

Transcript

The Ideas Exchange

Episode 28: AI technology opening new investment opportunities

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[00:00:00] **Rory Cunningham** Welcome to the Ideas Exchange by ASX, connecting you with investment experts, market updates and ideas. I'm Rory Cunningham, senior manager of investment products at ASX. And this is our regular podcast, covering everything from investment trends through to different ways to invest using a variety of products.

[00:00:18] **Speaker:**

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[00:00:33] **Rory Cunningham** Hi everyone. Welcome to this month's episode of The Ideas Exchange. I'm your host, Rory Cunningham, from ASX. In this episode, I have the pleasure of talking with our investment expert Kieran Moore. Kieran is a portfolio manager at Munro Partners. Munro Partners is a high conviction investment manager that focuses on finding the best growth businesses around the world to invest into. Kieran, welcome to the Ideas Exchange.

[00:00:56] **Kieran Moore** Thanks for having me, Rory.

[00:00:58] **Rory Cunningham** So today we're going to be discussing artificial intelligence or AI, both the technology and also the investment opportunities that Kieran and his team are finding around the world. But first, Kieran, perhaps can you set the scene by telling us a little bit about yourself and also Munro Partners?

[00:01:14] **Kieran Moore** Yeah, for sure. So, so my job Rory as a portfolio manager is really to manage positions and find ideas to invest in from all around the world, really. Munro Partners, we're a growth investment manager. So what we do is we look for structural changes in the world or structural themes, whether that be things like ecommerce or digital payments or climate change or even artificial intelligence. And what we do within those

themes is we try and invest in stocks that can benefit or grow their earnings as a result of those structural changes playing out. And so we try and bring those investments from all around the world back to our client base in Australia.

[00:01:46] **Rory Cunningham** Great. Thank you. So obviously, we're here today to talk about AI. First question, what is AI?

[00:01:51] **Kieran Moore** Yeah, absolutely. So AI, artificial intelligence, really, it's a way that humans and computers can interact to sort of process information and solve problems. So AI essentially it really takes the brainpower away from individuals, so to speak, and puts it in the place of computers. And so computers can help solve problems for individuals and make decisions on behalf of individuals. So if you think about things like visual perception, speech recognition, decision making, even language translation, they're all processes that computers can execute now instead of the person themselves. So that maybe to give you an example, Rory, and what we've all seen in recent months is the proliferation of ChatGPT. So ChatGPT is essentially a it's a neural network, so it works like a person's brain. But what it does, it generates data in a consistent manner and then processes that data by predicting text. But AI really, to answer your question, AI really is not a new phenomenon. This has been around for a long period of time, a lot of years. But what we're only starting to discover now is that it's actually accelerating in the world around us.

[00:02:55] **Rory Cunningham** Very familiar with ChatGPT. I actually use it for my work. Please don't tell my manager about it, but I find it very useful. Now for managers like Munro or other growth investors around the world, how are they able to take advantage of AI?

[00:03:09] **Kieran Moore** So what we've always done and what we've always looked for as a growth investor is what are the companies that can enable a structural change in the world today? So if you think about changes like the shift from physical to digital cash and companies like Visa and MasterCard enabling that change over time, if you think about companies that develop renewables, for example, and therefore enable the world to decarbonise over a long period of time, AI is really no different. So what we're looking for as a growth investor are the key enablers of that change. So we think that potentially can exist in the semiconductor market. And so maybe to give you some more detail around that, the semiconductor market, it's gone from effectively a nascent market in the 1970s to about a half a trillion dollar market today. And over that time, that roughly 50 year period, we see the semiconductor market having gone through sort of three distinct phases. It started with semiconductors in the mainframes, it moved into semiconductors in PCs, in people's homes, and then it moved to semiconductors in the mobile era. So we were all carrying around our internet connected device. We think the market as a whole, that half a trillion dollars that's been created is actually going to double in size. So it's going to go from half a trillion to a trillion dollars. But it's not going to take 50 years to do it. We think it's going to happen in the next ten years. And the reason for that is because of the

