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# Three Britannia Chip Partners: Your Portfolio for the Next Gen of AI

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# Three Britannia Chip Partners: Your Portfolio for the Next Gen of AI

Sam Volkering, Editor, *Southbank Growth Advantage*

Arm is a name that might not resonate with the average consumer, and possibly the average investor. But it stands as one of the most pivotal companies in the tech industry.

This British semiconductor design company, born from the minds at Acorn Computers in the late 1980s, has quietly become the backbone of modern computing. So much so that its chip designs can be found in *over 95%* of the world's smartphones and consumer tech devices.

Arm's brilliance lies not in making these "chips" but in designing them. It crafts the blueprints for processors that other companies license and integrate into their products.

This model has made Arm an indispensable "secret supplier" to some of the most recognised names in technology. Its architecture powers the devices we use daily, from the smartphone in your pocket to the servers that power cloud computing, yet it's never really talked about.

That's great for us, because it still means that investors can get a slice of the action before Arm becomes a household name.

Some of the names that rely on Arm is a roll call of the who's who in mega-cap tech. From Qualcomm and Broadcom to the likes of Apple, AMD and the AI-granddaddy of them all, Nvidia.

They all rely on Arm's designs for their processors. These partnerships are often shrouded in secrecy and corporate confidentiality, making Arm's role quite unique and mysterious.

However, with a little digging it's not hard to see who some of Arm's partners are, and that using Arm tech makes them pivotal to the rollout of AI technology in the future.

It's some of these companies, in particular some of the lesser-known ones, who find themselves as prime candidates to potentially add to a portfolio and build long-term wealth creation strategies around.

In this report, I'll introduce you to three of them that I think are well worth consideration in adding to a portfolio. **These aren't out and out recommendations.** Or at least, not yet, to our buy list of stocks at *Southbank Growth Advantage* – but they're all worth adding straight to the top of your watch list, so then when the time is right, you're ready to bounce and add them to your portfolio. For now, you can use this report as a starting point for your own research into these companies.

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## Secret Partner #1: AMD (NASDAQ:AMD)

Advanced Micro Devices (AMD) is a semiconductor company that's often (and rightfully so) seen as the second market leader behind Nvidia. In terms of AI tech, AMD is known as being the closest competitor to what Nvidia is currently putting into market.

Some suggest that in the long run AMD even has the potential to dethrone Nvidia as the king of AI tech.

Historically, AMD has been associated with what's known as x86 architecture. This has served it well with chips for computers, as well as general central processing units (CPUs).

But x86 is notoriously power hungry. Its work with Arm architecture though means the ability to expand into new markets, particularly where energy efficiency and speed are critical – things Arm architecture is known for, which means smaller more compact and fast devices which AMD hasn't really been a major player in.

That's changing with ongoing development around Arm-based chips.

Reports from 2023 suggested that AMD, alongside Nvidia, was planning to introduce Arm-based CPUs for PCs by 2025. This move aims to diversify beyond x86 and compete in markets dominated by Arm architecture, like mobile computing and potentially expanding into areas where Arm's efficiency could offer advantages over traditional x86 solutions.

There's also market speculation and interest about Arm developing gaming GPUs. If AMD were to emerge as a partner here (it's not really been huge into gaming GPUs of late) with Arm technology, it could signify a new product line or enhancement of existing GPU offerings – and notably give the company a development pipeline towards more AI-specific GPU tech.

There's no doubt that AMD is already a major player in the global supply of cutting-edge chips for computers, automotive, data centres and a strategic focus on AI.

It's a mega-cap company but still comfortably worth less than \$1 trillion – so not quite up there with the likes of Microsoft or Nvidia just yet.

Nonetheless, it's critical to the rollout of AI. Plus its ongoing work with Arm, and what we expect to be a growing partnership with Arm, positions the company for greater exposure to the world of AI.

AMD, of course, has plenty of risks, from competition risk through to technology risk, regulatory risk, and broader market risk. All things to dive into deeper and consider before looking to take any action on the stock.

For now, it's clearly a big player with a lot to come. It should be right at the top of the list when considering building a portfolio around possible Arm-based companies building out our AI future. Definitely one to keep an eye on.

