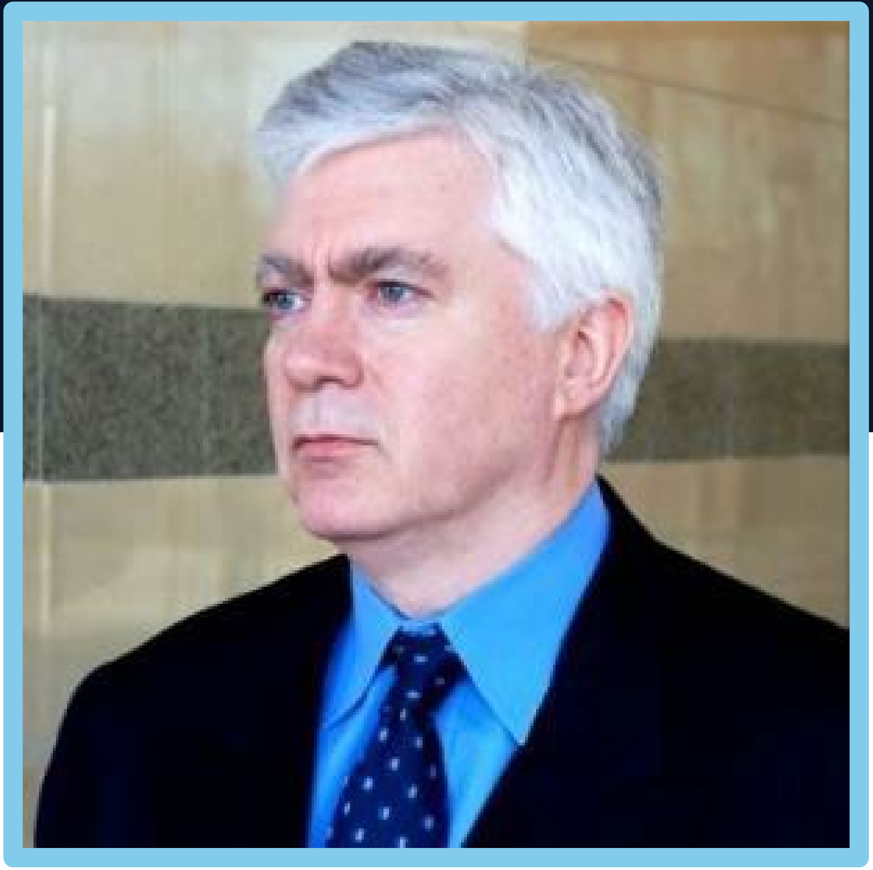
CHANNEL EXECUTIVE COUNCIL

In Person

MARCH 5-7, 2024

Economic Context – The latest situation in the US and China. Why you should and need to care.



Rod Baptie

CEO
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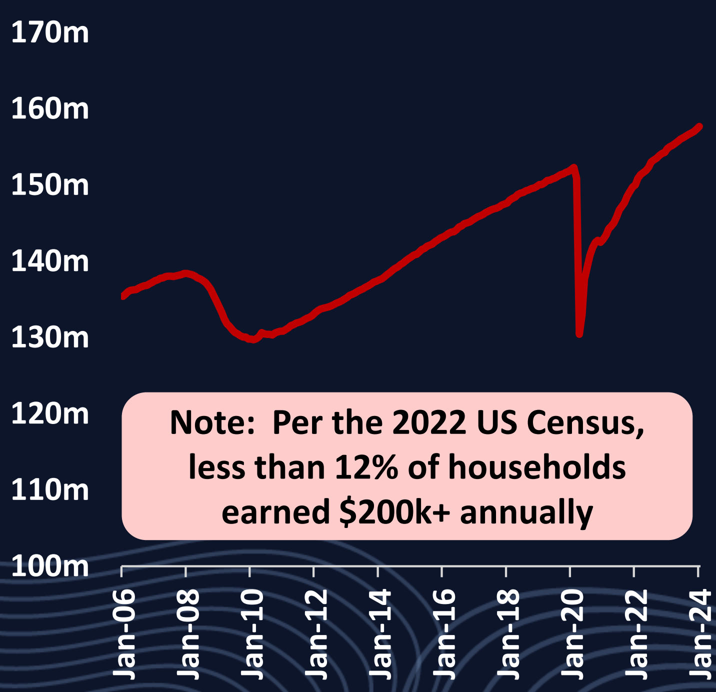
The US economy is strong