adoption or the acceleration of artificial intelligence. So the companies that we think are critical to allow that doubling of the semiconductor market to happen, we think that companies like the semiconductor manufacturers themselves, so companies like the foundries that build the chips, the design companies. All the companies that play into that high performance compute ecosystem. So that's one part or that's one beneficiary. The second way potentially to look at this theme or to invest in this theme is through the compute power required. So if you think about a world where we see as consumers, we see software applications that are run on AI, i.e. that means we interact with AI on a on a more frequent basis, you're going to need the compute power of the software power to effectively host those applications. So we believe potential beneficiaries could be in businesses like AWS, which is Amazon Web Services, obviously part of Amazon, Google Cloud Platform, which is part of Alphabet, and then obviously Microsoft Azure. So there's three big cloud infrastructure as a service businesses that we think can host these AI applications from a software point of view. So really, Rory, to summarise, it's the hardware opportunity in the semiconductor market which we think is going to be a huge opportunity for that market to grow. And then on the software side, we think the big cloud companies, the cloud computing players, are potential winners on the on the software side.

[00:05:50] **Rory Cunningham** And so why is AI so impactful for the semiconductor market?

[00:05:53] **Kieran Moore** Yeah, so it's impactful because we think there's an acceleration going on today in AI. So if you think about all the applications that AI maybe become relevant to us in our everyday lives. If you think about some of the examples like you being recommended shows to you on Netflix, those recommendations are based on your preferences, based on demographics, based on where you are. That's a basic AI application really at work. If you think about a world where there's going to be autonomous vehicles driving around carrying us as passengers, they're going to need to make thousands of decisions every minute. And so they're going to need AI to enable those decisions to be made and those decisions to be made in a safe and safe environment. If we think about even basic applications like ordering at a quick service restaurant, so ordering at McDonald's in the future, you might actually not speak to a person. You might just speak to a machine, a computer, and have a computer process your order and deliver that order in an efficient manner. Wendy's in the US has already started doing this and laid out some plans as to how they want to go about doing this. So all of those applications, all of those are examples of an acceleration of AI in practice today. I think another good example and the way to think about why this is so impactful now is that if we think about ChatGPT that we've all become familiar with over the last few months, if we think about how long it took ChatGPT to get to a million users, it actually only took five days just last year. Think about how long it took Facebook to get to a million users. It took them ten months. Think about how long it took Netflix to get to a million users. It took them three and a half years. So what I'm telling you, Rory, is really there's an acceleration going on, which means it's important for the enablers,

those semiconductor companies and those hyperscale large compute companies, the AWS, the GCP and the Azure, to really benefit and grow this and grow this industry.

[00:07:42] **Rory Cunningham** Fantastic. So, Kieran, clearly a big opportunity out there. Do you have any idea of the size of the opportunity?

[00:07:48] **Kieran Moore** So this is a fantastic question. The opportunity here is effectively endless, really. When we think about a TAM or a total addressable market, this is something that as a growth investor we're always interested in looking for, what is the size of the opportunity over time. And it's really difficult to put a figure around that because we think AI applications can really exist in all sorts of industries. Whether that be financial services to enable workflows to be more simplistic, whether that's in things like education, to deploy learning tools in a more effective manner. Even in things like the marketing industry, for example, we see AI potentially even going into industries like health care, where there's actually a higher, much higher degree of intellectual property in an industry like health care. So really, Rory, it's difficult to put a number around this, but we think there's lots and lots of opportunities around the world for AI applications to exist. But ultimately, the other side of the coin to that, means that there could be a lot of disruption in years to come as well.

[00:08:44] **Rory Cunningham** Understood. So let's talk about the applications of AI and particularly in the real world today. Have you got examples of that?

[00:08:51] **Kieran Moore** Yeah. So I mentioned a couple of examples earlier, that Netflix recommendation or that autonomous car or even that ordering at the quick service restaurant, for example. Those are basic applications that we know and understand and we know are going to be powered by AI in the future. What we've seen in more recent months is the proliferation of ChatGPT, which we've touched on, but also things like Google's bard technology, which they released about six or eight weeks ago. And so those types of technologies really over time will become more like personal assistant types of technologies. So to help consumers go about their everyday lives, one of the more important or focussed areas of application today that both Microsoft and Google are working on is the proliferation of AI in their search engine or their or their search businesses. So search is really a common thing that we interact with day in, day out. Google controls over 90% of the search market around the world. Microsoft has about a 7% to 8% share. And both companies want to deploy AI into their search capabilities. What we think and what we hope will happen is that and what we expect to happen is that people will be able to understand topics that they search for and discover new information in a far more efficient manner. And so what those companies are trying to do is effectively let the computer do more of the heavy lifting instead of the individual. And ultimately, Rory, what that is going to mean is that these companies will be able to start to charge more for their AI applications because they give you that greater benefit.

