September 2026

Ninety One

—
Investing for a world of change

EM technology: a volatile but integral part of AI's future

Archie Hart
Portfolio Manager

Varun Laijawalla
Portfolio Manager

Key takeaways

— EM equities have roughly doubled developed-market returns since 2025, but gains have been narrow, concentrated in AI-driven information technology.

— The memory upcycle looks structurally different this time: hyperscaler capex is set to quadruple between 2024 and 2027, and long-term supply contracts are locking in price floors above prior-cycle peaks.

— Recent earnings from SK Hynix, Samsung and TSMC support a fundamentals story, even though shares fell on the news – a sign of profit-taking after high expectations, not weakening demand.

— Volatility in Korean tech names is largely a market-structure issue (leveraged ETFs, margin financing, index concentration) rather than a fundamentals problem, meaning standard risk models may understate real risk.

— The portfolio response is threefold: trim into strength on richly valued names, diversify across the AI/semiconductor supply chain, and hold non-tech EM exposure – reflecting a view that this cycle is early rather than exhausted.

Setting the scene

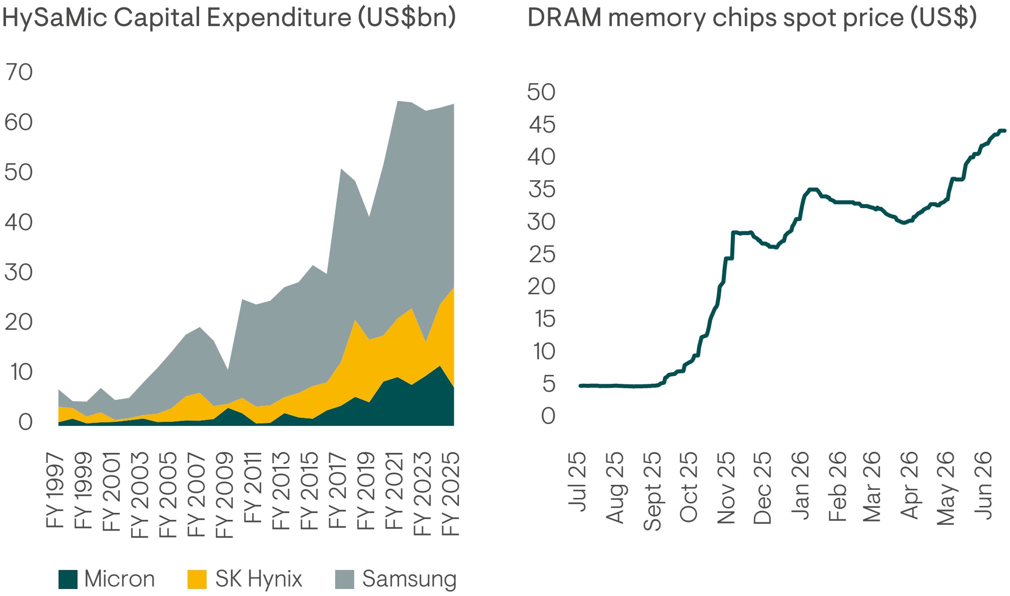
Since the start of 2025, market leadership has shifted. Emerging market (EM) equities have delivered roughly double the returns of developed markets through July 2026, outstripping indices including the Nasdaq. However, these gains have been narrow, driven largely by information technology on the back of AI hardware demand. This became particularly acute in the second quarter of 2026, when the sector rose by some 73% – the only GICS sector to outperform the broad EM index.

This performance pattern was also seen at the country level, with tech-heavy South Korea and Taiwan leading index returns, along with other geographies linked to the AI theme, as market sentiment remained positive. Unsurprisingly, questions around the durability of the recent technology rally have grown, with concerns over stretched valuations triggering a period of heightened volatility in a number of leading technology names in July. Companies related to the AI theme that had driven markets reported strong headline revenue and profit growth, yet still saw their shares pull back, reflecting increasingly demanding consensus expectations.