US employment is at record highs, which is helping drive strong GDP growth

This high employment is sustaining wage growth, and hence inflation

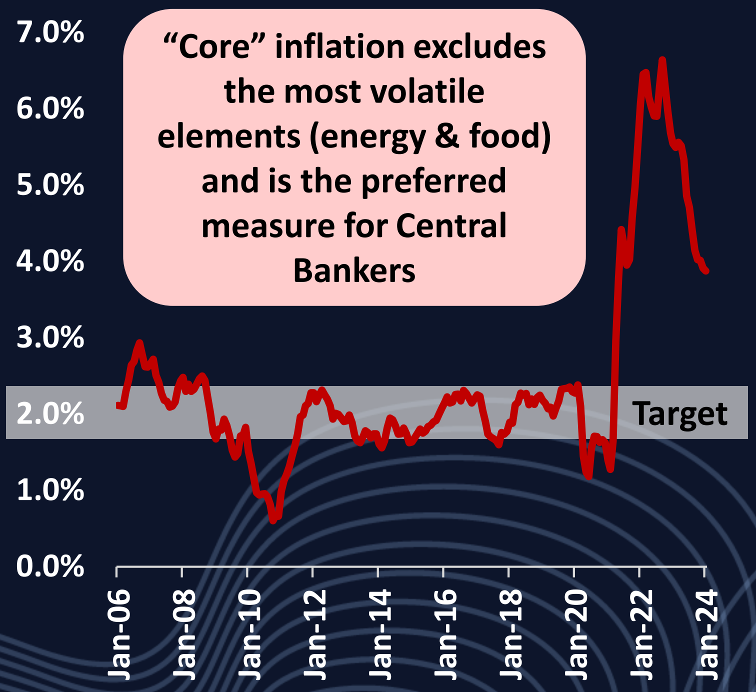
Which in turn is requiring restrictive FED monetary policy (high interest rates)

US Non-Farm Employment*, *millions*



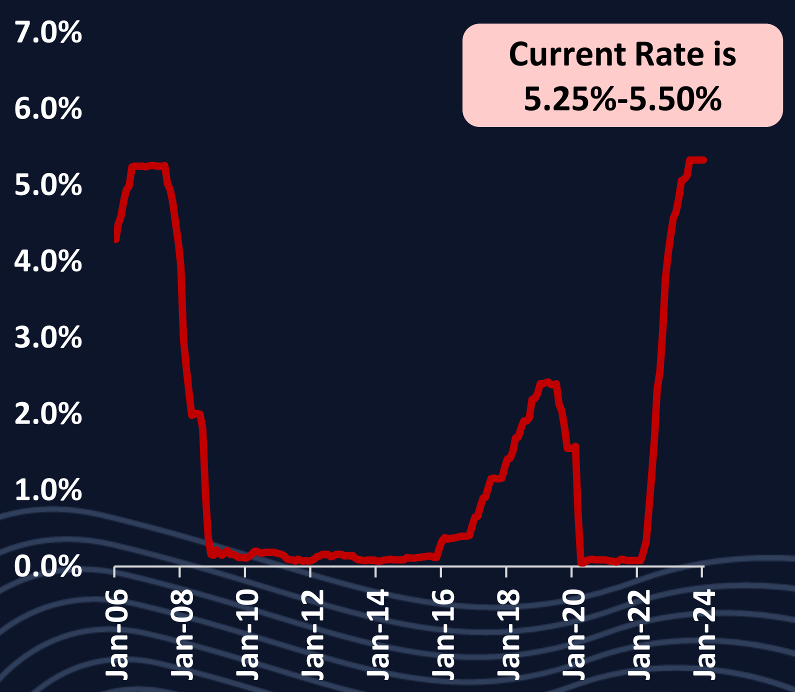
Source: FRED (St. Louis Fed)
*Seasonally adjusted monthly data

US Core Inflation*, *millions*



Source: FRED (St. Louis Fed)
*Consumer Price Index less Food & Energy

US Interest Rates*, *millions*



Source: FRED (St. Louis Fed)
*Seasonally adjusted monthly data

What next for the US economy?

