

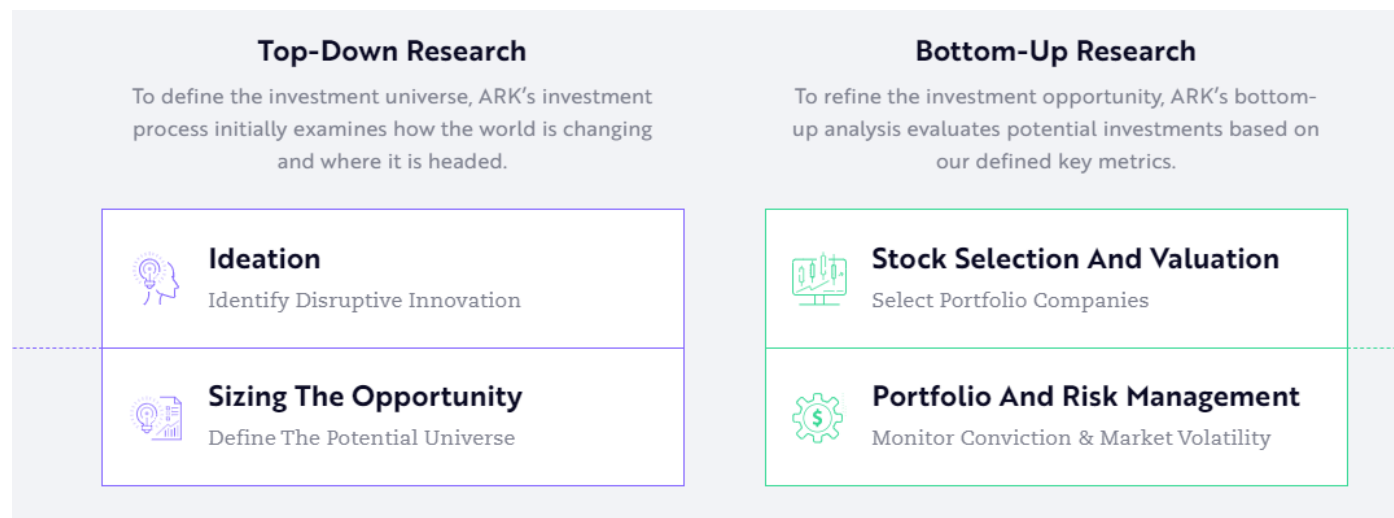
PWIN Update

Long-term outlook and stock highlights

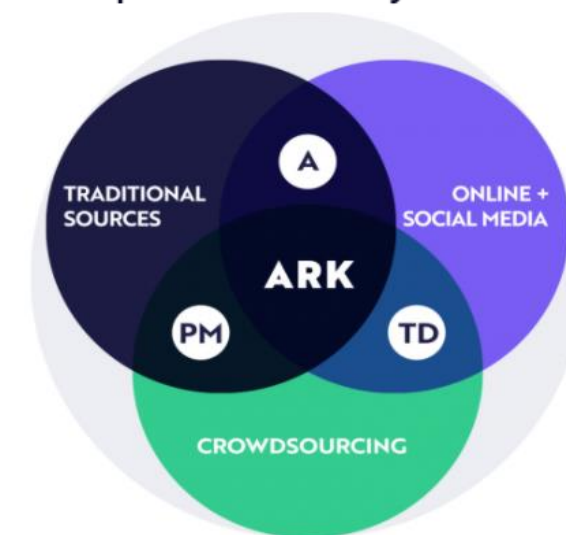
September 2020

ARK's research and investment process

- ◆ ARK's fund managers and research team use top-down analysis in order to find the businesses that are benefited from the innovative disruption especially for the megatrends. Besides that, the team also use bottom-up analysis to analyze fundamental data of the stocks such as valuation, risk, growth opportunity, etc.
- ◆ Apart from the traditional source analysis such as research papers and financial statements, ARK also use online & social media analysis to find out what trends are well-recognized and are they really have broad impacts to people. The last part of the analysis is called crowdsourcing which is the brainstorming method among fund's researchers and professionals in each field. This discussion could make the research outcomes more realistic and up-to-date. Therefore, the extraordinary and in-depth research process of ARK could bring our fund the best investment criteria in all situations.



