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SPECIAL REPORT

Global Overview: The Milken Institute Global Conference 2020

The New World (Dis-) Order?

By: Jim Altenbach, CFA

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After two postponements earlier in the year due to Covid-19, the 23rd Annual Milken Institute Global Conference kicked off virtually on October 12th, 2020. Over 170 panels and 500 speakers participated virtually over a two-week period. Speakers included Mohamed El-Erian, Mark Cuban, SoftBank's Rajeev Misra, David Malpass, Niall Ferguson, and other luminaries.

We present topics of interest to those with an eye toward growth, progress, and innovation.

Navigating Policies for Reviving the Post-COVID Macroeconomy

Extraordinary monetary and fiscal policies have been enacted to reverse the COVID-19 virus-induced global economic slowdown. Nevertheless, as government support programs expire before the economy is able to normalize, many sectors of the economy continue to stagnate and previously successful businesses are failing.

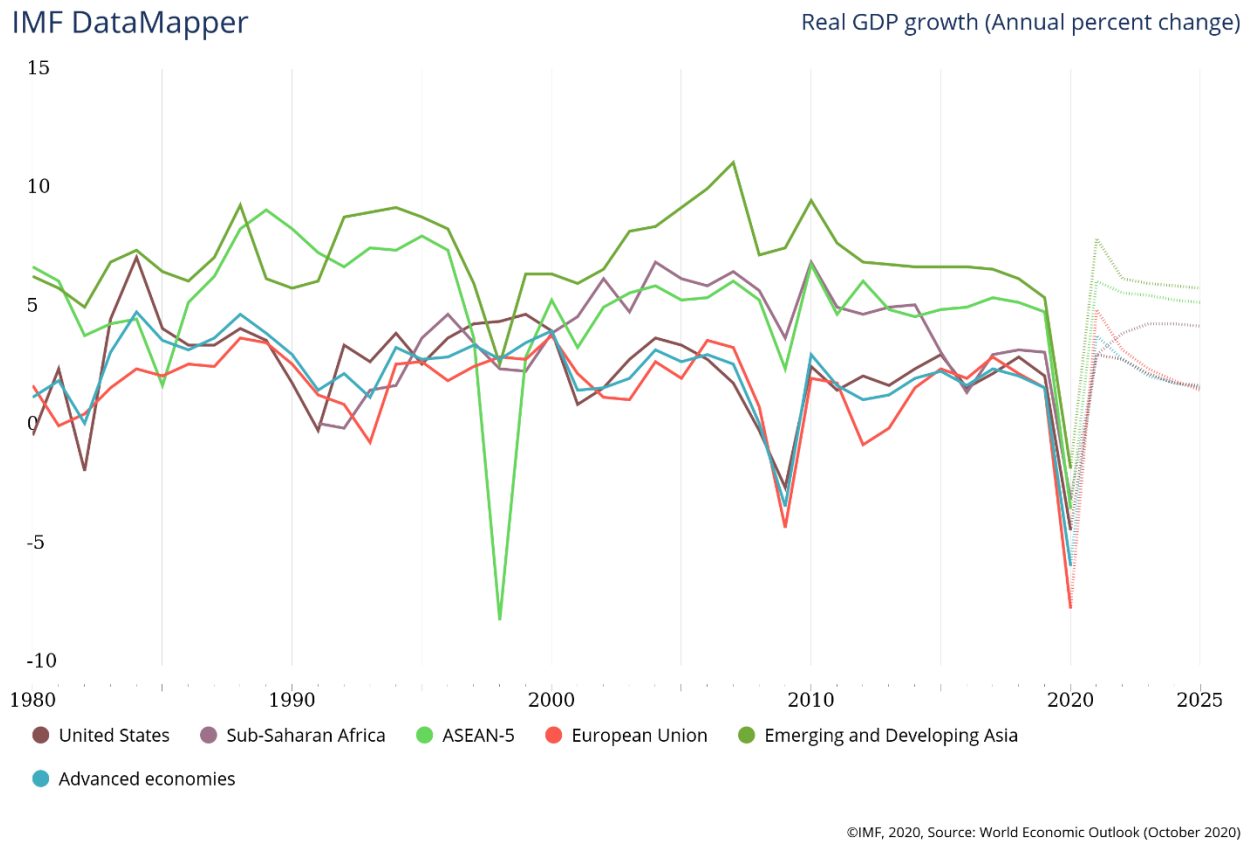
See Video: https://milkeninstitute.org/events/global-conference-2020/livestream/post-covid-global-economy

Mohamed El-Erian, Chief Economic Advisor for Allianz, was asked about Asia, and other parts of the world, how the COVID shutdown policies are interacting with ongoing changes in supply chains, production, that have originated from the US-China tensions and how these multiple shocks are changing the way that we understand and analyze economic environments in these areas.