US Non-Farm Employment by Sector

millions

	Jan-24*	
	Number	%
Total	158m	100%
Trade, Transportation & Utilities	29m	18%
Private Education & Health Services	26m	16%
Government	23m	15%
Professional & Business Services	23m	15%
Leisure & Hospitality	17m	11%
Other Goods Producing	5m	3%
Financial Activities	9m	6%
Construction	8m	5%
Other Services (inc. Repair, Religious)	6m	4%
Information (inc. Tech & Telcos)	3m	2%

Source: US Bureau of Labor Statistics
*Seasonally adjusted monthly data

- For interest rates to fall significantly, an economic or financial shock is normally required (e.g., 2007 Financial Crisis)
- In 2024 it is unclear where this trigger will come from:
  - Financial sector is well capitalized
  - Corporate Real Estate is struggling, but it is small (c.6% of total US property value) and Residential Real Estate prices are remaining strong
  - Household spending supported by high employment & COVID savings

US Economic Summary

- The strength of US growth has surprised most economists & commentators
- Growth is driven by record employment – particularly within lower wage industries
- High employment supports wage growth, which is leading to above-target inflation (most notably for service industries)
- The FED is therefore maintaining interest rates at higher levels
- There are a few areas of weakness (e.g., commercial property), but at present none look significant enough to materially alter this situation
- Should interest rates remain higher for longer this will put pressure on firms and households with high debt or poor profitability / cashflow

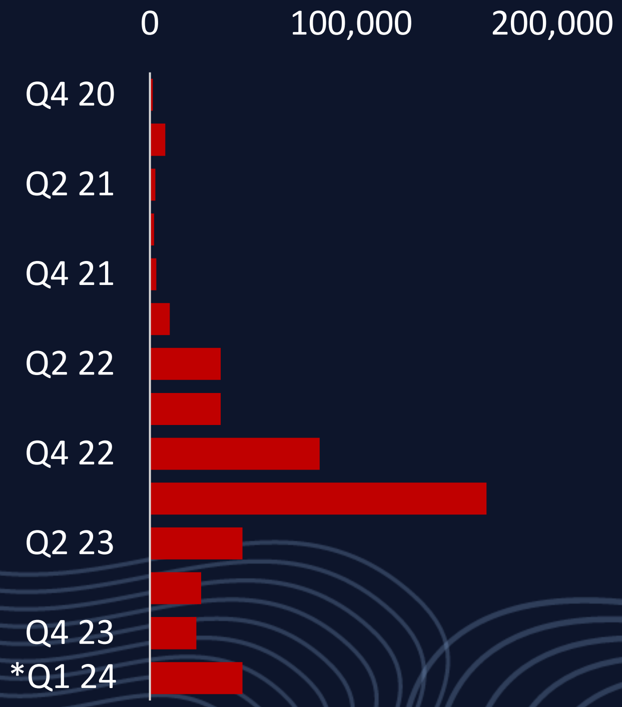
Things are harder for many tech firms

Tech layoffs, which were rare prior to H2 2022, but have become more regular since

Tech revenue growth has slowed closer to overall market, but cost control has supported growth in earnings

For smaller, privately held, companies ,that are often loss-making, things are harder still

Tech Layoffs, *thousands*



Source: layoffs.fyi
*Q1 2024 up to 28th February 2024

Q4 Revenue & Earnings, *YoY Growth %*

	Q4 2023 - YoY Growth	
% YoY Change	**Revenue**	**Earnings**
S&P 500	3.1%	4.9%
Tech Sector	6.4%	21.9%
"Magnificent 7"*	14.5%	48.7%

