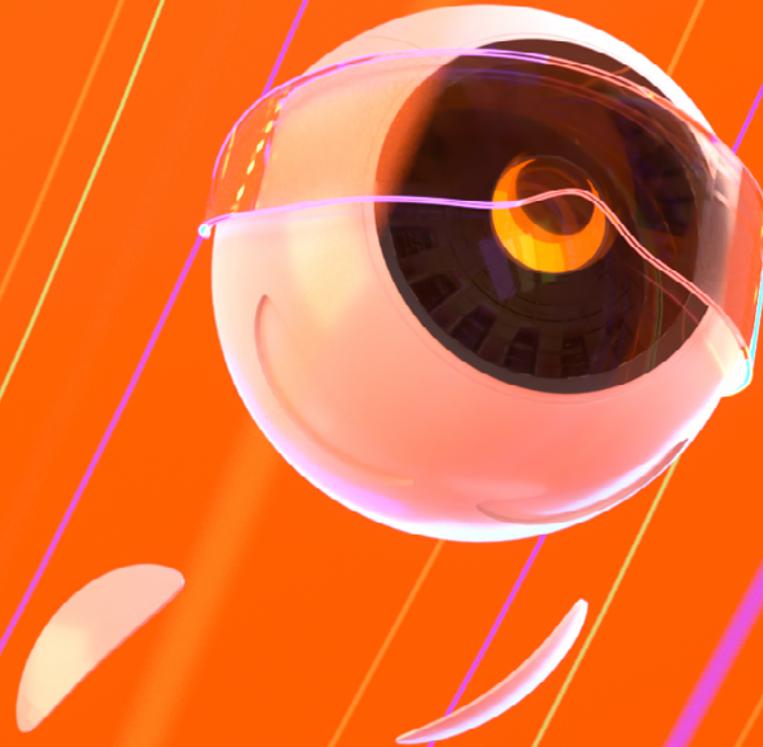


# Investment Recipes

by  AtonRā Partners



9 JUNE 2021

9 JUNE 2021

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# A PRESCRIPTION FROM YOUR CHINESE E-DOCTOR

## A Rising Star To Re-engineer Chinese Healthcare

### Uneven distribution of medical resources

A lack of quality primary care and uneven distribution of medical resources have long been problems in China. Quality medical resources are concentrated in larger cities, where most of the affluent population resides.

- Top-tier hospital facilities are overcrowded, resulting in long waiting times and poor patient experience.
- Rural areas hospitals provide little more than minimal care and prevention services.

### Telemedicine, a solution to fix disparities

As we explained, COVID-19 accelerated telemedicine's penetration. Even relatively conservative Chinese patients became more receptive toward seeking medical help online. Rising engagement in telemedicine and online consultation services further eases the pressure from medical institutions, improving efficiency.

- Medical assistance provided by leading online healthcare service providers is accessible anytime and anywhere, boosting healthcare inclusion.

### Not just food delivery, here comes your medicine

Actively inspired by supportive policies and people's fear of leaving home, online healthcare providers can complete the last mile of the customer journey by providing doorstep delivery on prescription drugs.

- With careful examination and selection, customers will benefit from broader options while staying safely at home.
- A new ecosystem connecting all the dots will create a win-win situation with organic interactions from all participants involved.



# Imbalances In The Healthcare System

## Burdened by dual concerns

An increasingly aging population coupled with a rising number of patients with chronic diseases have created a considerable strain on the healthcare sector.

- 60+ year-old age group reached 260mn in 2020, 18% of the total population.
- 70 % of the elderly suffer from at least one chronic disease, contributing to 80% of deaths.

## Inequality between the rich and the poor

Hospitals are the essential healthcare providers in China. Both public and private hospitals are classified in a 3-tier system in accordance with a hospital's ability to provide medical care, medical technology, and conduct medical research.

- Class III hospitals rank as premium and are primarily located in tier-one cities, with an affluent and dense population (64% of the total population).
- In rural areas, inhabited mainly by lower-income citizens, most primary hospitals only provide minimal care and the fewest services.

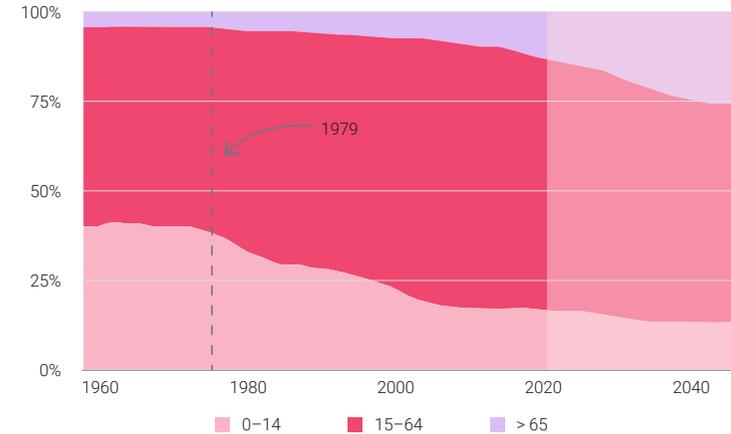
## Mismatched supply and demand causing inefficient utilization

Community health care services are seen as lacking well-trained doctors, medicine, and equipment. Thus, the Chinese prefer to visit Class III hospitals.

- Only accounting for 11% of the total rated hospitals, Class III hospitals were burdened with 77.6% of the total hospital outpatient visits.
- The average time to receive medical care, including traveling and waiting, was ~3 hours, with only 8 minutes spent on effective diagnosis.

SOURCE:  
CMBIS, China Statistical yearbook 2020  
Is China's Health Care Meeting the Needs of its People?

POPULATION % BY BROAD AGE GROUP IN CHINA, 1960-2050



UNEVEN SUPPLY AND DEMAND IN DIFFERENT TIERS OF GENERAL HOSPITALS

Class	Number	Beds	Personnel	Bed Utilization	Average # of outpatients
Class III hospitals (Large city, provincial or national level)	2,548	≥500	≥1.03 doctors; ≥0.4 nurse; ≥2 clinical dietitians	100%	520,000
Class II hospitals (medium-sized city, county, or district)	9,017	100-499	≥0.88 doctor; ≥0.4 nurse; ≥3 fellows	80%	120,000
Class I hospitals (township)	10,831	20-99	≥0.7 doctor; ≥5 nurses in total	55%	30,000

# Mind The Gap

## Nearly universal coverage by public insurance

For decades, the healthcare system has gone through several cycles of reforms as the Chinese government aimed to provide adequate health insurance to most of its citizens in a cost-effective manner.

- In 2019, ~95% of the population was covered by public insurance, even if insurance coverage is not mandatory in China.

## Out-of-pocket payments burn a hole in the pockets

Public healthcare is mediocre and reimburses a mere portion of medical fees, leaving patients a considerable amount of out-of-pocket (OOP) payments.

- OOP may exceed 90% of the bill for chronic disease patients under certain conditions due to the relatively low cap for reimbursement.
- As part of “Healthy China 2030”, Beijing has laid out plans to reduce OOP from 36% of total health care expenditure in 2018 to 25% by 2030.

## Private insurance is no panacea

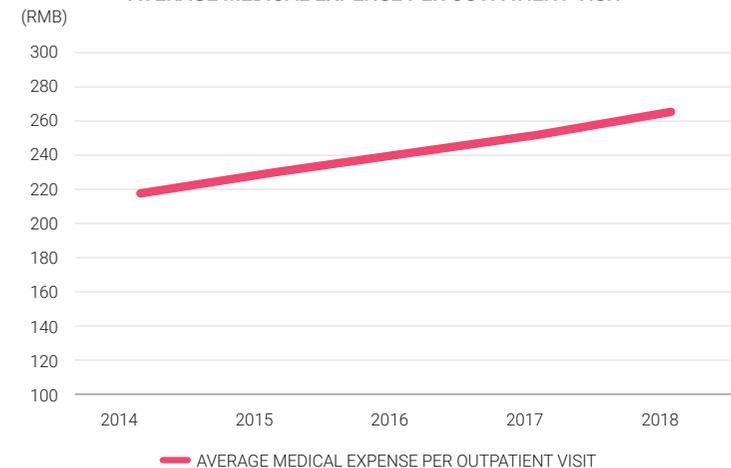
Private insurance can be used to cover deductibles and co-payments, and to provide coverage for expensive services not paid by public insurance. Yet, the issue of inequality remains unsolved since the affluents still floods into Class III hospitals, and even more so because private insurance helps cover OOP.

- People with poor socioeconomic status remain disadvantaged, as private insurance is costly and public services require a long queuing time.

