



Herald
LEADING-EDGE INVESTING

Herald Investment Trust plc

AGM Presentation 18th April 2023

Please note that past performance is not a reliable indicator of future returns. You should determine for yourself what weight, if any, to place on such past performance. Markets and currency movements may cause the value of shares, and the income from them, to fall as well as rise, and you may get back less than you invested when you decide to sell your shares.

Shareholders should not treat this presentation as advice relating to legal, taxation, investment or any other matters and are recommended to consult their own professional advisers concerning the acquisition, holding or disposal of shares in the Company.

This presentation has been compiled to provide existing shareholders with an update at the AGM. It is not a financial promotion and is not intended for onward distribution.

The figures in this presentation are not audited.

Herald Investment Management Limited is authorised and regulated by the Financial Conduct Authority.

Data source unless otherwise stated:

Herald Investment Management Limited 31/12/2022



Innovative technologies continue to open up new markets, presenting opportunities for small entrepreneurial companies to exploit. Investment prospects continue to be exciting in the long term.

Herald Investment Trust



Herald Investment Trust (HIT) launched in 1994



Global small cap TMT
Median market cap c. £185m



Significant provider of primary capital to emerging business, £645m since inception



Long term performance - NAV up 22x



Intellectual property important profit driver in knowledge based world

2022 Highlights

NAV

-22.8%

UK IRR

-25.6%

N AMERICA IRR

-19.5%

Return over 2 years from start of 2021 -8.2%, but a derating of over 42.0% in the P/E ratio of profitable companies.

2022 HIGHLIGHTS:

PLACINGS

£21.4m

PLACINGS

33

IPOS

1

TAKEOVERS*

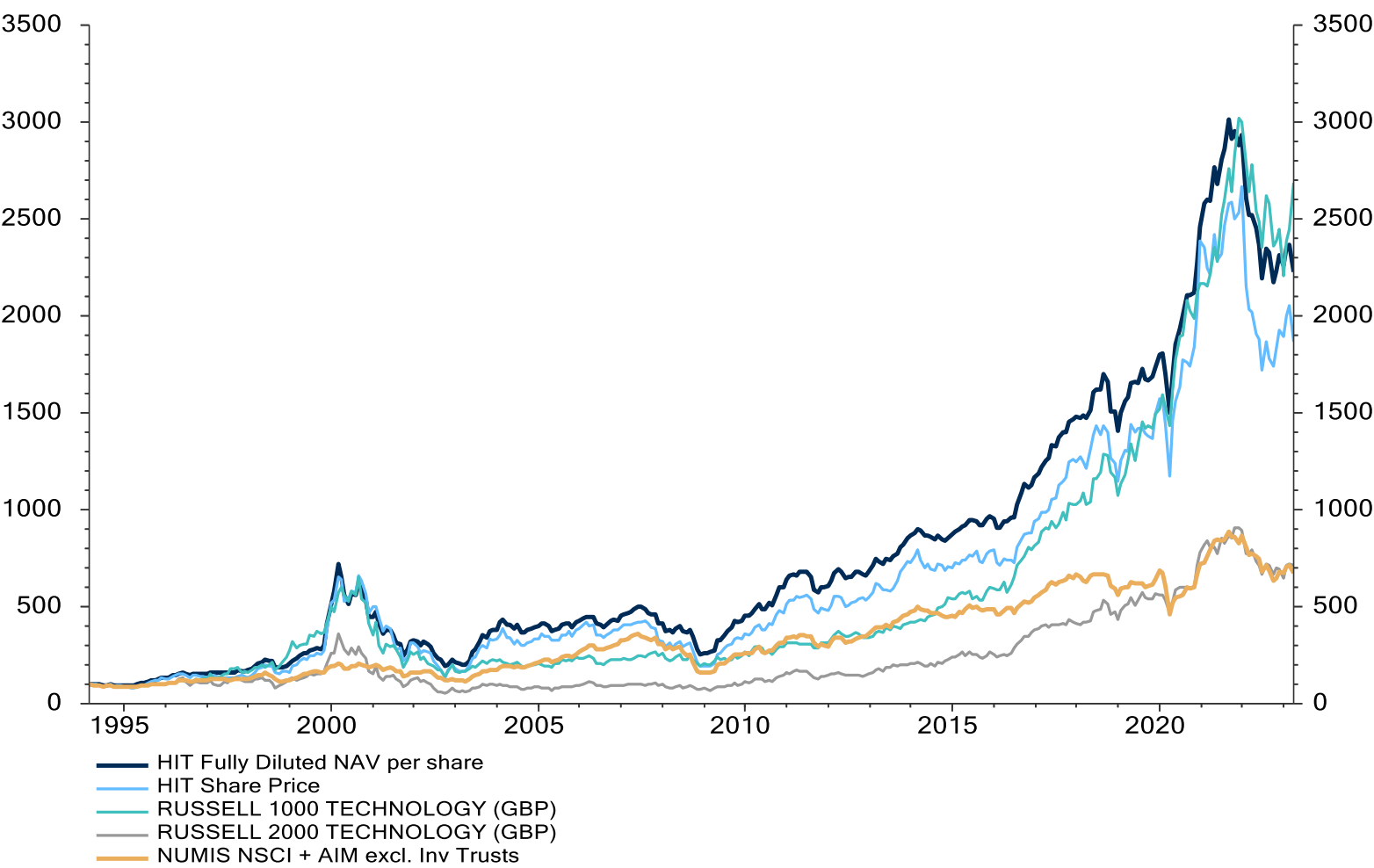
£95.7m

Cash received - £125m

* 2022 announced takeovers. Cash proceeds from takeovers received in 2022 of £125m (from takeovers announced FY21 and FY22). Cash of £21m due in from outstanding takeovers.