[00:10:20] **Rory Cunningham** So how are computers going to need to evolve in order to process these applications?

[00:10:25] **Kieran Moore** Yeah, great question. So when we think about compute processes, what we have become accustomed to over many years is a relatively linear form of computing. So where you effectively ask or request a piece of information from a computer and then you get a fairly straightforward or linear answer back. Now we think we're moving to a world of what we call parallel processing, where parts of the computer, so the CPU, or central processing unit and the GPU, graphics processing unit, actually work in combination with each other. So parallel processing means that, ultimately, in simple terms or relatively simple terms, it means that computers will interact with individuals in a far more fluid way and there'll be information flowing in different patterns, it won't just be that straightforward request and answer type model. And so we think the Nvidia CUDA architecture, which is one of their products, is really at the forefront of this AI revolution. And the move towards computers being able to process in a parallel manner. And so that's going to be a big change in the way computers operate and the way computers work. The other big change in compute processes over time, we think, is that we're going to see or need to see a lot more training go into these artificial intelligence models. Ultimately, if they're going to be really successful in integrating with peoples and businesses over time, we're going to need to be able to train these models to use data more effectively and deliver more efficient outcomes. And so training and parallel processing are two big areas or two big changes to the compute market that we see happening over time.

[00:12:01] **Rory Cunningham** Great. So we're talking here about the impact that AI is going to have on the semiconductor market, so which parts of the semiconductor industry are set to benefit from this evolution?

[00:12:12] **Kieran Moore** So the way we like to think about this is, as I said at the start, focusing on those enablers. So if we think about a world where corporates all around the world want to deploy AI in the way they interact with their customer base or their consumer, then powering those applications, we're going to need a lot more semiconductors and we're going to need a lot more high end semiconductors, i.e. the leading parts of the technology chain. And so behind all those corporates, what you're going to need is data centres. Data centres are critical to processing that compute power. And so what we will ultimately expect to see is companies like Nvidia, companies like AMD that are the semiconductor or high performance compute design companies designing the semiconductors to go into those data centres and those data centres ultimately host and run those AI applications that you and I are going to interact with on a day to day basis. What's behind those semiconductor architecture companies? The companies like Nvidia, the companies like AMD, are what we call the foundries. So the foundries are companies that actually create the semiconductors. So they're the ones that actually build them or put them together. So a good example of a company there is a company like TSMC, Taiwan Semiconductor

Manufacturing Company based in Taiwan, which is a critical part of the global technology supply chain. They actually build the semiconductors. Behind the foundries there's the tool companies or the equipment companies that need to provide the equipment that the foundries use to build and process those semiconductors. One company that we think has the potential to benefit here is a company called ASML, which is listed in the Netherlands, and they provide what's called the lithography tool, which is an important process that the foundry uses to build the semiconductor. So it starts with the tool, with ASML, the foundry uses the tool to build the semi. The semiconductor is designed by a company like Nvidia and then sold to the big data centre players like Microsoft, like Amazon, like Facebook, for example, who can host these A.I. applications that companies like McDonald's, companies like Netflix, companies like BMW and Mercedes want to deploy to interact with consumers. So that's how we think about it.

[00:14:15] **Rory Cunningham** You mentioned Taiwan. So my mind turns to geopolitical risks. Are there geopolitical risks associated with the semiconductor industry? And also, are there broad-based disruption risks for everyday workers in this industry?

