

IS DIGITAL HEALTH IN A BUBBLE?

And what you can do about it

Q2 2022

ROCK HEALTH

INVEST
in impact-
driven
digital health
start-ups

+

CONVENE
the healthcare
community to
advance digital
health

+

ADVISE
healthcare
companies on
digital health
innovation

AT THE FOREFRONT OF DIGITAL HEALTH SINCE 2010

Well, is digital health in a bubble or not?

- 1 Is digital health in an investment bubble?**
Assessment of whether key characteristics of investment bubbles are present in digital health today
- 2 How can you assess your bubble risk?**
A framework to help innovators assess the bubble risk of their individual sector and/or company
- 3 What should you do about it?**
Tactical recommendations for innovators, tailored to their unique bubble risk assessment

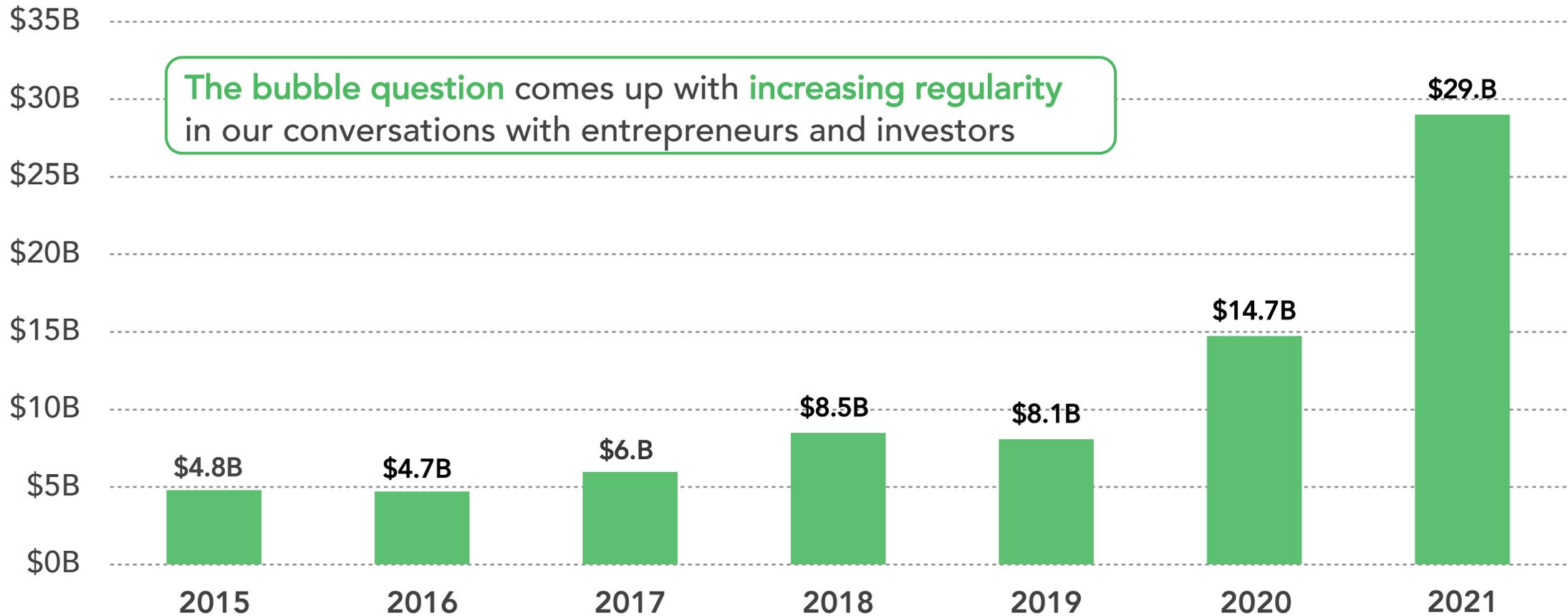
Question 1

Is digital health in an investment bubble?

Funding for digital health startups has accelerated



U.S. DIGITAL HEALTH TOTAL VENTURE FUNDING, 2015-2021



An investment bubble occurs when asset prices (in this case, company valuations) rise far beyond what is justified by fundamentals

How would we know if we were in a digital health bubble?