He explained: "One, if you look at the global economy, the initial shock was very similar. And the initial shock had two elements associated with it. A sudden stop, an economic sudden stop associated with the lockdowns, and second, a massive policy response that was governed by three principles. And that's true across the world." One is all-in, two is whole of government and three is whatever it takes.

The next stage is quite different for different countries and for different companies. There is an enormous amount of dispersion. Most countries and companies show a very sharp drop, a recovery in global growth, and then a leveling off.

“Within that, you'll have China and Asia that may actually register positive growth for this year. You'll have most advanced economies in a 5% to 10% contraction.” Developing countries are all over the place.



How do we distinguish who does what? The first thing relates to the second question is openness to the global economy. The more open you are, the harder you've gotten hit, because the global economy has gone from being a very significant tailwind to your growth, to being a significant headwind to your growth. And that's not going to change anytime soon.

“The second issue is balance sheet really matters. How much resilience do you have? Can you borrow someone else's balance sheet?”

Third, is policy flexibility and economic management. We've seen countries do extremely well with limited flexibility. We've seen other countries with a lot of flexibility have difficulty. The US today with stimulus is a perfect example of a country that's able to respond economically and financially, but not when it comes to the political system.

“And finally, how quickly can you move from physical to virtual? That is particularly important in the corporate sector but also in countries as a whole.”

“The result of that is what people say, the K recovery, or the less than sign. If you're strong, you've gotten stronger. If you're weak, you're getting weaker. I think that unfortunate trend is going to continue, both across countries and within. What we're going to see is the inequality of income and wealth is now going to spread to opportunities with consequences for future generations if we don't do anything about it.”

The Supply Chain and Deglobalization:

Regarding the supply chain, El-Erian stated: “it's part of a bigger phenomenon, that we've entered an era of deglobalization. That this is not a pause button on globalization. This is the rewind button on globalization. To understand why, you simply need to think that this is the third shock to globalization in the last 10 years.”

The first shock was exactly 10 years ago, “it was household led, it was a pushback against the alienation and marginalization of certain segment of the population. And the wide answer was inclusive capitalism, inclusive globalization.”

The second shock is “the US-China tensions, and more importantly, the weaponization of tariffs and investment restrictions to serve not just economic objectives, but national security objectives.” Those two are still in play today.

There's a third shock, “which is a shift in mindset among many multinationals, from efficiency - and everything that comes with that, including cost effective, cross border supply chains, just in time inventory, etc. - to resilience. They now seek to re-shore, localize, and reduce their exposure to these shocks.”

“With these three things coming together, they will most likely mean an era of deglobalization, which finally, has raised lots of issues we don't have answers for. We don't know well what the new growth model looks like for many countries, especially small, open, developing countries, that were basically having a big bet on globalization.”

On December 11, 2020 the U.S. Food and Drug Administration issued the first emergency use authorization (EUA) for a vaccine for the prevention of coronavirus disease 2019 (COVID-19). The emergency use authorization allows the Pfizer-BioNTech COVID-19 Vaccine to be distributed in the U.S.

On December 17th, the FDA will meet to determine Moderna Inc's application for distribution. The distribution of the vaccines will facilitate the continued economic recovery.

A Conversation with President of the World Bank David Malpass

Session moderator Michael Milken, Chairman of the Milken Institute discussed the global economy and Covid-19 with David Malpass, President of the World Bank Group.

Milken asked Malpass to identify the mission of the World Bank. Malpass who had been a critic of the World Bank was appointed to run it in 2019 by President Trump. Malpass explained what the World Band does. The Bank lends money to low and middle-income countries and strives to end poverty and promote shared prosperity, and improve health, education, environment, and the climate, and infrastructure. The has 198 member countries and does $7 trillion in transactions per year.