* Microsoft, Apple, Amazon, Tesla, Alphabet NVIDIA, Meta

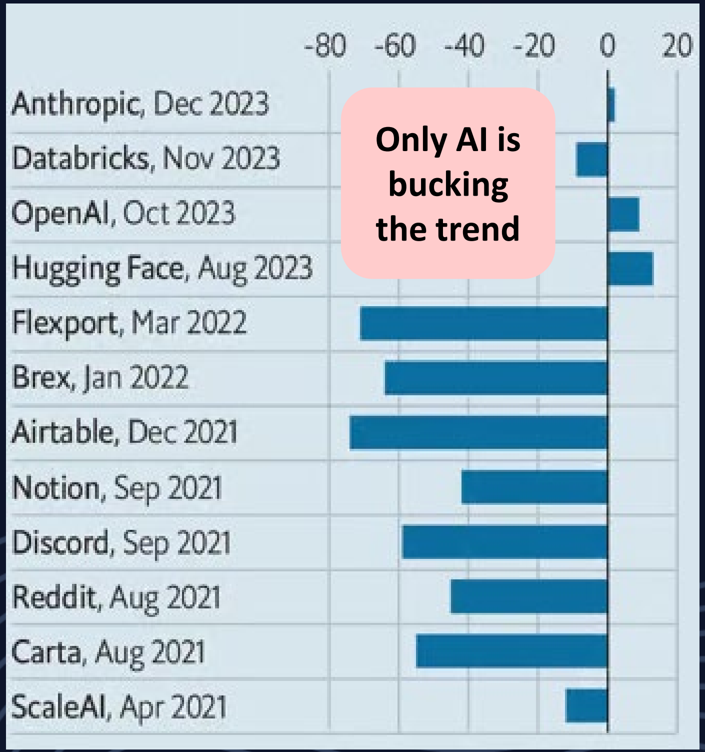
This has impacted career preferences. According to Indeed & Forrester "Best Jobs" polling:

- **2023: 11 of "best" 25 jobs were in Tech**
- **2024: just 3 of "best" 25 jobs were in Tech**

Note: Only careers earning $75k+ were polled

Source: Zacks Investment Research

% Change between latest valuation (Feb 24 or latest) and last fundraising



Source: Caplight, Economist

Cost control in Software firms

<u>Rough Cost Structure of a Software Firm</u>

Staff Costs (Salaries)	50%
Staff Costs (Social Security, Stock, Pension, etc.)	20%
Staff Expenses	5%
Marketing	10%
Other Companies (licences, prof services)	13%
Buildings / Property	2%

- Salaries and associated staff costs comprise the majority of costs
- Cost control options:
  - Short-Term: Travel and expense limits
  - Short to Medium-Term: Hiring constraints and limits
  - Medium Term: Restructuring plans (come with up-front cost)

- Varies by firm. Short to medium-term savings, but with longer term brand impact

- Limited short-term options (e.g., consultancy)
- Option to extend payment cycle to conserve cash

Source: SAP & Sage Annual Accounts, Gartner

Cost control in Hardware & Telco firms

Rough Cost Structure of Hardware Firm

External Purchases (Raw Materials)	32%
External Purchases (Services)	20%
Cost of Assets*	12%
Staff Costs	25%
Other	11%

Rough Cost Structure of Telco Firm

External Purchases (Raw Materials)	25%
External Purchases (Services)	24%
Cost of Assets*	24%
Staff Costs	21%
Other	6%