HIT performance since inception

Total return rebased to 100 at Feb-1994



Source: Refinitiv

22x

NAV TOTAL
RETURN SINCE
INCEPTION

11.3%

NAV
ANNUALISED
RETURN SINCE
INCEPTION

Performance figures – to 31st March 2023

Reporting Period: 31/03/2023

All figures stated as % returns

	TWR 2023 Q1	TWR 2022	31/12/2007- 31/03/2023 TWR	TWR	Inception to date * TWR Annualised	IRR Annualised
Asia*	4.1	-27.0	425.9	1,200.2	10.0	7.5
Europe Middle East and Africa	0.5	-26.9	835.7	5,374.1	14.7	12.0
North America*	6.0	-19.5	845.0	1,113.7	9.7	10.1
UK	-7.0	-25.6	420.3	2,473.5	11.8	17.1
Totals for Herald Investment Trust plc	-1.4	-22.8	423.8	2,158.7		11.3
Relevant Indices						
Numis ex INV Trust plus AIM	-0.6	-21.9	119.6	559.7		6.7
Russell 2000® Technology since 01/07/1996	11.2	-28.4	633.2	526.6		7.1

*Asia and North America from 01/07/1996 when the Company globalised. TWR – Time Weighted Return IRR – Internal Rate of Return



Long term outperformance

2022 Highlights and commentary

NAV

-22.8%

Numis ex INV Trust plus AIM

-21.9%

Russell 2000® Technology

-28.4%

- Concerning macro – interest rate rises, war, inflation, government deficits etc.
- Consumer budgets under pressure, business budgets being scrutinised
- Media concerns over advertising budgets
- PC and smartphone weakness – memory and leading edge semiconductor correction
- IT security a priority, albeit with scrutiny over spend (exposure limited by takeovers)
- 5G infrastructure market emerging
- Normalisation of supply chains – from shortages to reducing inventory exposure
- Slowing economy, and significant tech layoffs (after many years of strong hiring)
- After year of ‘go go’ investments and P&L losses, making profits is back in fashion
- IPOs down & funding for late-stage VC and PE funding more difficult
- Net cash position - hopeful of attractive funding opportunities in a distressed market

HIT Bloomberg estimate P/E by region from 2020 accounts

PORTFOLIO P/E BY REGION (AS AT 31 DECEMBER)

	2013	2014	2015	2016	2017	2018	2019	2020
UK	16.9	15.8	16.4	15.9	19.6	15.9	21.7	26.2
EMEA	14.9	13.4	16.3	17.5	21.4	17.7	25.0	34.9
Asia	9.6	12.3	13.2	13.1	14.8	16.3	20.7	25.0
North America	20.9	19.2	20.1	20.7	27.8	24.0	27.9	45.0
Total fund	16.8	16.1	16.9	16.7	20.7	17.7	23.2	30.7

RERATING BY REGION

	1yr rerating	2yr rerating	3yr rerating	7yr rerating
UK	20.7%	64.8%	33.7%	55.0%
EMEA	39.6%	97.2%	63.1%	134.2%
Asia	20.8%	53.4%	68.9%	160.4%
North America	61.3%	87.5%	61.9%	115.3%
Total fund	32.3%	73.4%	48.3%	82.7%

Source: Bloomberg. Analyst earnings estimates, where available, are aggregated using the Bloomberg weighted harmonic average calculation. This excludes loss-making companies from the p/e calculation. A weighted harmonic average will normally be lower than a geometric or arithmetic average. By way of comparison the 2020 Total Fund weighted average arithmetic p/e (120.5x) or median p/e (34.75x). The 2020 index method p/e (including loss making companies) is 73x.

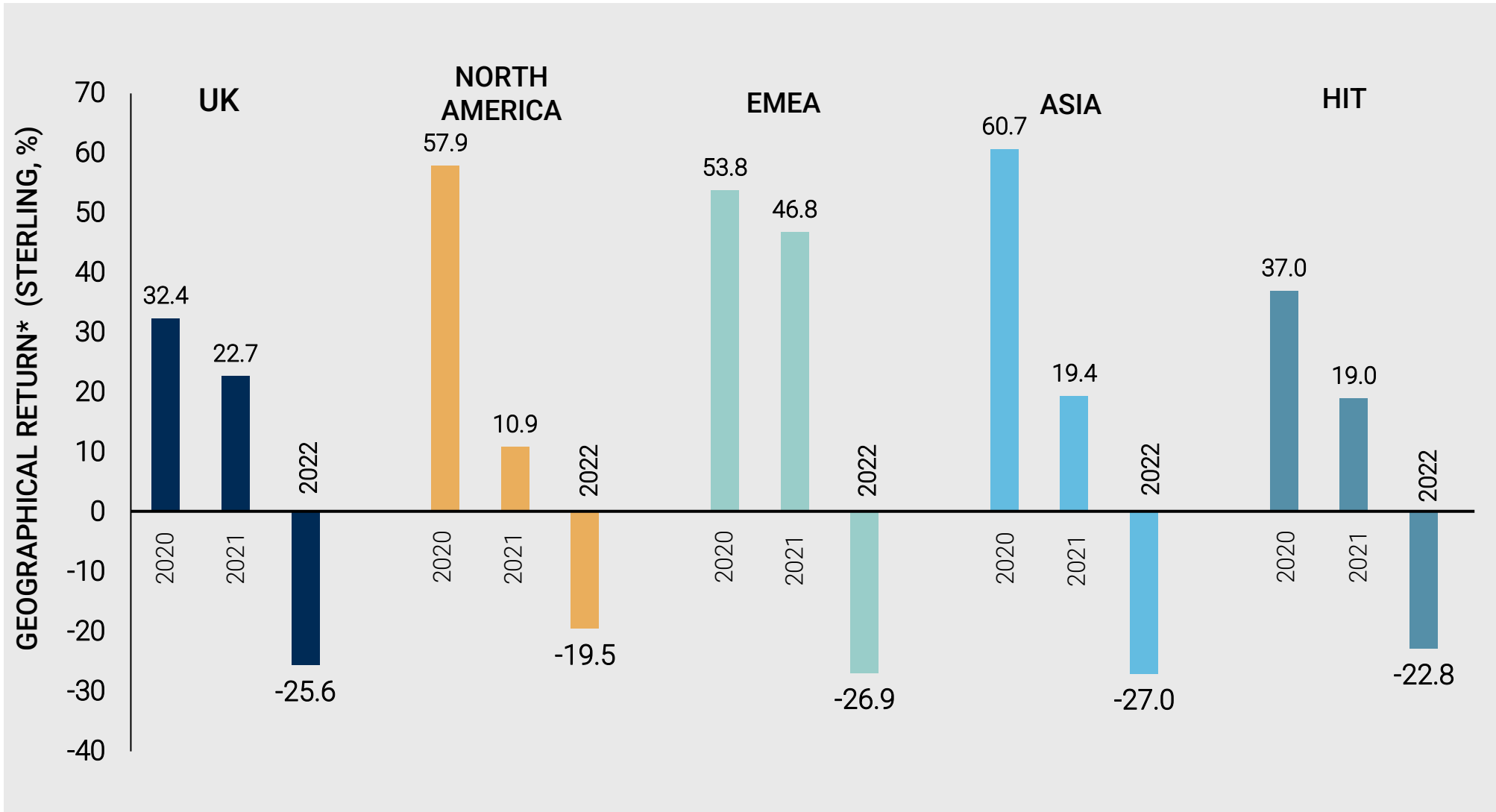
HIT Bloomberg estimate P/E by region & derating