ARK's Open Research Ecosystem











Source: <https://ark-invest.com/investment-process/>

ARK's fund managers and research team

Catherine Wood Founder, CEO, and CIO 	Brett Winton Director of Research 	Renato Leggi, CFA, CAIA Client Portfolio Manager 
Prior: AllianceBernstein, CIO Global Thematic Strategies BS, Finance and Economics, University of Southern California, USA	Prior: AllianceBernstein, Strategic Research Analyst BS, Mechanical Engineering, Massachusetts Institute of Technology, USA	Prior: Capital One - Wealth Management, Director of Research & Due Diligence MS, Finance, Loyola University Maryland, USA

ANALYST TEAM

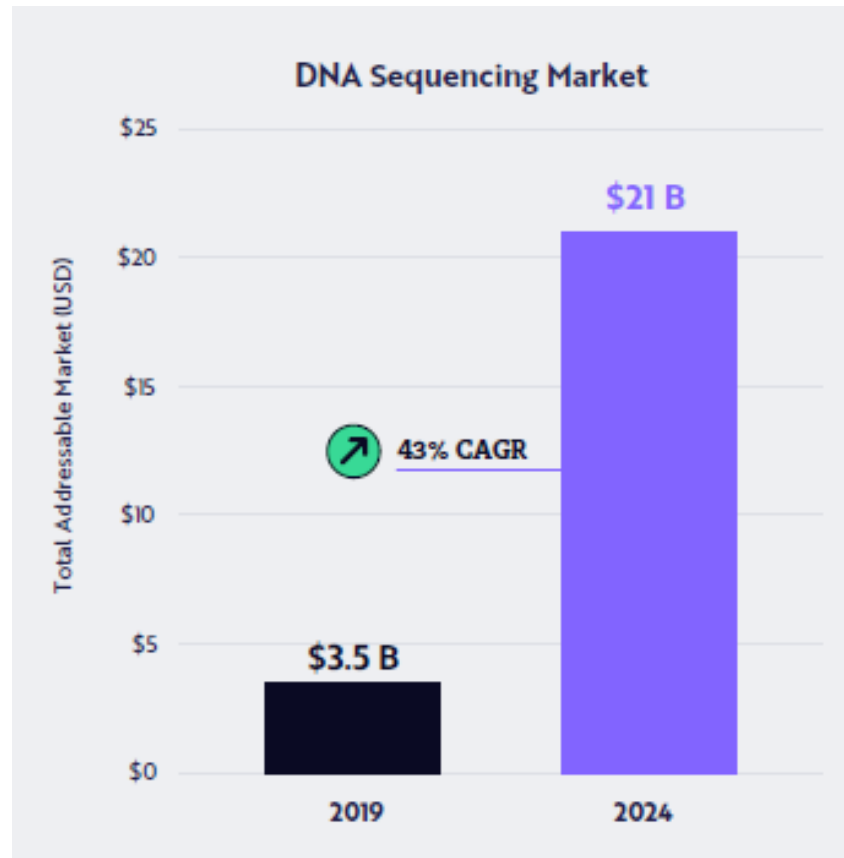
James Wang A.I., Next Generation Internet 	Tasha Keeney, CFA Autonomous Vehicles, MaaS, 3D Printing 	Sam Korus Robotics, Energy Storage, Space 
Prior: NVIDIA, Product Manager BE, Computer Engineering, University of New South Wales, Australia	Prior: Applied Value, Management Consultant BA, Mathematics and Statistics, Boston University, USA	Prior: GraphIQ, Business Development BS, Cognitive Science, University of Pennsylvania, USA
Simon Barnett DNA Sequencing, Molecular Diagnostics 	Maximilian Friedrich Fintech, Venture Capital 	George Whitridge Fintech, Lending 
Prior: Aditus Holdings, Finance and Operations BS, Chemical and Biomolecular Engineering, Johns Hopkins University, USA	Prior: Redstone Venture Capital, Analyst BS, Economics University of Heidelberg, Germany	Prior: Square Capital, Business Development Manager BA, Business, Organizations, Entrepreneurship Brown University, USA
Yassine Elmandjra Blockchain Technology, Cryptoassets 	Nick Grous Social Media, Streaming 	Trading/Support Team
Prior: Rembrandt Venture Partners, Analyst BE, Systems Engineering, University of Pennsylvania, USA	Prior: York International Insurance, Account Executive BA, Political Science, University of Michigan, USA	1 Trading Manager 1 Trader

