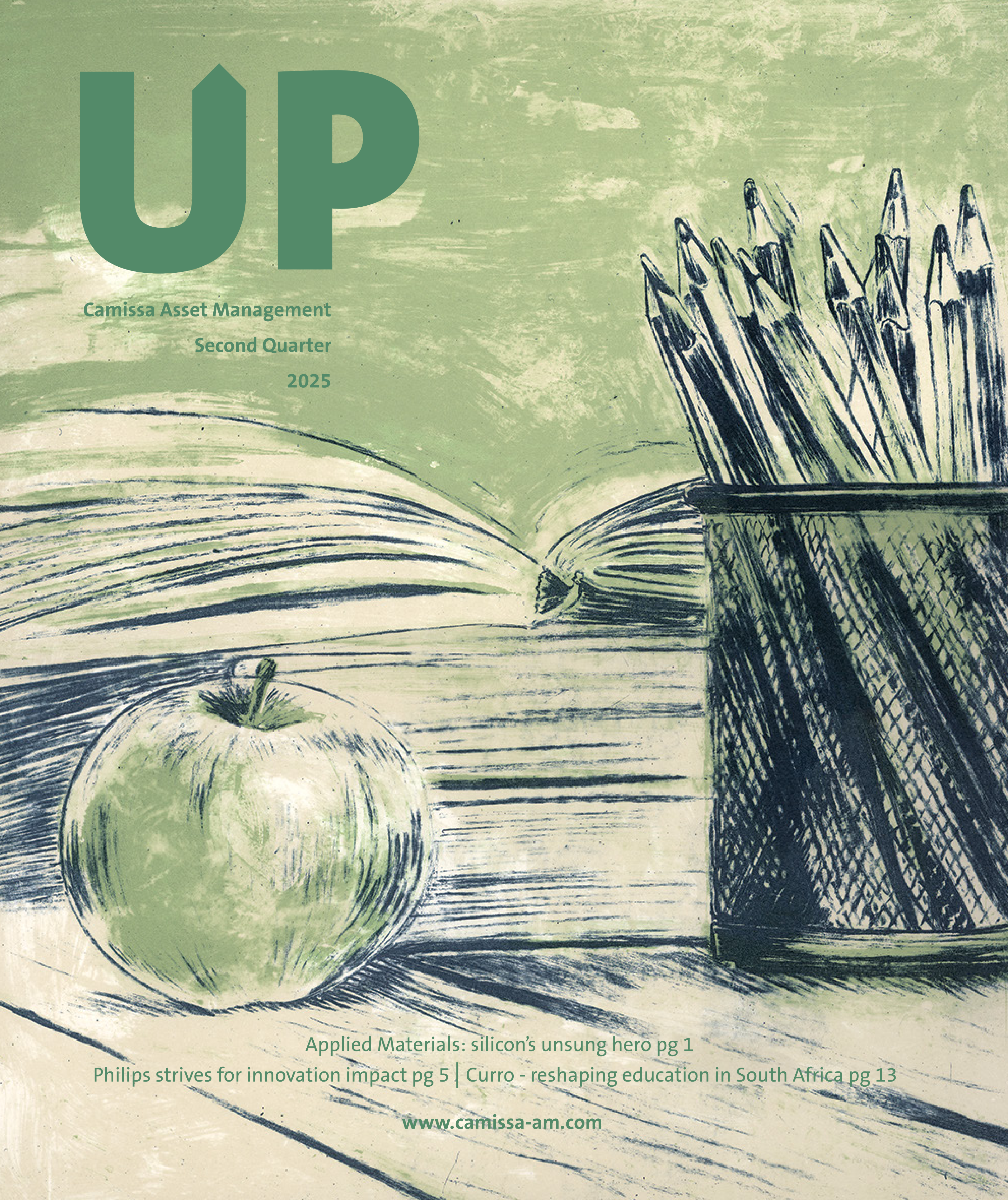

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Camissa Asset Management

Second Quarter

2025

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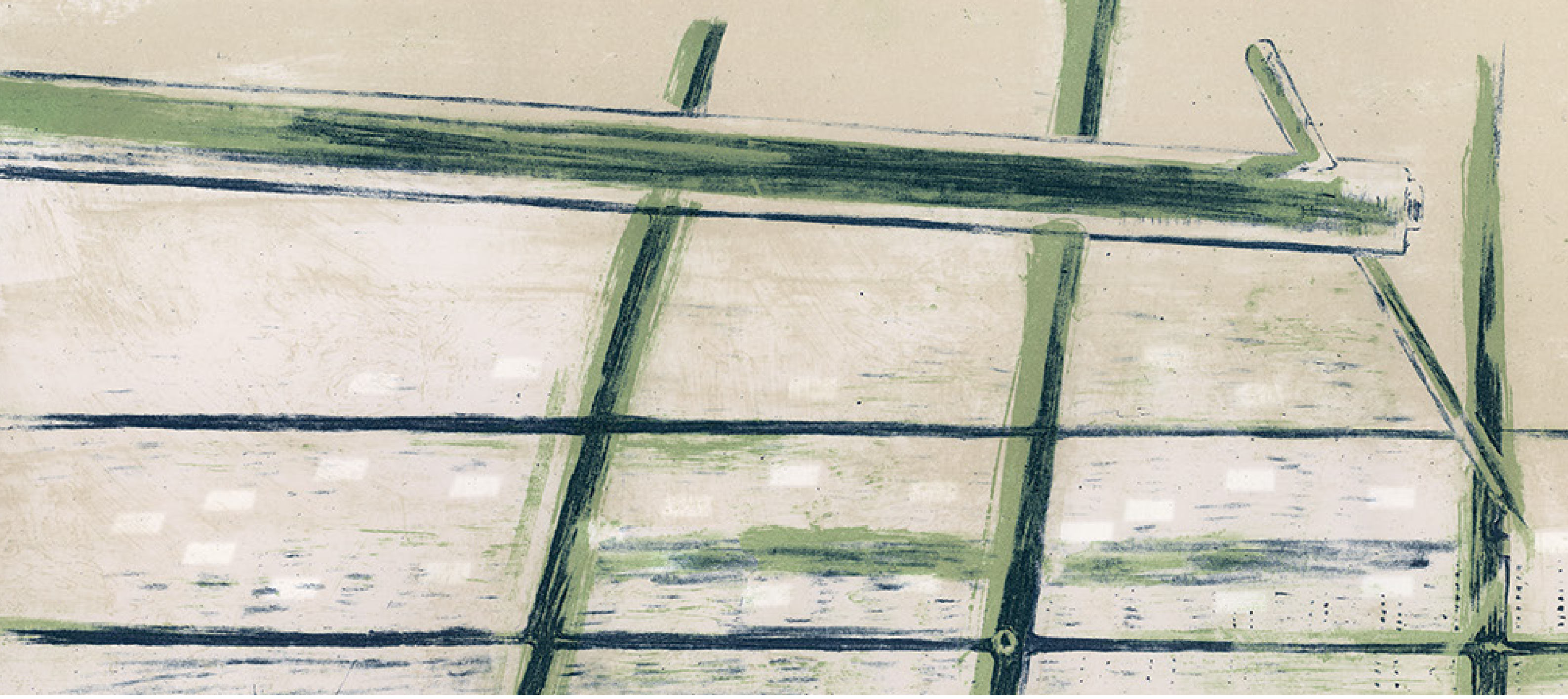
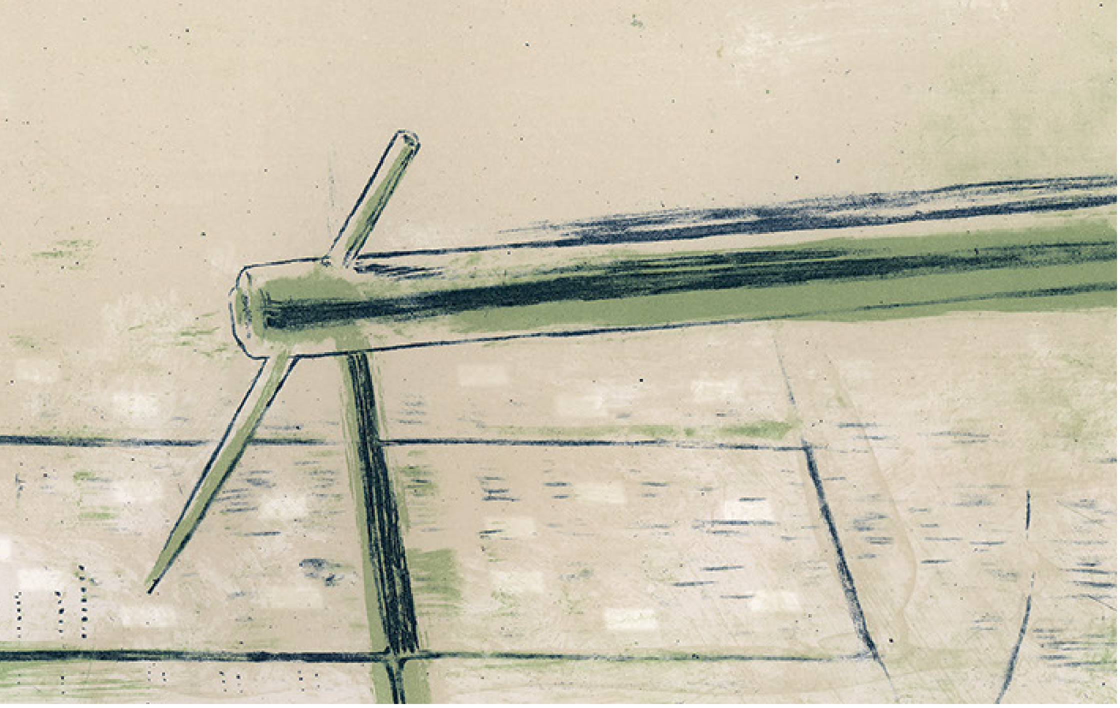