Why we believe this cycle is different

The engine for the technology sector has been hyperscaler capital expenditure, which is up from roughly US$110 billion in 2020 to a projected US$1 trillion by 2027, with a fourfold increase expected to come since 2024 alone. That capex flows into AI accelerator chips and high bandwidth memory (HBM) orders faster than fabrication plants can expand, since new capacity typically takes two to three years from decision to output. Each gigabyte of HBM also consumes roughly three times the wafer capacity of standard dynamic random-access memory (DRAM). Leading manufacturers such as SK Hynix and Samsung Electronics have diverted existing lines away from conventional memory, squeezing supply on both fronts and driving DRAM contract prices up sharply over the past year, as illustrated by Figure 1.

Figure 1: Supply-demand dynamics are reflected in DRAM pricing



Source: (Left) Company accounts, Bloomberg, Ninety One. June 2026. (Right) Bloomberg, DRAM spot price DDR5 1Gx16, Ninety One. 30 June 2026.

We see the memory cycle as structurally different from prior upcycles. An increasing proportion of memory demand, particularly in strategic and advanced-memory applications, is now locking in future capacity through longer-term customer agreements, which are setting price floors above prior-cycle peak margins. In effect, a historically commodity, spot-priced business is becoming a contracted supply chain, improving revenue and margin visibility more directly than in prior cycles. Supply cannot respond quickly to this demand, with capacity additions likely to remain constrained into 2028. Together, this points to tighter-for-longer memory fundamentals, improving through-cycle returns at the leading memory suppliers. In our view, this is the more durable story than near-term volatility.

Consensus estimates have yet to catch up; despite the sector's recent de-rating, they continue to underappreciate the durability of growth and profitability at the leading memory suppliers, in our view.

Recent earnings support our view

The recent earnings season reinforced our view that this is a fundamentals story, not a pure momentum one.

SK Hynix[1] delivered record revenue and margins but fell on the day regardless, driven by average DRAM pricing that came in below elevated consensus expectations. We believe the shortfall was a matter of timing rather than demand, as higher-value shipments were pushed into the second half of the year as production shifts toward the next generation of AI chips. Management pointed to a growing number of long-term supply agreements now locked in, with more in progress, and raised capital expenditure to fund this accelerated capacity. The stock trades on a depressed multiple of near-term earnings, which in our view understates the visibility now embedded in those long-term contracts.

Samsung Electronics posted a sharp recovery in memory profitability from a year earlier, when export-control-related write-downs had pushed its semiconductor margins to near breakeven. The company shipped next-generation HBM samples ahead of its rivals and guided to an uplift in the shipments of its current generation, evidence that the HBM positioning gap that has weighed on the stock for two years is closing. TSMC's results followed a familiar trend, with an increase to its full-year growth outlook and capex. However, similar to SK Hynix, the share prices of Samsung and TSMC reacted negatively following these releases, which we read as investors taking shorter-term profits after a period of elevated expectations.

We remain of the view the quality of earnings behind leading memory players has improved, with multi-year supply agreements accompanied by price floors set above the previous cycle's peak, which should make future earnings less sensitive to short-term pricing swings.

—

1. No representation is being made that any investment will or is likely to achieve profits or losses similar to those achieved in the past, or that significant losses will be avoided.

This is not a buy, sell or hold recommendation for any particular security.
For further information on specific portfolio names, please see the Important information section.