Portfolio p/e by region	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 23
UK	16.9	15.8	16.4	15.9	19.6	15.9	21.7	26.2	23.8	16.7	16.4
EMEA	14.9	13.4	16.3	17.5	21.4	17.7	25.0	34.9	33.3	24.1	25.4
Asia	9.6	12.3	13.2	13.1	14.8	16.3	20.7	25.0	23.0	16.9	19.6
North America	20.9	19.2	20.1	20.7	27.8	24.0	27.9	45.0	29.4	17.9	20.6
Total fund	16.8	16.1	16.9	16.7	20.7	17.7	23.2	30.7	25.9	17.8	18.7

HIT p/e rerating & NAV return since:	Dec-21	Dec-20	Dec-19	Dec-17	Dec-15	Dec-13
UK	-31.1%	-37.4%	-24.4%	-16.3%	0.0%	-3.0%
EMEA	-23.7%	-27.2%	1.6%	18.7%	55.8%	70.5%
Asia	-14.8%	-21.6%	-5.3%	32.4%	48.5%	104.2%
North America	-29.9%	-54.2%	-26.2%	-25.9%	2.5%	-1.4%
Total fund rerating	-27.8%	-39.1%	-19.4%	-9.7%	10.7%	11.3%
NAV return	-23.9%	-9.5%	24.0%	50.5%	134.6%	157.7%

* Bloomberg P/E Data: Analyst earnings estimates, where available, aggregated using the Bloomberg weighted harmonic average calculation. This excludes loss-making companies from p/e calculation. A weighted harmonic average will normally be lower than geometric or arithmetic average. By way of comparison as at Mar 31st 2023, total Company had a weighted average arithmetic p/e of 45.0x and median p/e of 21.5x.

