

Financial Market Conditions for Green, Digital and Inclusive Cities - The Role of Sovereign Wealth Funds and Institutional Investors

WINSTON MA | PAUL DOWNS

THE HUNT FOR UNICORNS

HOW SOVEREIGN FUNDS ARE RESHAPING INVESTMENT IN THE DIGITAL ECONOMY

Forewords by

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WILEY

Building the Green, Digital and Inclusive City of the 21st Century

Winston Ma, January 2024



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East - West Synergies

Winston Ma is one of a small number of native Chinese who have worked as investment professionals and practicing capital markets attorneys in both the United States and China.

Most recently, he was Managing Director and Head of North America Office for China Investment Corporation (CIC), China's sovereign wealth fund, for 10 years. Prior to that, Mr. Ma served as the deputy head of equity capital markets at Barclays Capital, a vice president at J.P. Morgan investment banking, and a corporate lawyer at Davis Polk & Wardwell LLP.

Currently he is an investor, attorney, author, and adjunct professor in the global digital economy. He is the board Chairman of Nasdaq-listed MCAA, a European tech SPAC, which announced its merger with the digital media unit of FCB (Football Club Barcelona) in August 2023. He is also an advisory board member of Capgemini, and an Adjunct Professor at NYU Law School on SWF fund topics.

The Trillion Dollar Club - SIFs

- Sovereign Investment Funds (SIF) = Sovereign Wealth funds + Government Employee Pension Funds + Central Banks
- More than \$30 trillion in assets under management
- Norway's fund alone holds on average more than 1.5% of every listed company on earth
- The Global Financial Crisis saw them ride to the rescue of the Western financial system

Top 10 Sovereign Wealth Funds

- **Government Pension Fund of Norway**, Europe, \$1,268,793,594,823
- **China Investment Corporation (CIC)**, Asia, \$1,222,307,000,000,
- **Abu Dhabi Investment Authority (ADIA)**, Middle East, \$708,750,000,000,
- **Kuwait Investment Authority (KIA)**, Middle East, \$708,420,960,000,
- **GIC Private Limited**, Asia, \$690,000,000,000,
- **Public Investment Fund**, Middle East, \$620,000,000,
- **Hong Kong Monetary Authority**, Asia, \$588,903,442,872,
- **Temasek Holdings**, Asia, \$496,593,722,700,
- **Qatar Investment Authority (QIA)**, Middle East, \$461,000,000,000.
- **National Council for Social Security Fund**, Asia, \$447,358,000,000.