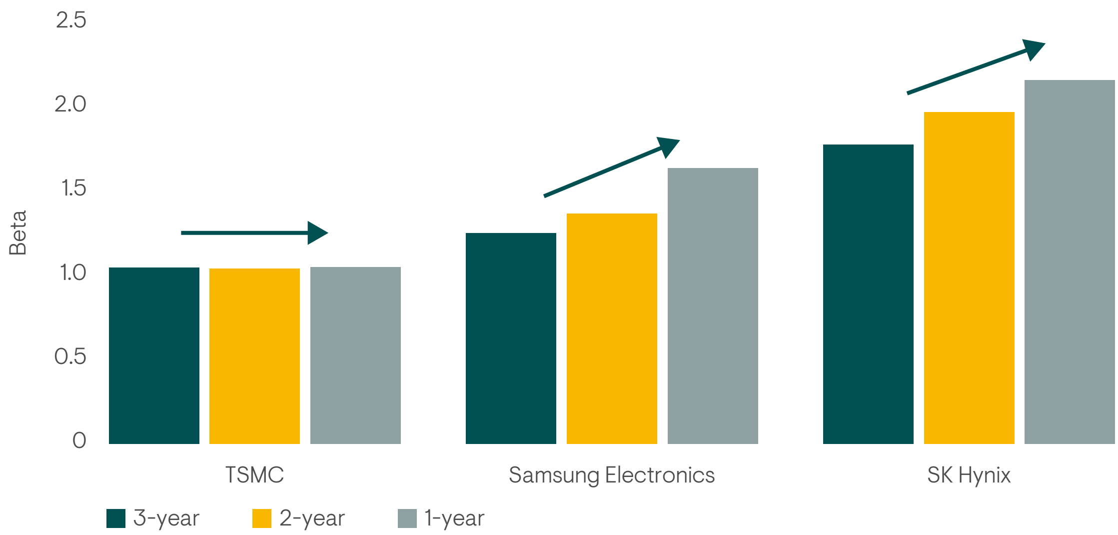
Volatility caused by market structure, not fundamentals

The strong performance of South Korean equities this year has been accompanied by a marked increase in volatility. The KOSPI Index had more than doubled before the recent pullback, with SK Hynix and Samsung Electronics – together accounting for around 60% of the index[2] – responsible for a significant portion of the market moves.

The increased use of leveraged exchange-traded funds (ETFs)[3] by retail investors in Korea, alongside rising margin financing, has added to the concentration dynamic by contributing to more crowded and leveraged positioning. This has amplified the market's sensitivity to shifts in sentiment, increasing the risk of forced selling and exacerbating volatility. Daily KOSPI moves of 5–10% have therefore not been unusual over recent months.

This volatility is also reflected in the betas of the key names. While TSMC's beta, a measure of sensitivity relative to the market, is essentially unchanged across trailing look back windows, betas of Korea-based Samsung Electronics and SK Hynix have notably increased over more recent periods, as shown in Figure 2. Risk models built on historical relationships may understate current levels of risk, as the underlying volatility and correlation characteristics of these stocks have shifted from longer-term norms. This raises the possibility that realised portfolio risk could run materially above what standard forecasts imply.

Figure 2: Recent volatility has impacted the betas of key names in the EM tech space



Source: Ninety One, Bloomberg as of July 2026. Beta vs MSCI EM calculated over 1, 2 and 3-year windows.

—

2. Source: Bloomberg as of 30 June 2026.
3. Korea Economic Institute of America (KEI) analysis shows average daily trading turnover in ETFs increased from KRW6.6 trillion in December 2025 to KRW34 trillion in June 2026 (US$23 billion).

A proactive response

This gap between modelled and realised risk has been a key consideration in how we manage our portfolios. We remain disciplined to a consistent and repeatable process, with clear guardrails in how we manage position sizing and portfolio construction. Therefore, where a sharp rerating raises the risk that a position contributes without a corresponding shift in the investment case, the process requires that this be addressed.

In this instance, our response has been three-fold: proactively managing risk and position sizing[4]; diversifying our technology exposure across the supply chain ecosystem to address the concentration risk; and balancing capital allocation with names less correlated to the global semiconductor trade.

- We trimmed Samsung Electronics and SK Hynix into share price strength, reflecting the shifting risk-reward trade-off and our continued attention to correlation across related holdings, so that individual names do not compound the same underlying risk factor.
- AI infrastructure remains attractive, but selectivity is essential. We have been positioned across networking and switching, testing, chemicals and polishing materials, and consumer electronics. Some of these are Chinese companies that are beneficiaries of domestic substitution and less dependent on US hyperscaler capex. We believe there will be increasing divergence in AI capex beneficiaries given where they sit in the bottleneck stack, their customer concentration, and the extent to which their valuation reflects AI capex expectations.
- Outside of technology, capital has been deployed to ensure investment outcomes do not rest on AI alone. Investments in India, parts of China and financials, for example, are less correlated to the semiconductor trade, as they are largely domestically driven. Opportunities in healthcare and Latin America offer different idiosyncratic return drivers from the global AI cycle.