- ◆ Apart from fund managers and research team at Phillip, we also have these professionals from ARK who always share investment ideas and market views with us.
- ◆ Catherine Wood who is a fund manager of ARKK has more than 40 years of investment experience. Before joining ARK, She worked for private funds, thematic funds, and was the economics analyst.
- ◆ ARK also has research team who analyze and monitor stocks in each sector. Then our investors can make sure that we always take care of your investment in every aspect.

Source: <https://www.nikkoam.com.sg/institutional/equity-strategies/nikko-am-ark-disruptive-innovation-strategy?nk-route>

Long-term investment outlook

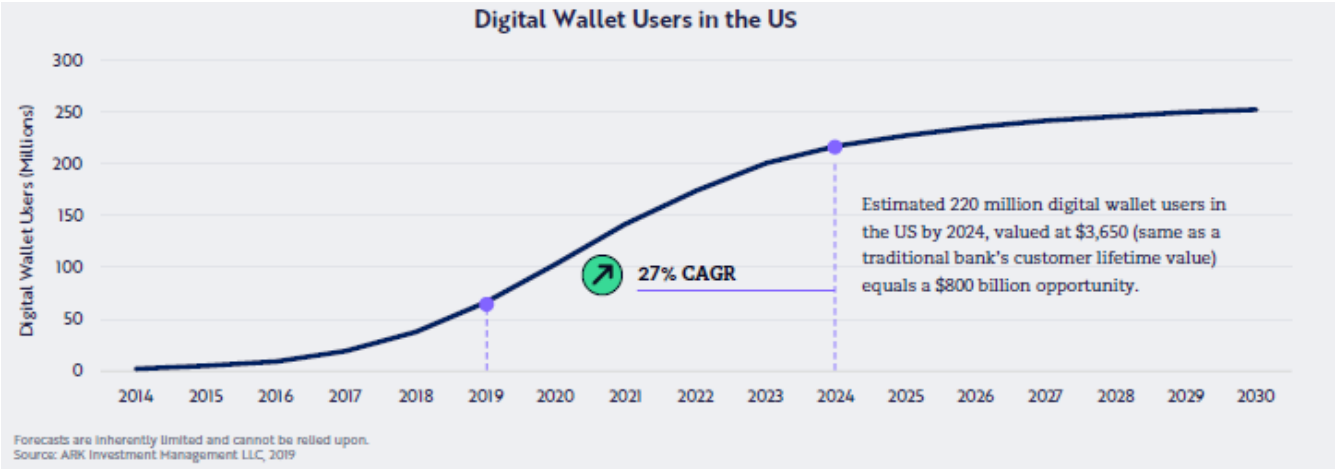
Next-generation DNA sequencing (NGS)



Source: ARK Investment Management LLC, 2019

- ◆ In the past, DNA sequencing process usually took long time and couldn't analyze many sequences at the same time. However, in these days, NGS technology can solve these problems and significantly reduce the cost for DNA sequencing.
- ◆ NGS has been widely used for gene mutation research, cancer and disease diagnosis, and prognosis.
- ◆ This technology is the main driver for medical research improvement and treatment efficiency. This could also increase demand for the biotech business.
- ◆ ARK expects that NGS revenue could grow around 43% per year and could generate around USD 21 billion of revenue in 2024.
- ◆ Therefore, we believe that investment theme in biotech-DNA sequencing will yield benefits in the long-term as the advancement of NGS.