## Secret Partner #2: Broadcom (NASDAQ:AVGO)

Broadcom Inc is a global technology leader that is also in semiconductor infrastructure. It too has developed a significant relationship with Arm, leveraging Arm's architecture for various applications, particularly in networking and data centre technologies.

Broadcom designs, develops and supplies a broad range of semiconductor devices with a focus on digital and mixed signal, "complementary metal oxide semiconductor" (CMOS) based devices and analogue III-V based products.

In other words, things like network switches, Ethernet and routing technology, fibre optic components, wireless communication and connectivity devices, and a whole bunch of software to run things.

Its infrastructure software solutions, especially after the acquisition of VMware in November 2023, complement its hardware offerings, making Broadcom a pivotal player in both hardware and software sectors of technology.

Broadcom's use of Arm architecture is rooted in the need for efficiency, scalability and performance in its products and where its products are used (i.e. data centres).

Broadcom has integrated Arm into its networking chips, which is again aimed at helping to improve data centre efficiency. Broadcom's continued investment in Arm-based processors for switches, routers, and network interface cards (NICs) are all important parts of the build-out of AI in datacentres and the connectivity of those data centres to companies and end users.

Just like AMD, Broadcom has been a healthy beneficiary of the AI boom over the last 18 months. I believe a big part of that success is its critical technology of which a healthy chunk is based around Arm architecture.

While Broadcom clearly can stand on its own two feet, I think a deepening relationship and partnership with Arm puts it into contention at the centre of an AI, Arm-based portfolio of stocks.

Just like AMD, Broadcom also carries great risk and even for a mega-cap stock will be volatile. This is based around technology risk, competition risk and, of course, ongoing expenditure on its products with the rollout of AI tech into the world.

But my view is that Broadcom should also be right at the top of the watch list with AMD as a critical player, closely tied to Arm in the ongoing build-out of AI in our world.

## Secret Partner #3: Qualcomm (NASDAQ:QCOM)

Qualcomm is another leader in wireless technology and semiconductor development. Its famous Snapdragon processors have for many years been one of the best performing CPUs for mobile and consumer devices. The reason for this is that Snapdragon is built

on Arm architecture. And it's through this that both have a massive share of the mobile device market.

Qualcomm develops products for mobile devices, wireless networks, and extends its technology into automotive, Internet of Things and compute applications. Its business is divided into three segments: QCT (Qualcomm CDMA Technologies), QTL (Qualcomm Technology Licensing) and QSI (Qualcomm Strategic Initiatives).

The QCT segment, where Arm's technology is most relevant, deals with the development and sale of integrated circuits and system software based on CDMA, OFDMA and other technologies.

Qualcomm's relationship with Arm is foundational, with Arm providing the CPU architecture that Qualcomm modifies and integrates into its Snapdragon processors. This relationship has been longstanding with the first Snapdragon processor, the world's first 1GHz processor for mobile phones, going all the way back to 2007.

The Snapdragon 8 Gen 4 is expected to launch in October 2024. This chip represents Qualcomm's next-generation flagship processor. It is said to have Oryon cores, a custom CPU design based on Arm architecture, promising significant improvements in CPU and GPU performance, with an Adreno 830 GPU.

This chip is manufactured using TSMC's 3nm process, indicating Qualcomm's commitment to leading-edge technology.

Qualcomm and Arm go way back. The expectation is that Qualcomm's ongoing dominance with Snapdragon processors for mobile devices will remain. This is in addition to its diverse range of other tech used in everything from automotive to consumer devices and telecommunications.

Arm's architecture allows Qualcomm to offer energy-efficient, high-performance chips, crucial for all aspects of tech in our world where battery life and processing power are key.

In addition to AMD and Broadcom, Qualcomm presents an opportunity to build a portfolio of stocks tied to the expansion of AI into our world, but it is also directly linked with the development and success of Arm as the key supplier of chip architecture to these tech giants.

Qualcomm also comes with the same kinds of risks as the other two, which all need consideration along with their financial position, when making a final decision on whether you add them to a portfolio or not.

Either way, from my view, if you're considering building a list of Arm-partners central to a future of AI, then Qualcomm should be right at the top of the watch list with both Broadcom and AMD.

Regards,

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