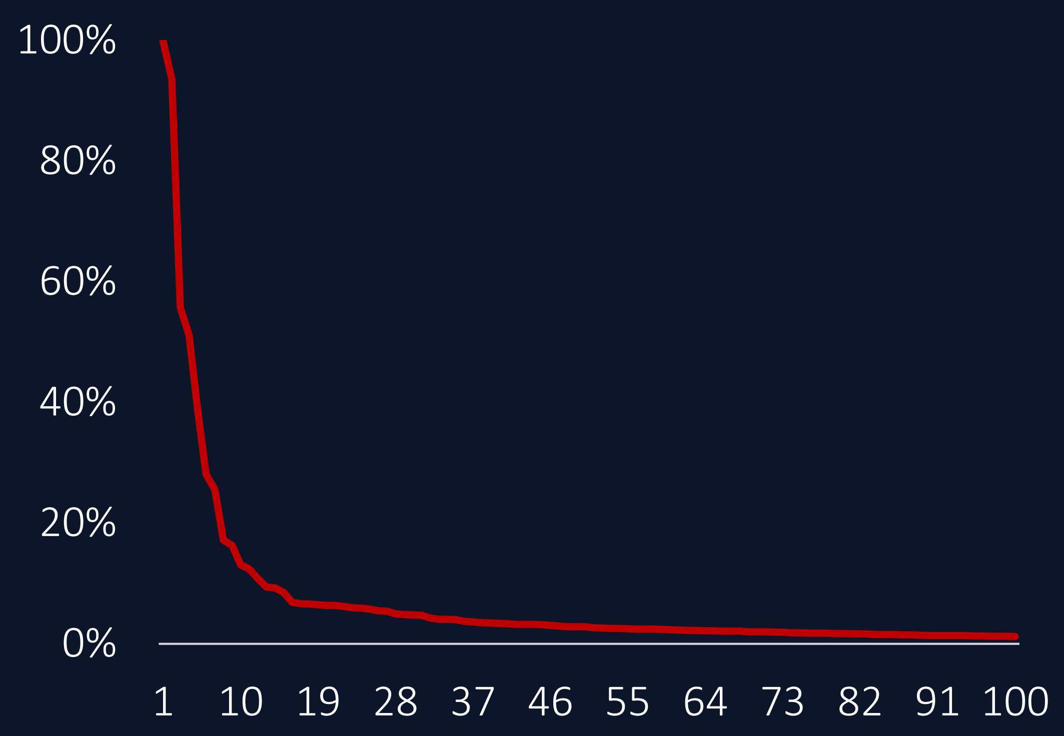
- Varies in line with revenue
- Diverse range of outsourced costs (e.g., utilities, legal fees)
- Driven by accounting policy with limited ability to alter or control
- Far lower proportion of costs than software firms (c.75% vs. 25% or less)

Source: Samsung, Infineon, Deutsche Telkom, Orange Annual Reports
Note: *Cost of assets – e.g., a factory or a telcoms tower – is called depreciation & amortization in company accounts

Size matters for firms (power law)

<u>Top 100 Publicly Listed Tech & Telco Firms (Dec 23)</u>

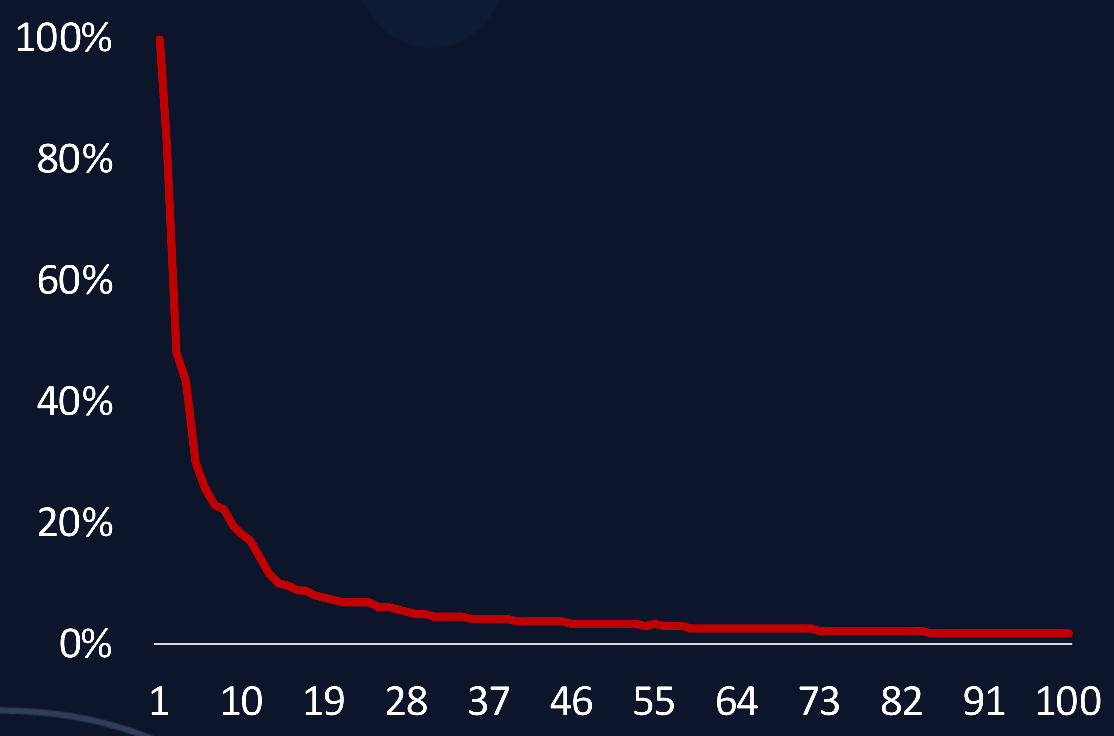
Market Capitalization (Microsoft = 100%)



Microsoft (#1) had the same Market Capitalization as numbers 48 to 100 combined.