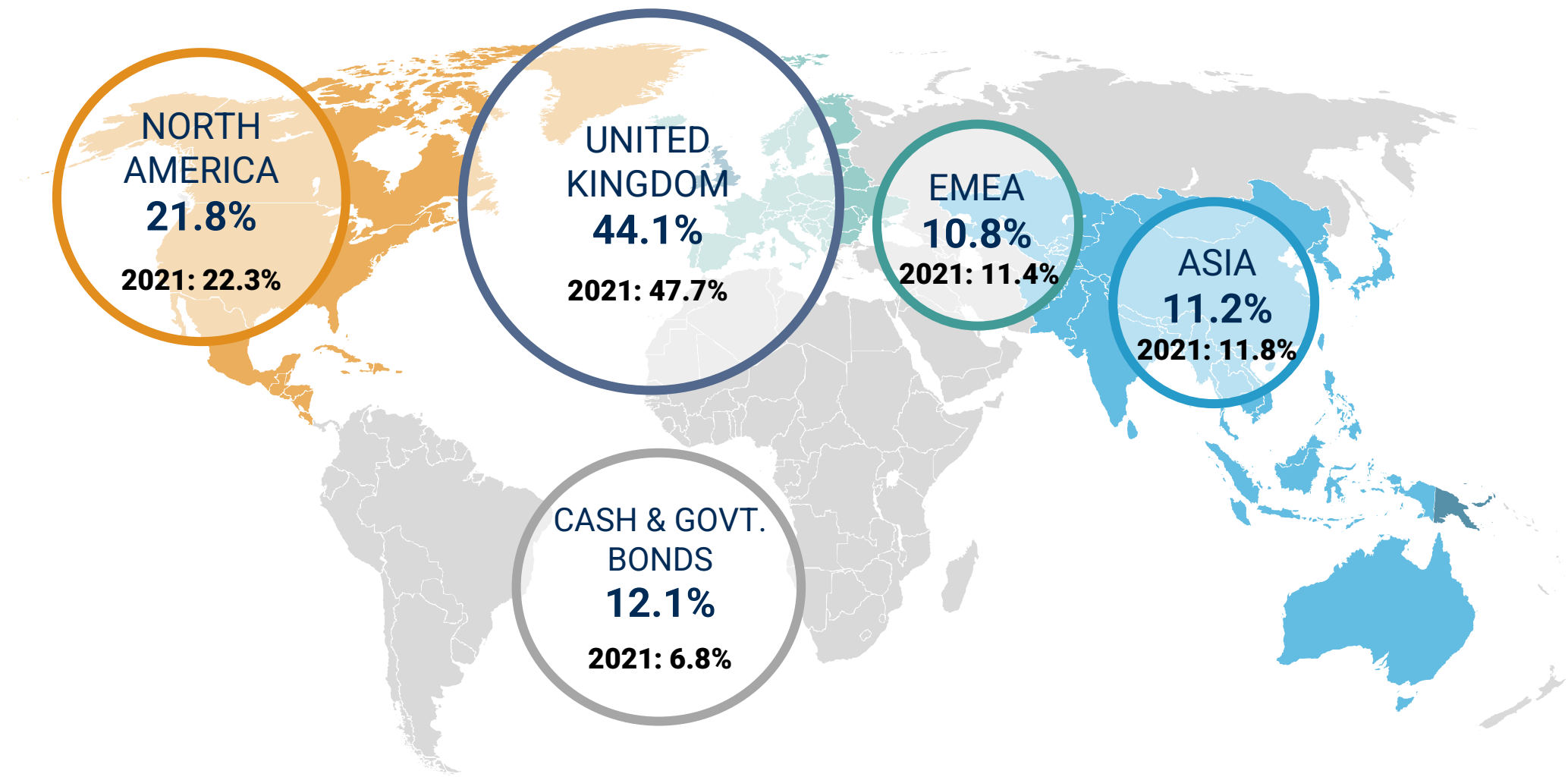
HIT Geographical returns – 2020 to 2022



* TWR. Costs including those of borrowing accounted for at Company level

Geographical weightings

GEOGRAPHICAL SPREAD OF INVESTMENTS AS AT 31 DEC 2022*



*Comparative year figures to 31/12/2021

Source: Herald Investment Management Limited 31/12/2022

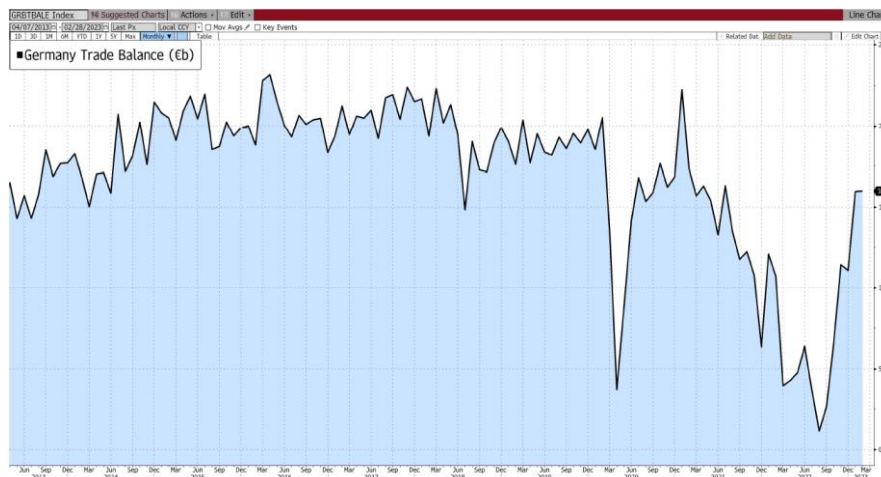
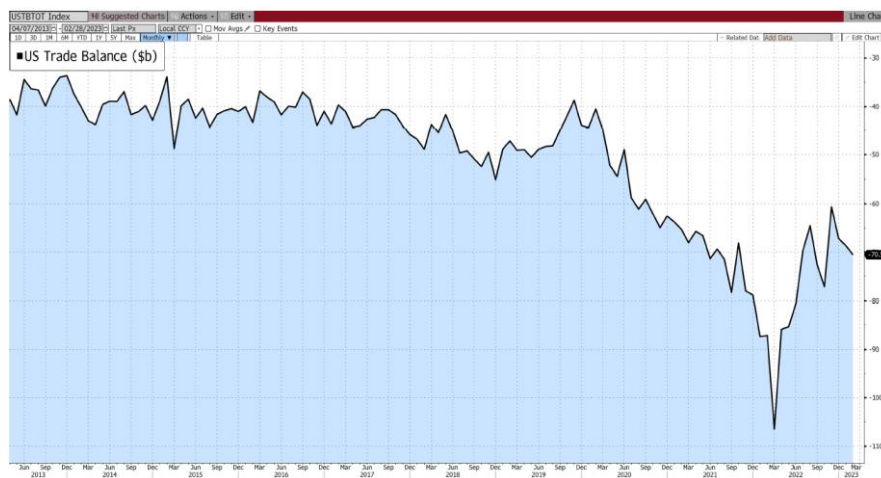
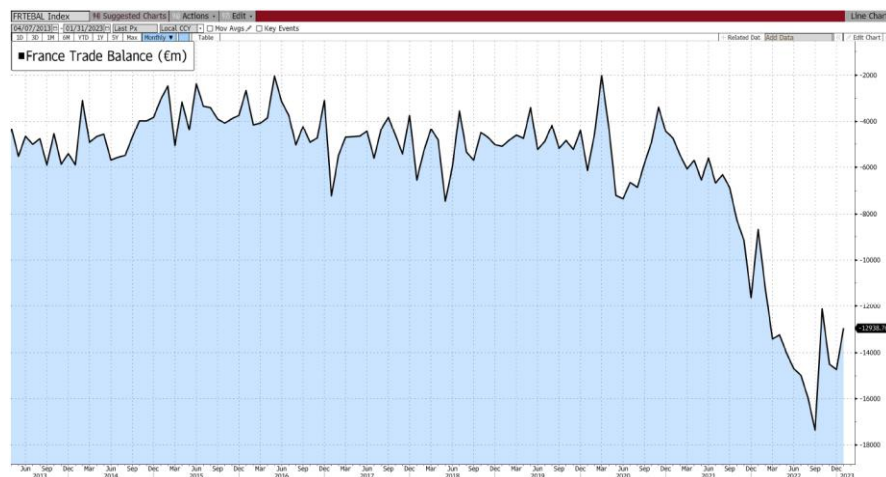
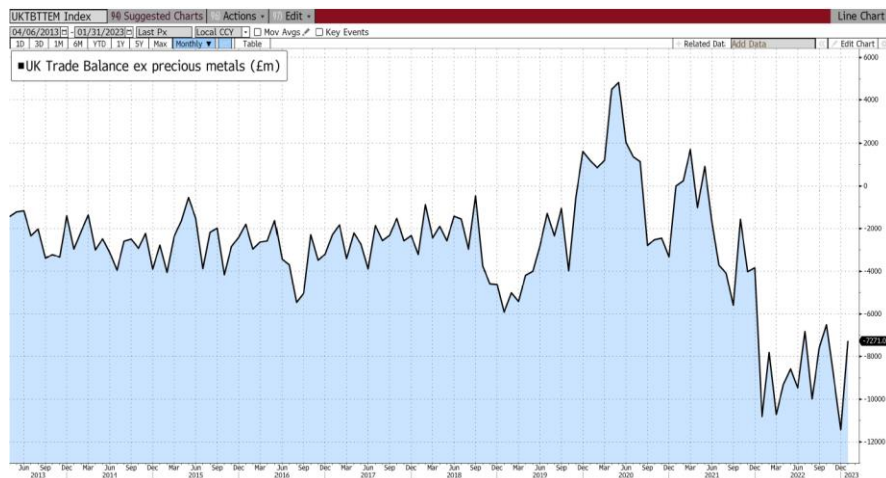
The background of the slide is a dark blue gradient. It features a complex, abstract pattern of glowing green and yellow dots and lines, resembling a digital network or data flow. Binary code (0s and 1s) is subtly visible throughout the background, adding to the technological theme.