OUT-OF-POCKET PAYMENTS BY INDIVIDUALS ARE AMONG THE HIGHEST IN CHINA (2018)

Country	Share of Health Spending (%)
United States	10.6
Japan	12.8
United Kingdom	15.0
China	35.9
Russia	40.5
India	65.1

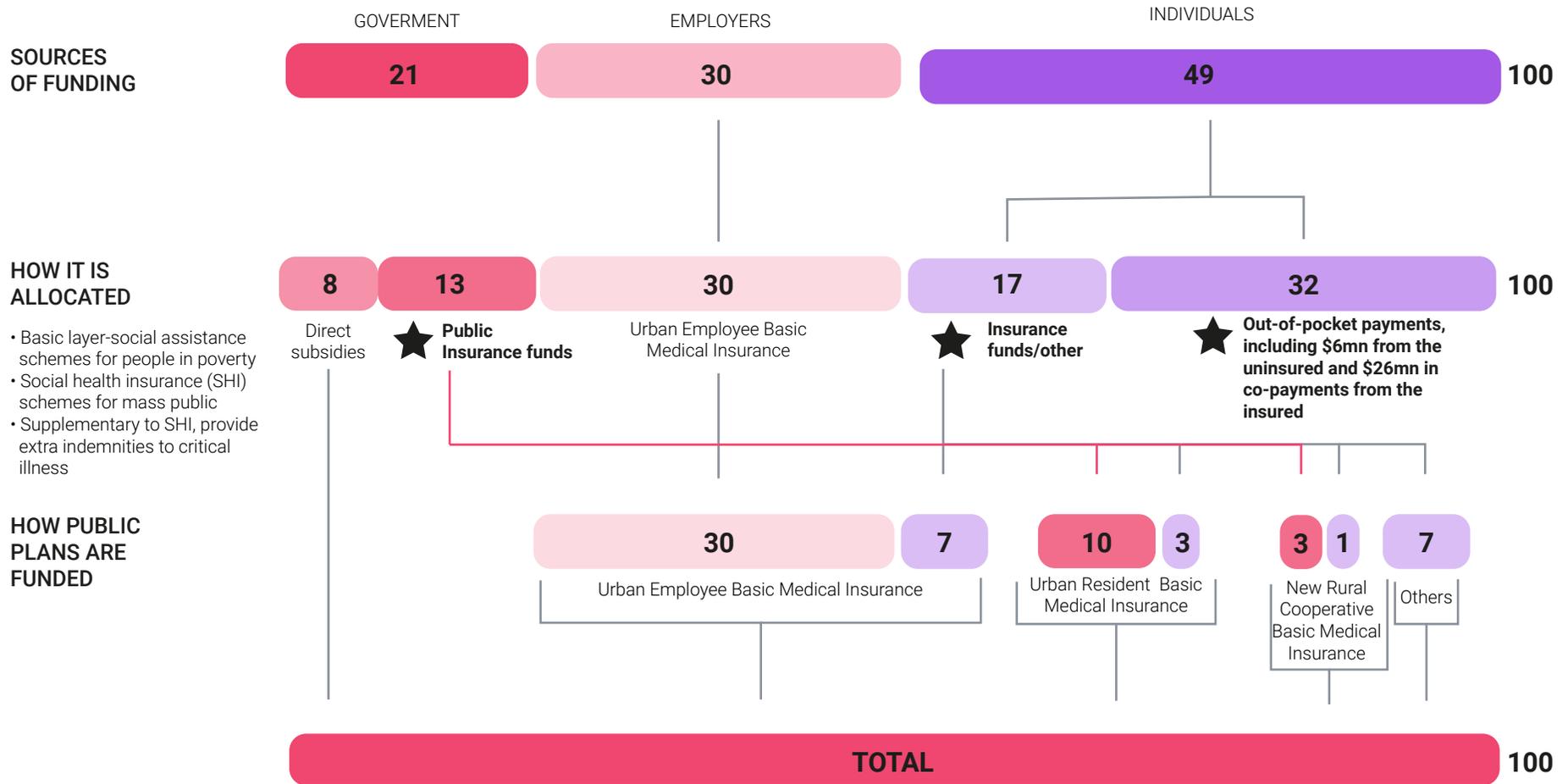
AVERAGE MEDICAL EXPENSE PER OUTPATIENT VISIT



SOURCE:  
McKinsey

# Overview Of China's Healthcare Funding Sources

FUNDING SOURCES FOR EVERY \$100 MILLION IN HOSPITAL REVENUES



# COVID-19 Reshapes Our Behaviors

## Feeling anxious if not seeing a doctor?

With a different mindset from the western world, most Chinese patients visit physical medical facilities for regular checks, even when there are no apparent symptoms, and psychological reassurance requires an in-person consultation.

- Digital adoption in the healthcare industry is relatively low. For example, in 2019, only 24% of Chinese had used telemedicine services.
- It is not uncommon to need up to 2 days to meet a doctor.

## COVID-19 Is accelerating the rise of Digital Healthcare

The pandemic outbreak propelled the adoption of digital healthcare services.

- Most hospitals suspended services or were overwhelmed by COVID-19 patients, and online healthcare services played a crucial role for the public.
- The National Health Commission promoted internet-based medical services, encouraging reimbursement for online consultations and drug dispensing.

## Digital players ride the COVID-19 tailwind

Preferences for in-person physician consultations and consumption behaviors in healthcare have significantly shifted from offline to online.

- With >346mn users, PingAn Good Doctor, China's largest online-to-offline healthcare servicing platform, experienced a 900% surge in new users and 800% in online consultations in just two months.
- ZhongAn online, a leading online insurance platform, recorded RMB6.6 bn in gross written premiums, a YoY increase of 37% in 2020.

SOURCE:

[China's Healthcare Industry – Opportunities in Telemedicine and Digital Healthcare](#),  
[Pingan good doctor presentation](#)

### OFFLINE HOSPITAL VISITING JOURNEY

Day 1



- Go to the main cash register to sign up
- Get a sequence number



- May need a full day to wait until a nurse calling by the number

Day 1



- Spend on average 8 minutes in the room consulting a doctor



- Go to cash register again to pay for the medicine or tests

Day 2



- Wait for more checkups or tests



## Screen-To-Screen Consultation

### AI-powered solutions to redirect the hospital traffic

AI-based processes help quickly distinguish patients who need urgent medical treatment from those requiring minor ailments or routine visits. Telemedicine, providing healthcare via digital devices, eliminates the limitation of distance and helps provide high-quality services.

- In most cases, telemedicine uses video chat. Yet, some providers choose to offer care via email or messaging
- Mental health treatment can also be delivered quickly and easily.

### Telemedicine is a cost-effective solution

Telemedicine can ease traffic to the best hospitals from outpatient visits, while doctors and physicians can complete a higher number of consultations online, bringing down the average costs per consultation.

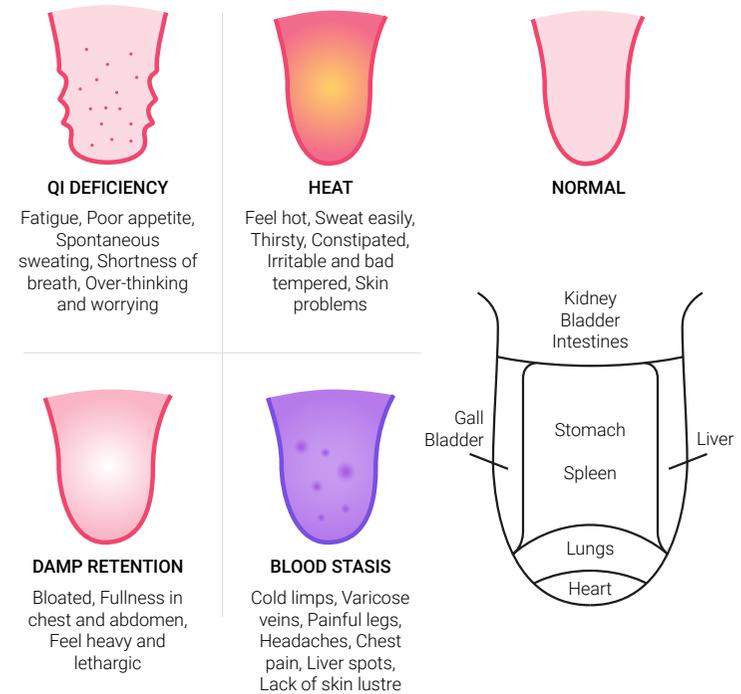
- On Good Doctor, fees start at 9.9 yuan (\$1.50) to speak with junior physicians, while a neurology specialist at the prestigious Peking Union Medical College Hospital might charge 500 yuan (\$74).

### Choosing your e-family doctor style

To cater to Chinese patients' preferences, online consultation with Traditional Chinese doctors (TCD) is also available with some platforms and gradually gains acceptance.

- Online TCD consultations are available with JD Health's program.
- Even essential TCD tongue diagnosis can be efficiently conducted online by having the patient upload a photo of their tongue.

### TRADITIONAL CHINESE TONGUE DIAGNOSIS



SOURCE:

[China's Healthcare Industry – Opportunities in Telemedicine and Digital Healthcare](#),  
[Pingan good doctor presentation](#)

## A New Ecosystem Is Forming

### Green light to online sales of prescription drugs

In April, a new policy, released by the General Office of the State Council, opened up the online market for prescription drugs, aiming to increase the reach and availability of medicines and of general healthcare services.

- Local smaller-sized pharmacies and clinics can partner with qualified e-commerce platformers to access their network and online channels.
- Larger hospitals and pharmacy chains have the option to develop their online platform in-house.

### Last-mile delivery to close a virtuous loop

The success of the online drug delivery format will notably be a function of how these platforms manage the supply chain and ensure delivery's speed and quality.

- JD health's nationwide logistics network covers 99% of the population in China and ensures drug supply delivery the same or next day – for some cases, a speedy 30 minutes delivery is also available.