<u>CRN Top 100 UK VARs 2023</u>

Gross Invoiced Income (Softcat = 100%)



Softcat (#1) had the same Gross Invoiced Income as numbers 55 to 100 combined.

Source: companiesmarketcap.com; CRN UK

China's economic problems are mounting

- Over the past few years China's economic problems have been mounting:
  a) <u>**Demography**</u>: The population, whilst 4 times bigger than the US, has been falling since 2022. The working age population has been falling since 2015
  b) <u>**Deflation**</u>: China is currently suffering from deflation (YoY fall of 0.8% in Jan 2024)
  c) <u>**Debt**</u>: A property crisis is still unfolding – house prices are falling (down c.1% month on month in Jan), whilst total value of property sales was 7% lower in 23 vs. 22
  d) <u>**Stocks**</u>: Stock markets are struggling – since their peak in 2021 values are down 35% compared to a 15% increase in the US over the same period
- Consumer confidence is therefore low, hindering the desired switch from production to consumption driving the economy:
  - Consumption accounts for 53% of Chinese GDP vs. 83% for USA
  - The share is unchanged over the past 20 years (it stood at 55% in 2004)

… but it is a serious rival to the US

Chinese investment, led by the Belt & Road initiative, is challenging US influence

If Chinese consumption doesn't increase, China will look to increase exports for sales of surplus production (just ask Tesla)

% Respondents saying investment from US and China is beneficial

	China	US	Alignment
Israel	34%	92%	
Poland	36%	72%	
India	42%	71%	
Brazil	56%	66%	
Mexico	61%	70%	
Indonesia	58%	61%	
Australia	64%	65%	
Kenya	73%	73%	Neutral
Argentina	34%	33%	
South Africa	69%	65%	
Nigeria	82%	74%	
Hungary	55%	43%	

Source: Pew Research Centre (Nov 2023), World Bank, Economist, Reuters

- China accounts for 18% of GDP (US 25%), but only 13% of global consumption (US 29%). Surplus production is exported
- China's technical expertise has grown – for instance it now leads the world in development of batteries, fueling a growing role (and likely future dominance) of the Electric Vehicle (EV) market
- China is the world's largest new car market (22m cars sold in 2022 vs. 13m in America), and EV adoption (28% share of Q3 '23 sales vs. 10% in America)

Q4 2023 Production of Pure Battery Powered Cars

BYD: **526,000**

Tesla: **484,000**

"If there are no trade barriers established, Chinese car companies will pretty much demolish most other car companies in the world… They're extremely good" **Elon Musk, Jan 2024**

What else should tech look out for?

- China's expertise extends beyond batteries and cars. For instance, Huawei received the Mobile World Congress 2023 award for "Best Mobile Network Infrastructure" recognizing its leading development of 5G technology

