymer substrate may now encourage more central banks to transition to polymer banknotes for larger denominations given the increased security and durability, and for lower denominations where it has been less economically viable to do so, assuming Spectra is disruptive in both its pricing and availability.

It's a major opportunity for Spectra to capitalise on. That's because the company derives high profit margins for the covert engineered materials used in banknotes, all of which have been manufactured in-house since 2018. In 2019, the Bank of England – a customer of both De La Rue and CCL – printed 1bn new bank notes, while in the same year the US Federal Bank printed 7bn new notes. Effectively, De La Rue and CCL share this market between them, so a rival offering polymer substrates with covert security features could be a real disrupter to their effective duopoly.



Luminescent pigments and dyes have chemical and optical properties that address requirements of security and manufacturing quality control applications. These materials are embedded in substrates as components of banknotes.

To date, Spectra has produced 10,000 custom designed polymer substrate sheets for an ongoing Middle Eastern central bank print trial of one of its lower denomination notes, and notes early traction with three major central banks, including a G7 central bank. Although the commercial opportunity is real and present, analysts have not included any revenue from polymer opportunities in their forecasts, highlighting the potential for earnings upgrades if Spectra can gain commercial traction with a central bank. It's not the only opportunity.

Protecting commercial brands

Spectra's solutions are also used for authenticating and tracking well-established consumer branded products such as energy drinks, shampoo, wine, spirits, and tobacco. For instance, \$950mn of energy drinks are sold each year and are protected by Spectra's TruStamp™ authentication technology.

Embedded in printed and holographic tamper-proof labels, TruStamp™ presents a covert signature for analysis on smartphones, which detect a taggant signature. That signature is then transmitted to a secure server for authentication of the captured signature. This breakthrough technology is based on physical signatures from specific taggants and is chemically and physically robust under all conditions. TruStamp™ apps can also provide QR capture to support track and trace GPS software for a complete end-to-end solution. These track and trace applications follow products and individual items along the legal supply chain, so can identify at which point they are diverted into the illicit distribution chain and aid the investigative process.

Furthermore, as tax stamps are scanned in the field, the scan results and geographic location can be captured using Spectra's integrated TruTrack app, which provides valuable data for analysis by excise tax revenue authorities. Spectra generated \$1mn of revenue last year from commercial brand authentication activities, mainly servicing multinational consumer product companies.

In the course of developing authentication solutions, Spectra has created a large number of unique optical materials which are responsive to various forms of excitation, from light to ambient environmental conditions, including gaseous constituents. These products are used in secure documents, banknote security threads and K-cups (coffee or tea that is sealed in a cartridge or pod).



Spectra's coating formulation allows coffee suppliers producing their K-cup lids at LMI Packaging Solutions to have complete functionality in the Keurig K-cup system

Spectra's sales from K-cups more than doubled last year and management are targeting annual sales of \$1mn from this activity, a major driver behind WH Ireland's estimate that Spectra's brand authentication revenue could rise 80 per cent to \$1.8mn this year, increasing to \$2.2mn in 2023.

A software business with growth potential

On the software security side of Spectra's business, the Secure Transactions Group, formed around the various gaming technology acquisitions made in 2012, reported underlying Ebitda of \$0.34mn (2020: US\$236k) on revenue of \$1.87mn (2020: \$1.42mn) last year, accounting for 5 per cent of group Ebitda.

Spectra's security software provides secure Internal Control Systems (ICS) to 17 state lotteries within the U.S.A. and four international lotteries including Norsk Tipping in Norway, Puerto Rico, and Malaysia. The increase in revenues last year was due to software development relating to the introduction of new games by Spectra's lottery customers. Spectra was also selected by one of the largest US lotteries to provide ICS software, renewed a long-term US lottery customer contract and expanded the business into Canada with a new contract award. This new customer is expected to open the door to the other four additional lotteries in Canada.

Specifically, the technology is an automated, independent ICS that ensures the integrity of the lottery and sports betting games by logging and validating all transactions against the game rules, and by detecting and flagging any transactions that violate such rules in real-time. The application software provides independent sales figures and winning results verification for all

online, instant lottery and sports betting games. It is used to independently verify the accuracy of transactions logged by providers of lottery and gaming operators worldwide including IGT, Intralot, Scientific Games, and Neopollard.

Admittedly, profit from this activity has been held back in recent years due to development costs for a new software platform, although it will lead to lower support costs in the long run.



Spectra's independent control systems enable lottery operators to meet consumer assurance requirements.