4. The portfolio may change significantly over a short space of time.

Three key risks to our current view

Another aspect of us proactively managing risk is to remain fully abreast of any potential issues that could undermine our current view. With that in mind, we see three catalysts that could unwind the technology trade:

1

A slowdown in hyperscaler capex

This would reduce the revenue opportunity for semiconductor suppliers and challenge the pace of AI infrastructure investment. This includes related considerations on financing: while hyperscalers currently fund capex largely from internal cash flow, a move towards debt financing given intensified spending could sharpen the debate on whether management teams become increasingly willing to lever balance sheets, and whether capital markets are prepared to underwrite that additional investment. Market sentiment towards this outcome could have a second derivative effect on EM names that have been supported by capex spending, even before expenditure slows.

2

Faster-than-expected Chinese memory capacity

The emergence of credible Chinese competition in memory manufacturing could put pressure on pricing and weaken the supply discipline supporting current earnings expectations for the leading Korean producers.

3

Progress in Chinese AI models

Increasingly capable models are being developed without equivalent reliance on leading-edge chips, which could challenge the assumption that AI advancement requires the scale, pace and technological intensity of current infrastructure expansion. However, recent developments have looked more like evidence of Chinese catch-up than a step-change reduction in compute intensity. On that basis, the implications for the AI infrastructure supply chain appear less negative than initially feared.

In our view, the risk to earnings is more likely to emerge from 2027 onwards, as semiconductor EPS revisions have continued to move higher and hyperscaler capex expectations remain firm. We continue to monitor the trajectory of hyperscaler capital expenditure, inventory levels across semiconductor companies, and revenue growth at major AI application providers for a read-through on the sustainability of AI infrastructure demand and the extent to which the current investment cycle is translating into fundamental evidence for the infrastructure players.

Concentration risk, while reduced through the recent de-rating and de-leveraging, has not disappeared entirely. A small number of companies now account for a large share of the Emerging Markets and Asia opportunity set, backed by corporate fundamentals superior to those of the state-dominated enterprises of the past, but nonetheless leave the asset class more exposed to idiosyncratic developments in a handful of names.

A theme that is early, rather than exhausted

We believe that selling out of the AI/semiconductor complex could mean giving up a structurally underappreciated multi-year earnings story. Our investment framework[5] distinguishes between the stock-specific risk, which we see as favourable (tight supply, rising profitability, multi-year visibility), and market-behaviour risk (retail/ETF-driven volatility) which is real but addressable through the portfolio construction described above. In this way, we believe it is possible to remain invested in a structural theme that still looks early rather than exhausted.

Share prices in the most exposed names already reflect a degree of scepticism around the durability of current profitability and discount much of this risk through depressed multiples. In line with our bottom-up, style-agnostic approach, we continue to be selective in our capital allocation. Our conviction remains fundamentally underwritten, with the flexibility to adjust as risk-reward dynamics evolve among potential winners and losers, ensuring our portfolio is prepared to capture the current EM multi-year ascent.

—

5. For further information on the investment process, please see the Important information section..

Important information

This is a marketing communication for professional investors only. It is not to be distributed to the public or within a country where such distribution would be contrary to applicable law or regulations.

For further information on our sustainability-related products, please visit the sustainability-related disclosures section within the literature library at www.ninetyone.com.