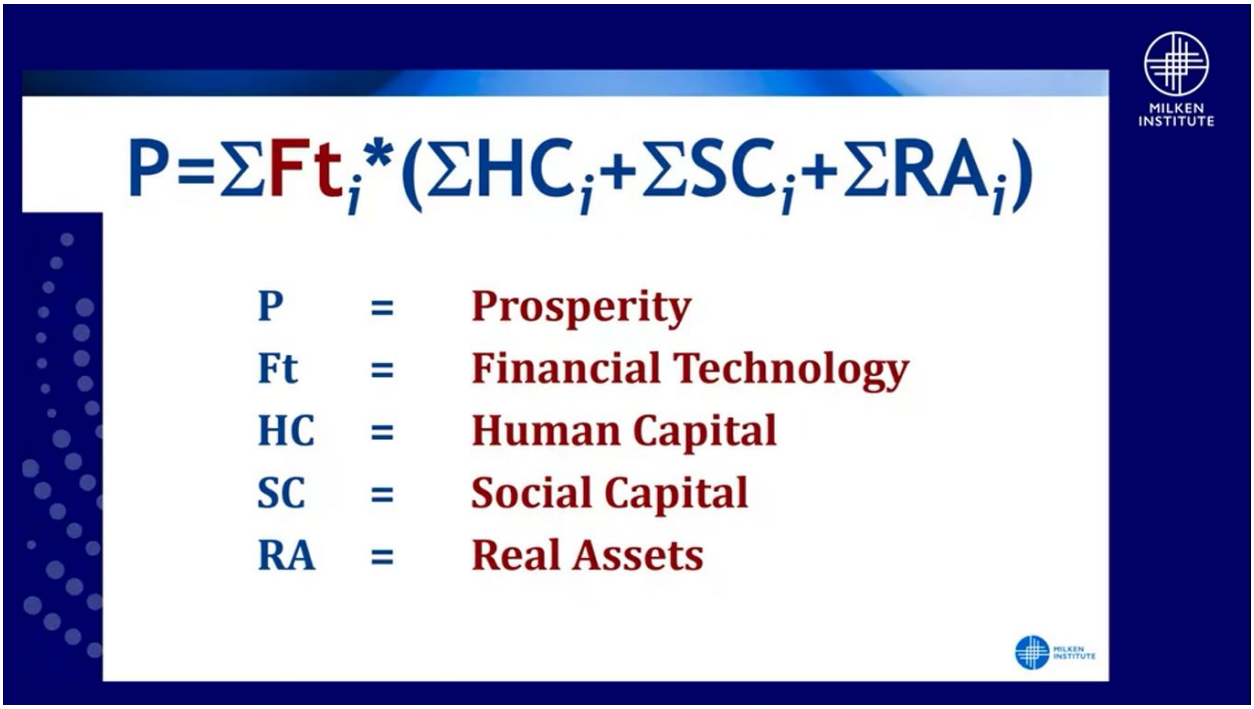
See Video: https://milkeninstitute.org/events/global-conference-2020/livestream/Conversation-President-World-Bank-David-Malpass-New-World-dis-Order

Asked about current pandemic challenges to various poor nations served by the World Bank, Malpass explained how he leads: "The Bank keeps an index of people in extreme poverty. 700 million or so and 150 million up via Covid-19. GDP going down, as well as remittances. Some countries have devalued currency so real income is down due to all these factors." He stressed median income is going down again which portends violence will go up and health will deteriorate. His goal is to shorten the timeframe for a recovery. The World Bank sponsors new health programs in 111 countries, working with governments of countries. The bigger part of response is how to help countries develop better private sector jobs for women and better education for girls, all critical in making the advances in the next five years.

Regarding Covid-19 and the disruptions caused the bank created the Pandemic Emergency Financing Facility (PEF), a fund that was created to provide money to help manage pandemic outbreaks, he says the terms of the PEF is financed by bonds sold to private investors. Malpass observed the bank is trying to help get schools open in a safe way in target countries and this includes sanitation and PPE, nutrition and access to vaccines, for a lot of countries.

The discussion turned to human capital, a specialty of the Milken Institute.

Milken interjected with his famous prosperity formula, stating "access to financial capital served as a multiplier effect on the world's largest asset - human capital. I like to discuss this area of human capital debt relief, what can we do in responding here and reversing the challenges we're facing, and in many ways, which are undoing our advances the last 20 years. So how do we build human capital?: Education, immigration, and health. The World Bank has made enormous response in the health area to COVID-19, PPP and others. How you see it and the potential loss of trillions of dollars of future income with so many children not going to school today?:



Malpass observed as the years go by many children in many countries according to the learning index cannot read a simple story in their native language. The bank facilitated better literacy programs, better teachers and access to schools. The situation worsened due to COVID-19, especially "in the developing world alone with now a billion children out of school. *Children move forward when in school, backward when out of school*, so getting kids back in school is a priority. In many countries, the nutrition, healthcare, and vaccination are driven at the school level, making this a priority for him. "Three weeks ago, we put out a big report on human capital exactly the way you described in your formula on human

capital." Malpass warned: "For a billion children, the lost learning occurring now may cause those children to lose $10 trillion in income over their lifetimes." This trend is deteriorating. "This is a giant concern for development."