Applied Materials: silicon's unsung hero

Aslam Dalvi - Portfolio Manager

"Semiconductors are the invisible foundation of modern life, powering everything from smartphones and electric vehicles to cloud datacentres and artificial intelligence (AI). As we become more connected, the demand for semiconductors is expected to grow, with industry forecasts suggesting the global chip market could surpass $1 trillion per annum by 2030."

Applied Materials: silicon's unsung hero

Producing the next generation of semiconductors is, however, becoming increasingly complex. The world's largest supplier of semiconductor manufacturing equipment, Applied Materials, is set to play a pivotal role in this going forward. We explore the company's unique differentiators and strong prospects, while unpacking the complexities of the semiconductor value chain and growing challenges in manufacturing.

The building blocks of the digital age

Growth in the semiconductor market will be largely propelled by surging demand in three key areas: AI, the automotive sector and the Internet of Things (IoT).

Within AI, the latest large language models require massive computing power, necessitating more powerful and efficient chips. In the automotive space, modern vehicles now rely on dozens of chips, which is set to increase as the industry shifts toward electric vehicles and autonomous driving. IoT is another major frontier, with billions of sensors and connected devices expected to come on line in the near future.

However, as chipmakers attempt to squeeze more computing power into ever decreasing dimensions, they encounter serious physical limitations. Smaller nodes[1] require new manufacturing techniques and materials to maintain energy efficiency and increase performance. Semiconductor equipment suppliers such as Applied Materials, are crucial in this context.

The semiconductor value chain

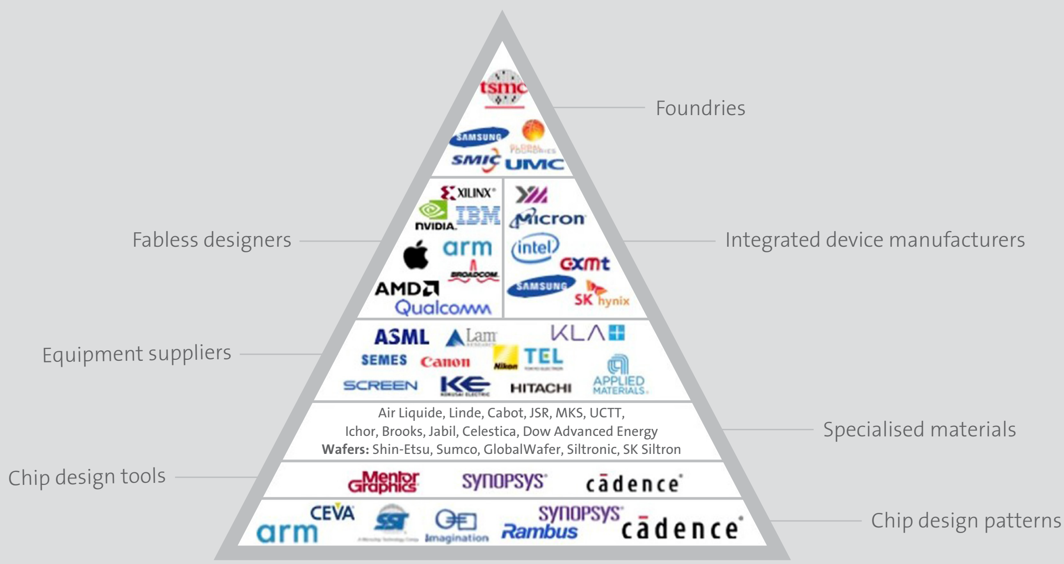
Modern chipmaking relies on a complex, multiplayer market structure that is highly concentrated and specialised in each stage of the manufacturing process. A handful of companies dominate each segment of the semiconductor supply chain, from fabrication to equipment to materials.

At the front end are chip designers like NVIDIA and AMD who develop the architecture and logic of advanced processors. Semiconductor chips are designed using specialised software provided by companies such as Synopsys and Siemens. Integrated device manufacturers like Intel and Texas Instruments design and manufacture chips, while pure-play foundries like TSMC and GlobalFoundries focus solely on capital intensive, high-volume manufacturing for other firms. Semiconductor testing is dominated by Agilent, Keysight and Advantest.

Applied Materials provides the advanced tools needed to build chips at atomic precision, and companies like ASML lead in critical technologies, for example, lithography. Materials suppliers - another key part of the value chain - deliver vital inputs including silicon wafers, specialty gases and photoresists.

[1] The industry term for chip feature size.

Complex collaborative semiconductor value chain



Source: Camissa Asset Management

As *illustrated on the previous page*, the entire system depends on deep collaboration and expertise in niche areas, which creates large barriers to entry.

Chipmaking complexity curve

Modern chip design is a complex and capital-intensive endeavour. As feature sizes shrink to just a few nanometres[2], the number of steps required to manufacture a single chip has increased considerably. A decade ago, the process may have taken a few hundred separate steps to produce a single chip. Today, advanced chips often require thousands of steps involving complex processes such as deposition, etching, lithography, metrology and others. Furthermore, the number of transistors required for advanced chips can no longer fit into a single die. Chipmakers have therefore begun to build larger and more complex chips to contain multiple advanced processors.

These factors have significantly increased manufacturing complexity, fuelling demand for more advanced equipment capable of finer precision, tighter tolerances and handling exotic materials. Over the last decade alone, semiconductor equipment intensity has grown from just 10% of semiconductor industry revenue to over 17% today (*below left*).

[2] One billionth of a meter, 80 000 times thinner than a human hair.

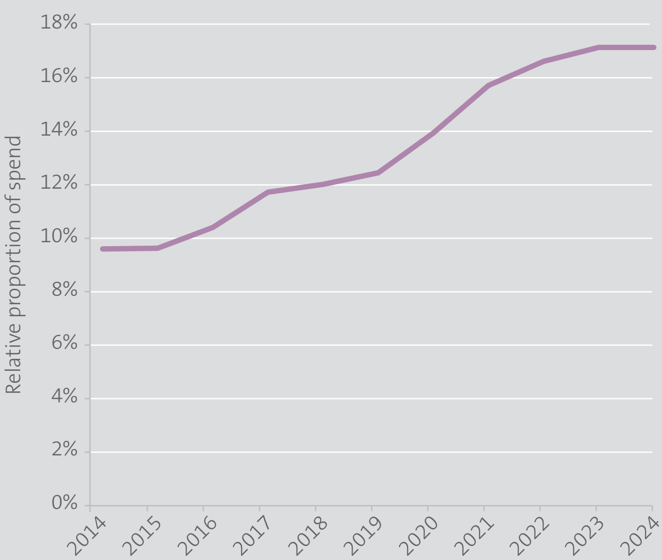
The power behind the process

Unlike competitors that focus on single product categories, Applied Materials offers a broad and diversified portfolio of tools used across almost every step of the chip production process. Given its strength across several of these steps, it has the unique ability to integrate multiple manufacturing processes into a single vacuum sealed chambered system. These systems minimise contamination, speed up production and, importantly, lead to better chip yields - meaning more usable chips per silicon wafer. For chipmakers, this translates to lower costs and higher process efficiency.