Early-stage investments

As part of the directors' efforts to increase shareholder value, Spectra is investing in early-stage companies which are in high value businesses such as healthcare, biotechnology and energy. Opportunities are targeted where Spectra can provide in kind services to minimise the cash components of its investments.

The first of these investments is Solaris BioSciences, an early-stage company that has developed a proprietary optically based technology for the measurement (in medical clinics, hospital waiting rooms and the home) of blood plasma viscosity with pin-prick volumes of blood. The results are used to detect viscosity changes related to inflammation stemming from infections, cancers such as multiple myeloma, cardiovascular disease, Alzheimer's, and rheumatoid arthritis. The technology is a combination of low-cost hardware (a LaserDrag Viscometer) and consumable test strips.

The tests can be performed on the spot in primary care physicians' and cardiologist's surgeries or hospital recovery rooms, without blood drawing and subsequent laboratory analysis and delays – offering genuine treatment and prophylactic opportunities. They can provide health professionals with early-stage diagnostics (which may then lead to more biologically specific, and expensive, laboratory testing).

Currently, blood plasma analysis is performed using viscometers, which measure samples in millilitres as opposed to microlitres, and cost from \$4,000 to \$40,000. Solaris' technology has

the capability to perform such tests with pin-prick blood volumes and provide a result within five minutes using hardware that costs less than \$12,000. The consumables are estimated to cost \$25 per test, or less than a quarter of the current pricing from diagnostic laboratories.

Importantly, Solaris' technology is protected by two issued USPTO patents and foreign filings (as well as several pending patents), and has demonstrated in fully functioning prototypes. Furthermore, the LaserDrag Viscometer and consumable test strips are a more direct measure of inflammation than the commonly utilised Erythrocyte Sedimentation Rate (ESR) methods that require syringe blood draw and which are projected to have US sales of around £395mn by 2028, according to Persistence Market Research.

Spectra holds a 48.65 per cent stake in Solaris, having paid \$0.7mn to increase its holding from 4.79 per cent at the end of 2020. Dr Lawandy holds 46 per cent of the equity. Solaris' reported a small \$80,000 Ebitda loss in 2021 and its results are consolidated into Spectra's accounts. Solaris has cash of \$130,000 and recently commenced marketing of a UK financing round, having now received advance assurance from HMRC that it is a qualifying company for the purposes of Enterprise Investment Scheme (EIS) relief.



Spectra has invested in Solaris BioSciences, an early-stage company developing technologies capable of detecting changes in nanoparticle transport through extremely small amounts of bio fluids

Management team

The board's chair is **The Honourable B.J Penn**. He was Acting Secretary of the US Navy from March to May 2009, having previously been Assistant Secretary of the US Navy (Installations and Environment) and Director of Industrial Base Assessments. Penn held the roles of Director of International Business at Loral Corporation and was on the corporate staff at Lockheed Martin after it acquired Loral's defence electronics and system integration businesses.

Founder and chief executive **Dr Nabil Lawandy** started his career at the NASA Goddard Space Flight Centre where he was a pioneer in the development of sub-millimetre optically pumped lasers. From 1981 to 1999, Lawandy was a tenured full professor of Engineering and Physics at Brown University where his work focused on instabilities in single and multimode lasers and a wide spectrum of non-linear optics and atom-field interaction problems. He holds a BA in Physics, and an MSc and Ph.D. in Chemistry, all from The Johns Hopkins University.

Finance director **Colleen Hamill**, C.P.A., joined the company in June this year, having started her career in 1987 at KPMG Peat Marwick in public accounting. She has held senior positions at International Gaming Group (IGT:NYQ), a \$4.3bn market capitalisation gaming technology group, Brookfield Renewable Power, a \$12bn operator and developer of hydroelectric power facilities, and Covidien, a \$10bn medical devices company where she worked in the US operations of Boston-Power, a developer of lithium-ion batteries. Her most recent position was at Harvard Biosciences.

Spectra has two non-executive directors: Jeremy Fry and Donald Stanford.

Jeremy Fry has over 30 years of experience in finance and operations and in particular intellectual property. Fry established his own consultancy business in 2005 and has since assumed board level roles to support investor acquisitions and exits. More recently, he has served on the boards of Blackspace Security and Sentrybay, leading cyber-security companies working in financial services and regulated markets.