The information may discuss general market activity or industry trends and is not intended to be relied upon as a forecast, research or investment advice. The economic and market views presented herein reflect Ninety One's judgment as at the date shown and are subject to change without notice. There is no guarantee that views and opinions expressed will be correct and may not reflect those of Ninety One as a whole, different views may be expressed based on different investment objectives. Although we believe any information obtained from external sources to be reliable, we have not independently verified it, and we cannot guarantee its accuracy or completeness (ESG-related data is still at an early stage with considerable variation in estimates and disclosure across companies. Double counting is inherent in all aggregate carbon data). Ninety One's internal data may not be audited. Ninety One does not provide legal or tax advice. Prospective investors should consult their tax advisors before making tax-related investment decisions.

Nothing herein should be construed as an offer to enter into any contract, investment advice, a recommendation of any kind, a solicitation of clients, or an offer to invest in any particular fund, product, investment vehicle or derivative. Investment involves risks. Past performance is not indicative of future performance. Any decision to invest in strategies described herein should be made after reviewing the offering document and conducting such investigation as an investor deems necessary and consulting its own legal, accounting and tax advisors in order to make an independent determination of suitability and consequences of such an investment. This material does not purport to be a complete summary of all the risks associated with this Strategy. A description of risks associated with this Strategy can be found in the offering or other disclosure documents. Copies of such documents are available free of charge upon request.

In the US, this communication should only be read by Institutional Investors and Financial Advisors (FINRA-registered Broker Dealers). It must not be distributed to US Persons apart from the aforementioned recipients. Note that returns will be reduced by management fees and that investment advisory fees can be found in Form ADV Part 2A.

In Australia, this material has been prepared by Ninety One Australia Pty Ltd (AFSL 329636) and is intended for wholesale investors only as defined under the Corporations Act 2001 (Cth).

This material is being sent to you in your capacity as professional investors, institutional investors, other qualified investors as defined by relevant local laws and regulations and strictly for your internal use only; and should not be reproduced or distributed to any other persons without prior written consent from Ninety One. If you are not an intended recipient you must ignore this material and take no action based on the information in it. In Hong Kong, it is for professional investors only, issued by Ninety One Hong Kong Limited and has not been reviewed by the Securities and Futures Commission (SFC). In Singapore, it is for institutional investors only, issued by Ninety One Singapore Pte Limited (company registration number: 201220398M) and has not been reviewed by the Monetary Authority of Singapore. In the People's Republic of China (the "PRC"), it can be directed only at certain eligible PRC investors as prescribed by applicable PRC laws. In Taiwan, it is for professional institutional investors only. In Indonesia, Thailand, the Philippines and Brunei, it is for institutional investors and other qualified investors only. For Korean and Malaysian clients this material has been issued to you upon your request, without any marketing or solicitation activities conducted by Ninety One. All information contained in this material is factual information and does not reflect any opinion or judgment of Ninety One. The information contained in this material should not be construed as an offer, marketing, solicitation or investment advice with respect to any investment products or services. The website mentioned in this communication has not been reviewed or approved by any regulatory authority in any Asia jurisdictions, and may contain information with respect to investments products that may not be registered in some jurisdictions.

Ninety One Botswana Proprietary Limited, Plot 64289, First floor, Tlokweng Road, Fairgrounds, Gaborone, PO Box 49, Botswana, is regulated by the Non-Bank Financial Institutions Regulatory Authority. In Namibia, Ninety One Asset Management Namibia (Pty) Ltd is regulated by the Namibia Financial Institutions Supervisory Authority. In South Africa, Ninety One is an authorised financial services provider.

Additional information on our investment strategies can be provided on request.

Indices

Indices are shown for illustrative purposes only, are unmanaged and do not consider market conditions or the costs associated with investing. Further, the manager's strategy may deploy investment techniques and instruments not used to generate Index performance. For this reason, the performance of the manager and the Indices are not directly comparable.

If applicable, MSCI data is sourced from/copyright of MSCI Inc., MSCI Solutions LLC, or their affiliates ("MSCI"), or information providers (together the "MSCI Parties"). Please note an important disclaimer applies to MSCI data and can be found at: Notice and Disclaimer for Reporting Licenses | MSCI. For regulatory disclosures mandated under the EU ESG Rating Activities Regulation (Regulation (EU) 2024/3005), please visit www.msci.com/legal/sustainability-and-climate-resources-and-disclosures for methodology and organizational disclosures and https://one.msci.com for rating level disclosures.