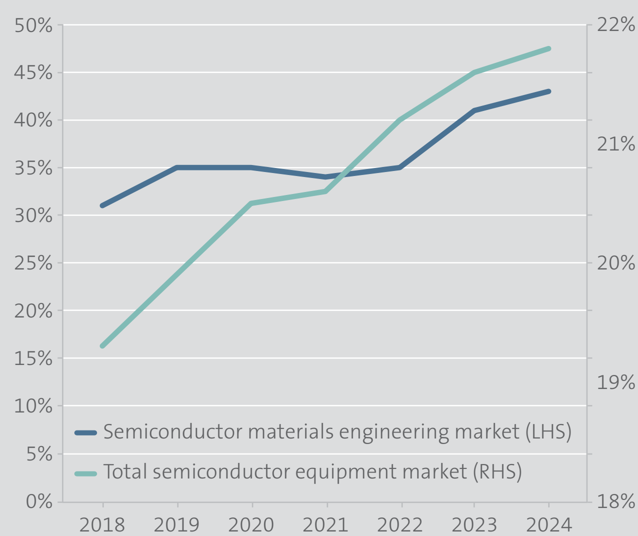
The company's Applied Global Services division - currently constituting 30% of sales - is also a significant future growth engine. As Applied Materials sells more advanced equipment, the base of machines installed in the field grows. As machines become more complex and harder to maintain and optimise, chipmakers are under greater pressure to establish long-term service contracts with the business. This not only boosts revenue but creates a growing annuity-like income stream.

Applied Materials' robust intellectual property portfolio - currently comprising over 22 000 active patents - is a major

Semiconductor equipment intensity*



Applied Materials growing market share



*Semiconductor equipment intensity is measured as the proportion of spend on semiconductor equipment relative to the total semiconductor market

Source: UBS (left), Applied Materials (right) asset. These proprietary technologies position the business strongly in areas like advanced deposition, etching and metrology - all critical to future generations of chips.

Materials engineering is a new frontier

As traditional manufacturing techniques deliver smaller simultaneous gains in semiconductor performance and power consumption, industry focus has shifted to materials engineering - another area where Applied Materials leads globally. Their recent developments around interconnects - the tiny wires that connect billions of transistors within a chip and assist with dissipating heat - highlight the company's strength in innovation. Today's most advanced chips can pack more than 90 kilometres of wiring into a space the size of a fingernail. Applied Materials latest solutions have assisted chipmakers to improve performance and energy efficiency by an impressive 25%. It now holds a 41% market share in the engineering materials industry (*previous page right*), up from 30% a decade ago. Its market share is generally above 50% across the newer and faster growing areas of demand, supporting an improved growth outlook as these technologies become more widely used.

Attractive financial and R&D model

A unique market position and niche strengths have translated into a strong financial signature for Applied Materials. In the last decade, the company has grown revenues at an average annual rate of 12%, with operating margins averaging a healthy 25%. The business is capital light, yet a significant portion of spend is directed toward research and development (R&D). This high R&D investment (as a proportion of total costs) together with the deep collaboration required between equipment makers and semiconductor manufacturers to tackle complex production challenges, creates substantial barriers to entry against competition.

The model to co-develop tools needed for future production is an underappreciated strength as this allows R&D spend to be targeted toward high growth potential technologies. It also reduces the risk of misdirected capital allocation and enables the company to secure early demand for its products. This collaborative approach has supported a steady rise in returns on capital, which we estimate at over 30%. Moreover, with limited capital needed for growth, incremental returns on capital are high. Over the last decade, Applied Materials has been able to return 90% of cash generated to shareholders through dividends and buybacks.

Positioned for the future

The more complex chipmaking becomes, the more highly specialised the equipment that is required. As a core enabler of cutting-edge semiconductor manufacturing, Applied Materials is strategically positioned to benefit from burgeoning demand. Additionally, it is a clear leader in materials engineering - an increasingly critical frontier in semiconductor manufacturing. With a growing market share in a structurally expanding industry, the growth outlook for the business is very promising.

In addition, Applied Materials' collaborative R&D model, built on deep relationships with the world's leading chipmakers, not only seeds future demand but creates large competitive moats. This should sustain a very attractive financial model and future return profile. While the company faces short-term headwinds - including US export restrictions and weaker near-term demand - these pressures have created a rare opportunity to own a global leader, with strong fundamentals at an attractive price. UP

Philips strives for innovation impact

Jihad Jhaveri - Head of Global Research

"Koninklijke Philips was founded in the Netherlands in 1892 and, within a few years, became the world's largest producer of light bulbs. By the 1920s, it had established itself as a pioneer in manufacturing electric shavers, radios, x-ray systems and early televisions. A history of meaningful innovation backed by a strong culture of research and development (R&D) has led to notable achievements, such as the invention of the audio cassette and compact disc, that helped entrench the company's powerful brand value."

Philips strives for innovation impact

We investigate the case for Philips following significant restructuring efforts to reposition the company to lead in high-barrier to entry, consumables-driven markets.

Shifting market dynamics prompt change

Philips shed its electronics, semiconductor, audio-visual and lighting divisions in the early 2000s as part of a strategic restructuring. More recently, it divested the domestic appliances business, although it continues to earn royalties from brand licensing. Today, it operates (and mostly leads) in three core segments (*charted below*), within industries defined by high entry thresholds and continuous sales demand[1].

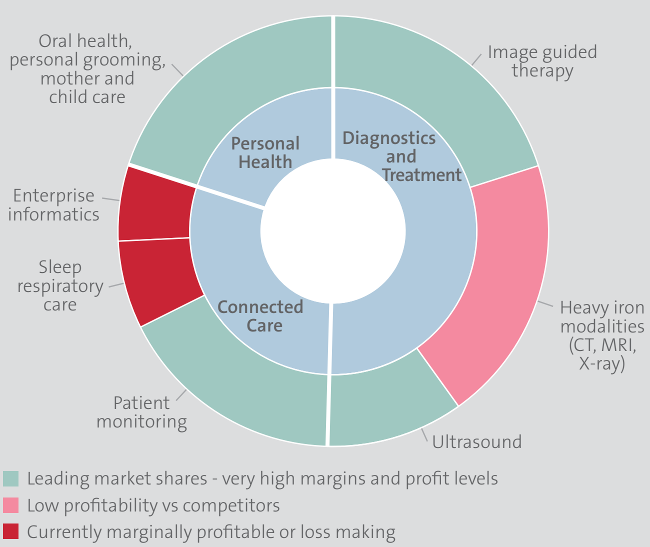
Growth in medical imaging fuels rise of Chinese challengers

In alignment with global healthcare developments, Philips stands to benefit from the demand for imaging equipment that is expected to grow 4-6% per annum over the medium term. This is supported by several structural trends, including:

- the rising adoption of imaging technologies in developing economies, where diagnostic infrastructure remains underdeveloped. Growth is expected to be led by China, supported by aggressive government investment in healthcare infrastructure. Concurrently, imaging original equipment manufacturers (OEMs) in China are gaining market share domestically and across other developing regions. This trend is accelerated by Chinese regulatory mandates requiring Western players such as Philips to localise manufacturing and R&D in order to maintain market access. Significant R&D leakage has resulted as technical knowledge, talent and supplier relationships diffused into the Chinese domestic ecosystem. Chinese OEMs have therefore developed rapidly, emerging as credible global competitors, particularly in cost-sensitive markets.
- outdated imaging infrastructure in many developed markets has caused equipment fleets to age beyond optimal replacement cycles, creating a backlog of demand for system upgrades and renewals.
- the expansion of screening programmes has seen public health initiatives focused on early disease detection, propelling the demand for additional imaging capacity. Notably, the growing adoption of low-dose CT screening for lung cancer is supporting increased utilisation of diagnostic imaging systems.
- a wider uptake of minimally invasive surgical and interventional techniques is raising the demand for real-time, high-precision imaging. These procedures rely on advanced systems that can deliver accurate visualisation with minimal patient impact.
- the expanding use of AI is improving accuracy, speed and scalability across diagnostic settings. AI is transforming medical imaging workflows, whereby algorithms detect subtle abnormalities, reduce diagnostic errors and accelerate throughput - beneficial amid radiologist shortages. Furthermore, AI-based interpolation can reduce MRI scan times by up to 50%. Teleradiology is expanding through remote image interpretation supported by AI, while emerging AI applications include non-invasive CT-based blood flow assessments and ultra-fast foetal brain ultrasounds.