COMMON CHARACTERISTICS OF PREVIOUS¹ INVESTMENT BUBBLES



Hype supersedes
business fundamentals



High cash burn rates



Rapid increase in
valuations



Surge of cash from new
investors



Unclear exit pathways



Fraud or misuse of funds

¹Previous bubbles assessed include the dot-com bubble (late 1990s) and the clean tech bubble (2000s)
Source: Rock Health Analysis



EXAMPLES OF LEADING DIGITAL HEALTH BUSINESS MODELS



Payer reimbursement

Reimbursement for the delivery of covered medical products and services



Software as a service (SaaS)

Subscription-based access to cloud-hosted digital products and services



Direct-to-consumer (D2C)

Purchase of digital health products and services directly by consumers



Value-based

Risk-contracts where payment is contingent on delivering outcomes

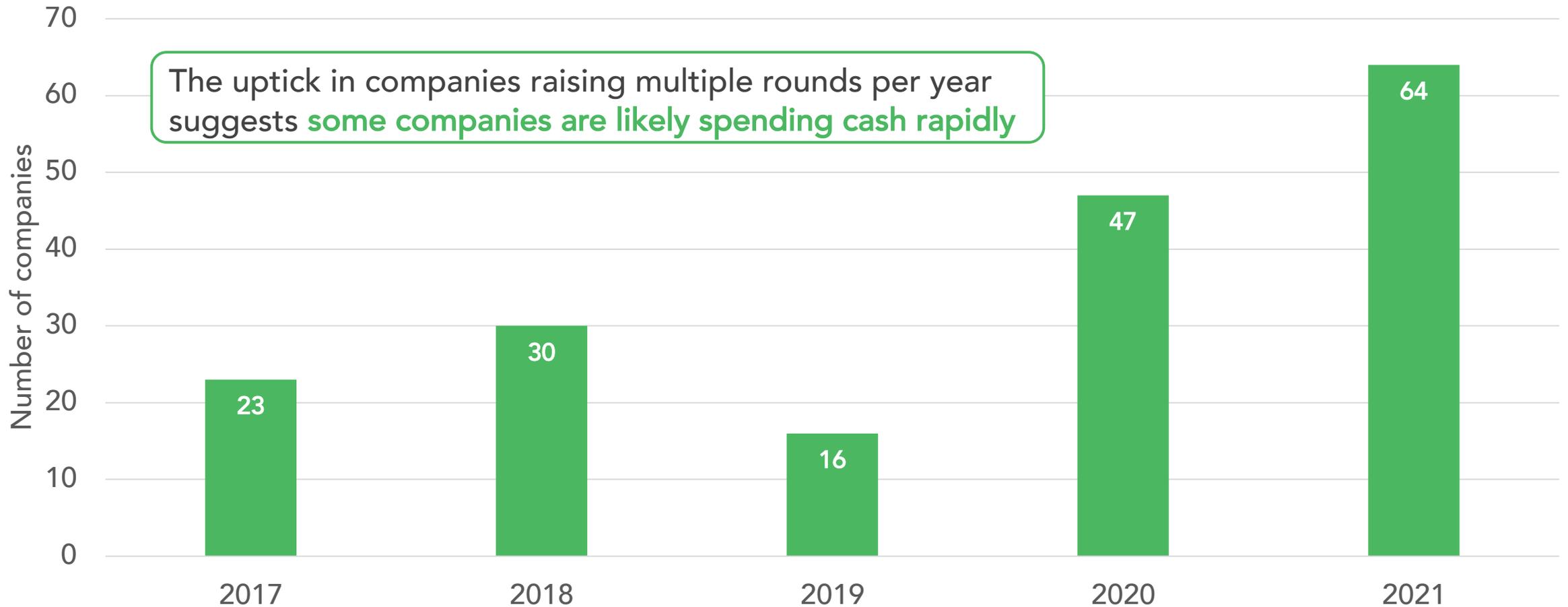


Multiple **sustainable business models** have been demonstrated in recent years

High cash burn rates | Verdict: Somewhat (moderate risk)