If applicable, FTSE data is sourced from FTSE International Limited ('FTSE') © FTSE 2026. Please note an important disclaimer applies to FTSE data and can be found at www.ftse.com/products/downloads/FTSE_Wholly_Owned_Non-Partner.pdf

Specific portfolio names

References to particular investments or strategies are for illustrative purposes only and should not be seen as a buy, sell or hold recommendation. Unless stated otherwise, the specific companies listed or discussed are included as representative of the Strategy or Strategies. Such references are not a complete list and other positions, strategies, or vehicles may experience results which differ, perhaps materially, from those presented herein due to different investment objectives, guidelines or market conditions. The securities or investment products mentioned in this document may not have been registered in any jurisdiction. More information is available upon request.

Investment process

Any description or information regarding investment process is provided for illustrative purposes only, may not be fully indicative of any present or future investments and may be changed at the discretion of the manager without notice. References to specific investments, strategies or investment vehicles are for illustrative purposes only and should not be relied upon as a recommendation to purchase or sell such investments or to engage in any particular Strategy. Portfolio data is expected to change and there is no assurance that the actual portfolio will remain as described herein. There is no assurance that the investments presented will be available in the future at the levels presented, with the same characteristics or be available at all. Past performance is no guarantee of future results and has no bearing upon the ability of Manager to construct the illustrative portfolio and implement its investment strategy or investment objective.

Australia
Level 28 Suite 3, Chifley Tower
2 Chifley Square
Sydney, NSW 2000
Telephone: +61 2 9160 8400
australia@ninetyone.com

Botswana
Plot 64289, First floor
Tlokweng Road, Fairgrounds
Gaborone
PO Box 49
Botswana
Telephone: +267 318 0112
botswanaclientservice@ninetyone.com

Channel Islands
PO Box 250, St Peter Port
Guernsey, GY1 3QH
Telephone: +44 (0)1481 710 404
enquiries@ninetyone.com

Germany
Bockenheimer Landstraße 23
60325 Frankfurt am Main
Telephone: +49 (0)69 7158 5900
deutschland@ninetyone.com

Hong Kong
Suites 1201-1206, 12/F
One Pacific Place
88 Queensway, Admiralty
Telephone: +852 2861 6888
hongkong@ninetyone.com

Luxembourg
2-4, Avenue Marie-Thérèse
L-2132 Luxembourg
Telephone: +352 28 12 77 20
enquiries@ninetyone.com

Namibia
Am Weinberg Estate
Winterhoek Building
1st Floor, West Office
13 Jan Jonker Avenue
Windhoek
Telephone: +264 (61) 389 500
namibia@ninetyone.com

Netherlands
Johan de Wittlaan 7
2517 JR Den Haag
Netherlands
Telephone: +31 70 701 3652
enquiries@ninetyone.com

Singapore
138 Market Street
CapitaGreen #27-02
Singapore 048946
Telephone: +65 6653 5550
singapore@ninetyone.com

South Africa
36 Hans Strijdom Avenue
Foreshore, Cape Town 8001
Telephone: +27 (0)21 901 1000
enquiries@ninetyone.com

Sweden
Västra Trädgårdsgatan 15,
111 53 Stockholm
Telephone: +46 8 502 438 20
enquiries@ninetyone.com

Switzerland
Dufourstrasse 49
8008 Zurich
Telephone: +41 44 262 00 44
enquiries@ninetyone.com

United Kingdom
55 Gresham Street
London, EC2V 7EL
Telephone: +44 (0)20 3938 1900
enquiries@ninetyone.com

United States
Park Avenue Tower, 65 East 55th Street
New York, 10022
US Toll Free: +1 800 434 5623
usa@ninetyone.com

—

www.ninetyone.com
Telephone calls may be recorded for training, monitoring and regulatory purposes and to confirm investors' instructions.
For more details please visit www.ninetyone.com/contactus

CS_1024 08/2026 MACS21039