[1] Patient Monitoring experiences regular upgrade cycles and the rest have a high proportion of consumables.

Estimated Philips revenue breakdown (2024)



Note: High-margin leading market share segments comprise approximately 70% of revenue
Source: Company reports, Camissa Asset Management research

Diagnosis and Treatment

Philips has two standout businesses in this segment - Image-Guided Therapy (IGT) and Cardio Ultrasound - showing strong performance and global market leadership.

IGT integrates imaging into operating rooms and robotic surgery platforms, combining pre-operative scans with real-time intra-operative imaging to guide minimally invasive procedures. A global shift toward less invasive surgery should underpin long-term growth in this area, where Philips commands the largest share of the market.

In Cardio Ultrasound, Philips ranks second in overall ultrasound and first in the specialist cardiovascular subsegment, globally. This business also delivers the highest margins within the Diagnostic Care segment.

In contrast, however, Philips' performance in large-scale imaging - specifically the 'heavy iron' modalities (X-ray, CT and MRI) - is a drag on overall profitability. This area significantly underperforms competitors like GE and Siemens, mainly due to a smaller installed base, which limits access to high-margin after-sales service revenue, typically accounting for around 50% of imaging sales.

Philips is a frontrunner in R&D investment, demonstrated by its helium-free MRI technology, that reduces infrastructure requirements, thereby lowering installation costs and improving accessibility. Traditional MRIs rely on large volumes of liquid helium, necessitating reinforced floors and venting systems. However, Philips' lighter helium-free design allows more flexible placement, thereby reducing installation requirements and costs. Despite these advancements, financial returns have yet to improve meaningfully. Management plans to address this by simplifying the imaging portfolio to reduce product variety and focus on scalable platforms that lower manufacturing costs and improve margins.

Connected Care

Locked in on patient monitoring: Philips is an entrenched global leader in this highly profitable business, comprising systems that track patient vitals and key health metrics - alerting healthcare providers to critical changes and enabling timely interventions. High-margin upfront equipment sales and regular periodic revenue from upgrades, services and consumables boost profitability. Philips has the largest worldwide market share, reinforced by a dominant position in the US.

Competitor challengers must overcome high switching costs for hospitals as these systems are deeply embedded into hospital IT infrastructure, workflows and electronic health records. Philips' modular designs also offer hospitals the option to upgrade components incrementally rather than replace entire systems, resulting in strong retention and long-term profitability. This market is expanding beyond traditional hospital settings, encouraged by advancements in remote monitoring and telehomecare technologies.

Sleep business recovery points to profitability: Philips is a major player in the global sleep care market. Such conditions remain significantly underdiagnosed - with more than 80% of sleep disorders undetected - despite treatment offering clear reductions in morbidity and mortality. Diagnosis rates have improved with the rise of wearable technology evolving from specialist monitoring devices linked to mainstream tools like the latest Apple watches, now with apnea detection.

Obstructive Sleep Apnea (OSA) is closely linked to rising rates of obesity and other lifestyle diseases. The growing use of GLP-1[2] drugs is helping reduce OSA severity. This may dampen long-term demand for continuous positive airway pressure therapy.

Currently, the market is a duopoly, dominated by ResMed and Philips. ResMed enjoys high gross margins and strong returns, buoyed by the sale of high-margin consumables like masks and connectors. Despite recovering from a product recall and litigation, Philips remains the second-largest player and is on track to return to profitability in this growing segment.

Profit potential in data analytics and software: Philips' Enterprise Informatics business, built around Picture Archiving and Communication Systems (PACS), originated in the 1980s as a digital replacement for film-based medical imaging. Initially used in radiology and later in cardiology and pathology, PACS relied on global DICOM[3] standards, which continue to support standardised, AI-ready data archives.

Although Philips is currently the largest player, it has historically underperformed financially in this area. Motivated by an engineering-led culture, Philips developed complex, customised solutions with costly after-service requirements. Profitability was hampered by software-specific inefficiencies without corresponding pricing power. The business has, however, reached break-even and is expected to deliver stronger profitability,

[2] Medications primarily used for lowering blood sugar levels and promoting weight loss in individuals presenting with type-2 diabetes or obesity.
[3] The international standard for handling, storing, sharing and transmitting medical imaging information and related data.

Philips strives for innovation impact

supported by growing contributions from capital-light, software-based revenue streams. A full migration to modern, cloud-based architecture has substantially reduced maintenance costs. In contrast to competitors' closed systems, Philips provides a vendor-neutral offering, strengthened by its strong US position in patient monitoring, serving as a strategic foundation for informatics cross-selling.

Personal Care

This division operates across four categories within a niche market, namely oral care, male grooming, female beauty and mother and child care. As a ubiquitous consumer brand, this market has robust long-term potential, with considerable opportunities remaining. For example, around 70% of consumers worldwide still use manual toothbrushes and razors. Philips also has significant exposure to developing economies, where China plays a particularly important role.

More strength than strain

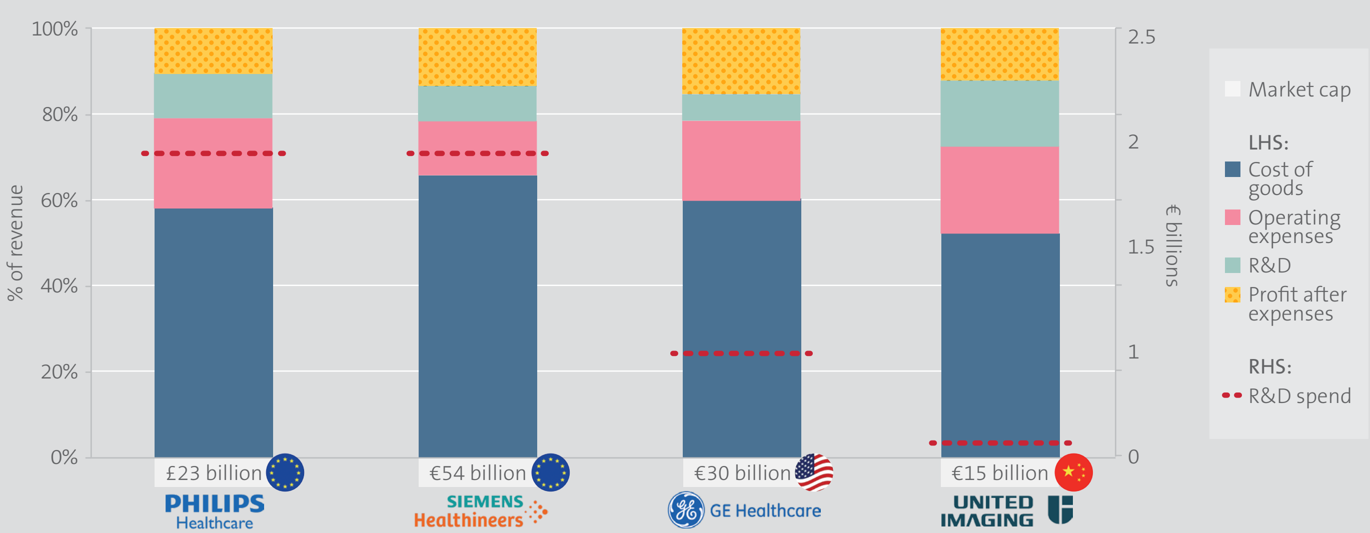
Philips spends a large amount on R&D (*illustrated below*) - well above Western competitors (as a percentage of sales) and substantially high compared to Western and Chinese players[4]. This has negatively impacted recent profit margins yet underpins Philips' strategy to capture long-term value in high-tech, high-margin medical systems markets.

By disaggregating Philips' three core businesses into their underlying components, we conclude that currently just under 70% of group revenue is generated by businesses with strong profitability and competitive advantages, such as Cardio Ultrasound, Patient Monitoring and Personal Care. These units hold dominant market positions and benefit from strong after-sales and recurring revenue streams. A further 15-20% of the portfolio, comprising Sleep Care and Enterprise Informatics, is temporarily underperforming but set to normalise to far higher profitability in the near term. While the remaining businesses, made up of lower margin imaging modalities, continue to lag competitors, management's ongoing streamlining efforts offer positive optionality to the broader investment case.