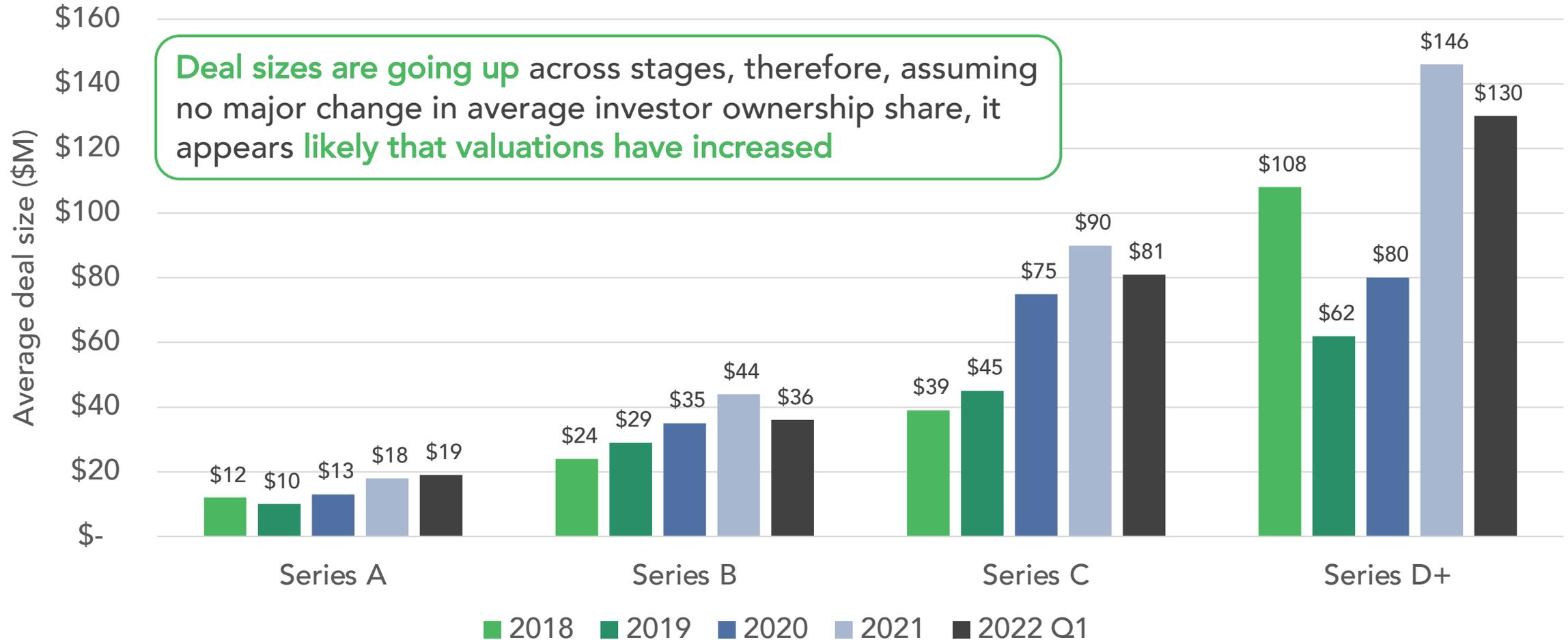
NUMBER OF COMPANIES THAT RAISED 2+ ROUNDS OF FUNDING IN A CALENDAR YEAR



Rapid increase in valuations | Verdict: Yes (higher risk)



AVERAGE DIGITAL HEALTH DEAL SIZE OVER TIME, BY SERIES





OVERVIEW OF DIGITAL HEALTH'S INVESTOR MIX

On the one hand...

Growth and crossover funds new to digital health have been particularly active

TIGERGLOBAL

Made 25 digital health investments in 2021, up 733% from average 3 deals across 2018-2020

SoftBank Vision Fund

Made 8 digital health investments in 2021, up 166% from average 3 deals across 2018-2020

On the other hand...