The landscape has changed

Governments indebted, including to their own central banks, full employment limits capacity for GDP growth...

	Debt / GDP		Central Bank Assets / GDP		Unemployment rate	
	Dec 19	Dec 22	Dec 19	Dec 22	Dec 19	Dec 22
Eurozone	85%	93%	39%	62%	7.4%	6.6%
France	97%	112%	N/A	N/A	8.1%	7.2%
Germany	60%	66%	N/A	N/A	5.0%	5.5%
Italy	134%	145%	N/A	N/A	9.8%	7.8%
Japan	236%	264%	103%	125%	2.2%	2.4%
Canada	87%	102%	7%	26%	5.6%	5.0%
USA	107%	120%	19%	33%	3.5%	3.5%
China	57%	77%	38%	33%	5.2%	5.5%
UK	85%	97%	22%	33%	3.8%	3.7%

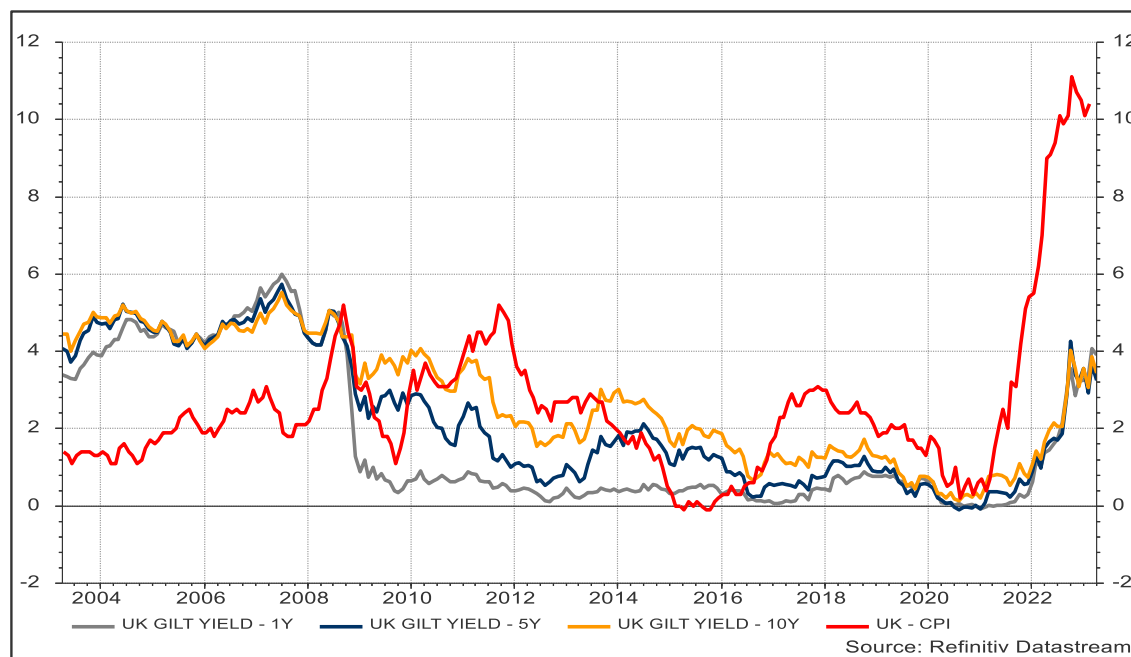
Energy shock from Ukraine war weighs on trade balances...



UK trade balance comparatively strong.