### Two segments shine in the healthcare sector

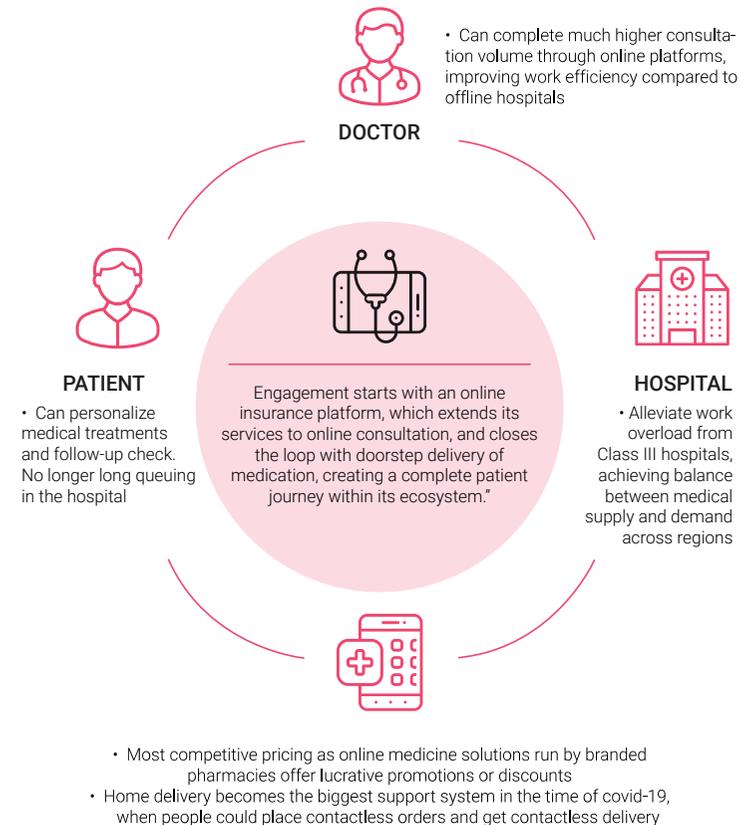
Telemedicine and online insurance offer the most potential due to providing broad coverage and extending services beyond incumbents' current offers.

- In 2019, the online insurance premium revenue was ~RMB270 bn and is expected to grow at a CAGR of 41% from 2020–24.
- China's online pharma retail sales are expected to grow ~RMB177 bn by 2028, presenting 31% of total pharma retail sales.

SOURCE:

How pharma companies can address the retail market transformations in China  
Zhongan annual report

### ONLINE MEDICAL SERVICES ARE WELCOMED BY EVERYBODY



## Catalysts

- **Favorable regulatory environment.** Gradual deregulation will speed up service development for comprehensive online players, bringing significant opportunities to the online healthcare services industry.
- **Shifting purchasing behaviors.** COVID-19 has educated Chinese customers and driven them more acceptive of pursuing healthcare service online, boosting underserved market opportunities.
- **Ecosystems driven by Chinese giant techs.** The more giant techs will provide more affordable prices, the better the ecosystem will capture current users and attract new ones.

## Risks

- **Ethical issues.** Deeply influenced by Confucianism, Chinese ethics makes applying statutory moral codes in telemedicine much more complex than in the West, and patients may be turned off.
- **Concerns over personal health data leakage.** The collection of sensitive data in a secure way remains to be proved. In China, rampant cyber threats hurt patients' confidence in medical information protection.
- **One solution may not fit all ages.** It is challenging to standardize communication methods across the country and different age groups. The elderly may find it difficult to use new technology devices and software, thus making them quit at halfway or reluctant to engage at all.

## Bottom Line

- The COVID-19 pandemic has placed unprecedented demands on healthcare systems and stimulated people's awareness about multiple healthcare options ranging from offline to online. As a result, a new ecosystem supporting digital health is forming in China.
- Telemedicine and online insurance are the two segments in China we believe have the highest potential for transforming how healthcare is consumed thanks to new technologies. We are closely monitoring the segments and are poised to capture the strong growth for our investors.

### Companies mentioned in this article:

PingAn Good doctor(1833.HK), ZhongAn online (6060.HK), JD Health(6618.HK)

# THE PSYCHEDELICS REVOLUTION

## A New Way To Treat Mental Health Disorders

### From Woodstock to Mount Sinai

"Psychedelic drugs" is a broad term for a class of natural and chemical compounds that work by altering the state of awareness and perception. Psilocybin, MDMA, and LSD are the compounds most advanced in research for therapeutic benefit.

- The biology underlying this drug class is relatively well understood in mental health, and these drugs have a long safety track record.
- Psychedelics have been used since ancient times (4'000 BC) and are attracting strong renewed interest in recent years.

### Regulation decreasing, research increasing

The decriminalization of psychedelic drugs is a key driver for the recent renaissance of this segment, further emphasized by the pandemic and the ensuing need for new mental health solutions.

- Top-tier universities are opening research programs, and increased funding is flowing to advocacy groups.
- Mental health has substantial societal costs, and current therapies are insufficient, especially in relapsing patients on the depression spectrum.

### Lucrative opportunity to transform mental health

Disrupting unmet medical needs in mental health could translate into a multi-billion-dollar market. However, psychedelics companies will likely need to adapt and promote more holistic therapy approaches rather than "just the pill".

- Developing and approving psychiatric drugs is a costly endeavor and maintaining robust IP protection for psychedelics might be challenging.
- A wave of new players are entering the market: Compass Pathways and MindMed lead the pack with more advanced programs and richer valuations.



# Background & Biology

## What constitutes a psychedelic

Psychedelic drugs (also known as hallucinogens) are compounds that can induce a state of altered perception and thought, frequently with a heightened awareness of sensory input but with diminished control over the actual experience.

- Contrary to popular belief, psychedelics are physiologically safe, and unlike many newer molecular entities, have decades-long of safety data to back their profile.
- A large body of evidence supports their non-addictive profile. Studies suggest most psychedelic drugs are less addictive than alcohol or even caffeine.

## The compounds in therapeutic focus

Psychedelics include a large array of compounds, many inducing the hallucinogenic effect in a similar manner. But MDMA, LSD, and Psilocybin are the main subjects of therapeutic focus.

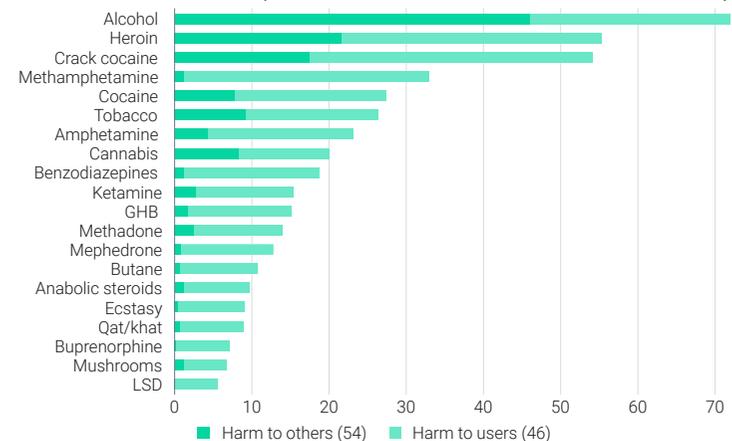
- MDMA is a chemically synthesized amphetamine (stimulant) with a slight structural difference that gives it a psychedelic effect.
- Lysergic acid diethylamide (LSD) is created by synthesizing an active ingredient in a specific type of parasitic fungus.
- Psilocybin is a naturally occurring compound found in over 200 species of mushrooms, collectively known as “magic mushrooms”.

## How these drugs work

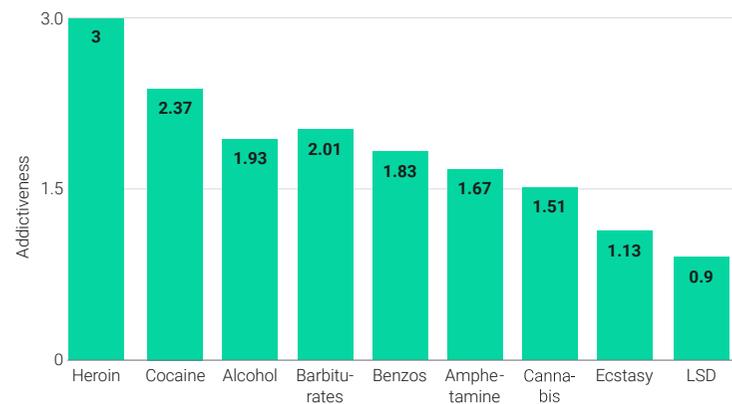
While there are differences in the exact mechanisms in each of these compounds, the most important common factor between them is their interaction with serotonin receptors (mainly 5-HT2A), which have long been associated with effects on mood.

- Trials with psilocybin have been shown to alter the brain’s default mode network (DMN), thereby promoting new neuronal connections in the brain. That mode of action resonates with users’ experience, often described as a “new perspective” about oneself and previous experiences.

HARM CAUSED BY DRUGS (WITH MAXIMUM POSSIBLE HARM RATING OF 100)



MOST ADDICTIVE DRUGS



## Key Psychedelics Modalities



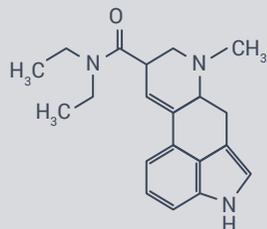
**Pharmaceutical name:** PSILOCYBIN | **Recreational name:** Magic Mushrooms

**Potential medical uses:**

Depression, Anxiety, addiction, anorexia, obesity, pain indications, Post Traumatic Stress Disorder (PTSD) and Alzheimer's disease

**Research activity:**

Currently the most widely studied psychedelic compound with >20 studies ongoing. Randomized, head-to-head study results recently published in NEJM



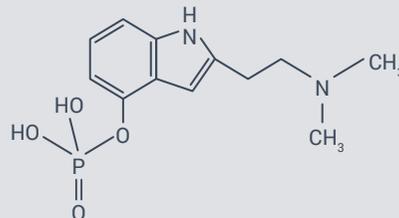
**Pharmaceutical name:** LSD | **Recreational name:** Acid

**Potential medical uses:**

Pain indications, ADHD, depression, anxiety and Alzheimer's disease

**Research activity:**

Still early stage, <10 clinical trials currently enrolling



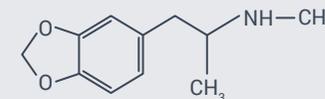
**Pharmaceutical name:** MDMA | **Recreational name:** Ecstasy / Molly

**Potential medical uses:**

Post Traumatic Stress Disorder (PTSD), anxiety, alcoholism

**Research activity:**

>10 clinical studies, first results from a large randomized study published in Nature Medicine



## A Brief History Of Psychedelics

### Ancient times

Psychedelics are by and large one of the oldest historical classes of drugs. Evidence suggests first uses as early as 4'000 BC in North Africa and Europe. In ancient times, mind-altering plants are believed to have been used both medically and recreationally.