Donald Stanford, is a founding member of GTECH (renamed **International Gaming Group**) and from 1979 until 2001 was Chief Technical Officer. Stanford is an Adjunct Professor of Computer Science and Engineering at Brown University and an instructor in the Program in Innovation, Management, and Entrepreneurship (PRIME). He is also on the faculty of Brown's School of Professional Studies.

In aggregate the directors hold 2.4mn (5.3 per cent) of the 45mn shares in issue and have options on a further 2.14mn shares, so in aggregate they have an effective financial interest in 10 per cent of the current share capital. Their total remuneration was \$0.62mn in the 2021 financial year, a sum that is a fraction of the \$4.95mn cash cost of the 11c a share dividend paid to shareholders. The boardroom's interest in the shares is supportive of the progressive dividend policy.

Major shareholders

Spectra has two classes of shares: 1.14mn shares in the Regulation S stock (AIM:SPSC); and 43.8mn shares in the unrestricted stock (AIM:SPSY). The former shares are illiquid, so investors should focus only on the unrestricted shares which currently trade on a wider than ideal bid-offer spread of 126p to 134p. However, the spread can narrow sharply as earlier this month it was only 2p before there was a drawdown in equity markets. Moreover, it is possible to deal between the official spread and in decent bargain sizes, with individual lots as large as 25,000 shares going through the market during August.

In aggregate, 55.6 per cent of the 45mn shares in issue are held by the eight largest shareholders, including institutional shareholders Close Asset Management, Herald Investment Management and Canaccord Genuity. The tightly held nature of the shares means that Spectra's share price can move sharply on news flow, a factor that could work in shareholders' favour given the positive trading outlook and potential for the company to deliver ongoing profit growth as analysts rightly forecast.

Top shareholdings

Name	Number of shares	Holding
Mr. and Mrs. N. Slater	4,666,985	10.37%
Close Asset Management	4,610,868	10.25%
Sandon Capital	4,255,000	9.46%
Herald Investment Management	2,929,300	6.51%
O. Salam	2,265,764	5.04%
Canaccord Genuity Group	2,250,000	5.00%
Dr N. Lawandy (CEO)	2,247,736	4.99%
H. Heye	1,813,850	4.03%
Total		55.64%

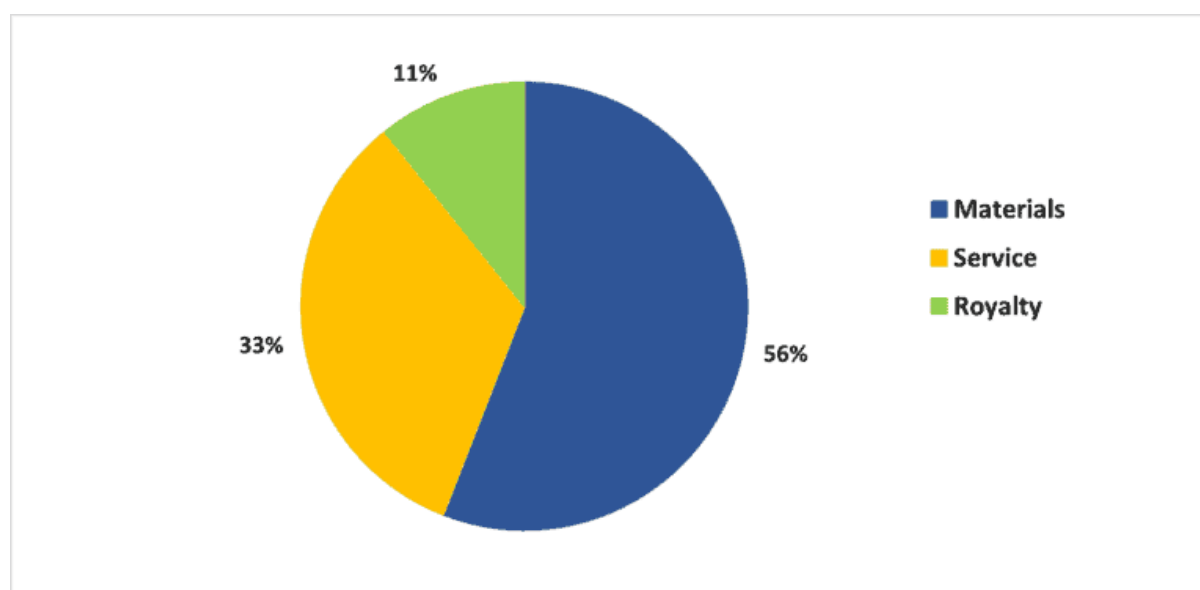
Source: Spectra Systems 2021 Annual Accounts, London Stock Exchange RNS

Financial performance

A key take from Spectra's accounts is the high margins it earns. The materials the company supplies (56 per cent of the mix in the past three years) are typically manufactured in-house and can earn a gross profit margin of 60 to 90 per cent. Royalties are close to 100 per cent,

while hardware and research and development margins can range from 30 to 90 per cent, skewed towards the upper end of that range.