For these reasons, we are optimistic about a strong long-term profit trajectory for Philips, and our clients have exposure in our global funds. UP

[4] Notable, given Philips' large Personal Health business, which has lower R&D intensity than the medical technology businesses.

Philips cost breakdown: high comparitive R&D spend*



*Based on three year average numbers (2022-2024)
Source: Bloomberg, company reports, Camissa Asset Management research

Will Boxer maintain momentum?

Katlego Dinake - Associate Analyst

From its humble beginnings over four decades ago in KZN's Empangeni region, Boxer has emerged as one of South Africa's fastest growing discount supermarkets with a well-defined retail offering. After fully acquiring Boxer in 2002, Pick 'n Pay (PnP) was forced to sell part of its stake in 2024 due to financial woes. Boxer's subsequent 34% listing on the JSE raised R8.5 billion, making it South Africa's largest initial public offering since 2017 and giving investors direct exposure to one of the JSE's most dynamic growth companies.

Will Boxer maintain momentum?

We delve into the factors that have propelled Boxer's success, its competitive positioning and its growth strategy.

Boxing clever

Boxer holds 6.4% of the formal domestic grocery market and operates over 500 stores countrywide. With a people-focused approach, it primarily targets the enlarged middle- to lower-income consumer segments through three key formats: Superstores (62%), Liquor (31%) and Building Materials (6%).

Despite its smaller size relative to Shoprite, its main rival, Boxer has proven to be a formidable competitor. Its differentiated merchandising strategy offers a curated range of 3 000 SKUs[1] - compared to Shoprite's 11 000 (*compared below*) - with a core offering built around shelf-stable essentials (ie maize meal, rice, oil and beans). These products can be stored at ambient temperatures, negating the need for complex and costly cold-chain logistics.

A narrow product range enables larger order sizes from suppliers, strengthening Boxer's purchasing power and enabling procurement on competitive terms. Passing these savings on to customers is a fundamental pillar of Boxer's operating model. In some key product lines, Boxer even holds a higher market share than Shoprite - remarkable given its turnover is roughly one-fifth that of its larger adversary. Boxer's simplified product range streamlines inventory management and supports consistent stock availability, which is critical in ensuring customer satisfaction.

Location, location, location

Boxer's store placement strategy is designed to target price-sensitive consumers and is an integral part of its overall business approach. By locating stores near to where customers live and commute, transport costs are minimised. In conjunction with consistently low prices and the convenience of in-store social grant collection, this reinforces Boxer's reputation as an accessible, community-rooted brand.

Lean, mean, winning model

A key pillar of Boxer's business model is its strong commitment to minimising costs, reflected in the lowest costs-to-sales ratio[2] in the industry. This is achieved through several measures including:

- low-cost, no-frills store layouts designed for high footfall and maintained with simple, scalable IT systems;
- lower store rental costs owing to non-premium but high-traffic store locations;

[1] Stock keeping units (SKUs): the number of distinct products.
[2] Operating expenditure expressed as a percentage of sales.

SA discounter brand comparisons

	Boxer	SPAR SaveMor	Shoprite	Shoprite Usave
Location (areas)	Urban, peri-urban and rural	Rural and township	Urban	Non-urban and residential
Average store size (m^2)	1 800 - 2 000	400 - 1 000	2 500 - 4 500	450 - 750
Number of stores	525	61	1 167	480
SKUs	3 000	3 500 - 4000	11 000	1 900
Private label penetration	19%	23%*	20%	34%
Focus of offering	Full service incl butchery, bakery, deli, fresh produce, general merchandise and value-added services	Essential groceries, general merchandise, fresh produce, baked goods, meat and ready-to-eat products	Full service incl butchery, bakery, deli, fresh produce, general merchandise and broader variety of value-added services	Limited range of money market services and essentials incl fresh, chilled and frozen items to meet daily needs

*Private label penetration disclosed at a group level
Source: Company data, Camissa Asset Management

- distribution centres (DCs)[3] that function as warehouses, without the need for expensive cold chain infrastructure; and
- fresh produce sourced directly from farmers, or nationally from fruit and vegetable markets, and transported directly to stores - eliminating the need for specialised storage.

Boxer's low-cost model also applies to new store development, with a full-service supermarket costing as little as R17 million to open, and a liquor store just R1.6 million. This lean approach reduces capital intensity and supports self-funded growth through strong operating cash flows. The result is exceptional performance: a three-year average return on equity of 84% and a return on invested capital of 26% - significantly surpassing industry averages of 26% and 12%, respectively.

Targeted growth

Lower-income consumers, who make up Boxer's core customer base, contribute an estimated 52% of South Africa's formal grocery spend and represent the fastest-growing segment in the market. Within this demographic, population growth and rising living costs support the increasing number of consumers resorting to shopping at value-focused retailers such as Boxer. Their customer base often earns less than R12 000 per month, with many being social grant recipients. Around 60-70% of Boxer's monthly sales occur at month-end, which is consistent with social grant disbursements and paydays. In contrast, Shoprite's Usave sees peak trading mid-month, mainly from top-up purchases.

Approximately 45% of the South African population are social grant recipients, highlighting the substantial opportunity for retailers targeting this demographic. Moreover, social grant related spending is forecast to grow 5% annually - from R266 billion in 2024/25 to R300 billion by 2027 - reinforcing Boxer's long-term runway for growth.

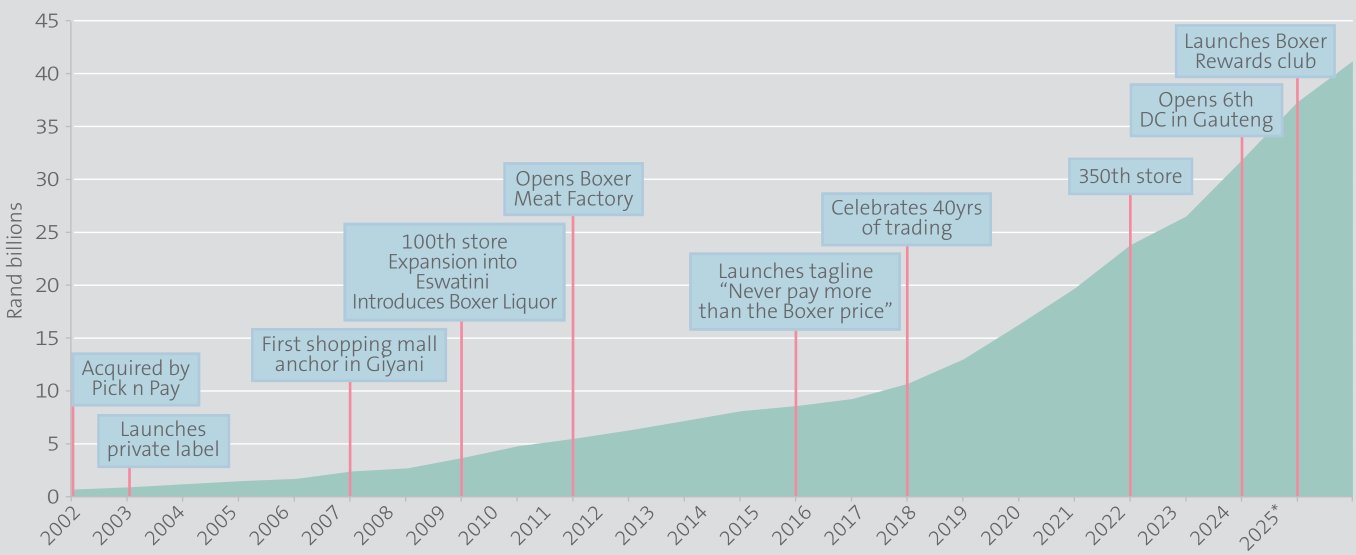
Bang for your buck

Boxer has become famous for their combo deals, designed to help stretch shopper budgets. These essential product bundles are, on average, 12% cheaper than items bought individually - encouraging cross-category and bulk purchasing. In many cases, customers pool their money to purchase larger bulk bundles and then divide items among themselves - also known as a grocery stokvel - allowing all to benefit from the savings.

