

# Look beyond AI hype to find compelling semiconductor investments as supply chains shift

The real structural opportunity may be quietly taking shape in the factories in our own neighbourhood. BY GENPING LIU

ARTIFICIAL intelligence (AI) is undeniably full of hype. In fact, it has become almost impossible, even, for seasoned professionals to keep up with the latest developments. Every week seems to bring a new wave of language models, foundation models, generative tools and autonomous agents.

Recently, I participated in a panel discussion focused on practical approaches to navigating beyond the AI frenzy. One of the most important points we discussed was precisely this: the need to avoid chasing the crowded trends and instead look for less obvious, more sustainable opportunities.

In this regard, semiconductors have surfaced as one of the most intriguing fields deserving more attention.

Few notable startups have emerged in Singapore and South-east Asia, and venture funding has traditionally concentrated elsewhere. Yet increasingly, I feel the semiconductor AI sector in South-east Asia and India presents compelling venture capital opportunities, especially as global supply chains undergo fundamental restructuring.

While AI software markets face intense competition and command all the media attention, infrastructure-enabling semiconductors offer a less-crowded investment landscape, bolstered by substantial government backing and structural demand shifts.

The region's expanding manufacturing capabilities, combined with the accelerating supply chain diversification driven by US-China trade tensions, create unique windows for entrepreneurs to capture value. This could be by developing cutting-edge solutions, or by being fast followers who tap into the demand created by this geopolitical and economic realignment.

## Government support

Singapore's share of the global semiconductor output – at about 10 per cent – along with Malaysia's

dominant role in packaging and assembly provide a strong foundation for the region's ambitions.

Malaysia has an ambitious plan to create local semiconductor champions in integrated circuit design, and recently worked with ARM to provide semiconductor companies with critical intellectual properties for chip development. This builds on Penang's existing ecosystem around backend expertise.

In fact, IC design companies listed on the Kuala Lumpur Stock Exchange have recently commanded surprisingly high valuation multiples.

Other emerging players in the region have been building robust domestic ecosystems. India is deploying incentives to accelerate manufacturing and design capabilities, while Vietnam has attracted nearly 100 business entities across different parts of the value chain in recent years.

Indonesia, for its part, is leveraging its abundant reserves of raw materials such as nickel and bauxite, which are critical for semiconductor and battery supply chains.

Government policies increasingly favour local content and domestic value capture. We have heard that Malaysia is considering policies that require a higher share of local content in data centres.

In addition, Vietnam's tariff structures tie import duties to domestic component usage, creating built-in demand for regional suppliers.

India, driven partly by national security considerations that echo policy trends in the United States and Europe, is encouraging domestic players to build capability in critical sectors.

Beyond government push factors, there is also a powerful pull: Western buyers, eager to diversify away from overreliance on Chinese supply chains under a "China +1" strategy, are creating predictable and growing demand for new sup-



Companies that can deliver reliable, cost-effective solutions with strong local support stand to grow rapidly, without having to fight head-on with TSMC or Samsung on leading-edge process nodes. PHOTO: AFP

pliers in South-east Asia and India.

All of these considerations create unprecedented opportunities for entrepreneurs and investors who are willing to look past the obvious headlines.

## Talent arbitrage, returning expertise

One of the perennial questions about the semiconductor sector in our region is whether there is sufficient talent to support ambitious scaling.

On the one hand, we have encouraging examples such as Tan Lip Su, the Malaysia-born CEO of Intel, and the late Sehat Sutardja, the Indonesia-born co-founder of Marvell Technology. Such individuals show the potential of South-east Asian talent on the world stage.

On the other hand, it is true that most countries here are starting from a relatively low base in terms of specialised semiconductor expertise.

The good news is that governments are responding decisively. Vietnam is targeting the training of 50,000 semiconductor engineers by 2030. Thailand aims for 86,000 by the same year, and the Philip-

ines has set a goal of 128,000 by 2028.

These targets are ambitious but realistic, particularly because the average cost of technical talent in these markets remains 30 to 50 per cent lower than in Silicon Valley or other mature hubs.

More critically, we are seeing a steady return of experienced professionals, engineers and managers who built their careers in the US, Taiwan, South Korea or China.

Historically, Asian talent has held a strong position in the global semiconductor industry due to the region's emphasis on science, technology, engineering and mathematics (STEM) education and rigorous technical training.

India and Vietnam already have vibrant IC design-outsourcing sectors that are expected to grow even faster, thanks to supportive domestic policies.

In particular, India has 20 per

cent of the world's semiconductor design workforce. The term "sea turtles", once used mainly to describe Chinese professionals returning from overseas, has now become familiar in South-east Asia and India as well.

Over the next decade, I believe we will see more world-class talent returning home with experience, know-how and relationships, combining these with local cost advantages to build globally relevant companies.

## Technology pragmatism wins over ambition

While Singapore often showcases world-class technology opportunities, the reality is that true, globally disruptive technology breakthroughs remain rare across the broader region.

But this is not a disadvantage; rather, it is an opportunity.

For anyone who has studied the development of Taiwan and China over the past 30 years, one lesson is clear: pragmatism often wins over pure technological ambition.

Earlier-generation suppliers that focused on import substitution, often with slightly less advanced technology but with strong cost advantages, responsive local support and more effective communication, laid the groundwork for what eventually became Shenzhen's ecosystem of world-class manufacturers.

This pattern is repeating itself across South-east Asia and India, but at an accelerated pace.

In many AI applications, there is simply no need for the bleeding edge of process technology. When you combine this pragmatic approach to technology with a favourable policy environment and

global supply chain realignment, it levels the playing field for emerging-market manufacturers and design houses.

Companies that can deliver reliable, cost-effective solutions with strong local support stand to grow rapidly, without having to fight head-on with TSMC or Samsung on leading-edge process nodes.

The convergence of supply chain diversification, supportive policy frameworks, returning talent and a pragmatic approach to technology adoption is creating a once-in-a-generation investment environment. Against this backdrop, we made the decision to invest in BigEndian Semiconductors in India, and are actively exploring many other opportunities across the region.

Investors can capitalise on this "infrastructure play" by backing companies that leverage manufacturing scale, affordable and growing technical talent pools, as well as strong local demand.

It is not difficult to imagine that the next generation of world-class semiconductor companies could emerge right here, being more cost-effective, more numerous and perhaps more pragmatic than their predecessors.

Of course, the question remains: where exactly will these companies be found?

That is the hard job for investors to figure out. But the signal is clear: while everyone else is chasing the AI hype, the real structural opportunity may be quietly taking shape in the supply chains and factories in our own neighbourhood.

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