Spectra revenue breakdown by activity (2019 to 2021)



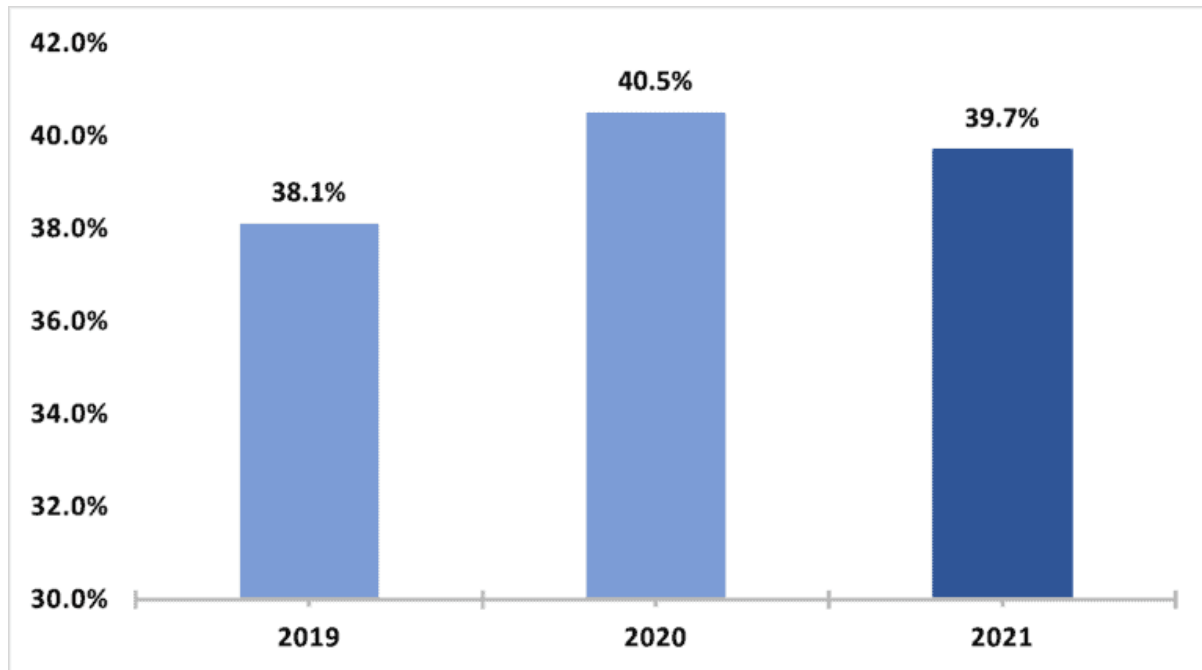
Source: Spectra Systems 2021 accounts

Although margins against product/revenue lines are predictable, changes to the revenue mix can result in some variability to reported gross margins, although they have consistently been above 60 per cent. In 2021, the group earned a gross margin of 63.4 per cent on record revenue of \$16.6mn, up from a margin of 68.6 per cent on revenue of \$14.7mn in 2020.

Total operating expenses declined slightly to \$4.6mn last year as peaks coincide with significant periods of sales and marketing (for example, the bi-annual Banknote Conference was in 2020). Included within operating expenses is research & development (R&D) expenditure which averages around 10 to 13 per cent of sales, although Spectra often secures funding for the commercialisation of its core IP. In 2021, R&D spend of \$1.4mn equated to 8.4 per cent of total revenue, down from 10.8 per cent in 2020.

The ability to maintain a high gross margin – a reflection of Spectra’s pricing power and the barriers to new entrants from its patented technology – and control operating costs in a positive sales cycle is important. That’s because it enables Spectra to ramp up sales and marketing spend to exploit new contract opportunities, while still maintaining Ebitda margins of around 40 per cent.

Spectra's robust cash profit margins



Source: Spectra Systems annual accounts

WH Ireland expects Ebitda margins this year to rise to almost 42.9 per cent, buoyed by contract wins including the expanded sensor development contract with a major central bank.