Asked about debt relief, which Malpass has been an outspoken advocate for, he explained: "The countries need a lot of money, income is going down, and so are the remittances. And an added issue is as the world has slowed down, there's a net flow to creditors because most of the creditors stop putting as much new money in and continue wanting to take out their payments. The World Bank is an exception where we maintain a very large net positive flow to the countries. But for other creditors, that's a challenge. And with interest rates as low as they are right now, it doesn't do a lot for the country to just delay the payment. What we did in late March, I along with Kristalina Georgieva at the IMF proposed that there'd be a moratorium for the debt payments, given the severity of the pandemic. The G20 endorsed that and implemented that on May 1.

Malpass lamented "the creditors were supposed to stop taking payments on May 1, but some of them didn't. This is for the poorest countries that they be empowered, or that they'd be allowed to not make the payments. And instead devote those payments to healthcare and education in their own countries. But unfortunately, the private sector predators didn't participate. Many billions of dollars are being taken out of the poorest countries in order to repay or to maintain debt service to creditors.:

Panel: The New World (Dis-) Order?

It's no secret that the post-cold war international order has come under increasing strain in recent years. The rise of multipolar power, in particular the reemergence of China, has raised systemic questions of strategic stability as well as global economic governance.

Video (plus 30 minutes): https://milkeninstitute.org/events/global-conference-2020/livestream/Conversation-President-World-Bank-David-Malpass-New-World-dis-Order

The dislocating effects of globalization, accelerated by technology, have fueled nationalist populist movements within democracies as well as the reemergence of authoritarian, non-democratic forms of governance around the world. International institutions struggle to keep pace and adapt. Perhaps counterintuitively, with the twin crises of the pandemic and the economic downturn facing the world, 2020 may represent—for those able to influence events—a historic opportunity to create more functional and equitable institutions. Challenges confronting global leaders and decisions they make today are likely to shape the world for decades to come.

Niall Ferguson is the Milbank Family Senior Fellow at the Hoover Institution, part of Stanford University. Asked by the moderator 'If you look at the world right now, it doesn't seem to be one in which the nice guys win. There does not seem to be consequences for violators of human rights, violators of democratic freedoms. Have those been relegated to the past?' Ferguson responded:

The world "showed no really major retreat by democracy, although the headlines are constantly warning us of this. In reality, in the mid-1990s, Fareed Zakaria wrote a book, 'Predicting the Rise of a Liberal Democracy', he believed there would be at least a decline in liberal principles. We're not really in

a radically different place in 2020 compared with then. Remember, although the most populous country in the world is a totalitarian state, albeit one with good public relations, namely China, the next largest is a vibrant if occasionally chaotic democracy, namely India. I think if you look at how countries have handled COVID-19, the most successful countries in managing this pandemic have actually been the East Asian democracies. Taiwan and South Korea have both done notably well. Japan too has had a remarkably smooth ride and is an advertisement for stable democracies. I think we must not fixate too much on a few headline-grabbing Strongmen. We must recognize, in fact, democratic systems are superior in that they cope better because their leaders are accountable."

Ferguson added: "Putin's handling of the COVID-19 has not been good for Russia. That's the first point. The second point is human rights is a more important component of international relations than ever. The US global response to violations of human rights by China has been impressive, at least rhetorically if not in terms of substantive actions. I actually think a Biden administration that's the most likely scenario next year."

A Conversation with SoftBank Vision Fund CEO

Milken Institute Chairman Michael Milken sat down with SoftBank Vision Fund CEO Rajeev Misra Institute Chairman Michael Milken to talk about technology and the global economy.

Milken stated "Companies that are leaders in digital have had an increase in valuations, and in many cases have had increased business since the coronavirus and other challenges have occurred. Of the 10 most valuable companies in the world, most of them didn't exist a few decades ago. This crisis has accelerated the movement to digital. What are your views?"

