EXECUTIVE SUMMARY

The Ins and Outs of Infrastructure:
Getting from Here to There

Yale CEO Summit | June 3, 2021

LEADERSHIP PARTNERS
Agenda

Welcome and Overview: Jeffrey A. Sonnenfeld, Senior Associate Dean, Yale School of Management
Richard Blumenthal, United States Senate, State of Connecticut

Roads, Bridges & Energy

The Honorable Pete Buttigieg, 19th US Secretary of Transportation
Doug Parker, Chair & CEO, American Airlines Group
Edward H. Bastian, Chief Executive Officer, Delta Air Lines
Mary T. Barra, Chair & CEO, General Motors Company
Doug Parker, Chair & CEO, American Airlines Group
Lynn J. Good, Chair, President & CEO, Duke Energy Corporation
Kevin Hourican, President & CEO, SYSCO Corporation
Barbara Humpton, President & CEO, Siemens Corporation USA
Richard D. Fain, Chair & CEO, Royal Caribbean Group
Richard C. Adkerson, Vice Chair, President & CEO, Freeport-McMoRan
Harold L. Yoh III, Chair & CEO, Day & Zimmermann
Marillyn A. Hewson, Former Chair President & CEO, Lockheed Martin Corporation
Devon Stockfish, President & CEO, Weyerhaeuser Company
James M. Loree, President & CEO, Stanley Black & Decker
Richard J. Kramer, Chair, President & CEO, The Goodyear Tire & Rubber Company
Eric P. Hansotia, Chair & CEO, AGCO Corporation
Neal Froneman, Chief Executive Officer, Sibanye-Stillwater
Jose Munoz, Global Chief Operating Officer, Hyundai Motor Company
William C. Rhodes III, Chair, President & CEO, AutoZone
Mark J. Penn, President & Managing Partner, The Stagwell Group
Stanley A. McChrystal, Founder & Partner, McChrystal Group
Kyle Dropp, Co-Founder & President, Morning Consult
John B. King Jr., 10th US Secretary of Education
Klaus Kleinfeld, Chief Executive Officer, NOAM
Carla A. Hills, 5th US Secretary of Housing and Urban Development
Lester Crown, Executive Chair, Henry Crown & Company
Richard A. Gephardt, Member of Congress (1976-2009), State of Missouri
Lynn Tilton, Chief Executive Officer, Patriarch Partners
Joe Straus, Speaker (2009-2019), Texas House of Representatives
James S. Tisch, President & CEO, Loews Corporation
R. Adam Norwitt, President & CEO, Amphenol Corporation
David Centner, Chair, Centner Family Office
Tamara L. Lundgren, Chair, President & CEO, Schnitzer Steel Industries
W. Matthew Kelly, Chief Executive Officer, JBG Smith
Grover Norquist, President, Americans for Tax Reform
Steve Odland, President & CEO, The Conference Board
Mia Mends, Chief Administrative Officer, Sodexo North America
Maria Pope, President & CEO, Portland General Electric
Nicholas T. Pinchuk, Chair & CEO, Snap-on Incorporated
Patrick J. Ottensmeyer, President & CEO, Kansas City Southern Industries
Ralph E. Reed Jr., Chair & CEO, Century Strategies
Tom Rogers, Executive Chairman, Engine Media
Steve Miller, Chair, Purdue Pharma
Christopher Shays, Member of Congress (1987-2009), State of Connecticut
John S. Lapides, President, United Aluminum Corporation
Richard Edelman, Chief Executive Officer, Edelman
Alan S. Gerber, Professor of Political Science, Yale University
Stanley J. Garstka, Professor, Yale School of Management
A. Mushfiq Mobarak, Professor of Economics, Yale University
Elaine Chao, 24th US Secretary of Labor; 18th US Secretary of Transportation
The Broad Reach of Broadband: Cybersecurity Somehow?