- In Central America, where uses have been relatively more common, Aztecs referred to mushrooms as the “flesh of god”.
- Catholic texts from the 16th century suggest consumption of psychoactive plants, originating in the Americas, had been referred to as “witchcraft”.

### The prohibition era

Since the 19th century, scientists and psychiatrists began discovering, synthesizing, and using psychedelic drugs for medical purposes. However, uncontrolled medical use and recreational adoption led states to prohibit their use.

- Swiss scientist Albert Hofmann was the first to synthesize and experiencing LSD in the '30s. He was also the first to isolate psilocybin in the '50s.
- Criminalization of psychedelics in the '60s–'70s in the U.S. and beyond had completely halted research in this field for therapeutic applications.

### The psychedelic renaissance

Psychedelics research has shown a strong acceleration in recent years, backed by an accommodating regulatory environment and advanced research proving their beneficial effect to treat a wide range of mental health disorders. As a result, there is a progressive destigmatization of psychedelics.

- FDA was an accelerator to this process, granting several breakthrough designations to psychedelic-assisted therapies in hard-to-treat mood disorders affections.
- The unmet medical need is highlighted by the actual mental health crisis, to which the pandemic added fuel.

SOURCE:

[The History of Psychedelics \(Part 1 of 2\)](#)



# Psychedelics Are Gaining Increased Attention

## Decriminalization of psychedelic substances

Increased legalization of cannabis for medical use in the past decade is now being followed by progressive decriminalization of psychedelic therapeutics in the U.S., leading to broader public acceptance.

- Last year, Denver and Oregon decriminalized the therapeutic use of psilocybin, and several states are now considering similar legislation initiatives.
- Recent ground-breaking studies about using psychedelics to treat debilitating mental health issues have increased government awareness.

## U.S. top universities driving psychedelics research

Research centers dedicated to psychedelics are sprouting up among the U.S. top universities to find effective treatments for mental health disorders.

- Johns Hopkins, Berkeley, and Yale have recently developed psychedelic research centers funded by private donors.
- The number of research papers published on psychedelics has considerably increased in the last few years, doubling over ten years.

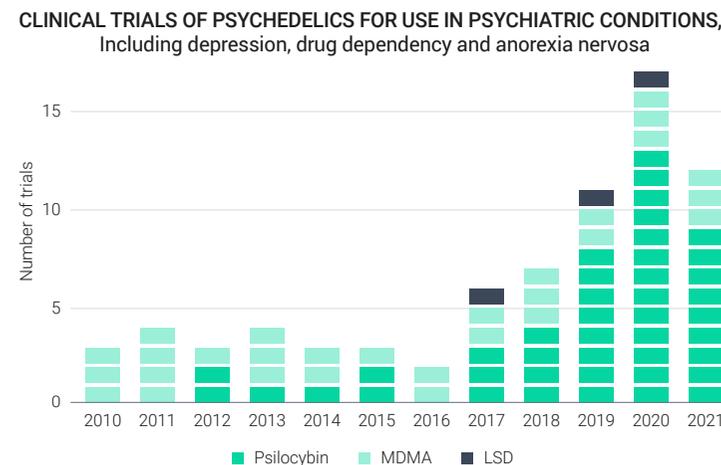
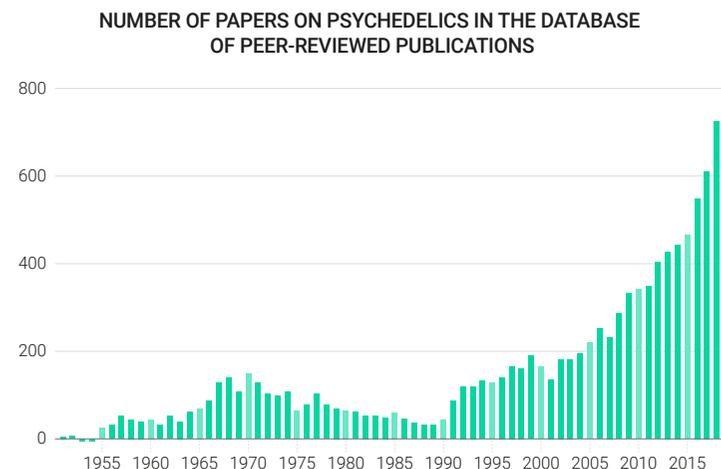
## Investments are flowing

The psychedelic industry, a sector where research funding was until recently almost inexistent, is now gaining a lot of attention among investors, with millions of dollars invested in startup and research.

- The multidisciplinary association for psychedelic studies (MAPS), a non-profit U.S. organization, has raised \$44mn over the past two years to develop new therapies.
- ATAI Life Sciences, backed by Peter Thiel, co-founder of Palantir and PayPal, raised >\$350mn to acquire, incubate and develop psychedelics companies. The company announced its intention to raise a further \$100mn via an IPO.

SOURCE:

[Peter Thiel-backed psychedelics start-up plans to raise \\$100 million in IPO](#)



# A Need For New Mental health Therapies

## A post-pandemic mental health crisis

As previously written, mental health issues continue to skyrocket as a consequence of the Covid-19 pandemic. Finding new solutions is becoming a public health priority, raising new hopes for psychedelics.

- It is reported that, following the pandemic’s beginning, 40% of U.S. adults were struggling with mental health issues or substance abuse, and these numbers are expected to increase over time.
- Covid-19 has increased mental health visibility, resulting in global awareness and more funding for the field.

## Limited efficacy of current treatments

Conventional drugs to treat mood disorders, such as antidepressants, take time to act, may lead to adverse side effects, and it is often observed that patients develop resistance to treatment over time.

- ~30% of patients suffering from depression show resistance to the conventional antidepressant drugs.
- Some mental health disorders do not have any effective treatment yet, and psychedelics are well-positioned to potentially bring new therapeutic solutions.

## Huge costs

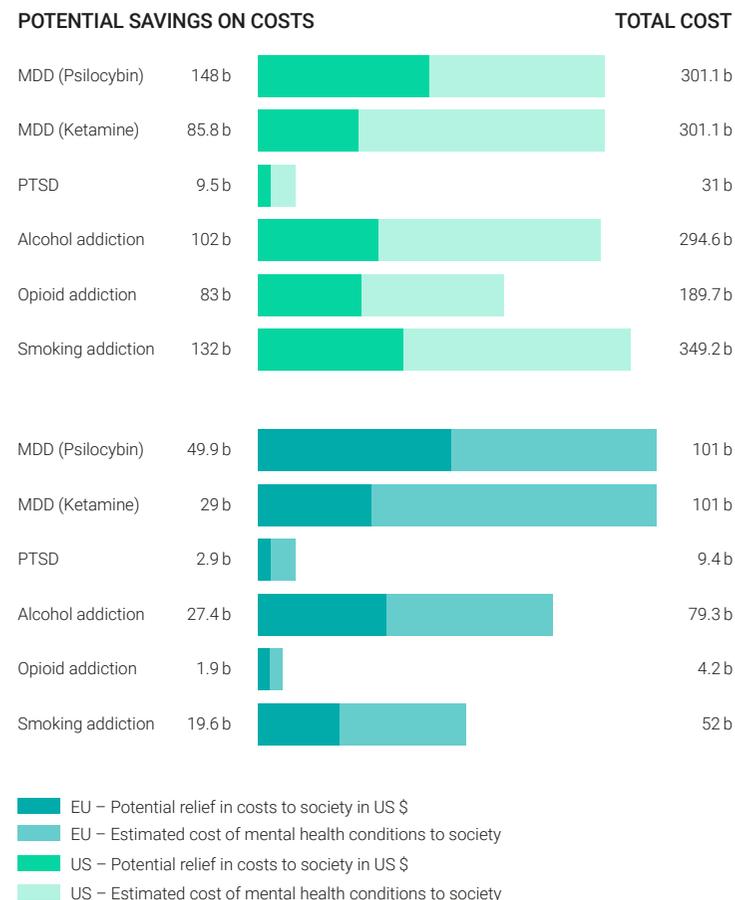
Mental illness represents a substantial economic burden to society, being among the costliest medical expense and affecting employers through lost productivity.

- Mental health issues’ associated economic burden, including loss of productivity, is expected to reach \$16bn by 2030.
- Psychedelic therapeutics aim to significantly reduce costs associated with mental health disorders, cutting by half the total expenses on average.

SOURCE:

[Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic – United States, June 24–30, 2020](#), [MDMA-assisted therapy for severe PTSD: a randomized, double-blind, placebo-controlled phase 3 study](#)

## POTENTIAL COST SAVINGS VS TOTAL BURDEN THANKS TO MENTAL HEALTH THERAPIES



## Transforming Mental Health Therapy

### A huge market opportunity

Psychedelic-based therapies have the potential to disrupt the way we approach mental health care and can become the most promising alternative to treatment-resistant patients for many brain-related conditions.

- The global psychedelic industry is expected to reach >\$10bn by 2027, which according to some analysts, could be conservative

### Psychedelic-assisted psychotherapies

Pairing psychedelics with psychotherapy seems to be the most promising and effective way to treat mental illness to date, as emotional engagement and the environment while “tripping” plays a crucial role in positive outcomes.