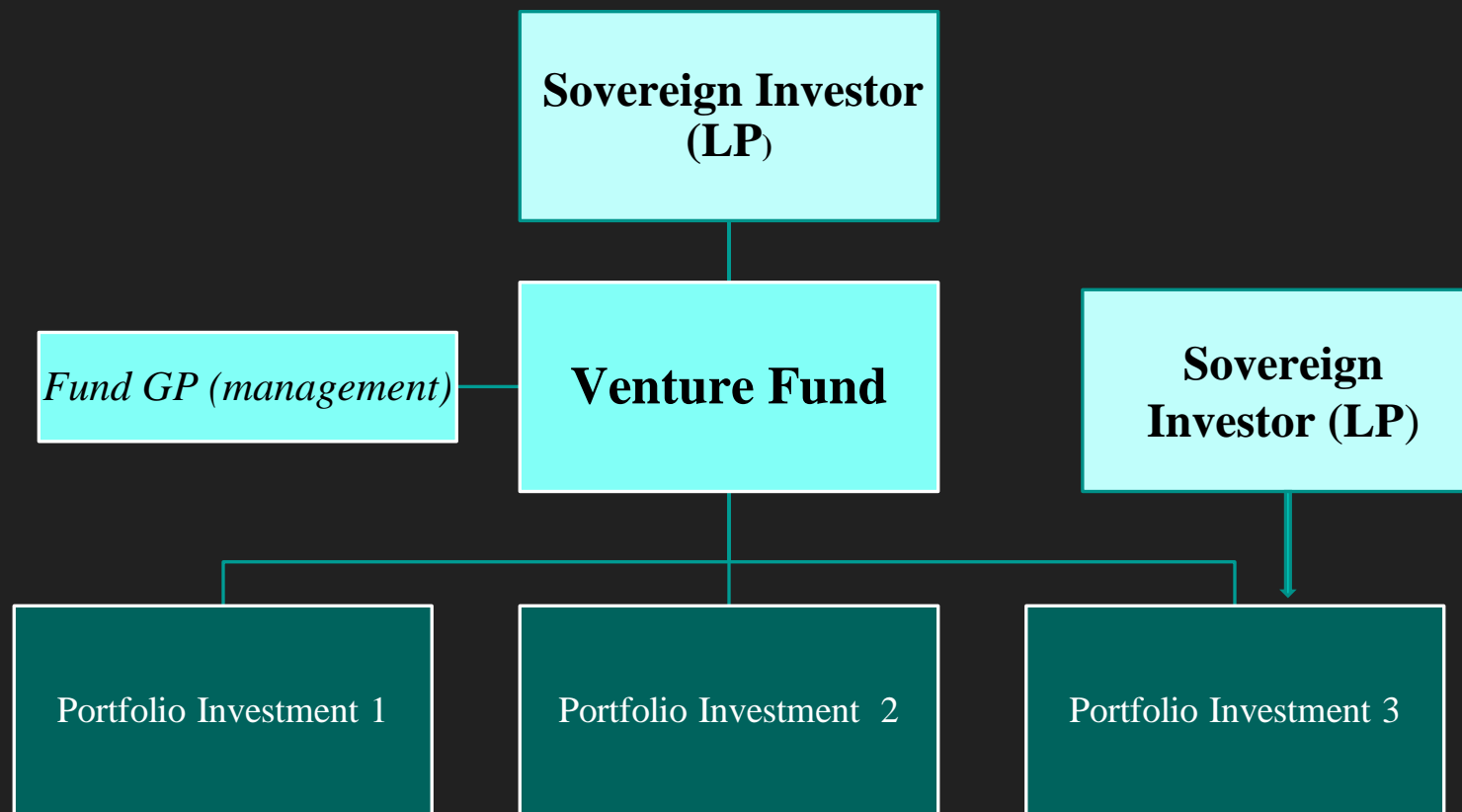
Data Source: Sovereign Wealth Fund Institute, March 2022