Digital health is anchored by a stable cohort of experienced, repeat investors

>50%

Of investors have been repeat digital health investors since 2016



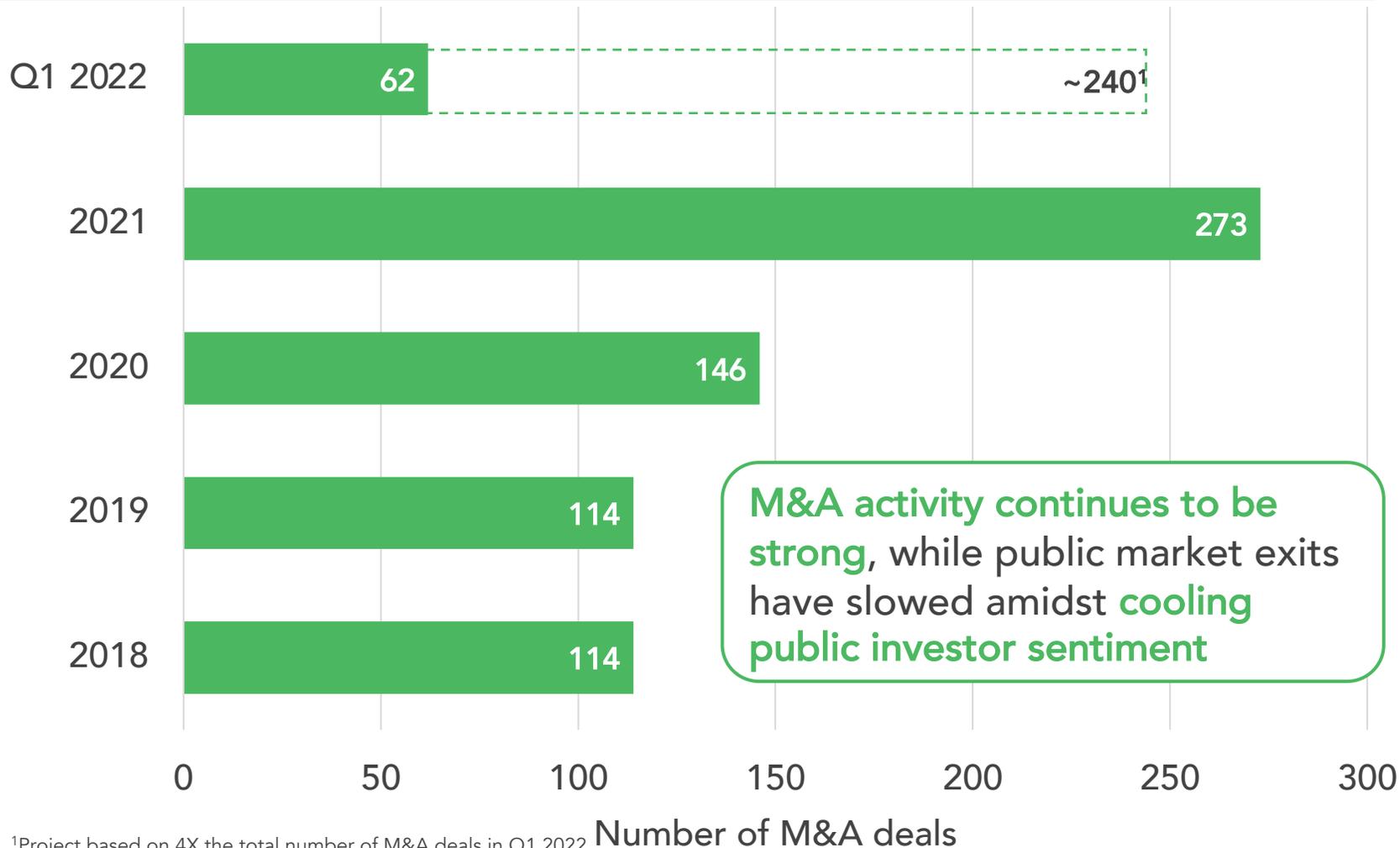
Each made more than 4 digital health investments annually across 2018-2021

Influx of cash from new funds introduces some risk of overvaluation if deep-pocketed investors bid up company valuations

Unclear exit pathways | Verdict: Somewhat (moderate risk)



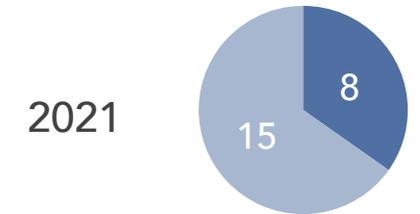
M&A DEALS, 2018-2022



M&A activity continues to be strong, while public market exits have slowed amidst cooling public investor sentiment

PUBLIC EXITS, 2018-2022

2022 *Planned: 4 IPOs, 1 SPAC*



2018 *None*

Number of public market exits

¹Project based on 4X the total number of M&A deals in Q1 2022
Source: Rock Health Digital Health Venture Funding Database

Digital health is not in an investment bubble, but it is frothy

DIGITAL HEALTH BUBBLE EVALUATION FRAMEWORK

Key indicators that have been observed in previous investment bubbles

 Yes  Somewhat  No



BUBBLE INDICATORS	KEY POINTS OF ASSESSMENT (AS OF Q1 2022)	VERDICT
Hype supersedes business fundamentals	Multiple sustainable business models have been demonstrated in recent years	
High cash burn rates	Companies are raising (and potentially spending) capital faster than prior years	
Rapid increase in valuations	Valuations have likely grown across the past 3 years ¹	
Surge of cash from new investors	Growth and crossover funds that are new to digital health have been active	
Unclear exit pathways	After 2021's boom, public market exits have slowed	
Fraud or misuse of funds	Few signs of dotcom-style extravagance or fraud	

¹Based on trends in rising average deal sizes, and assuming no major change in average investor ownership share

Digital health is not a monolith

Bubble risk inherently vary across segments within digital health

Question 2

How can you assess your bubble risk?