A standout success has been Boxer's integration of private label products into its combo deals. Its 23 private label brands - including Boxer, Best Cook and Golden Ray (named after PnP founder Raymond Ackerman) - span 600 products and currently

[3] Boxer's newest DC is costing less than R185 million for its 50% ownership stake, with a total project cost of R365 million. By comparison, Shoprite and PnP's most recent DCs were valued at R1.5 billion and R2.2 billion, respectively.

Boxer's sales growth and notable events



Source: Boxer, Standard Bank Group Securities

Will Boxer maintain momentum?

contribute 19% of revenue. These value-led offerings resonate strongly with price-conscious consumers, boosting loyalty and basket size. On average, private labels are 17% cheaper than branded alternatives, with some like Best Cook Baked Beans even outselling well-established brands such as Koo. Including private label products in combo deals offers an attractive, low-risk opportunity for customers to trial Boxer's own brands. As preference and trust builds, customers are more likely to repurchase these products outside of promotions, improving long-term loyalty and growing the share of private label sales. This benefits the customer and Boxer - the latter through improved gross margins and greater product control. Despite already holding a material sales share, we see meaningful headroom for growth in private label products at Boxer.

Can it compete with the heavyweights?

Boxer's investment case hinges on expanding its store network and market share. Management has identified R106 billion in expansion opportunities across all nine local provinces - almost three times its 2024 revenue. There are markets where Boxer currently has little or no presence but where the demand for value-focused retail remains buoyant. Boxer aims to double its turnover over the next six years, reflecting an ambitious strategy following a 23-year track record of 19% average annual sales growth (*charted on the previous page*).

However, there are plenty of challenges, particularly in that many regions are already well served by entrenched competition, notably the Shoprite Group through Shoprite, Usave and (to a lesser extent) OK Stores. Shoprite's brand familiarity, extensive logistics network and early-mover advantage give it a solid foothold that we believe will be difficult to dislodge. This is especially evident in the Western Cape - Shoprite's home base and stronghold - where Boxer (active since 2015) operates fewer than 15 stores. Conversely, Shoprite and Usave together have more than 150 outlets in the province.

South Africa's informal grocery retail market is expected to grow from R403 billion in 2024 to R494 billion by 2027 - an average annual growth rate of 7%. Boxer aims to win market share from informal and independent traders by offering proximity, scale and affordability. However, incumbents remain formidable, benefitting from deep community ties that offer valuable insight into local needs. Some traders provide credit and many employ agile pricing strategies. Additionally, their ability to offer 'break-bulk' sales that allow customers to buy smaller quantities (eg a cup of sugar instead of a full bag) makes them especially appealing to customers, particularly later in the month. Consequently, the proven resilience and resourcefulness of these traders have earned the respect of customers and the formal retail chains.

A race for space

Boxer plans to double its 525-store estate over the next five years. Concurrently, Shoprite is set to double its footprint with the planned opening of 500 new Usave stores and the expansion of its core brand. Spar's SaveMor also plans to double its 61-store base over the next two years. This rollout surge intensifies competition for prime sites and heightens the risk of cannibalisation within Boxer's own network, particularly in already saturated areas.

We acknowledge the opportunity for Boxer to expand into these nodes, however, we are mindful that future capital deployed into these already well-served markets may yield lower returns and sales densities. While we appreciate Boxer's operational excellence, high returns and strong cash flows, we believe the current market valuation of the company represents over-optimism about substantial rollout success and underestimates the execution risks tied to its bold expansion strategy. We therefore do not hold Boxer shares in our portfolios at present. UP

Curro - reshaping education in South Africa

Edward Mtsweni - Investment Analyst

Private schools have played an increasingly important role in addressing the challenges of underinvestment and declining academic outcomes in the public education system in South Africa. Smaller class sizes, modern facilities and more personalised learning experiences are among the key characteristics that make private schools the preferred choice.

Curro - reshaping education in South Africa

As South Africa's largest independent private school network, Curro serves learners across a broad income spectrum and has taken strategic steps to address the growing need for affordable, high-quality education. Considering the continually evolving education sector, we explore Curro's operations and how it is positioned to capitalise on emerging growth opportunities.

Differentiated model addresses diverse needs

Established in 1998, Curro has grown significantly over the past two decades, now with more than 180 schools in operation countrywide. Through a tiered pricing model, it is able to deliver quality private education to a broader segment of the population, competitively positioning the group against traditional high-fee private schools (*charted below*).

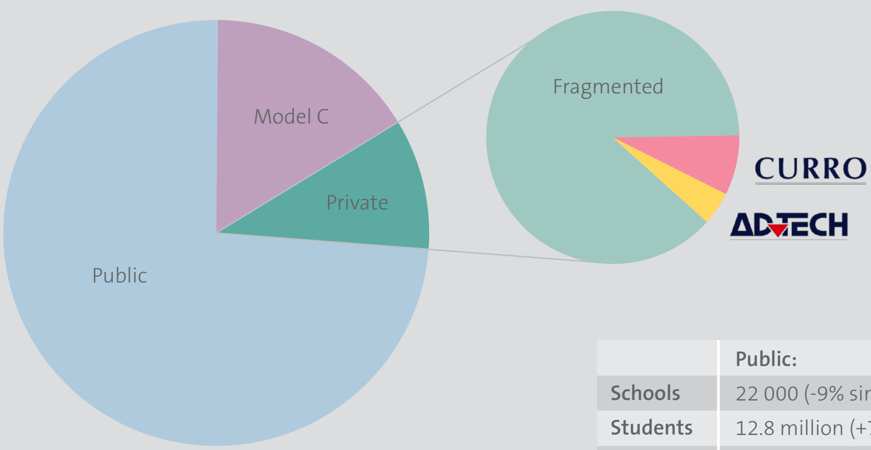
Curro differentiates itself by offering modern facilities, extensive sports and cultural activities and an enhanced curriculum using various models (including the Cambridge International programme - typically not available at smaller private schools and Model C[1] schools). It achieves this at more affordable price points through a varied portfolio of school models. These include:

- **Meridian Schools:** Curro's most affordable model is developed in partnership with the PIC and Old Mutual. These English-medium schools serve lower-income urban communities and follow the South African National Senior Certificate (NSC) curriculum.
- **Academy Schools:** Located in urban areas and aimed at lower- to middle-income families, these English-medium schools also follow the NSC curriculum.
- **Curro Schools:** The group's core model serves middle- to upper-income families. These co-educational schools offer grades R to 12, often including preschool phases. They follow the South African Independent Examination Board (IEB) curriculum, with class sizes limited to 25 learners.
- **Select Schools:** These well-established schools are acquired by Curro and maintain their original identity, while benefiting from Curro's support. They are English-medium and offer the IEB or Cambridge curriculums, with class sizes capped at 25 learners.

This tiered approach allows Curro to diversify its revenue base and mitigate risks associated with exposure to particular income segments. It also enables the group to strategically grow its footprint, entering underserved markets.

[1] The government retains ownership of these schools and pays core teaching staff, with governance and financial management delegated to elected school governing bodies. They are largely administered and funded by the parent body and fees charged can differ between schools.

Large opportunity for private schools in SA



	Public:	Private:
Schools	22 000 (-9% since 2009)	2 000 (+94% since 2009)
Students	12.8 million (+7% since 2009)	741 000 (+90% since 2009)
Class size	1:31	1:16

Source: Dept. of Basic Education, Camissa Asset Management

The business of schools

Curro's business model is built on a steady stream of school fee income, providing predictable cash flow throughout the academic year. This is buoyed by ancillary income from facility rentals, uniform sales, catering services, aftercare and boarding facilities. Strong learner retention and upfront enrolment improve revenue visibility, supporting financial planning and operational stability.

Opening a new school requires substantial investment, with significant upfront costs for building infrastructure and hiring staff (approximately 70% of total costs) well before learners are enrolled. Consequently, schools tend to operate at a loss in the early years. As each new intake of learners builds momentum, fee income rises, and the financial performance steadily improves.