Investing in an inflationary environment

- Pre Global Financial Crisis GILT yield +2% real return. Today real return c. -7%:



- Certain technology companies have the ability to pass through higher prices



In a world of inflation equities relatively attractive, technology and IP support pricing power

Covid was a tailwind for the tech sector in general, however led to:

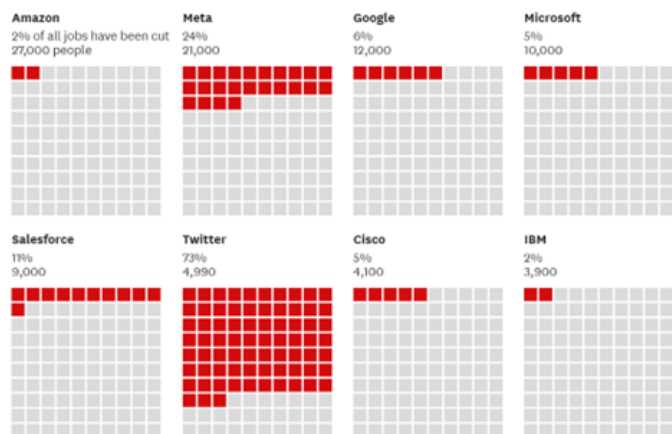
- **Work from home.** Initially effective, but ongoing challenges to get staff back to the office. California Bay Area particularly damaged.
- **Technology workforce bubble,** particularly in California, caused excessive share-based payments and salary demands.
- **Hardware shortages,** particularly semiconductors, leading to bubble margins for some manufacturers, followed by destocking.
- **Global supply chain vulnerabilities** underlining the reliance on China.
- **Speculative investment** in high risk assets funded by PE, venture, SPACs, debt (at historically low rates), and IPOs at high valuations.



Covid magnified speculative environment

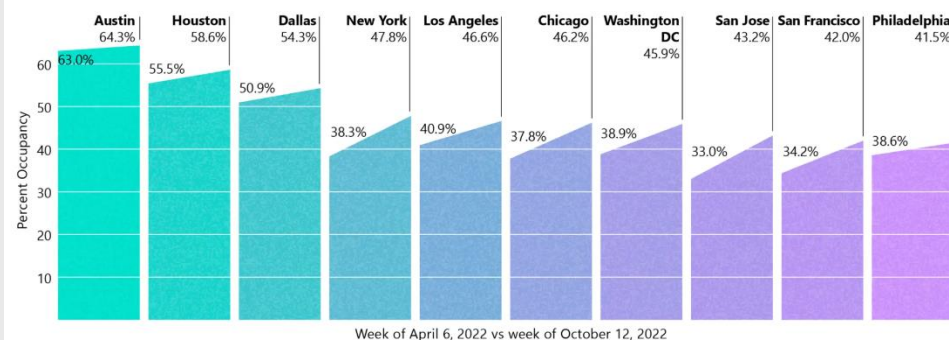
Northern California bubble burst

Bay Area tech companies with mass layoffs



Austin Goes to Work

Austin has the highest office occupancy rate of any major city; San Francisco has one of the lowest. Shown below are office occupancy in percentages in April 2022 and October 2022.



Trouble for Landlords

Office vacancies are worse than in past San Francisco downturns



Source: CBRE Group Inc.
Note: Bars are first quarter of each year.

Bloomberg



Supply issues

The average wait time for a semiconductor chip was:

27 weeks

in January 2023

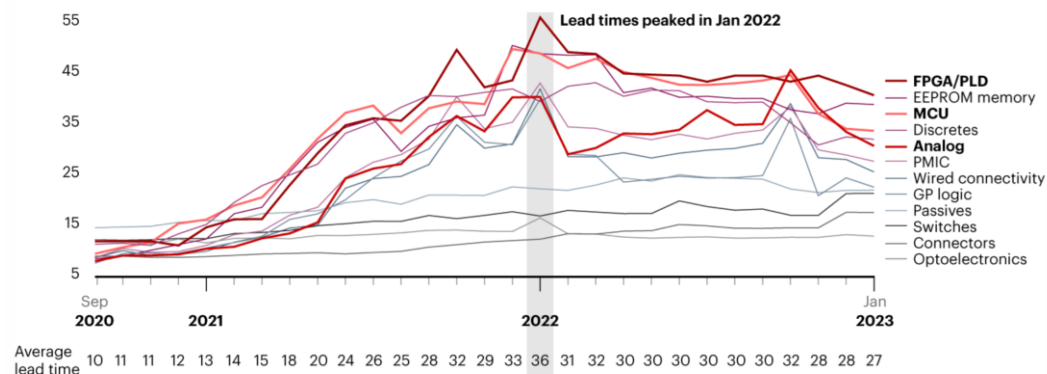
-----up from-----

10 weeks

in September 2020

Delivery times for most chip types have receded from their January 2022 peak

Lead time (weeks)



Notes: FPGA/PLD is field-programmable gate array/programmable logic device; EEPROM is electrically erasable programmable read-only memory; MCU is microcontroller unit; PMIC is power management integrated circuit; GP is general purpose
Sources: LevaData; Bain analysis

Shanghai shipping costs:



How has the landscape changed?

- **Staff churn normalising** and pay demands falling as tech labour market cools.
- **Supply issues evaporating**, albeit so are super normal margins for certain manufacturers. Lockdowns across the world a thing of the past.
- **Deglobalisation**, reshoring and near shoring provides opportunities.
- **Resilient sector demand** and structural drivers continue.
- **The end of easy money**: speculative investment bubble has burst.
- **Good buying opportunities expected** - many companies seeded that will require follow on capital.