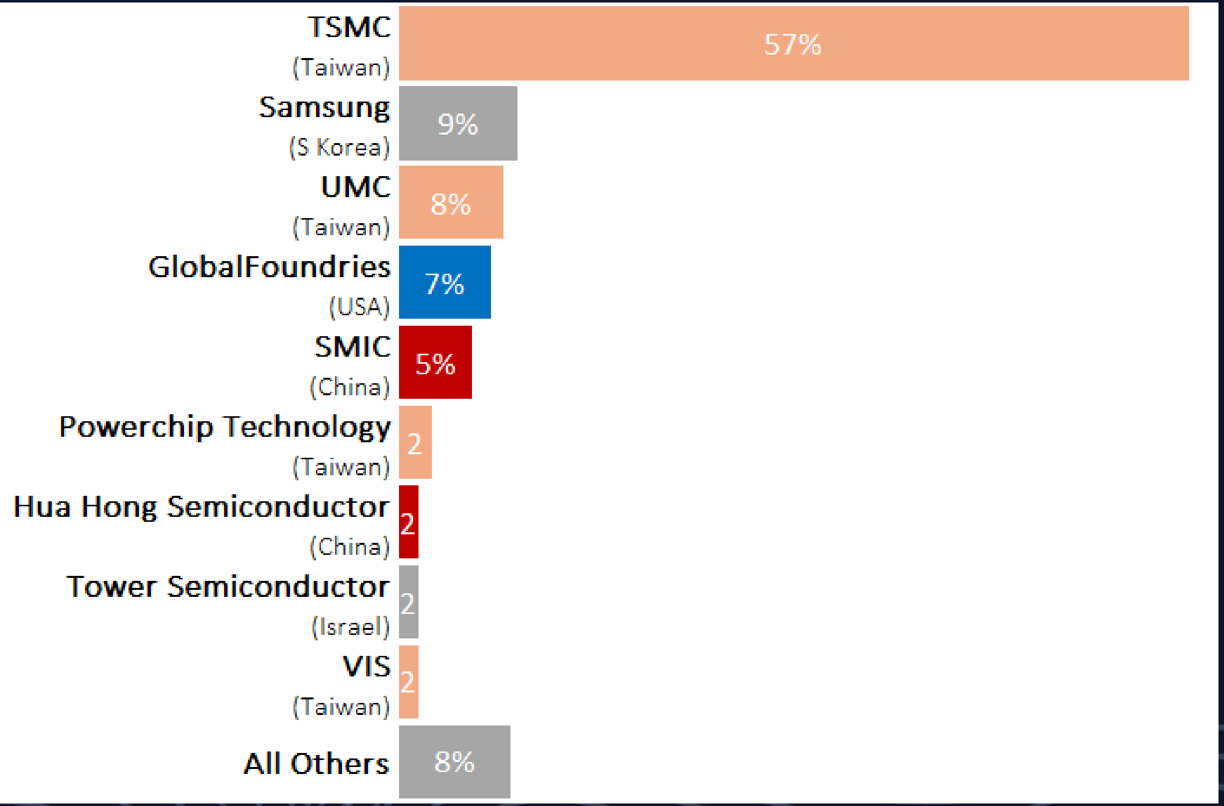
Advantage (China)	Advantage (US)
# software engineers (c.7m vs. 4.4m in US) at lower cost	Market size inc. traditional allies
# research papers – a 2023 Australian study* found China led in 37 of 44 high tech fields	Trade policy & access to technology
Access to manufacturing (esp. low margin)	Breadth of existing knowledge & companies
	Access to funding inc. capital markets
	Stability of regulation (& no censorship)

Source: Grid Dynamics, *Australian Strategic Policy Institute

The greatest risk relates to Taiwan

- Taiwan, an island off China's South-East coast, with a population of 24 million, was ruled by China until 1895 when it was conquered by Japan
- After the end of WWII it was caught up in the Chinese Civil War. As the Communists took power of mainland China in 1949, the defeated nationalists fled to Taiwan
- Taiwan's status since has been contentious – viewed as part of China by China, but largely operating as an independent country (currency, passports, etc.)
- The founding of Taiwan Semiconductor Manufacturing Company (TSMC) by Morris Chang in 1987 transformed the economy of Taiwan
- Taiwanese companies currently manufacture nearly 70% of the world's semiconductors and 90%+ of the world's most advanced chips

Market Share of Semiconductor Foundries *2021*



Source: Wikipedia, Council on Foreign Relations, Reuters

The greatest risk relates to Taiwan

"The reunification of the motherland is a historical inevitability"
Xi Jinping, January 2024

Source: Reuters, Kal (Economist)

China Economic Summary

- China is a growing counterweight to US global dominance
- However, its economy is struggling with declining population, deflation, poor stock performance and a slow-burning property crisis
- Chinese consumer confidence is low, meaning that domestic demand will fail to keep pace with China's production
- China will look to export surplus production, which is now extending into higher tech products such as Electric Vehicles
- Most US tech sectors are insulated from immediate Chinese competition, but continued research & development poses a longer-term threat
- The risk of war in Taiwan, which would be catastrophic for the Tech industry, cannot be discounted