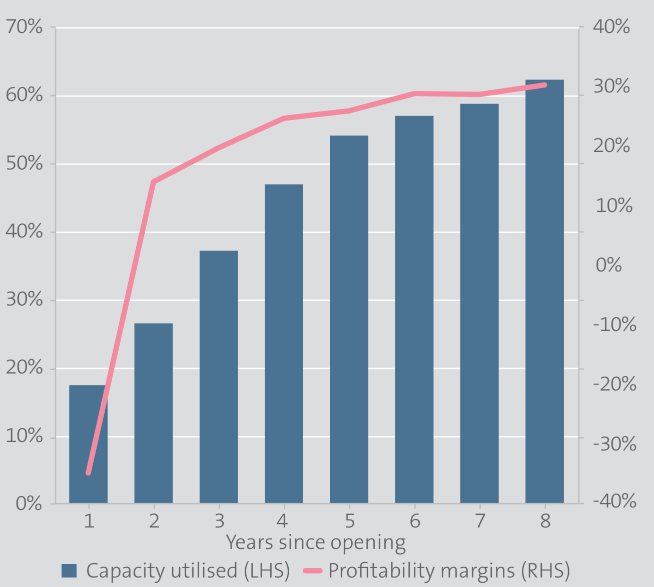
A new Curro campus can take three to five years to reach profit break-even point. A grade one class might begin with fewer than 10 learners, which is well below the cost coverage threshold. However, as the school expands annually, new grades are added and learner numbers grow accordingly. Once a school reaches the breakeven level, additional learners can be added at minimal incremental cost, growing income faster than expenses. As enrolments escalate, revenue grows at a faster rate than costs, leading to growing overall profitability (*below left*).

Curro's strategic pivot

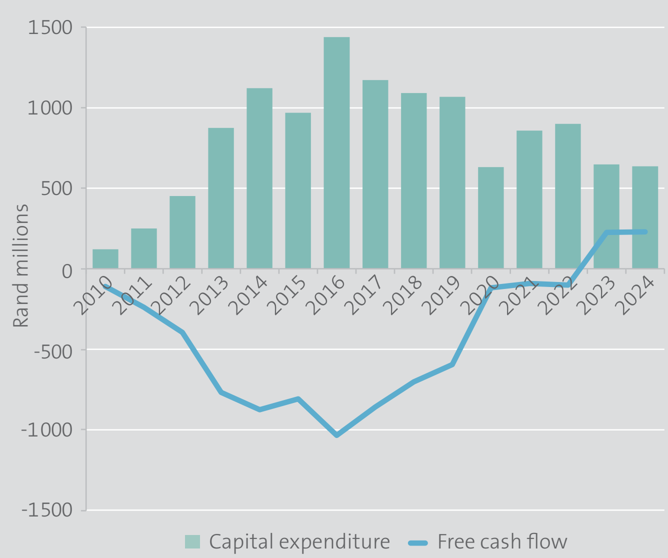
Curro has invested substantial capital into building and acquiring schools over the past 13 years. However, a considerable number remain in the early stages of their development lifecycle and have not yet reached optimal learner capacity. Schools operating below breakeven levels have severely weighed down the group's returns on capital. Curro has subsequently adjusted its strategy to prioritise filling existing capacity above expanding the school network. This is a shift from a growth-oriented approach to one centred around operational efficiency and improving returns on invested capital. As the rate of large-scale infrastructure investment declines and fewer newer schools require upfront funding, capital expenditure is expected to reduce materially.

As indicated in the *right chart below*, a reduction in capital intensity has significant implications for cash flow. With much of the physical infrastructure already in place, Curro is well placed to generate more cash from operations as it fills up capacity, allowing for debt reduction and improving shareholder returns. The transition from high-growth, capital-intensive expansion to a more cash-generative phase will be central to shaping the group's future value creation.

Average capacity utilisation of Curro schools



Curro capital expenditure vs cash flow



Source: Curro reports and presentations, Camissa Asset Management research

Curro - reshaping education in South Africa

Course correction

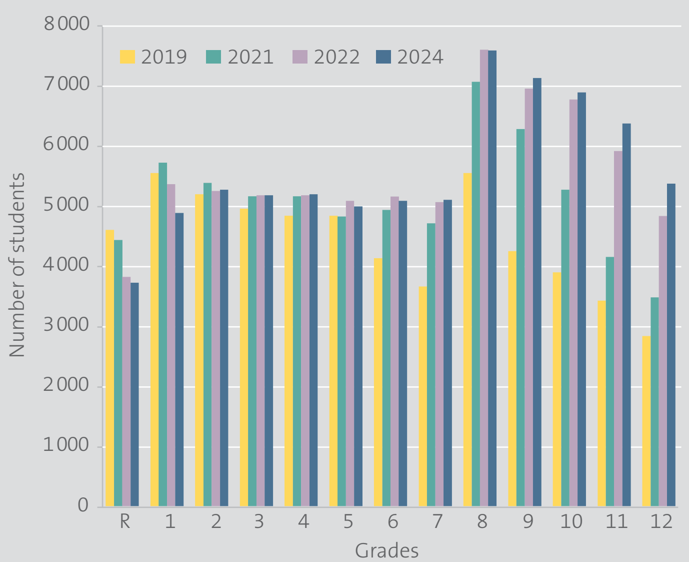
Curro has faced several challenges over the last couple of years that have impacted learner growth and financial performance. Their decision to raise school fees above inflation (particularly in lower adjacent grades where parents tend to be more price sensitive) has been a critical misstep.

This has notably impacted enrolment numbers and learner retention in lower grades (*shown below*). While such fee increases were intended to protect margins, they have contributed to affordability concerns during a period of broader macroeconomic strain.

Another area of concern has been Curro's historical approach to campus development. In some cases, schools have been built in areas with weaker underlying demand and limited levels of affordability, exacerbated by economic pressures. Less-than-ideal locations have therefore made it difficult to achieve the necessary scale for profitability, leading to underutilised capacity, elevated cost structures and a select group of underperforming Curro schools.

Curro has actively sought to address these areas of concern by focusing on refining fee strategies to better reflect market conditions and parental expectations (particularly in entry grades). They are optimising existing capacity and supporting learner retention and gains in key grades. Despite a challenging environment, the underlying issues are largely manageable, with targeted interventions underway to stabilise performance and realign the group's growth trajectory.

Learner progression per grade



Source: Curro presentations, Camissa Asset Management research

Untapped digital opportunity

Digital education represents a powerful growth opportunity for Curro, that we believe has yet to be realised to anywhere near its potential. Using digital delivery more broadly can enable lessons from top educators to be shared with thousands of learners regardless of where they are based, without the heavy costs of building large campuses or hiring specialist teachers at every site.

Curro's digital model (DigiEd) was launched in 2019, delivering digital lessons to learners on campus, with facilitators available for support within a structured, full school-day routine. While initiatives such as DigiEd have begun to test the waters, it remains only a small part of the group's offering and is aimed at a very specific niche market. As these offerings can be priced well below conventional private schooling, they open the door for families in South Africa's lower-income segment, where demand for affordable, quality education is high but often unmet. By combining greater affordability with enhanced quality, Curro is favourably positioned for profitable growth in this area, while playing a leading role in reshaping access to education in South Africa.

Primed for evolving education

Curro's multi-tiered school model aligns well with South Africa's growing demand for accessible, affordable, high-quality private schooling across diverse income groups. It has recently announced a proposed buyout that would see the business delist and transition into a non-profit public benefit organisation. This structure should support faster expansion by allowing all surplus funds to be reinvested into the schools, while offering pricing flexibility to boost enrolments and capacity utilisation.

