



## What it does

Advanced Micro Devices (AMD) is an American semiconductor company that designs microprocessors and graphic chips used in various devices including desktops, laptops, video game consoles and servers. In recent years it has been investing in its configurable chips offering, which allows designers to create scalable, low cost, feature-rich products for a wide range of applications, including industrial solutions, military technology, and medical devices.

## Why we own it

- AMD has, since the 1980s, operated as a duopoly with Intel in the provision of Central Processing Unit (CPU) chips— notably the x86 microprocessor. It is now in a position to displace Intel's historical dominance in the market, as a result of its superior product at a lower price, combined with operational headwinds at its competitor.
- +90% of code written since 2000 runs on x86 CPUs making them integral to modern day computing.

## How it could be worth many times more

- AMD is now outcompeting on almost every leading indicator in a c.\$100bn market (this is CPUs alone), in which there is only one other participant and the industry dynamics have trended towards monopoly. Growth is therefore achievable independent of wider economic growth.
- Top line growth combined with operational leverage will cement its position as a monopolist.
- Investments in both configurable chips (FPGAs) and Graphics Processing Units (GPUs) provide further upside optionality and futureproofing, as these support more complex computing tasks such as AI.
- AMD stand out as having all components and therefore the potential to bundle its technology to new and existing customers.

## Where we might be wrong

- Geopolitics negatively impacts AMD's global supply agreements, inhibiting their growth prospects and competitive advantage.
- Market shrinks and AMD's technology is uprooted for a new computing paradigm.

## Short 10 questions

### Can sales double in the next five years? 1

Yes. By continuing to capture market share from Intel, due to their superior technology.

### Ten years and beyond? 2

AMD becomes a leader in the provision of configurable chips. A market that could grow exponentially if autonomous factories, drone-cultivated farms, and precision robotics (to name a few) prevail.

### Competitive advantage? 3

Key distinction from Intel is not owning fabrication plants, which reduces unit costs, and frees up capital for technological innovation.

### Is the business culture different? 4

Engineering-driven culture (80% of headcount are engineers). CEO Dr Lisa Su has transformed the company since taking the reins in 2014.

### Customers like you? Contribute to society? 5

Higher performance, lower power consumption, and competitive pricing. Its technology underpins the infrastructure of the future.

### Are returns worthwhile? 6

Yes. Revenue growth and mix-shift toward higher margin products has and will continue to improve operating leverage.

### Will they rise or fall? 7

Strong free cash flow generation will allow for continued investment in innovation.

### How is capital allocated? 8

R&D is complemented by M&A to expand their product and intellectual property portfolio.

### Could it be worth 5x as much? 9

AMD becomes the monopolist in the provision of CPUs and are uniquely positioned to offer "chip bundling."

### What doesn't the market understand? 10

Underestimates the extent of market share gains from Intel and optionality that comes with configurable chips, particularly if we see a slowing of Moore's law.

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