Top 10 Public Pension Funds : Bigger Still

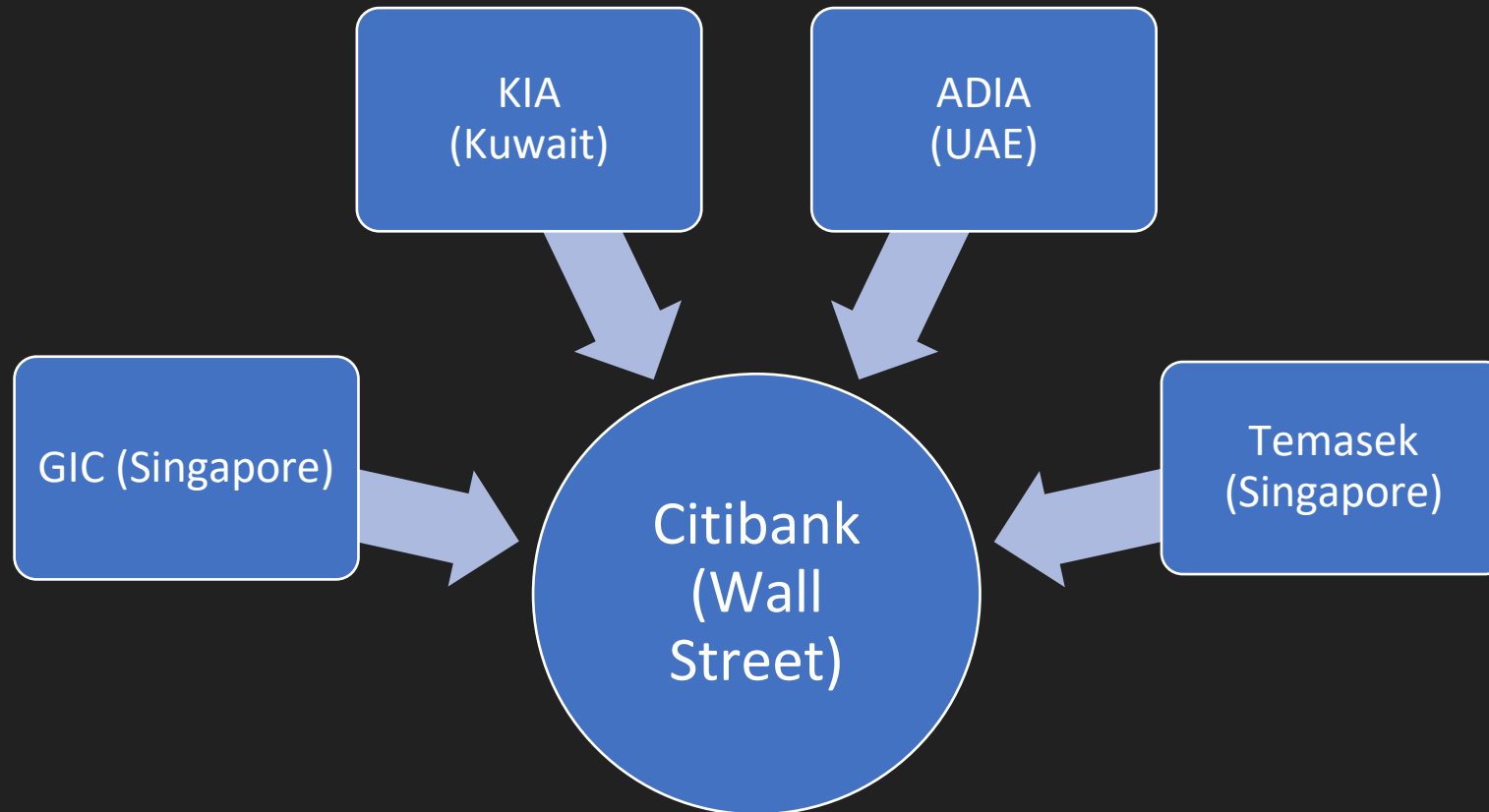
- **Social Security Trust Funds**, North America \$2,838,183,544,330
- **Government Pension Investment Fund Japan (GPIF)**, Asia \$1,445,102,707,334
- **Caisse de Depots**, North America, \$1,112,376,809,500
- **Military Retirement Fund**, North America, \$979,432,811,000
- **Federal Retirement Thrift Investment Board**, North America \$782,292,000,000
- **Federal Employees Retirement System**, North America \$733,815,462,000
- **National Pension Service of Korea (NPS)**, Asia \$679,896,144,200
- **Stichting Pensioenfondsen ABP**, Europe \$540,315,660,000
- **Zenkyoren Pension Japan**, Asia \$ 530,339,000,000
- **Canadian Pension Plan Investment Board (CPPIB)**, North America \$518,365,379,346