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WHI EPS (c)	11.9	12.0	11.8 11.5	12.3 11.5	12.5 11.9
P/E (x)	14.0	13.8	14.1	13.6	13.3
EV/EBITDA (x)	9.3	8.3	7.7	7.2	7.0
DPS (c)	95	11.0	11.3	11.5	11.8
Yield (%)	5.7	6.6	6.8	6.9	7.1
Net cash (\$m)	14.0	16.8	16.2	16.6	15.3

Source: WH Ireland. Net cash excludes \$0.5mn of restricted cash for 2021. Pre-tax profit stated before amortisation of intangibles and share-based payment costs. Exchange rate of £1:\$1.25 used for conversion. Current spot rate is £1:\$1.175.

Admittedly, the near 10 per cent growth in pre-tax profit to \$7.2mn forecast in 2022 will not translate to growth in earnings per share (EPS) as Spectra will have utilised all its tax losses by the end of this year. So, even allowing for R&D tax credits, its earnings will be increasingly subject to US corporate tax and there is potential for higher federal taxes. Spectra's effective tax rate increased from 5.6 per cent to 14.8 per cent in 2021, and analysts at WH Ireland are modelling for a corporate tax rate of 24 per cent in 2025.

That said, with sterling plunging against the US dollar this year, EPS estimates of 12.3¢ for 2023 equates to 10.5p, implying the shares are rated on a very modest forward price/earnings (PE) ratio of 12.4. In 2021, around 78 per cent of Spectra's revenue came from North America and 20 per cent from Europe, so the Aim-traded shares offer a play on ongoing sterling weakness.

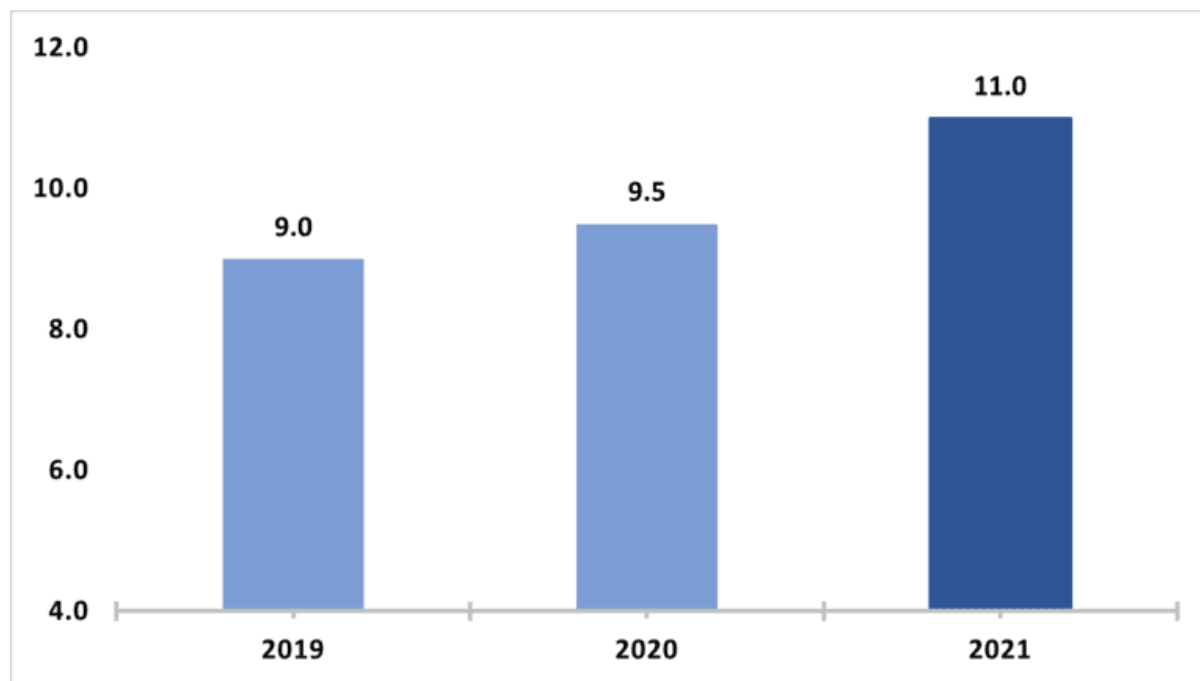
It's worth noting that the company is also a prodigious cash generator, a reflection of its asset-light business model which enables a high proportion of adjusted profit to be converted into cash. Having raised a net \$20mn from investors upon its admission to Aim in August 2011, the company subsequently spent \$8mn on highly earnings accretive acquisitions, funded an in-house manufacturing facility for engineered materials, started a generous dividend policy in 2018 and still managed to close last year with net cash of \$16.8mn (£14.3mn), a sum that equates to quarter of the current market capitalisation.