Joseph Lubin, Founder & CEO, ConsenSys
James R. Clapper, 4th Director, National Intelligence Agency
Chris Krebs, 1st Director Cybersecurity & Infrastructure, US Department of Homeland Security
Patricia F. Russo, Chair, Hewlett Packard Enterprise
John Visentin, Vice Chair & CEO, Xerox Holdings Corporation
Ashton B. Carter, 25th US Secretary of Defense
Joseph B. Ucuzoglu, Chief Executive Officer, Deloitte US
Lisa Su, President & CEO, Advance Micro Devices (AMD)
Jeffrey M. Solomon, Chair & CEO, Cowan Inc.
Bob Diamond, Founder & CEO, Atlas Merchant Capital
Kevin Rudd, 26th Prime Minister of Australia
Steven Brill, Co-Chief Executive Officer, NewsGuard Technologies
Jonathan Greenblatt, CEO & National Director, Anti-Defamation League
James S. Crown, Chair & CEO, Henry Crown & Co.
Ben Cohen, Co-Founder, Ben & Jerry’s Homemade
Jerry Greenfield, Co-Founder, Ben & Jerry’s Homemade
Joel N. Myers, Founder & CEO, AccuWeather
Nels B. Olson, Vice Chair, Korn Ferry
Tina Kuhn, President & CEO, CyberCore Technologies
Brad S. Karp, Chair, Paul Weiss Rifkind Wharton & Garrison
Brad Katsuyama, Co-Founder & CEO, IEX
Steven Lipin, Founder & Chair & CEO, Gladstone Place Partners
Ivan G. Seidenberg, Retired Chair & CEO, Verizon Communications
Sylvia M. Burwell, 22nd US Secretary of Health & Human Services
Arvind Krishna, Chair & CEO, IBM Corporation
Martin Schroeter, Chief Executive Officer, Kyndryl
Adam M. Aron, President & CEO, AMC Entertainment
Jamie Iannone, Chief Executive Officer, eBay
Eric S. Yuan, Founder & CEO, Zoom Video Communications
Bill Anderson, Senior Managing Director, Evercore
Ynon Kreiz, Chair & CEO, Mattell
Farooq Kathwari, Chair, President & CEO, Ethan Allen
Kay Koplovitz, Founder, USA Networks; Co-Founder & Chair, Springboard Growth Capital
Barbara L. Becker, Managing Partner-elect, Gibson Dunn & Crutcher
Lincoln E. Benet, Chief Executive Officer, Access Industries
Jeffrey L. Bewkes, Former Chair & CEO, Time Warner Inc.
Gail K. Boudreau, President & CEO, Anthem
Steve Papa, Founder, Chair & CEO, Parallel Wireless
Jack F. Callahan Jr., Senior Vice President for Operations, Yale University
Laura R. Walker, President, Bennington College
Thomas H. Glocer, Executive Chairman, BlueVoyant
Robert D. Hormats, Under Secretary (2009–2013), US Department of State
Douglas H. Ginsburg, Judge, DC Circuit, US Court of Appeals
Max Levchin, Founder & CEO, Affirm
Thomas J. Quinlan III, Chair, President & CEO, LSC Communications
David J. Shulkin, 9th US Secretary of Veterans Affairs
Kevin Sneader, Global Managing Partner, McKinsey & Company
Richard H. Pildes, Professor of Constitutional Law, New York University
Jing Tsu, Chair, Council on East Asian Studies, Yale University
Richard V. Spencer, 76th US Secretary of the Navy
Maggie Wilderotter, Former Chair & CEO, Frontier Communications Corporation
Anne Neuberger, Deputy National Security Advisor for Cyber and Emerging Technologies
Financial Infrastructure

Lloyd Blankfein, Senior Chairman, The Goldman Sachs Group  
Glenn H. Hutchins, Chair, North Island  
Gregory J. Fleming, President & CEO, Rockefeller Capital Management  
Maurice R. Greenberg, Chair & CEO, CV Starr & Co.  
John Ettelson, President & CEO, William Blair  
Daniel S. Glaser, President & CEO, Marsh McLennan  
Mark D. Ein, Chair & CEO, Capitol Investment Corp  
John W. Rogers Jr., Chair & Co-CEO, Ariel Capital Management  
Eddie Tam, Chief Executive Officer, Central Asset Investments  
Edward C. Forst, Chair, Lion Capital  
Jed S. Rakoff, Judge, Southern District of New York, US District Court  
Thomas A. James, Chair Emeritus, Raymond James Financial  
Leonard M. Levie, Chair, American Industrial Acquisition Corporation  
Faiza J. Saeed, Presiding Partner, Cravath Swain & Moore  
Terry J. Lundgren, Retired Chair & CEO, Macy’s Inc.  
Harvey L. Pitt, 26th Chairman, US Securities and Exchange Commission  
George Seay, Founder & Executive Chair, Annandale Capital  
Andrew Ross Sorkin, Editor, DealBook, The New York Times; Co-Anchor, Squawk Box, CNBC  
Paul J. Taubman, Chair & CEO, PJT Partners  
Philip Snow, Chief Executive Officer, FactSet  
Sarah K. Williamson, Chief Executive Officer, FCLT Global  
James A. Lawrence, Chair, Lake Harriet Capital  
Eileen Murray, Chair, FINRA  
Shyam Sunder, Professor, Yale School of Management