Speculative bubble has burst – offering potential for good buying opportunities

Silicon Valley Bank: Deposit flight = CASH BURN

Slide taken from SVB deck: Mid Quarter update 8/3/22)

Elevated client cash burn pressuring balance of fund flows

As expected, slowing VC deployment has reduced client fund inflows QTD

- Q1'23 U.S. VC investment is on track to decline **15-20%** vs. Q4'22, in-line with our expectations

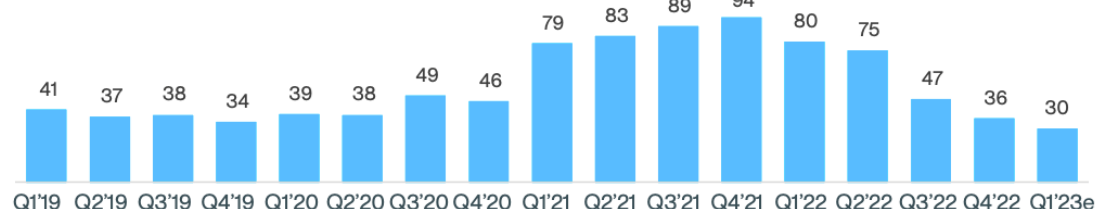
We had expected modest, progressive declines in client cash burn, but burn has not moderated QTD, pressuring the balance of fund flows

- Client cash burn remains **-2x** higher than pre-2021 levels and has not adjusted to the slower fundraising environment²

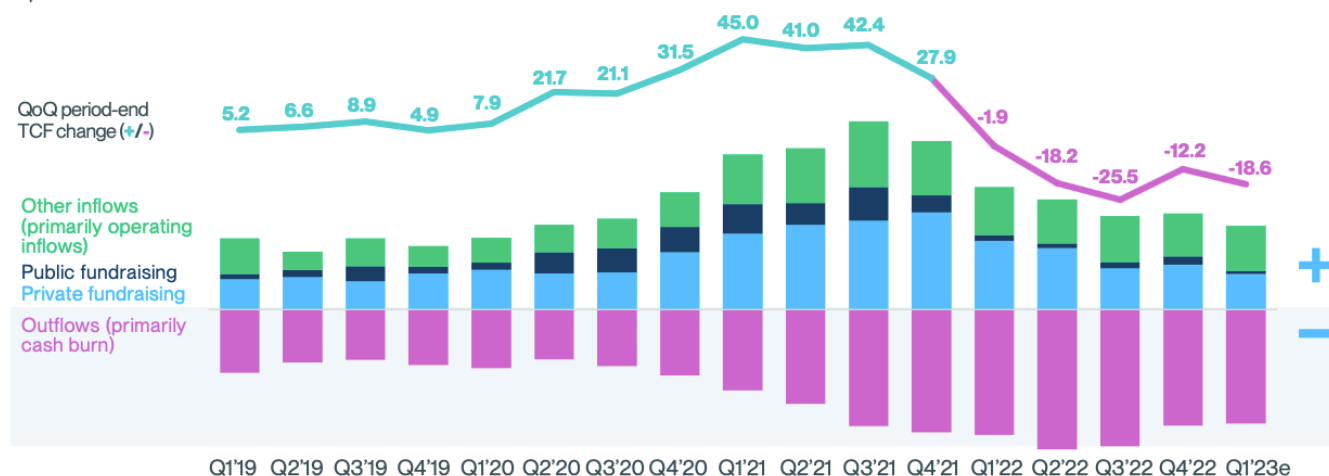
Current 2023 expectations

- Cash burn remains **elevated** for 1H'23, with modest declines in 2H'23
- Still expect **-\$120-140B** of U.S. VC investment in 2023³

U.S. VC-backed investment activity¹
\$B



QoQ period-end total client funds ("TCF") by client activity (management's approximation)²
\$B



Note: Q1'23 estimates include January and February actuals and estimates for March. Data is preliminary and is subject to change.

1. VC data sourced from PitchBook. Prior period investment data may be revised based on updates to Pitchbook's proprietary back-end data set and filters.

2. Determination of TCF changes by client activity is an illustrative approximation based on management assumptions and analysis of SVB client and PitchBook data; assumes each client's total change in period-end balances is attributed to one of the following activities: fundraising, other inflows or outflows. Prior period estimates may be revised based on updates to management assumptions and analysis.

3. Management's analysis.



STRATEGIC ACTIONS/
Q1'23 MID-QUARTER UPDATE 16

IPOs have fallen off a cliff, debt markets have shut and VC investment has dried up