Data Source: Sovereign Wealth Fund Institute, March 2022

Evolution of Fund Investments: LP, Co-Invest, Direct



2008 Saw Sovereign Funds Pour \$10 billion into Citibank alone



CIC supported Blackstone, Morgan Stanley

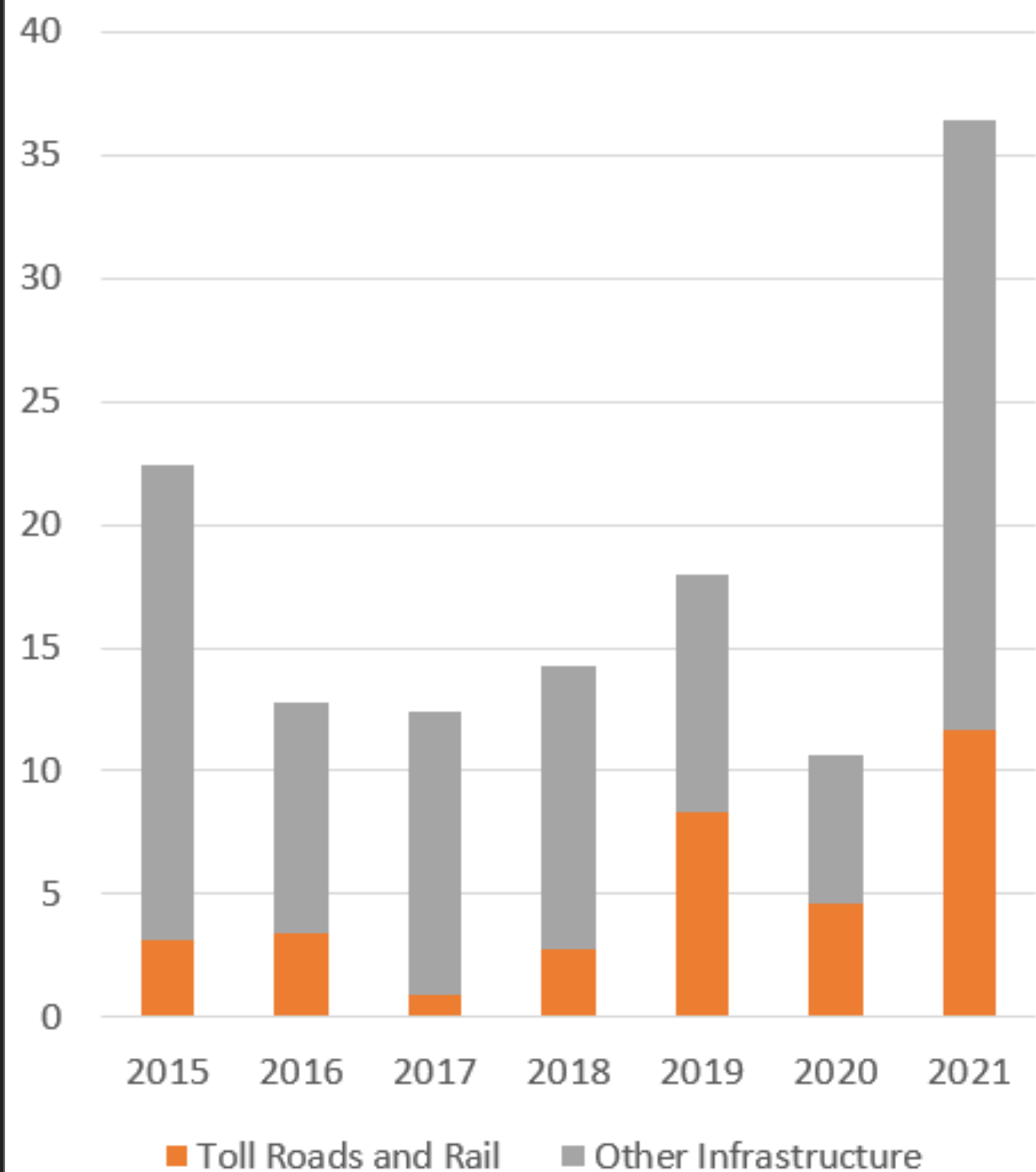