[00:14:28] **Kieran Moore** Yeah. So on the disruption risk, first, what we've seen in recent weeks is that AI is clearly going to go into lots and lots of different industries, which we spoke about earlier. What we've seen already is an example of a company in the US calling out the disruption risk potentially in their industry, in the online education space. Where their business model in bringing education to consumers is potentially going to be disrupted or disintermediated by artificial intelligence applications. I would point out, Rory, that these artificial intelligence applications, or these pieces of software, that in theory can disintermediate or disrupt businesses around the world, they're only as good as the data that goes into them, and they're only as good as the training that's been provided to them over time, i.e. how they've learned to integrate data and then produce data in an effective and efficient manner. So that's the disruption point. The first point you made on the geopolitical risk, that is absolutely one to watch. So Taiwan actually is host to TSMC. So TSMC, Taiwan Semiconductor Manufacturing Company is based in Taiwan. It's a critically important company for the global technology supply chain. So what's happening in the semiconductor market? Many of the listeners might be familiar with Moore's Law. So Moore's Law effectively says that the amount of content on an integrated circuit doubles every roughly two years. And so over time, what we what we've seen is that more and more semiconductors are packed into an integrated circuit. So what we've seen in the semiconductor market over time is something we call shrink. And TSMC as the leading foundry. Remember, these are the companies that make the semis has been able to process the best ability to shrink, if you like, in relatively simple terms. And so they've been a critical part of the global technology supply chain. And yes, there is geopolitical risk, obviously, with the US and China and TSMC being sort of in the middle of that. I think one of the things we've seen to potentially alleviate some of that geopolitical risk is the US reshoring effort, where we've seen the US encourage companies like TSMC to build

manufacturing capabilities in the US, onshore in the US. And so TSMC is working towards building one of their plants in Arizona in the US to potentially alleviate or reduce some of this technology risk that the world faces.

[00:16:38] **Rory Cunningham** Understood. Now we love a stock story, in particular, I love a stock story. You've talked through a couple of examples already, but can you give us an example of a company that most excites you? In the AI space.

[00:16:50] **Kieran Moore** I think, Rory, the obvious and most exciting one that we always go to is a company called Nvidia, which many people will be familiar with, but they are a company that is effectively, so they're one of these high performance compute semiconductor design companies and they are a company that effectively sits at the forefront of the leading technology for AI. So Nvidia, over time, we think can grow its data centre revenues by selling these super fast and most advanced chips to the companies that want to deploy AI in their everyday processes. So Nvidia really sits at the forefront of that and we think it's got a great runway to grow its earnings in a significant manner over time. Recently you might have seen or people might have seen that Jensen Huang, the CEO, described AI or described the semiconductor industry or described AI as having its iPhone moment. And so it really reinforces the acceleration we're seeing in businesses like Nvidia and the companies talking about the acceleration they're seeing, through the proliferation of AI that we've seen in recent months.

[00:17:48] **Rory Cunningham** Now, you talked about the impact that AI is going to have across different industries, and we both work in the financial services industry, more specifically in the funds management part of the financial services industry. So it'd be remiss of me, while I have you here, sitting in front of me, not to ask you, how is AI going to impact the funds management business and more specifically, I suppose, how do you see it impacting your business, what you do in your daily life?

[00:18:14] **Kieran Moore** So what I do is what we do is essentially go out and scour the world for what we think are some of the best growth investment opportunities. So companies that can grow their earnings or their revenues or their cash flows from a structural tailwind in the world today. And so what we do day in, day out is we process and engage with lots of different information from sources all around the world to try and find the next opportunity to bring back to our investor base and bring back to our client base. And so being able to synthesise and process information in a more effective and efficient manner and be able to deal with information in a more timely manner probably should help us in our everyday lives. It probably should help us bring the critical parts of what we need to work out back to the forefront and then be able to make a really good decision based on that synthesised information. So that's one example of, I think, potentially how it would play out in my industry in particular or our industry.

[00:19:05] **Rory Cunningham** Kieran. Thanks so much for your time today. I'm sure all of our listeners will come away from today's discussion with a much better understanding of AI and the investment opportunities being created from this technology. If they want to read more, if they want to learn more about yourselves, any information for them where they should go?

[00:19:21] **Kieran Moore** Yeah. So we've got a lot of resources on our website. We do podcasts, we do some videos. We try and be as transparent as possible about what we do in terms of how we're thinking about the world. So there is some great resources on our website. I would encourage anyone to have a look at our Invest in the Journey podcast, there's some great content. But really there's lots and lots of information about about AI. And ultimately what we want to do is bring that back into an investable form for clients.

[00:19:45] **Rory Cunningham** Thanks, Kieran, and thank you also to our listeners. We look forward to seeing you next month on the Ideas Exchange.

[00:19:51] **CTA** Visit the ASX website asx.com.au and register for the next CEO Connect event and hear directly from CEOs of leading ASX stocks about their business vision, strategy and company's latest achievements.