Maverick in Leadership Award: Eric S. Yuan, Founder & CEO, Zoom Video Communications

PRESENTATION
Steve Case, Founder & Former CEO, AOL; Chairman & CEO, Revolution

Legend in Leadership Award: Lisa Su, President & CEO, Advanced Micro Devices (AMD)

PRESENTATION
Arvind Krishna, Chairman & CEO, IBM Corporation

Lifetime in Leadership Award: Lester Crown, Executive Chairman, Henry Crown and Company

PRESENTATION
Walter Isaacson, Former Chairman & CEO, The Aspen Institute
The Ins and Outs of Infrastructure: Getting from Here to There

Overview

The Yale CEO Summit, conducted virtually on June 3, 2021, and led by Jeffrey Sonnenfeld, Senior Associate Dean and Founder and President of the Yale Chief Executive Leadership Institute, brought together CEOs from a range of industries along with entrepreneurs, government officials, investors, academics, and leading thinkers. This Summit focused on infrastructure—including the nation’s physical infrastructure, technological infrastructure, and financial infrastructure.

In response to a question about international travel, Mr. Buttigieg emphasized that the key is continuing to increase the percentage of adults who are vaccinated, which currently stands at 62%. Also, it will be important to empower people to demonstrate their vaccination or immunity status and to shift the responsibility to the traveler.

GM CEO Mary Barra focused on the importance of moving the infrastructure package forward and making sure it supports infrastructure for electric vehicles. Mr. Buttigieg commended the auto industry’s enthusiasm for electric vehicles. He said that electrification is part of the infrastructure of the future and called for showing more imagination in defining infrastructure. Also, electrification infrastructure is important not just in cities and suburbs but for low-income Americans and those in rural areas, who can save a great deal of money by switching from gas-powered transportation to electric vehicles.

Major themes included a consensus on the need to invest to improve America’s infrastructure, though there is not a consensus on how broadly infrastructure is defined, how much should be invested, and how to pay for this investment. There is increased awareness of the need to secure the country’s technology infrastructure, which is not merely a technology issue; it is a business continuity issue, and requires greater collaboration between business and government. In terms of financial infrastructure, there are concerns that the volatility of certain “meme” stocks is eroding confidence in the markets and there is uncertainty about the role of crypto currencies and the need for regulation, but there is much enthusiasm about the future of non-fungible tokens (NFTs).

Roads, Bridges & Energy

Both government and business leaders see investments in infrastructure as essential for US competitiveness.

US Secretary of Transportation Pete Buttigieg termed the current moment a once-in-a-lifetime opportunity to strengthen the country’s infrastructure to serve us into the next century to make sure that America can win the future. Therefore, the American Jobs Plan is imperative for the competitiveness of the country.
Former Secretary of Transportation Elaine Chao agreed that “most people want infrastructure.” However, most people define infrastructure traditionally, as physical infrastructure, and a major issue is how to pay for it. The US transportation infrastructure is incredibly decentralized and a big issue is how any funding is allocated and split. Infrastructure spending is not allocated based on urgency or national priority; it is given to the states and each state decides how to allocate these funds. “How to pay for infrastructure is the real issue,” observed Secretary Chao.

“I see this as a great opportunity to advance the clean energy transition,” said Lynn Good, President and CEO of Duke Energy Corporation. She wants to see properly structured incentives for clean energy, along with permitting reform, that unleash private capital to invest in renewable energy. Secretary Buttigieg agreed with the idea of a fertile partnership between the public and private sector for both transportation and energy infrastructure.