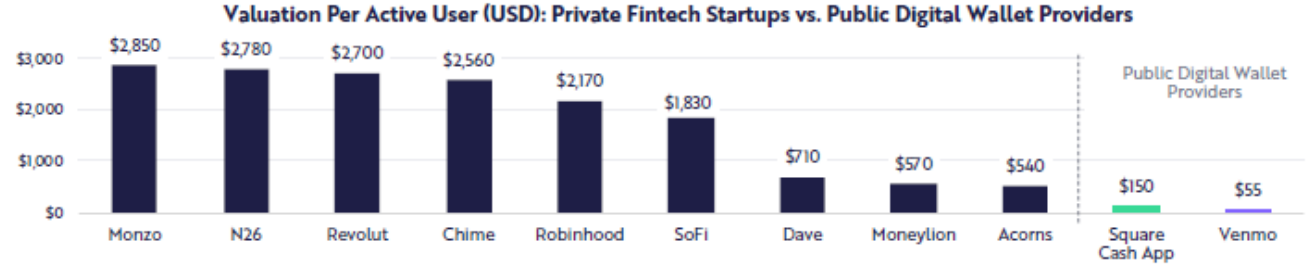
Digital Wallet



◆ Digital wallet is a fast growing business and its market value has a great potential to beat traditional banks' value. The reasons are digital wallet use much less management cost (such as staffs, resources) than the traditional business and digital system can provide more thorough services to customers compared to the others.

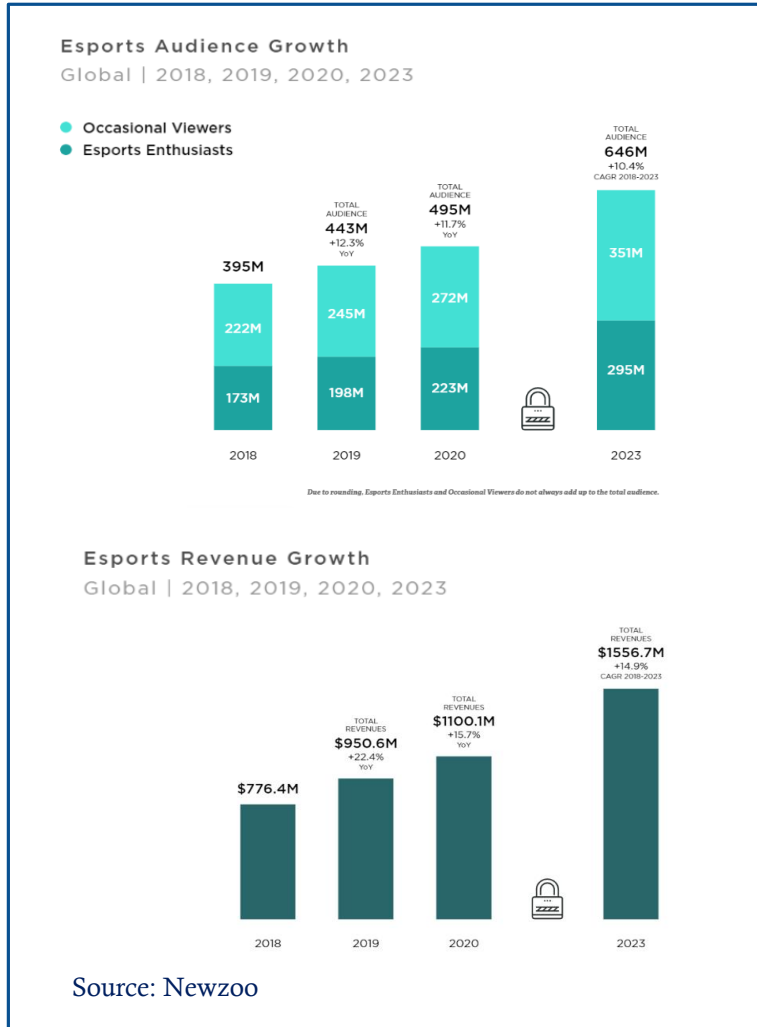
◆ ARK estimates that in the US, it will have 220 million users of digital wallet which are valued around USD 800 billion by 2024.