In fact, the board has paid out cumulative dividends per share of 42.5¢ in the past five financial years, lifting the dividend per share from 6¢ in 2018 to 11¢ (9.4p) in 2021.

Based on last year's pay-out, the shares offer a solid dividend yield of 7.2 per cent. Importantly, the dividend is backed by free cash flow with analysts at WH Ireland modelling annual free cash flow per share of around 13¢ (11p) for the 2022 to 2024 forecast period. With maintenance capital expenditure only \$0.4mn, in line with the annual depreciation charge, Spectra cash conversion rates are expected to be maintained around 100 per cent, hence why analysts believe the board can raise the annual dividend to 11.3¢ (9.6p) this year (covered by EPS of 11.8¢) and still end the year with net cash of \$16.2mn (30.6p a share).

On this basis, the shares are priced on cash-adjusted forward PE ratios of 10 (2022) and 9.5 (2023) and offer prospective dividend yields of 7.4 per cent (2022) and 7.5 per cent (2023).

Spectra Systems' progressive pay-out



Source: Spectra Systems. Dividends started in US cents.

Target price

Taking account of the risk assessment below, it is difficult not to conclude that Spectra's shares offer compelling value at the current level especially once you factor in the annuity-like nature of its cash flows and the growth potential for polymer substrate banknotes that is not yet factored into analysts' forecasts. The board also has authority to buy-back 4.5mn of the shares in issue and have to date repurchased 1.64mn in an earnings accretive programme.

On a 12-month basis, and assuming a continuation of the ongoing earnings upgrade cycle that is being driven by contract wins, it's reasonable to expect a re-rating to around 200p, a price level that would be underpinned by a 5 per cent dividend yield and one that values the shares on a cash-adjusted PE ratio of 16, a far more accurate assessment of Spectra's true worth. **Buy.**

Risk assessment

Complex products. Certain products produced by Spectra are highly complex and are designed to be used in complex systems. Failure to correct errors or other problems identified after deployment could result in events that may have a negative effect on the business.

Technological change. Markets may become characterised by rapidly changing technology, evolving industry standards and increasingly sophisticated customer requirements. The introduction of products embodying new technology and the emergence of new industry standards could render Spectra's existing products obsolete and lead to pricing pressure. If the company fails to develop products that remain competitive in terms of technology and price, and that meet customer needs, this could have a negative impact on the business. Aware of this risk, the company spends \$1.4mn to \$1.6mn on R&D each year and employs highly qualified staff so that its product suite meets the requirements of customers.

Expiry of patents. All patents have a limited duration of enforceability. US patents generally have a duration of 20 years from the filing date. Once a patent expires, the invention disclosed in the patent may be freely used by the public without accounting to the patent owner, unless there are other unexpired patents that embrace an aspect of the invention. There is no certainty that any improvement or new formulation will be patented to extend the protection of the underlying invention or provide additional coverage to adequately protect the invention. As a result, the public may have the right to freely use the invention previously protected by an expired patent.

The company holds more than 100 patents which limits the ability of competitors to imitate the technology Spectra has developed and limits the bargaining power of buyers. Also, once Spectra has proved its technology and entered a commercial relationship with a customer – it generally enters multi-year contracts (5-10 years) – then unless the level of security or price offered by a rival is materially better, there is an incentive for the customer to maintain the relationship with Spectra.

Dependence on key personnel. The success of the company's revenues is dependent on a limited number of employees, in particular the chief executive officer and other managers with technological and development input. Although Spectra has endeavoured to ensure that its key employees are incentivised, it is unable to guarantee the retention of these staff. Positively, however, staff turnover has not been an issue, implying that employees are adequately remunerated.

Covid-19 pandemic. The pandemic continues to evolve, with uncertainty about its duration, severity and lasting impact. Spectra is subject to vaccine mandates that apply to its employees and may be subject to additional measures in the future. The implementation of these mandates and any requirements for showing compliance with them, may result in employee dissatisfaction, attrition of existing employees and difficulty in attracting new employees. However, the company never shut down its operations during the pandemic and delivered an excellent performance last year despite the impact of Covid-19.

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