- A recent phase 3 clinical study conducted by the MAPS showed the use of MDMA-assisted therapies as an effective and safe way to treat Post Traumatic Stress Disorder (PTSD), with a potential market approval in the U.S. by 2023.
- Compass Pathways (CMPS) is building hundreds of centers in the U.S. to train therapists and offer psilocybin-assisted therapies.

### Psychedelic microdosing

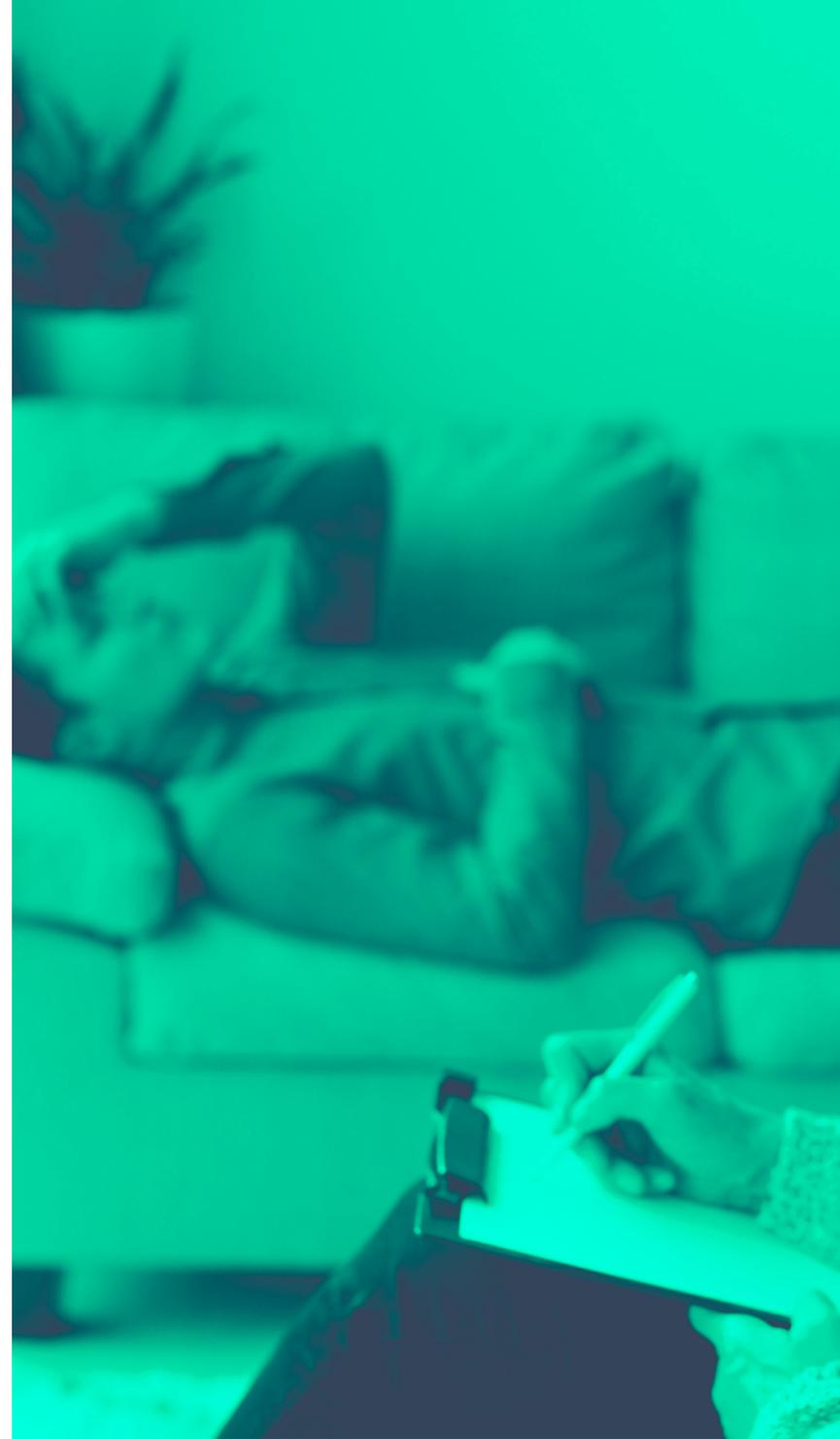
Regularly using low doses of psychedelic drugs can pharmacologically induce new neural connections in the brain to treat mental health issues while avoiding hallucinations. But the approach is still controversial.

- Microdoses of psychedelics are designed to become an alternative to conventional SSRIs<sup>1</sup> to treat mood disorders, such as depression or anxiety.
- However, a recent eLife study stipulates that, while increasing the psychological well-being of patients, microdosing does not have a significant difference with placebo.

<sup>1</sup> Selective Serotonin Reuptake Inhibitors (SSRIs), the most common class of antidepressants.

SOURCE:

SSRI – selective Serotonin reuptake inhibitors, the most common class of antidepressants, [Psychedelics Quickly Creating a Potential \\$100 Billion Market Opportunity](#), [Psychedelic Drugs Market Size Is Projected To Reach \\$10.75 Billion By 2027](#), [Self-blinding citizen science to explore psychedelic microdosing](#)



## But Still A Long Way To Go

### **An expensive and long route to market**

While the benefits of psychedelics seem undeniable, time to market can be long and very expensive for companies that do not generate any revenue yet.

- Bringing new drug therapies to the market costs around \$1bn and 7–10 years of R&D, requiring visibility to earn a return on investment.
- Although we observe progressive decriminalization of these substances in a few cities of the U.S., it could take decades before marking a federal decriminalization of psychedelics.

### **Clinical trials design is challenging**

Evaluating results of psychedelic-based clinical trials remains a challenge since controls receiving a placebo will know that they have not taken a hallucinogen drug, and some selection biases are observed.

- Until now, only small population samples (<100 participants) have been used for clinical trials. Moreover, participants are in general familiar with psychedelics for recreative purposes and therefore are positively biased.
- There is still an ongoing search for an appropriate placebo, such as using a different dose range or another psychoactive compound.

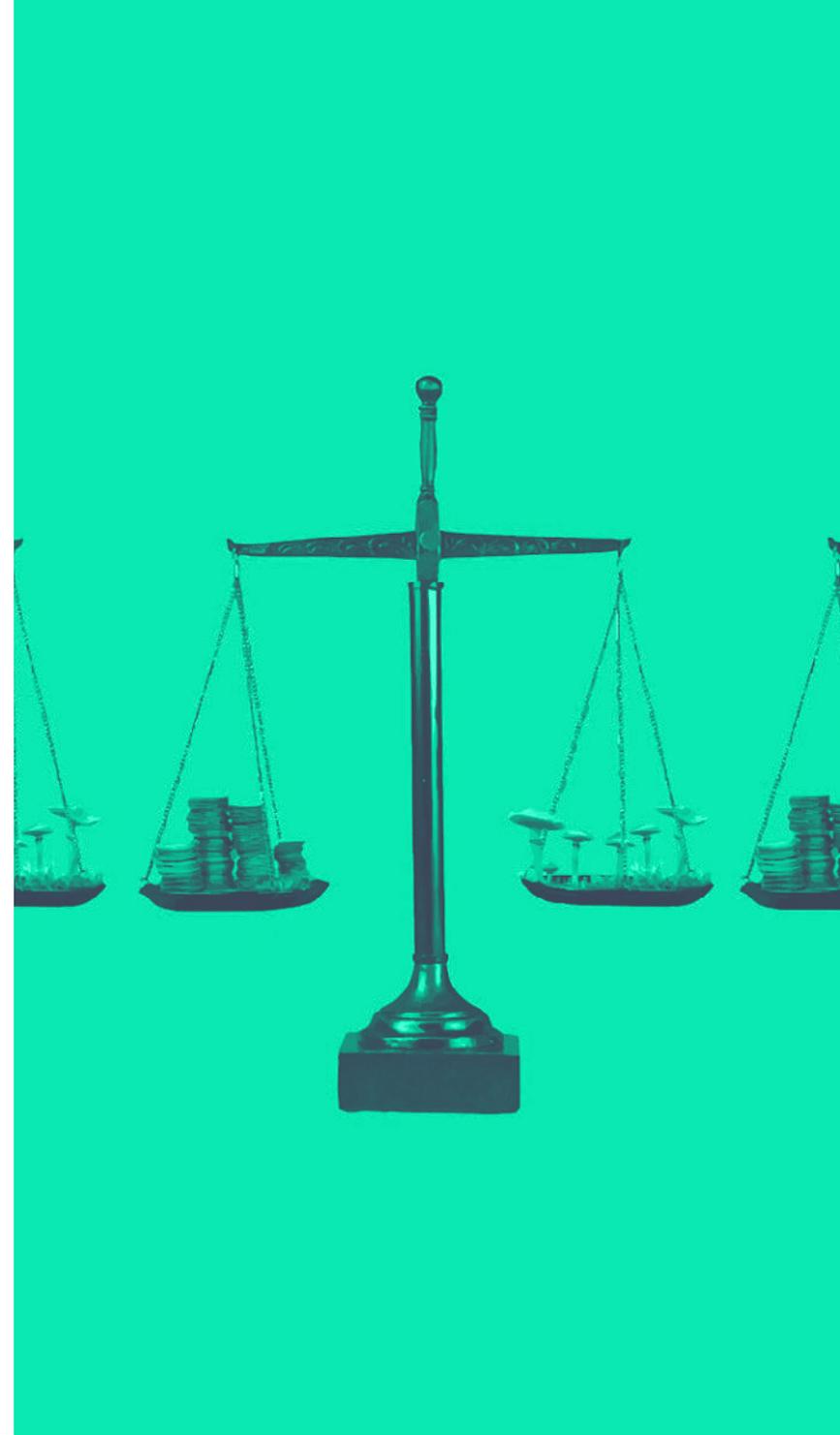
### **Intellectual property concerns**

Many questions are arising concerning the patenting of psychedelic compounds and psychedelic-assisted therapies among professionals and investors. IP remains key to protect a significant source of revenue for companies.