◆ Although digital wallet has plenty of room for the growth, market doesn't realize this opportunity and give it a discount value. So, now is the time to invest in the high potential theme at the discounted price.



Source: ARK Investment Management LLC, 2019. Company Information, ARK Estimates. For Cash App and Venmo using Square's and PayPal's price-to-sales multiple applied to estimated Cash App and Venmo revenue and divided by ARK's MAU (Monthly Active Users) estimate. For private Fintechs using last valuation divided by ARK's MAU estimate. | Representative Retail Banks: ARK Estimates based on JP Morgan Chase, Wells Fargo, US Bank, PNC Bank, Bank of America 2018 Annual Reports. This is not a recommendation in relation to any named securities and no warranty or guarantee is provided. Any references to particular securities are for illustrative purposes only.

E-sports



- ◆ E-sports audience rate has around 10% steady growth for each year and expected to continue the growth trend in the future.
- ◆ China is not only the country that has a high participation rate, Southeast Asia, Middle East and Africa are also the regions that also interested in this activity.
- ◆ The main reasons of this growth are the increasing in both middle-income population who has more disposable income and young generation who familiar with technology.
- ◆ In terms of revenue, E-sports generates more than USD 1 billion this year. Researchers expects that the revenue would reach USD 1.5 billion by 2023.

E-sports (cont.)



Source: Newzoo

Source: <https://theasianpost.com/article/gaming-explosion-southeast-asia>

- ◇ There are 6 main players for E-sports in Southeast Asia region.
- ◇ E-sports might be involved in the 2022 Asian Games(tentative). If this could happen, it could increase the number of players, audiences and winning awards. These outcomes could benefit the industry and our investment theme.

Stock highlights

Top holdings and stock highlights

Company	% of holding	Sector
TESLA INC	5.22%	Automotive Technology
INVITAE CORP	4.11%	Biotech – Genetic Testing
CRISPR THERAPEUTICS AG	3.34%	Biotech – Cell Therapy
SQUARE INC - A	3.26%	Fintech Digital Payments
ROKU INC	2.22%	Video Streaming
ILLUMINA INC	2.01%	Biotech – Genetic Testing
PROTO LABS INC	1.80%	3D Printing
EDITAS MEDICINE INC	1.75%	Biotech – Gene Therapy
2U INC	1.70%	Online Education Platform
COMPUGEN LTD	1.64%	Biotech – Gene Diagnostic
SERES THERAPEUTICS INC	1.63%	Biotech – Gene Therapy
ZILLOW GROUP INC - C	1.49%	Real Estate Platform
LENDINGTREE INC	1.43%	Online Lending Platform
SLACK TECHNOLOGIES INC- CL A	1.33%	Communication platform

As of 17 August 2020

CRISPR: The Gene-editing company announced a highly positive data from 2 clinical trials of its CTX001 gene-editing therapy for beta thalassemia and sickle cell disease. According to the WHO, up to 500,000 children are born each year with these diseases. Prior to CRISPR technology, the only cure for diseases such as this is a bone marrow transplant, which is out of reach for many patients. CRISPR technology enables scientists to make changes in DNA much easier and more effectively than before, leading to major medical breakthrough.

SQUARE: Square's CashApp has over 30m active users in the US, as many clients switch from traditional bank accounts to digital financial apps. They are now launching a new service allowing clients to borrow up to \$200 at a rate for 5% per month. The average interest rate from payday lenders in the US is 391% per year, and as high as 661% per year in Texas. There is a huge growth opportunity in digital lending to clients which have been selected by Square's AI. Square was founded by Jack Dorsey, the founder and CEO of Twitter, which is a leader in technology

ILLUMINA: Illumina's sequencing technology is responsible for more than 90% of the world's sequencing data, including a vast majority of hospitals and labs worldwide. If someone you know recently had a biopsy for cancer diagnostic, chances are it is done using Illumina's technology.