Question 3

What should you do about it?

Two key dimensions are used to evaluate the bubble risk for a segment or company

BUBBLE RISK ASSESSMENT INPUTS



Market infrastructure

- **Tech infrastructure** – required technologies exist, are low cost/high quality, and/or are commonly available to end users
- **Regulatory framework** – policy environment is stable and conducive to sector growth
- **Business models** – established pathway(s) to profitability



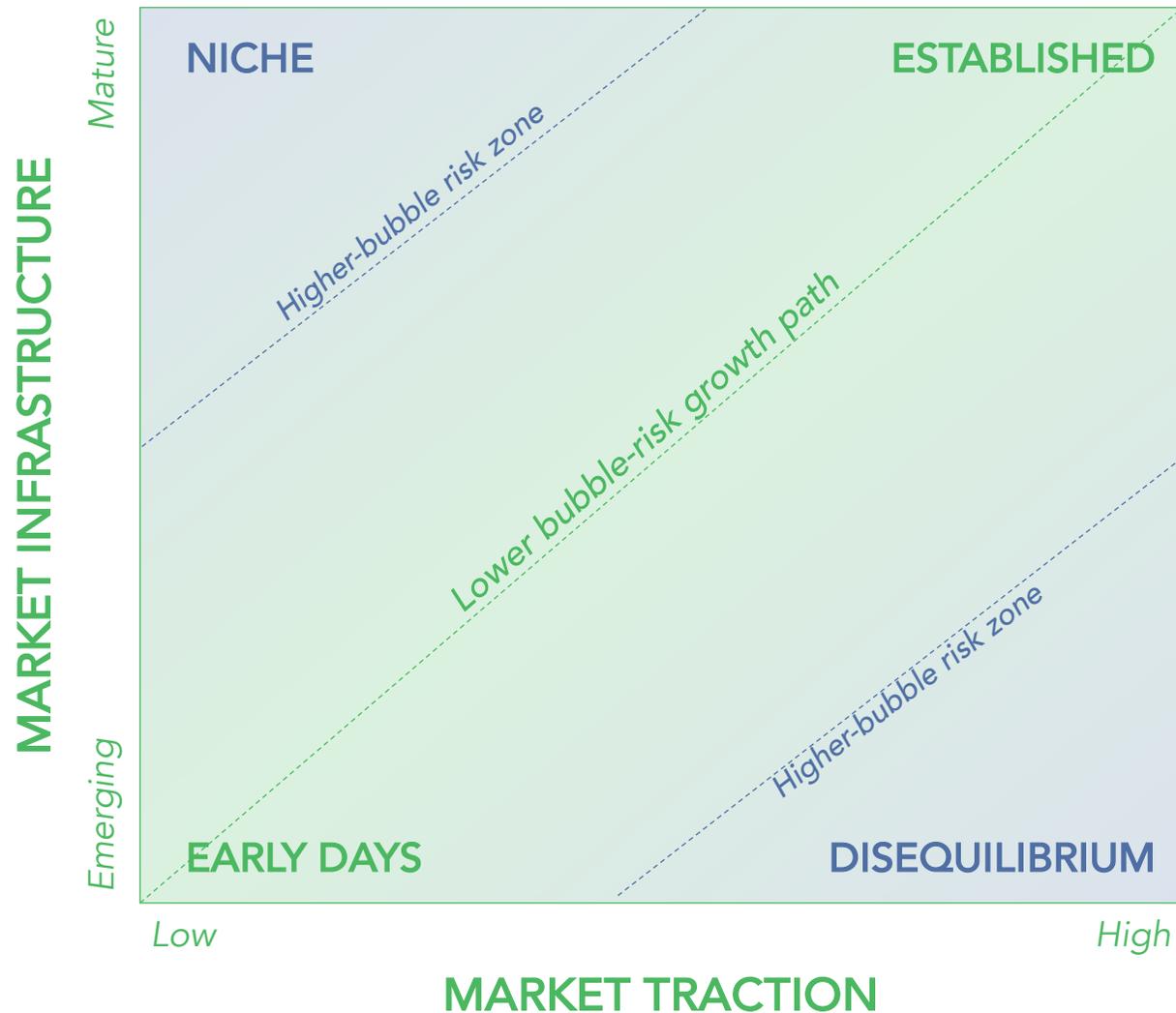
Market traction

- **Adoption** – significant share of target market that has adopted the innovation
- **Outcomes** – demonstrated impact on clinical, financial, or engagement measures
- **Healthcare integration** – degree of embeddedness within the traditional healthcare system
- **Exits** – proof points of scale achieved via M&A or IPO

Leaders should use market infrastructure and market traction to assess bubble risk

BUBBLE RISK ASSESSMENT FOR DIGITAL HEALTH INNOVATORS

■ Higher bubble risk
■ Lower bubble risk



ZONES OF BUBBLE RISK

Early days: market infrastructure is still being established and limited market adoption; the two dimensions are in relative proportion

Established: high degree of market traction has been achieved amidst a mature market infrastructure

Disequilibrium: relatively high level of market traction, but that traction outstrips the maturity of critical market infrastructure

Niche: limited market traction achieved relative to the total addressable markets to date, despite mature market infrastructure

Given the frothiness of the digital health investment sector, what's an innovator to do?

RECOMMENDATIONS FOR ALL DIGITAL HEALTH INNOVATORS



SECURE A RUNWAY