- New compounds, such as molecules similar to psychedelics, seem appropriate to patenting, but it will be more challenging for psychedelic-assisted psychotherapy processes, which promise the best outcomes for patients.
- Non-profit organizations, such as MAPS, are fighting against the patenting of psychotherapies, claiming that these processes have long been in the public domain.

SOURCE:

[Investors Are Debating Who Should Own the Future of Psychedelics](#)



## New Players Are Mushrooming

### A wave of new players

A growing number of publicly traded psychedelics companies are actively researching and developing psychedelics for medical and therapeutic purposes. The sector is quickly moving from a nascent to a maturing investible class.

- Like for the cannabis movement, thanks to an early adoptive investor base and regulatory environment, psychedelic listings are primarily concentrated in Canada.
- A first dedicated ETF was launched this year to capture growing opportunities as an investment class.

### Compass – A leading psilocybin player

One of the most dominant pure-players in the space is Compass Pathways, a clinical-stage company focused on the use of psilocybin in mental health. The company is currently studying its compound in Treatment-Resistant Depression (TRD).

- The company went public last year in one of the hottest biotech IPO's of 2020, raising more than \$120mn and valued north of \$1.3bn while still in relatively early development stages.
- They are running a randomized study expected to report results by year-end.

### MindMed – several shots on goal

Another significant player in the space is MindMed, a company focused on research into psychedelic-inspired medicines. The company's primary target is LSD, though it aspires to offer solutions along the broader psychedelics' spectrum.

- Differently from other players in the space, focused only on experiential therapy, MindMed has developed a microdosing LSD formulation. It believes it can be administered as a "regular" pill and enhance patient outcomes in indications such as attention-deficit hyperactivity disorder (ADHD) and addiction.



## Catalysts

- **Continued positive regulation.** Progressive decriminalization of psychedelic substances and increased people awareness are likely to induce further regulatory tailwinds.
- **Further clinical validation.** Recent clinical trials, such as the MAPS' phase 3 for MDMA-assisted therapy to treat PTSD provide impressive results, increasing general acceptance of psychedelics for medical use.
- **Investments attracting investments.** With investment flowing massively in the sector, we expect to see clinical trials increase their pace and new players go public, feeding a virtuous circle for awareness about this space.

## Risks

- **Intellectual property.** Psychedelics have been around for decades and are not eligible for patent protection. Thus companies will need to rely on regulatory exclusivity, chemical modifications, and an integrated therapy around drug use.
- **Safety issues during clinical trials.** Beyond physiological safety, psychedelics induce considerable cerebral activity that needs to be managed and monitored, primarily for mentally fragile patients.
- **Uptake in recreational use.** In the '70s, excessive recreational use led to stigmatization and criminalization of psychedelics, and broad uptake outside therapeutic use could have adverse consequences.

## Bottom Line

- Research on the utilization of psychedelics has been booming in recent years, and preliminary evidence suggest that therapy sessions containing these powerful drugs could finally offer benefits to people suffering from relapsing mental health conditions. Treatment-Resistant Depression, Post-Traumatic Stress Disorder, and Attention-Deficit Hyperactivity Disorder are just some potential applications, and with investment money pouring in, this class could attract attention as later-stage evidence materializes.
- The investible psychedelics universe has been growing exponentially over the past year. We are convinced of the high unmet medical need still existing in psychiatry and are reviewing psychedelics, which we follow closely, as a potential option to address this medical gap.

### Companies mentioned in this article:

ATAI Life Sciences (Private), Compass Pathways (CMPS US), MindMed (MNMD US)

# BREAKING THE MONEY TABOO

## Fintech As Social Platforms

### Understanding the demographics

Younger generations behave differently than their parents. This is especially true for their relationship to money. For the first time in modern history, an entire generation is comfortable talking about salary, student debt, or investments.

- In the United States, most of the population (52%) is born after 1980.

### Online communities and gamification

The different behavior of Millennials was made possible by the omnipresence of technology and the rise of social media platforms. Financial services are also impacted by how Millennials think and live. Transactions do not only have a practical function, but they must also generate emotions and be fun.

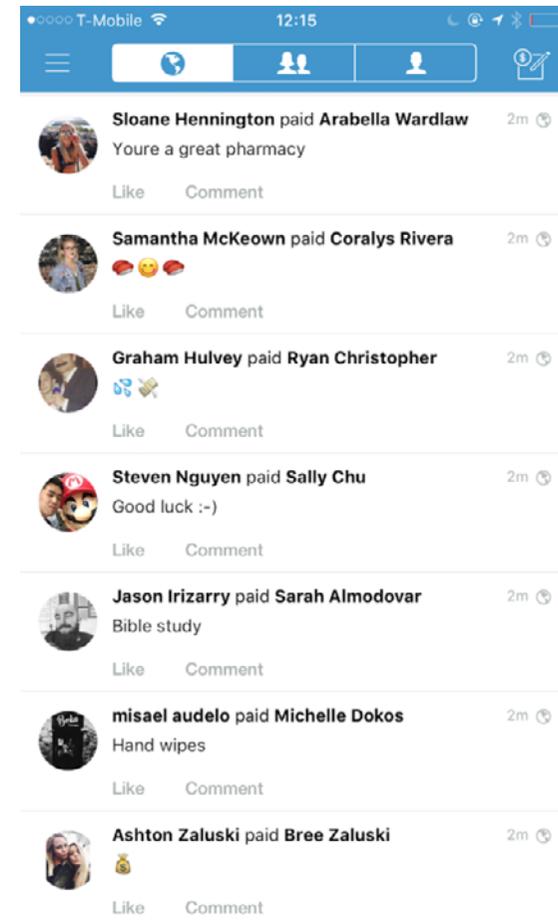
- PayPal's Venmo shares by default any P2P transaction, complete with a text or emoji, as well as the names and picture of involved parties.

### Challengers, tailored for the new paradigm

Fintech challengers understand the financial needs and the banking behavior of Millennials. Their business models are maturing, and their service offering is expanding. They grab market share from the incumbents who are slow to face the new reality.

- The average user on Robinhood, Revolut, or Afterpay is aged 31, 35, and 33 years, respectively.

### VENMO'S PUBLIC TRANSACTIONS LIST



SOURCE:

United Nations, Census Bureau, Companies' releases

## Technology Breaks The Money Taboo

### From moral statistics to economic metrics

Money has not always been at the center of our societies. For centuries, social measurements focused on moral statistics like life expectancy, literacy, crime, etc. The ascent of modern capitalism towards the end of the industrial revolution changed this conception and turned money into the measure of everything.

- Money became a dominant form of social measurement around the 1850s.

### Important but taboo!

With money at the core of our systems, comparisons among individuals take shortcuts – for the better and the worse. Money impacts how people perceive each other and can even influence our perception. As a result, communication about money has remained a psychological and cultural taboo.

- In 1908 already, Freud associated money with feelings of disgust and shame.