Americans are in favor of investing in infrastructure. The questions are what is “infrastructure,” how much to invest, and how to pay for it. Mark Penn shared data (below) showing that most Americans believe new infrastructure investments are needed, but most Americans define infrastructure as related to roads and bridges. About half of Americans (52%) believe an infrastructure bill should include major investments in climate change and a majority of the population believe infrastructure spending should be funded by a mix of public and private funds.

The Broad Reach of Broadband: Cybersecurity Somehow?
Both the government and the private sector have critical roles to play in cybersecurity, particularly combating ransomware.

As conveyed by Anne Neuberger, Deputy National Security Advisor for Cyber and Emerging Technologies, the morning of the Summit the Biden administration released an open letter to the private sector calling upon private sector executives to look at ransomware as a risk to business continuity—and to take ransomware more seriously. The follows several severe ransomware incidents around the world.
This open letter calls on executive leadership teams to meet and focus on cyber issues. Ms. Neuberger also summarized key points from a recent executive order that included:

- The commitment of the federal government to lead by aggressively implementing several specific cyber technologies.
- Using the power of federal procurement to drive the creation of a more secure software ecosystem by imposing requirements on how software must be built if it is to be purchased by the US government.
- Removing barriers to closer cooperation between the public and private sectors on incident response and standing up a public-private partnership board focused on incident response.

The administration sees the private sector as a key partner in cybersecurity. In addition, the administration is taking several steps to address ransomware. These steps include building an international coalition to hold accountable countries that harbor ransomware actors, to build the capability to do analysis of cryptocurrency, to take an aggressive and accelerated review of the government’s ransomware policy, and to work to disrupt the ransomware ecosystem.

Also, as part of the American Jobs Plan, the Biden administration is prioritizing investments to strengthen the country’s infrastructure, including both the physical and digital infrastructure.

Summit participants agreed with Ms. Neuberger and the Biden administration’s actions and the call for greater public-private coordination. Chris Krebs, the first Director of Cybersecurity & Infrastructure at the US Department of Homeland Security, said the message to companies is that cybersecurity and ransomware is not just a technical risk, it is a business and a national risk. Mr. Krebs stressed that industry has to do better and that business and government must work together to break the ransomware business model.

In addition, the Biden administration has an opportunity to talk with G7 partners and with Russian President Putin about the need to stop ransomware activities, which Russia is allowing to occur. A poll among CELI participants showed that 54% of participants see Russia as the greatest threat to US cybersecurity, with 34% viewing China as America’s greatest cyber threat.

Polling among Americans by Morning Consult found that people are somewhat evenly split on whether Russia or China is the greatest threat.

What is the greatest threat to cybersecurity in the U.S.?

Secretary Ashton Carter’s view is that even if the Russian government isn’t steering these ransomware events, they are knowledgeable about them and are tolerating these attacks—and have a responsibility to crack down on them. The US needs to exert pressure on Russia to shut down the Russian attackers, though some speculate that in the short term this may result in a flurry of negative activity directed at US companies.
Opinions differ on whether private companies should or shouldn’t pay ransom.

From a public policy perspective, paying a ransom from a cyberattack is a horrible idea. It is essentially doing a deal with a criminal, it validates and funds the hacker’s business model, and it provides encouragement to the hacker to continue. However, for a company that has been hacked, such as Colonial Pipeline, there is little choice but to pay the ransom—just as a parent has little choice but to pay a ransom if a child has been kidnapped.

In paying a ransom, the government wants to encourage rapid information sharing to help identify the hacker and to prevent other attacks.

Financial Infrastructure

In recent days, the biggest financial story has been about the rise in AMC’s stock price and what it means for larger public policy issues.

At the time of the Summit, AMC’s stock price had been on a tear, driven largely by millions of individual investors, though some analysts worry that institutions are also participating in this phenomenon.

AMC has capitalized on the situation by generating a great deal of publicity, raising capital in this frenzied market, and cultivating individual investors through gestures such as free popcorn.

Most Summit participants believe that cultivating retail investors is a smart move but also believe that the stock is overvalued and will collapse.