Forward-looking leaders should work to **lengthen their cash runway** and raise capital at valuations grounded in **realistic evaluations of business fundamentals**



PURSUE RATIONALE VALUATIONS

The **balancing act** is to **raise enough money in good times** to weather a future storm, while **avoiding unrealistically high valuations** that could necessitate a down round if market conditions change



WORK WITH COMMITTED INVESTORS

Partner with **experienced investors that believe in the vision of your company**—the **capital, connections,** and **strategic support** can be vital for weathering tighter market conditions

We believe firmly in the fundamentals
of digital health

There is room for massive growth into
the future until digital health becomes
part of our healthcare system's DNA

ROCK HEALTH+



advisory@rockhealth.com



@rock_health

Appendix

Question 2

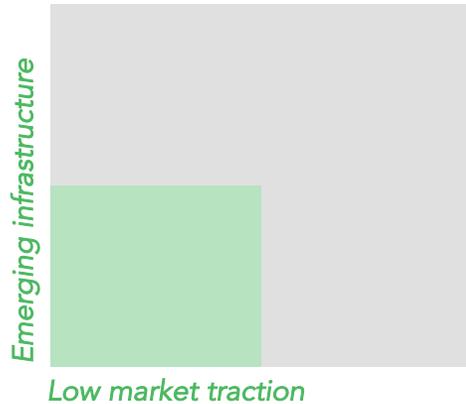
How can you assess your bubble risk?

Question 3

What should you do about your bubble risk?

What it means to be **early days**

OVERVIEW



Market infrastructure is still being established and companies have achieved limited market adoption, however, **these two dimensions are in relative proportion** to one another

If the infrastructure continues to develop, enabling additional traction, there is a **long runway of potential opportunity ahead**

IMPLICATIONS

Early days sectors may be more able to grow into frothy valuations than those in other zones

RECOMMENDATIONS

- **Operational:** Put in place mission-critical market infrastructure pieces (e.g., internal tech stack, sustainable business models)
- **Financial:** Secure the runway needed to both invest in infrastructure and prove your market traction

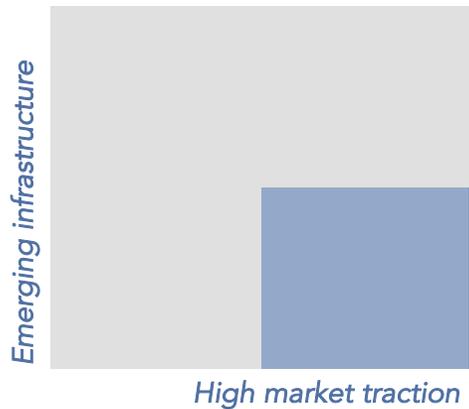
EXAMPLE SECTOR: Virtual reality (VR) therapeutics