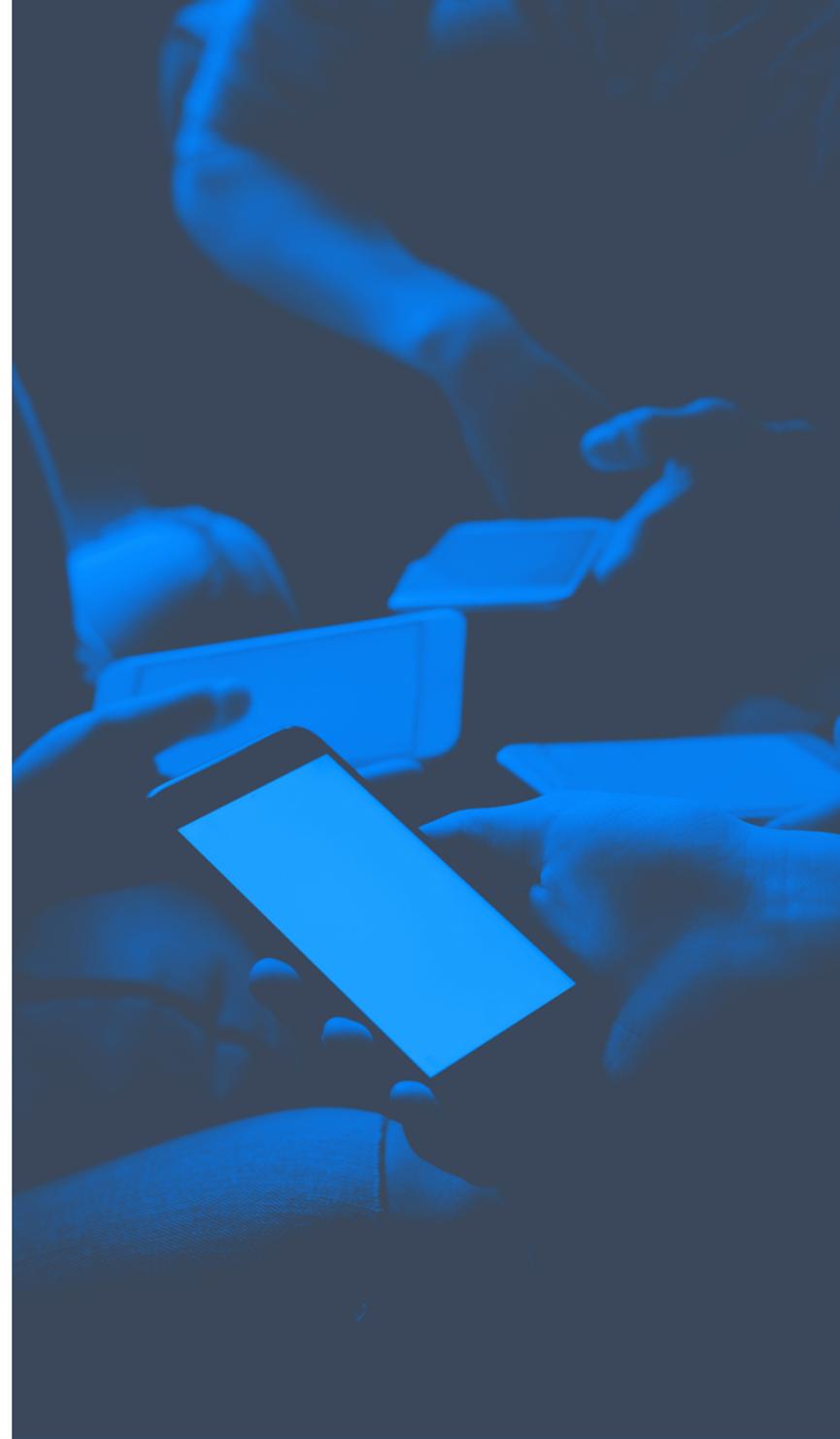
### And then came technology

Technology has radically changed our relationship to money. Changing habits and the rise of social media platforms have brought money on the public space – or at the least on the virtual space. Younger generations do not hesitate to share online their experiences, worries, or tips about money.

- Twitter or Facebook accumulate millions of discussions about money.
- Reddit's WallStreetBets has 10mn users exchanging investment ideas – for better or worse.

SOURCE:

The Atlantic, Talking about money is taboo by Liezel Alsemgeest



# Studying Behavior To Make Investment Decisions

## New generation, new thinking

Relationship to money evolves slowly over time. It is highly linked to the socio-cultural framework and is shared across cohorts. Connected to technology, Millennials grew up with the first generation of social media platforms. They drive the current fintech revolution. Gen Z accentuates this behavioral change.

- Millennials were born between 1981–1996. They are turning 40 and are the parents of Generation Alpha which started in the early 2010s.
- Generation Z, or Zoomers, succeeds Millennials and precedes Gen Alpha.

## Transforming the economy

In the United States, Millennials outnumbered Baby Boomers in 2019. They are the most educated generation in history. They think differently; emotions prime and ownership is secondary. They are reshaping the economy for the next decades.

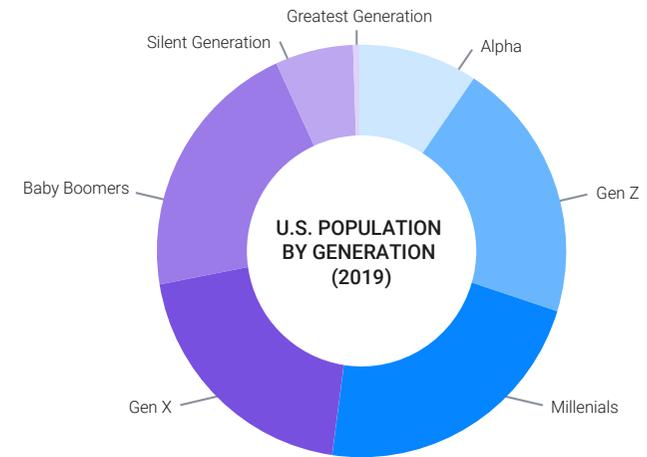
- More than half of the U.S. population are millennials or younger.
- By 2030, Millennials will make 75% of the U.S. workforce.

## The great wealth transfer

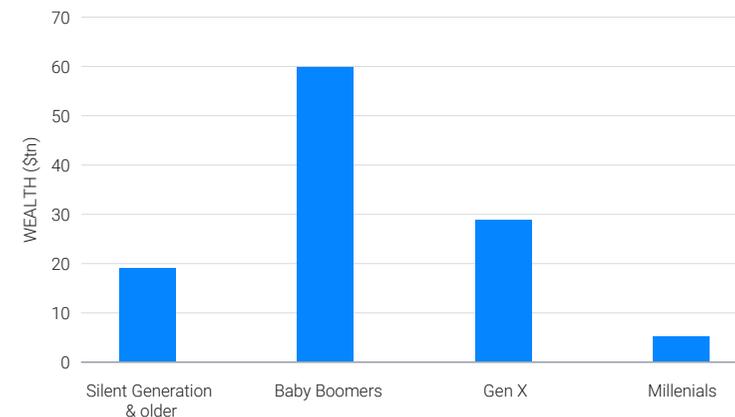
In terms of income, Millennials are becoming the financial engine of the economy. Moreover, they will inherit from the wealthiest generation in history. Their money and banking habits are unlikely to change, though, posing problems for the business model of traditional players.

- The median adjusted household income for Millennials is at \$85'800 (2019), more than any young adult households in the last 50 years.
- Millennials will inherit \$68tn (or ~20% of global wealth) by 2030.

U.S. POPULATION BY GENERATION (2019)



U.S. WEALTH BY GENERATION (2019)



SOURCE:  
Wikipedia, Bureau of Labor Statistics, Coldwell Banker, U.S. Federal Reserve

# A Complex Approach To Money

## The American Dream is dead

With record student debt, Millennials do not share a key objective of their parents: saving enough to buy a house. Saving for retirement is also challenging when most Millennials expect to work beyond the legal pension age.

- In 40 years, the median age of U.S. homebuyers went up from 31 to 47.
- The average college debt in the U.S. is \$32'700; a Student-Loan Forgiveness Plan is being debated in Washington.
- We wrote about [Fintech and student debt](#) in 2019 already.

## YOLO!

As a result of the debt burden and uncertain future, Millennials apply the *You Only Live Once* motto. It is a rare financial behavior they share with aging Boomers. Lifelong happiness is more important than short-term gratifications, yielding to "irrational" spending behavior and the preference for experiences over things.

- 26% of Millennials do not believe that Social Security will be available to them when they retire.

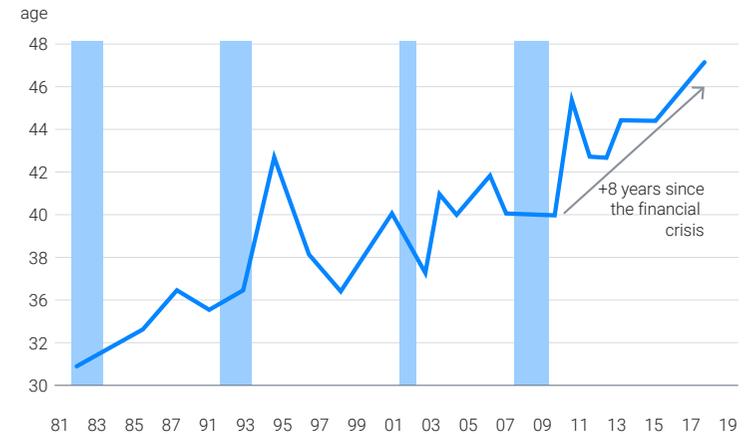
## The distrust of financial advisors

Millennials see financial professionals as salesmen hiding potential conflicts of interest. They prefer to follow their instinct or the investment recommendations from their peers. However, the minority of affluent Millennials still rely on investment professionals.

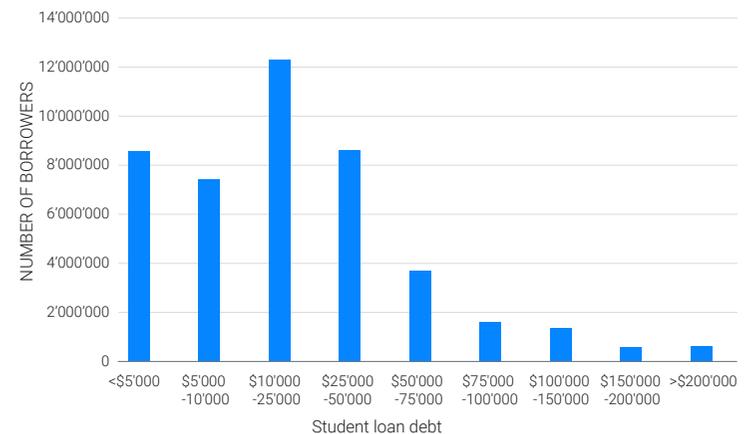
- An Investopedia survey showed that 65% of affluent millennials, with a median income of \$132'000, trusted financial advisors.

SOURCE:  
Deutsche Bank, Northwestern Mutual's 2020 Planning & Progress Study, Federal Reserve, Investopedia

MEDIAN AGE OF U.S. HOMEBUYERS (DB)



DISTRIBUTION OF STUDENT LOAN DEBT (2019)



# New Business Models Capitalizing On New Behaviors

## Building communities

Next-gen Fintech emerged after the financial crisis as incumbents would not sustain people's needs. Often built by Millennials, these startups capitalized on the different lifestyles of their peers. Communication was adapted to their target audience, developing communities of enthusiasts.

- Customers feel they belong to a special club, increasing brand loyalty.

## A touch of social media

Social media are about vanity, complaints, and staring at others' lives. Money shares the same codes. New Fintech propositions include a social element as part of their unique selling proposition to engage their customers.

- For instance, Commonstock, a social network linked to brokerage accounts, aims to create more informed investors. People can follow the trades of their peers, chat with investors, or read stock-market analyses.