Last Decade Saw SIFs Increasingly Active



Sovereign Investors have become major Infrastructure Investors

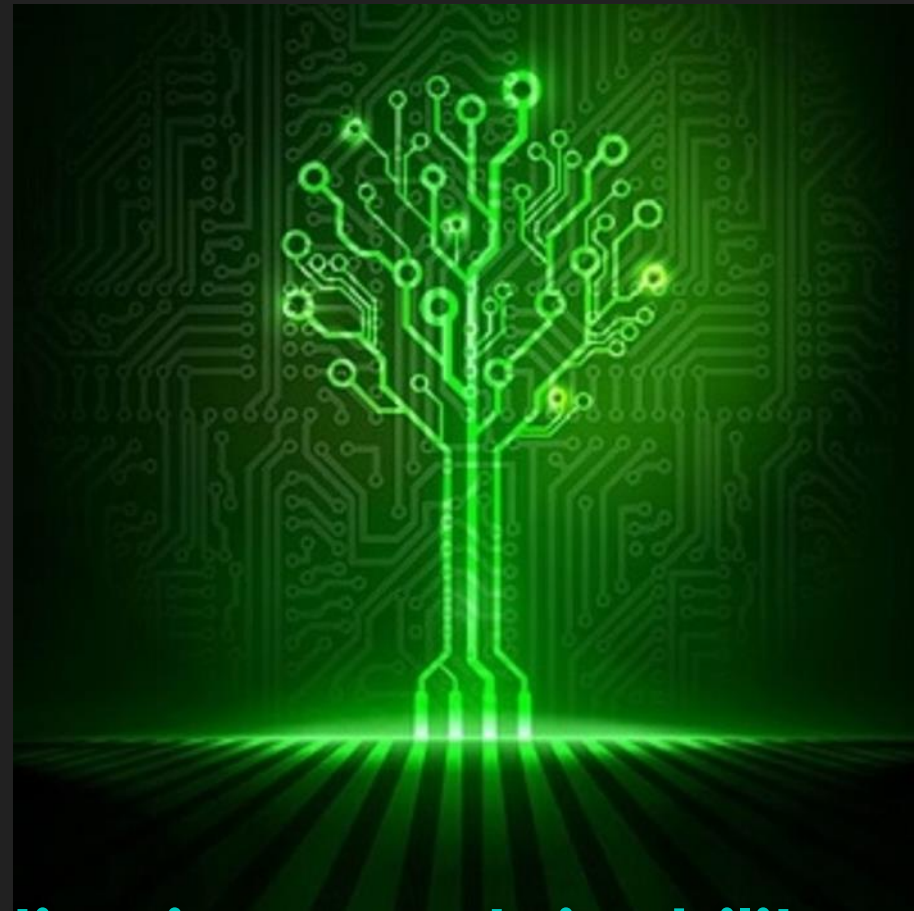
2015 -2021 Direct Sovereign Wealth
Fund and Public Pension
Transactions in Infrastructure
(\$ Billions USD)