- **Market infrastructure** is primarily limited by today's limited use of VR headsets¹
- **Market traction** is low as solutions are not broadly embedded into the traditional healthcare system

¹Globally, consumers own just 26 million virtual reality headsets (Omdia)

What it means to be in disequilibrium

OVERVIEW



Companies have achieved a relatively high level of market traction, but that **traction outstrips the maturity of critical market infrastructure**

Key **technology, regulatory, or business model challenges** need to be overcome to unlock significant further growth

IMPLICATIONS

Disequilibrium sectors are at higher risk of overvaluation due to rapid early market traction

RECOMMENDATIONS

- **Operational:** Address shortfalls in tech infrastructure or regulatory strategy; consider alternative business models or new partners
- **Financial:** Be cautious of pursuing high valuations ahead of commensurate amounts of progress in market infrastructure; scenario plan for exit opportunities

EXAMPLE SECTOR: Consumer genetic testing

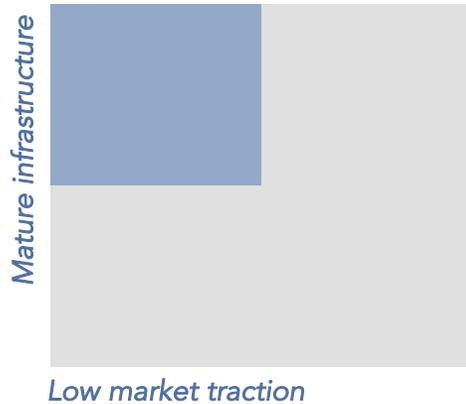
- **Market infrastructure** is still emerging due to technological challenges¹, privacy concerns², and lack of recurring revenue
- **Market traction** is high as leading players have analyzed the genomes of millions of consumers to date

¹Polygenic risk scores typically used by consumer genetic testing companies are not always reliable predictors of disease

²Just 13% of consumers are willing to share genetic data with a healthcare technology company (Rock Health Consumer Adoption Survey, 2021; n=7980)

What it means to be niche

OVERVIEW



Companies have achieved **limited market traction relative to their total addressable markets** to date, **despite mature market infrastructure**

There are potential opportunities to tap into larger markets by pulling **levers around adoption, outcomes, and/or integration with the traditional healthcare system**

IMPLICATIONS

Niche sectors face higher bubble until they unlock new traction to enable further growth

RECOMMENDATIONS

- **Operational:** Consider alternative business models or expanding customer types in order to secure more stable revenue
- **Financial:** Consider finding a strategic investor with complementary assets that could assist a pivot into a more bubble-proof position

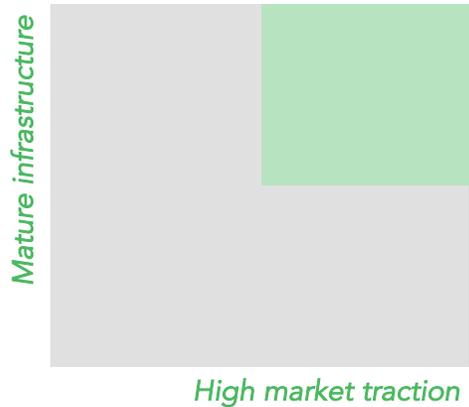
EXAMPLE SECTOR: Personal health records

- **Market infrastructure** is mature as interoperability regulations make it easier to aggregate and share data
- **Market traction** has traditionally been low; past offerings from Microsoft and Google were shut down¹

¹ Google shut down its offering in 2011; Microsoft shut down HealthVault in 2019

What it means to be established

OVERVIEW



Companies have achieved a **high degree of market traction amidst a mature market infrastructure**

Continued growth in the sector hinges on **strengthening competitive advantages and/or expanding into adjacent use cases** while maintaining balance between market traction and infrastructure

IMPLICATIONS

Established sectors are unlikely to collapse if a bubble pops, but they do risk valuation correction

RECOMMENDATIONS

- **Operational:** Consider expanding into novel use cases for your solution(s)
- **Financial:** Keep an eye out for complementary M&A or partnership opportunities in areas of digital health that are at higher bubble risk

EXAMPLE SECTOR: Telemedicine

- **Market infrastructure** is mature as most consumers have access to broadband¹ and the necessary devices²
- **Market traction** remains high relative to pre-COVID levels of adoption; consumers are increasingly comfortable using it

¹93% of US adults use the internet; 77% of US adults have access to broadband at home

²85% of US adults own a smartphone