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<tr>
<th>Poll Question</th>
<th>Yes</th>
<th>No</th>
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<td>Is AMC’s stock valuation an accurate representation of underlying value?</td>
<td>8%</td>
<td>92%</td>
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<th>Poll Question - Will AMC’s stock collapse?</th>
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<td>Yes, it will decrease by 80% or more</td>
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<tr>
<td>Yes, it will decrease by 50%</td>
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<td>It will decrease by 40% and stabilize</td>
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<tr>
<td>Will continue to soar</td>
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A risk related to the volatility of AMC’s stock, about 80% of which is owned by individual shareholders, is loss of public trust in the markets if investors believe that the markets are being manipulated by institutional investors. Andrew Ross Sorkin said, “Moments like this raise doubts and questions,” and another participant said, “I don’t see anything good about this kind of volatility.”

Participants are bullish about NFTs but wary of cryptocurrency.

In recent months, non-fungible tokens (NFTs) have burst onto the scene. Among Summit participants who have knowledge of NFTs there was optimism that over time, real markets will develop around NFTs. Mr. Solomon explained that any asset class where there is finite supply will garner interest. But making NFTs more exciting is the ability to digitize and trade in a more efficient fashion. Max Levchin sees NFTs as the first application of blockchain technology that is impossible without it.
Joe Lubin, who created Ethereum, sees NFTs as a breakthrough that enables content creators and content owners to directly access and sell digital rights to their work without having to go through an intermediary. He sees Bitcoin as the world’s largest, most valuable NFT that has been fractionized into little pieces. He characterized Bitcoin as a store of value and expects it to stick around.

However, while there is enthusiasm for NFTs and for crypto currency, there is concern that crypto currency volatility is a threat for financial markets.

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<th>Poll Question</th>
<th>Yes</th>
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<td>Does crypto currency volatility threaten financial markets?</td>
<td>53%</td>
<td>47%</td>
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MAVERICK IN LEADERSHIP AWARD

Eric S. Yuan, Founder & CEO, Zoom Video Communications

*Presentation: Steve Case, Founder & Former CEO, AOL; Chairman & CEO, Revolution*

Eric Yuan is a true maverick in leadership in that through Zoom Video Communications, he has transformed the way that people live and work. During the pandemic, Zoom connected people and played a key role in keeping the global economy afloat.

Steve Case—in appropriately presenting via Zoom the Maverick in Leadership Award to Eric—recognized Eric as a classic entrepreneur. While working at a company he thought he had a better idea for video communications. After the company didn’t embrace his idea, Eric left to pursue this venture on his own. In the past year, Zoom grew from a run rate of about $1 billion to nearly $4 billion as the company enabled life-saving health processes, allowed teams to connect while working remotely, and linked families for important milestones, ranging from weddings to funerals.

Eric’s story is also a classic immigration story. He applied to get into the United States and was rejected eight times before finally gaining entry from his ninth application. In addition to being a creative, resourceful technologist, Eric is also a humane, compassionate, responsive connector of people.

LEGEND IN LEADERSHIP AWARD

Lisa Su, President & CEO, Advanced Micro Devices (AMD)

*Presentation: Arvind Krishna, Chairman & CEO, IBM Corporation*

As CEO of AMD, Lisa Su is responsible for remarkable achievements. She repositioned the company, revised the company’s product strategy, and has overseen exponential growth in revenue and in the company’s stock price.

Lisa earned bachelor’s, master’s and doctorate degrees in electrical engineering from MIT before joining IBM for 13 years in various engineering and business leadership positions. She then served as Senior Vice President at Freescale Semiconductor before becoming CEO at AMD.

Lisa is known as a brilliant technologist, a product specialist, and an outstanding business leader. She is the first woman to lead a major semiconductor company and still finds time to mentor rising women leaders while serving in leadership roles for the semiconductor industry.

LIFETIME IN LEADERSHIP AWARD

Lester Crown, Executive Chairman, Henry Crown and Company

*Presentation: Walter Isaacson, Former Chairman & CEO, The Aspen Institute*

Lester Crown is a titan of “The Greatest Generation” and has lived an amazing lifetime of leadership. He is revered for his leadership of Henry Crown and Company, and as a civic and philanthropic leader who led across generations, geographies, and sectors. Lester was recognized for his values-based leadership, immense generosity, especially in Chicago, and for being a role model. His contributions extend far beyond the business community to hospitals, academic institutions, the arts, and religious organizations. Lester personifies the very best of America as a father, an entrepreneur, a corporate leader, and a philanthropist.