Table 1: Trends in US VC Investment, VC Fundraising, IPOs, and M&A

	1Q23 QTD	1-Week Change	4Q22 QTD	1Q22 QTD	Q/Q Unann.	Y/Y	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21
US VC Investment	\$35.0B	\$11.5B	\$39.2B	\$77.0B	-11%	-55%	\$38.4B	\$47.3B	\$71.8B	\$79.7B	\$95.7B	\$89.9B	\$83.4B	\$77.9B
By Sector														
Software	\$15.2B	\$8.2B	\$12.3B	\$24.8B	24%	-39%	\$13.4B	\$16.8B	\$28.2B	\$30.8B	\$39.9B	\$37.9B	\$29.7B	\$25.9B
Healthcare	\$7.9B	\$1.6B	\$11.1B	\$21.6B	-29%	-63%	\$9.6B	\$10.2B	\$14.0B	\$19.6B	\$19.3B	\$18.5B	\$20.7B	\$21.8B
Crypto/blockchain	\$0.9B	\$0.1B	\$1.1B	\$6.8B	-23%	-87%	\$0.9B	\$2.8B	\$4.8B	\$6.2B	\$5.1B	\$3.5B	\$2.9B	\$5.0B
All other	\$11.0B	\$1.7B	\$14.7B	\$23.9B	-25%	-54%	\$14.6B	\$17.6B	\$24.8B	\$23.0B	\$31.4B	\$30.0B	\$30.2B	\$25.2B
By Stage														
Angel/Seed	\$3.0B	\$0.6B	\$4.0B	\$6.7B	-26%	-56%	\$4.0B	\$4.8B	\$5.7B	\$7.0B	\$5.7B	\$4.8B	\$4.9B	\$4.8B
Early Stage	\$8.9B	\$2.1B	\$11.4B	\$22.7B	-22%	-61%	\$10.9B	\$13.6B	\$18.5B	\$23.7B	\$29.2B	\$20.8B	\$21.4B	\$16.1B
Late Stage	\$23.1B	\$8.9B	\$23.8B	\$47.6B	-3%	-51%	\$23.5B	\$28.9B	\$47.7B	\$49.0B	\$60.8B	\$64.3B	\$57.1B	\$57.0B
US VC Fundraising	\$10.1B	\$1.6B	\$9.3B	\$76.0B	9%	-87%	\$8.4B	\$29.8B	\$45.0B	\$75.5B	\$45.8B	\$20.1B	\$34.0B	\$52.8B
Mega (\$1B+)	35%	N/A	0%	71%	N/A		0%	52%	49%	70%	27%	6%	33%	52%
Non-Mega	65%	N/A	100%	29%	N/A		100%	48%	51%	30%	73%	94%	67%	48%
US Priced IPOs	15	1	7	25	114%	-40%	8	29	18	27	90	95	103	112
Mega (\$100mm+)	6	-	1	7	500%		1	2	2	7	43	54	74	93
Non-Mega	9	1	6	18	50%		7	27	16	20	47	41	29	19
US M&A Deals	\$253B	\$86B	\$155B	\$167B	63%	51%	\$204B	\$143B	\$176B	\$281B	\$162B	\$87B	\$79B	\$39B

Source: Pitchbook and Bloomberg Finance L.P. QTD period is through 3/22/2023. US Priced IPOs are ex-SPACs. Healthcare includes pharma/biotech, healthcare technologies, healthcare services and healthcare devices and supplies.



Funding environment significantly deteriorated; further issues expected following SVB troubles

Valuations becoming more attractive. Technology demand drivers remain:



- Leveraged PE balance sheets
- Revenue growth at any price
- VC exits
- Speculative IPOs and SPACs
- Excess share-based payments

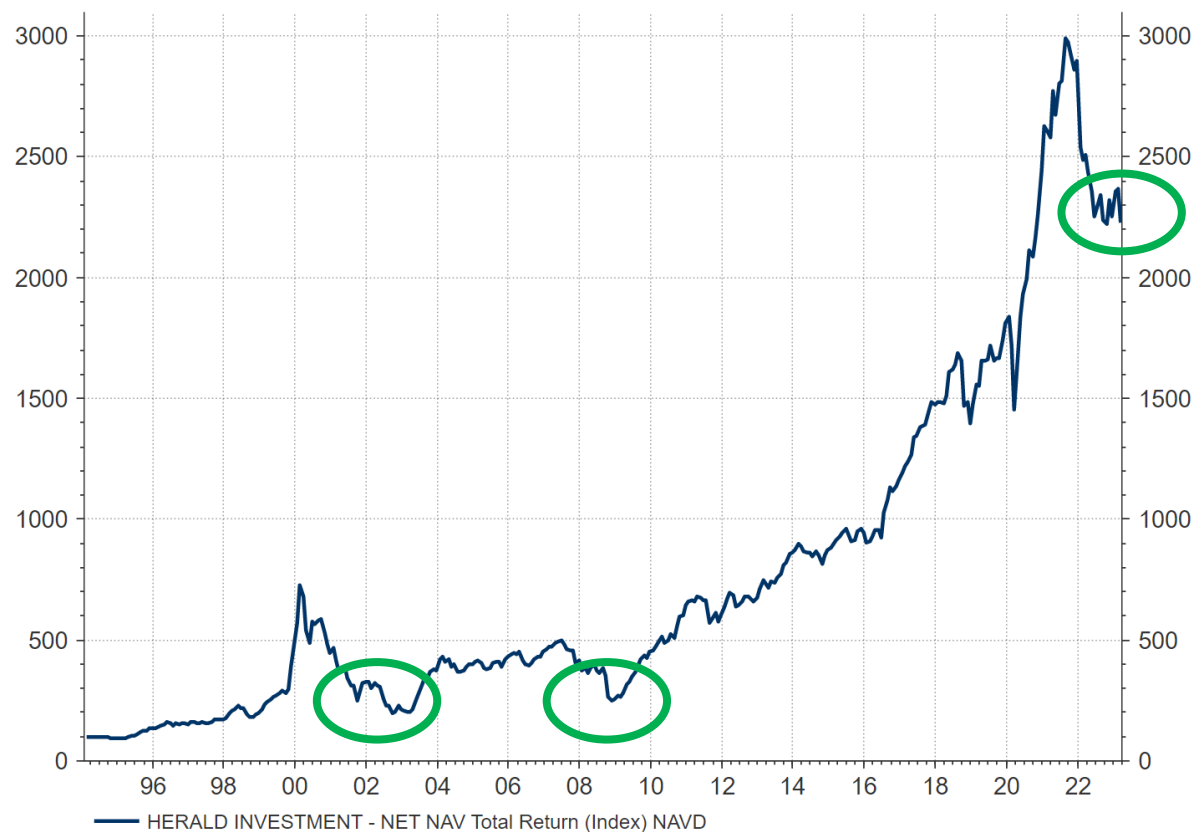


- Innovation continues
- Structural growth within tech sector
- Non-discretionary nature of technology spend
- Recurring revenue - utility like business model
- Pricing power in inflationary world
- Technology enabled efficiency gains important in tight labour market



HIT avoided market speculation and has cash to invest when companies need capital

Potential buying opportunity



The dotcom bubble and GFC provided compelling buying opportunities.
Can 2023 - 2024 create the same?