## The Fintech gamification

Many people see money as a game – you win some, you lose some. Several Fintech apps use psychological tricks and modern user experience to engage with their customers by congratulating them, sending rewards, or setting goals. Gamification makes financial services less complex and increases retention rates.

- Robinhood referral lottery promises stocks worth up to \$225. In practice, 98% of referrers receive a stock worth between \$2.50 and \$10.

SOURCE:  
Andreessen Horowitz, AtonRā Partners

## TRANSACTION LAYER

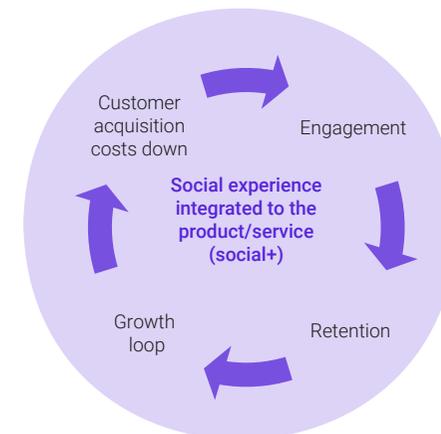
Functional use, practical effect



Social media and Fintech:  
A complementary approach yielding to a mutual reinforcement

Emotions, cognitive process

## INTERACTION LAYER



## Market Consequences

### Better financial inclusion

Engaged Fintech companies often provide educational content, improving financial knowledge. Many Millennials trade for the first time using challengers' platforms, which play their role in facilitating financial services democratization.

- As per Robinhood, about half of its users are first-time investors.

### Different favorite stocks

Millennials think differently from their parents, and they also invest differently. They are sensitive to growth stocks they know and use, i.e., famous brands. They are also behind the ESG revolution that is taking place in the asset management industry.

- As per Apex, top holdings from Millennials include companies like Tesla, Apple, or Amazon, with more speculative bets from WallstreetBets like Gamestop or AMC (Q1 2021).

### Speculators or investors?

Millennials are often considered as "Robinhood" day traders. But this only concerns a minority of participants. The lower holding period is not due to behavior changes but rather to technological developments and automated trading. Most millennials are not day traders.

- The average U.S. holding period went from >7 years (in the '60s) to <1 year.
- 98% of Robinhood users are buy-and-hold investors. This is even more true at platforms like SoFi or Betterment that market themselves for "investing" rather than "trading".

SOURCE:

Apex Clearing, Companies' releases, AtonRā Partners



## Fintech Reinvents Customer Relationships

### Happy members are the best brand ambassadors

SoFi, the leading challenger in personal finance, targets HENRYs – High Earners Not Rich Yet. The company is known for its private events that make its members feel special. SoFi believes finance is interrelated to all life activities. It wants to be more than a financial provider to its members by teaching them something new.

- SoFi organizes hundreds of events per year across the United States, including finance-related workshops, but also happy hours, speed-dating, painting lessons, or yoga classes.

### A brand name turned into a verb

Afterpay, the Buy-Now-Pay-Later payment solutions leader, has developed a distinctive community that acts as a real competitive advantage. Online groups are so numerous that “Afterpay” is now one of the few companies whose name has become a verb. The strong online community helps the company expand its network of merchants.

- We covered SoFi and Afterpay in our [Top Picks 2021](#).

### Content creators increase retention rate

The recent acquisition of Jay-Z' Tidal by Square will allow the company to capitalize on the music industry. Square will provide financial services to artists, bringing on board an essential community of content creators.

- An acquisition that could turn into a non-fungible token business line, offering the ultimate gamification experience (collection, exclusivity content, personalization, etc.).

A SILENT DISCO YOGA PARTY ORGANIZED BY SOFI



SOURCE:  
Companies' releases., AtonRā Partners

## Catalysts

- **Student debt forgiveness.** Biden supported during his campaign a \$10'000 student debt relief for every year of national or community service. The infrastructure package did not include it, but other plans may come down the road, implying less indebted Millennials.
- **Millennials getting older.** Millennials are starting to have children and may think about acquiring a house. Their financial needs will evolve, representing opportunities for one-stop shops like SoFi or Square.
- **Working Zoomers.** Gen Z members are not digital pioneers but digital natives. They are an augmented version of Millennials. They are gaining financial independence and will exacerbate the behavior of their predecessors.

## Risks

- **Big Tech.** Every company could become a Fintech company. If the engagement layer takes over the transaction layer, there will be few barriers to entry for social network providers like Facebook to compete with current challengers – especially with the planned launch of Diem.
- **YOLO.** The great wealth transfer may not be as important as expected if Boomers spend all their money on healthcare, travel, and entertainment in the coming years, or Biden's inheritance tax proposal is adopted.
- **Data privacy.** Challengers are embracing the social component side collecting financial, transactional, personal, and behavioral data. The perfect mix to attract regulator's attention – or even worse, hackers!

## Bottom Line

- Younger generations are reshaping entire portions of the economy. Their relationship towards money is different from their parents'. They are keen about using the latest technological tools to discuss about their financial situation. They have breached the money taboo.
- New business models that aim to engage customers in the financial process are emerging. Financial transactions do not end at their practical function, they should also create emotions and be fun. Traditional players are not tailored to meet this new reality, to the benefit of Fintech challengers.

### Companies mentioned in this article:

Afterpay (APT AX), Amazon (AMZN US), AMC (AMC US), Apple (APPL US), Betterment (not listed), Commonstock (not listed), Facebook (FB US), Gamestop (GME US), PayPal (PYPL US), Reddit (not listed), Robinhood (not listed yet, draft S-1 filed with SEC), Revolut (not listed), SoFi (SOFI US), Square (SQ US), Tesla (TSLA US), Twitter (TWTR US)

# CHARTS FOR THOUGHTS

## Retail Sales Catching Up

### Retail Sales

The chart shows the 1-year rolling cumulative monthly Retail Sales in both China and the U.S., measuring the consumer demand for finished goods.

- 30 years ago, annual retail sales in China were only 7,5% of the USA, or about \$150bn vs. \$2tn.
- China exponential growth has steadily outperformed the U.S. over the last two decades and has recently taken over the lead.

### China Dual Circulation strategy

As [we wrote](#), China explicitly stated in its last Five-year Plan that to drive its sustainable, high-quality growth it will target both external and internal demand, a strategy known as Dual Circulation.

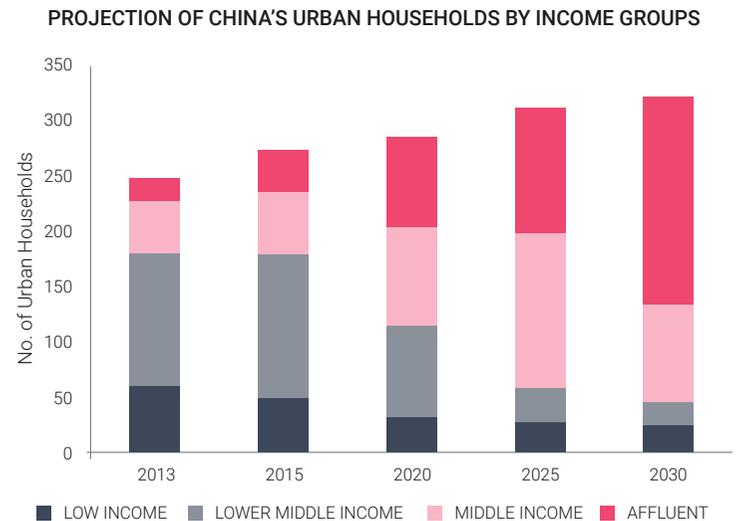
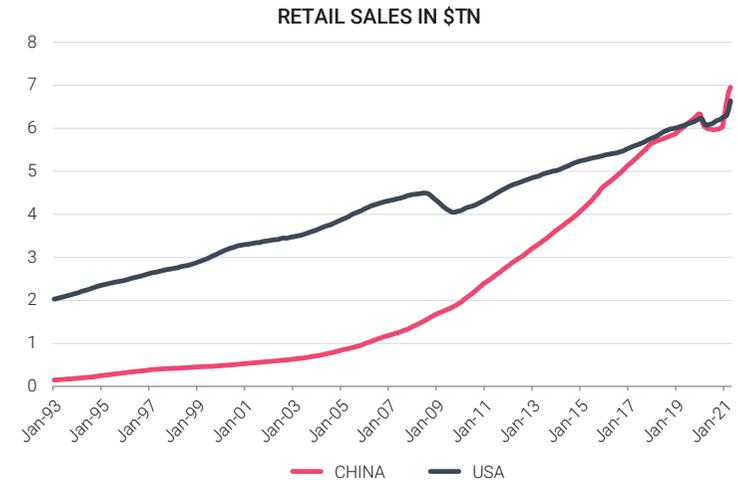
- Retail Sales numbers suggest that internal consumer demand is still accelerating and unlikely to stop soon, given the ever-growing government focus on the domestic economy.

### Growing high-income class

With close to 1bn people in its urban areas, China can count on its internal demand as a new vector of growth. Its growing affluent and middle-income classes. provide ammunitions for growth if external demand fades because of international tensions.

- Affluent and middle class are taking the lion share of both absolute household spending and as a share of total population.
- Could China be entering a self-sustaining growth era?

SOURCE:  
ANZ Research, AtonRā Partners



# Invest Beyond The Ordinary

Explore our investment themes:  
**[www.atonra.ch/investment-themes/](http://www.atonra.ch/investment-themes/)**

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AtonRâ Partners is a conviction-driven asset manager combining industrial and scientific research with financial analysis. AtonRâ Partners focuses on long-term trends powerful enough to be turned into thematic equity portfolios.

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