Smart Cities: the New Frontier of Infra Investments

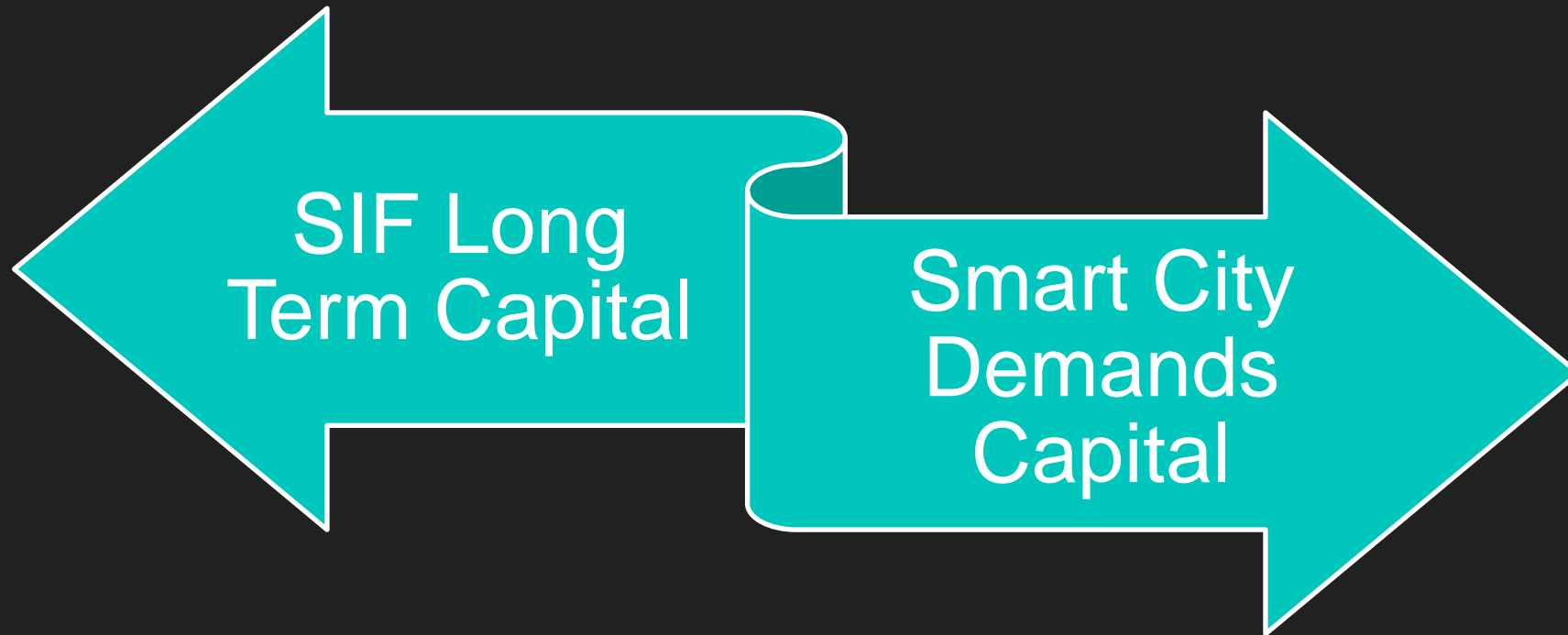


Digital Infrastructure as the green, resilient infrastructure for the future



“Digitalization is our sustainability solution.”

Yet ...Funding Gap: Capital vs Projects



Smart cities require (digital) infrastructure modernization—a high price-tag proposition

“Attracting investors requires a comprehensive strategic plan that clearly communicates the opportunity and presents a robust business model, a creative approach to funding and financing—new sources of revenue, new business models for recovery and value capture—and innovative financing structures for investors.”

- Deloitte “Funding and financing strategies for smart cities” report

Deloitte.

Emerging markets need to understand the perspective of investors

- 1. Infrastructure strategic vision, which includes a project pipeline, a viable role for investors, and communication strategy.
- 2. Policy and regulatory enablers, which mitigate renegotiation risk and increase the efficiency of key processes.
- 3. Investor value proposition at the individual project level, which focuses on maximizing value for governments and ensuring a competitive risk-adjusted return for investors.

New Issue: Are they really Green or Sustainable?

If Internet is a country ... Energy Consumption #3 (Gartner data)



- Bloomberg estimates that about **1%** of the world's electricity goes to cloud computing -and increasing.
- Cloud computing contributes about **3%** global greenhouse gas emissions, more than the emissions from commercial flights – 2.4%) – and increasing.
- IoT age: More “connected things” to come, exceeding the connected humans
- Generative AI and Machine Learning: data intensive, process intensive, and energy intensive
- Data growth and Data gravity: **Digital Infrastructures are confronting a significant energy challenge**

Conclusion: Digital Infrastructure + Energy Transition