Although current financial returns are modest, the group is strategically well-placed for improved performance as enrolments increase - unlocking significant long-term value for investors. UP

Camissa Asset Management Funds

Performance to 30 June 2025	1 year	3 years[1]	5 years[1]	10 years[1]	15 years[1]	Since launch[1]	Launch	TER[2] 1-year	TER[2] 3-years	TC[3] 1-year	TC[3] 3-years
Unit trust funds[4]											
Equity Alpha Fund	35.1%	15.5%	18.1%	10.5%	11.9%	15.5%	Apr-04	1.60%	1.55%	0.22%	0.25%
SA Equity General funds mean	18.4%	13.5%	14.2%	7.0%	9.9%	11.9%					
Outperformance	16.7%	2.0%	3.9%	3.5%	2.0%	3.4%					
SA Equity Fund	33.1%	-	-	-	-	12.8%	Sep-22	1.64%	-	0.44%	-
SA Equity SA General funds mean	19.9%					13.9%					
Outperformance	13.2%					-1.1%					
Global Equity Feeder Fund	21.8%	19.2%	11.3%	-	-	9.7%	Nov-19	1.86%	1.87%	0.20%	0.20%
FTSE World Index (ZAR)	13.5%	22.1%	15.4%			15.9%					
Outperformance	8.3%	-2.9%	-4.1%			-6.2%					
Balanced Fund	26.9%	16.5%	15.1%	9.8%	-	10.2%	May-11	1.50%	1.50%	0.22%	0.21%
SA Multi Asset High Equity funds mean	15.1%	13.3%	11.8%	7.6%		8.9%					
Outperformance	11.8%	3.2%	3.3%	2.2%		1.3%					
SA Balanced Fund	28.9%	-	-	-	-	16.9%	Aug-23	1.76%	-	0.93%	-
SA Multi Asset SA High Equity funds mean	17.0%					13.6%					
Outperformance	11.9%					3.3%					
Protector Fund	26.8%	15.3%	14.5%	9.6%	9.2%	10.2%	Dec-02	1.51%	1.52%	0.16%	0.16%
CPI + 4%[5]	6.9%	8.4%	9.1%	9.1%	9.5%	10.0%					
Outperformance	19.9%	6.9%	5.4%	0.5%	-0.3%	0.2%					
Stable Fund	28.5%	15.4%	15.6%	10.0%	-	9.7%	May-11	1.48%	1.47%	0.22%	0.20%
CPI + 2%[5]	5.0%	6.5%	7.1%	6.6%		6.2%					
Outperformance	23.5%	8.9%	8.5%	3.4%		3.5%					
Institutional funds[6]											
Managed Equity Fund	35.5%	15.8%	18.9%	10.5%	12.3%	12.1%	Sep-06				
FTSE/JSE Capped SWIX Index	24.6%	15.9%	16.2%	8.4%	12.1%	11.4%					
Outperformance	10.9%	-0.1%	2.7%	2.1%	0.2%	0.7%					
Domestic Balanced Fund[7]	32.8%	16.1%	17.8%	10.8%	11.0%	10.1%	May-07				
Peer median[8]	21.2%	14.3%	14.6%	8.6%	10.7%	9.6%					
Outperformance	11.7%	1.8%	3.2%	2.2%	0.3%	0.5%					
Global Balanced Fund[9]	28.6%	18.0%	16.7%	11.3%	-	11.5%	Jul-13				
Peer median[10]	18.1%	15.0%	13.5%	9.2%		10.2%					
Outperformance	10.5%	3.0%	3.2%	2.1%		1.3%					
Bond Fund	22.9%	14.8%	12.7%	10.3%	9.7%	9.3%	May-07				
BESA All Bond Index	18.4%	13.4%	10.9%	9.2%	9.2%	8.8%					
Outperformance	4.5%	1.4%	1.8%	1.1%	0.5%	0.5%					
Money Market Fund	9.6%	9.4%	7.9%	8.2%	7.4%	7.9%	Jan-04				
Alexander Forbes STeFI Composite Index	8.1%	7.8%	6.3%	6.8%	6.4%	7.1%					
Outperformance	1.5%	1.6%	1.6%	1.4%	1.0%	0.8%					
Shariah unit trust funds[4]											
Islamic Equity Fund	15.7%	8.4%	13.4%	9.0%	9.9%	10.6%	Jul-09	1.48%	1.50%	0.14%	0.15%
SA Equity General funds mean	18.4%	13.5%	14.2%	7.0%	9.9%	10.4%					
Outperformance	-2.7%	-5.1%	-0.8%	2.0%	0.0%	0.2%					
Islamic Global Equity Feeder Fund	8.6%	10.5%	7.0%	-	-	8.6%	Jan-19	1.82%	1.82%	0.10%	0.10%
Global Equity General funds mean	11.2%	18.1%	11.5%			14.6%					
Outperformance	-2.6%	-7.6%	-4.5%			-6.0%					
Islamic Balanced Fund	12.5%	8.0%	11.3%	8.0%	-	7.9%	May-11	1.48%	1.50%	0.10%	0.10%
SA Multi Asset High Equity funds mean	15.1%	13.3%	11.8%	7.6%		8.9%					
Outperformance	-2.6%	-5.3%	-0.5%	0.4%		-1.0%					
Islamic High Yield Fund	13.6%	9.8%	9.2%	-	-	8.3%	Mar-19	0.58%	0.58%	0.01%	0.02%
Short-term Fixed Interest Index (STeFI)	8.1%	7.8%	6.3%			6.4%					
Outperformance	5.5%	2.0%	2.9%			1.9%					

Highest and lowest monthly fund performance	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Equity Alpha Fund	7.5%	-3.0%	11.7%	-5.4%	12.6%	-5.4%	12.6%	-21.6%	12.6%	-21.6%	12.6%	-21.6%
SA Equity Fund	5.6%	-3.5%	-	-	-	-	-	-	-	-	11.5%	-5.9%
Global Equity Feeder Fund	5.9%	-7.5%	12.7%	-7.5%	14.5%	-8.2%	-	-	-	-	18.1%	-15.6%
Balanced Fund	4.5%	-1.2%	9.5%	-4.5%	9.5%	-4.5%	9.5%	-15.7%	-	-	9.5%	-15.7%
SA Balanced Fund	6.1%	-2.7%	-	-	-	-	-	-	-	-	6.1%	-3.4%
Protector Fund	4.7%	-1.0%	7.6%	-3.7%	7.6%	-3.7%	7.6%	-13.9%	7.6%	-13.9%	9.5%	-13.9%
Stable Fund	4.8%	-1.0%	7.1%	-4.4%	7.1%	-4.4%	7.1%	-11.4%	-	-	7.1%	-11.4%
Islamic Equity Fund	4.7%	-3.7%	7.4%	-8.9%	9.6%	-8.9%	9.6%	-14.3%	9.6%	-14.3%	9.6%	-14.3%
Islamic Global Equity Feeder Fund	4.3%	-6.7%	10.6%	-7.8%	14.6%	-8.4%	-	-	-	-	14.6%	-8.4%
Islamic Balanced Fund	3.3%	-1.8%	5.3%	-6.2%	8.0%	-6.2%	8.0%	-9.3%	-	-	8.2%	-9.3%
Islamic High Yield Fund	1.9%	-0.0%	1.9%	-1.2%	2.7%	-1.2%	-	-	-	-	2.7%	-2.4%

Footnotes and disclaimer follow overleaf.

Camissa Asset Management (Pty) Limited

Fifth Floor MontClare Place
Cnr Campground and Main Roads
Claremont 7708

PO Box 1016 Cape Town 8000

Tel +27 21 673 6300 Fax +27 86 675 8501

Email: info@camissa-am.com

Website: www.camissa-am.com

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Footnote: [1]Annualised (ie the average annual return over the given time period); [2]TER (total expense ratio) = % of average NAV of portfolio incurred as charges, levies and fees in the management of the portfolio for rolling one and three-year periods to 30 June 2025. [3]Transaction costs (TC) are unavoidable costs incurred in administering the financial products offered by Camissa Collective Investments ("Camissa") and impact financial product returns. It should not be considered in isolation as returns may be impacted by many other factors over time including market returns, the type of financial product, the investment decisions of the investment manager and the TER. This is also calculated on rolling one and three-year periods to 30 June 2025. [4]Source: Morningstar; net of all costs incurred within the fund and measured using NAV prices with income distributions reinvested; [5]CPI for May is an estimate; [6]Source: Camissa Asset Management; gross of management fees; [7]Domestic Balanced Fund benchmark returns are an estimate for May; [8]Median return of Alexander Forbes SA Manager Watch: BIV Survey; [9]Global Balanced Fund benchmark returns are an estimate for May; [10]Median return of Alexander Forbes Global Large Manager Watch.

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Performance is based on a lump sum investment into the relevant portfolio(s) and is measured using Net Asset Value (NAV) prices with income distributions reinvested. NAV refers to the value of the fund's assets less the value of its liabilities, divided by the number of units in issue. Figures are quoted after the deduction of all costs incurred within the fund. Individual investor performance may differ because of initial fees, the actual investment date, the date of reinvestment and dividend withholding tax. Camissa may close a portfolio to new investors to manage it more effectively in accordance with its mandate.

Fees: Different classes of units may apply and are subject to different fees and charges. Commission and incentives may be paid, and if so, would be included in the overall costs. A feeder fund is a portfolio that invests in a single portfolio of a collective investment scheme, which levies its own charges, and which could result in a higher fee structure for the feeder fund. A schedule of the maximum fees is available upon request.