See Video: https://milkeninstitute.org/videos/conversation-softbank-vision-fund-ceo-rajeev-misra

Misra explained: "The change we are seeing is an acceleration of an acceleration. What has happened in the last several months since Covid-19, is a warning signal or a pause to society. If you go back 2007, first smartphones came up. iPhone only came 13 years ago. With Geo and with 5G coming, the access to internet to billions of people has expanded over the last couple of years, and what these months has shown us is that acceleration has further accelerated. In just months COVID has pulled forward behavior changes by years in several industries, food, finance, entertainment.

FOOD SECURITY: Regarding food delivery, asked if "And is it changing around the world, or is it changing primarily in the US?" Misra responded: "It's not just the delivery. The entire stack from delivery to dark kitchens to the supply chain, has changed. It's not just online delivery. It is also having dark kitchens that produce the meals in parking lots that are close by. It is having dark stores like go grants, which are pop-up stores. You do not need a 7-Eleven at the right location. You can just have a warehouse knowing with data what the demands are in a ... by zip codes and stocking and delivering within 20 minutes. You don't

need expensive real estate. In just a parking lot on a trailer, you could have three restaurants providing gourmet food that has been pre-produced."

DIGITAL FINANCE: Asked where he sees the digital revolution in finance headed?," Misra explained: "millions of small businesses accessed loans digitally for the first time due to COVID. In 1990, only 30% of Americans owned stocks. Then 45%, 50% pre-COVID. Another 10%, 30 to 35 million brokerage accounts are getting open with all the Robin Hoods and the E-Trades, etc. Finance was a privilege for the educated and the rich. Now with even $500 or $700 in your pocket, you can open a brokerage account for free. You couldn't dare to go to a JP Morgan or Charles Schwab and open a brokerage account with that little. Now you can. You can invest in stocks, bonds. I think that's a major seismic shift over the last months."

The transfer of money is interesting as it is becoming "frictionless," Misra explained: "PayPal's market has gone from $100 billion to $190 billion since January, since the past eight months. Or Square or PTM or AliPay in China because they have the data. They can make better credit decisions and better access to credit without going to credit bureaus." Cross border foreign exchange inefficiencies will decline because the interchange cost of using a credit card today still is two percent, which is extremely high. That will come down with these young companies like Square and others who are providing debit cards, credit cards, where you can open it within, in a day.

Misra added: "the biggest beneficiaries are not just the consumers, but also the small merchants. The small merchants paid heavy interest rate to finance working capital when they ran their small shops. Now they are able to because of their credit history. Whether it's an AliPay, PayTM, or Square, they're able to access credit at much more commercial terms because for two reasons. A, the payment vehicle. As their credit history, B, they're also keeping some of their cash to pay them a couple of days later. So the access to credit."

"And the third biggest thing for the merchant is he doesn't have to manage his finances, as these companies manage tax burdens, can do financials. Most small businesses don't have accountants or audit firms and so on and so forth. So, a small business could be a small hotel owner, could be a small shopkeeper. There are tens of millions, whether it's India, Europe, or US, SMEs produce the biggest employment. So is the biggest employment source on the planet. They employ more people than large corporations."

Misra was asked about drug discovery. He says "it takes billions of dollars to discover a drug through different phases, but you have now people doing both diagnostic and discovery using data, using genome data much more nimble, much more agile, and bringing drugs to market with a lot less dollars, significantly less dollars, several companies. The monopolistic power of large pharma companies is coming down. The smaller companies are giving them a run for the money, which is great because they'll bring down the cost of drugs."

A Conversation with Mark Cuban

Entrepreneur Mark Cuban sat down with Mike Milken, Chairman of the Milken Institute to discuss the current economic challenges brought by Covid-19.

See Video: https://www.youtube.com/watch?v=IxA4tT314E0

Milken opened with a chart of entrepreneurs in America. He said: "Those that started small businesses, just like you did many years ago. Out of more than 15 million micro-businesses in America, we've lost more than 3 million of them over the past few months. African-American have lost 41%. Immigrants of first-generation Americans, 36%. Overall we've lost 22%, or more than 3 million businesses." The chart was for February to April, so with the recovery, as of December 2020, things are expected to improve in these demographics, but not as fast as the general recovery.

Number of Businesses Lost by Demographic
February to April 2020

	Total Businesses		Actual Losses		Predictions	
Group	Feb-20	Apr-20	Total Number	% Change	Total Number	% Change
Black	1,079,116	637,769	(441,347)	-41%	(3,302,331)	-22%
Immigrant	3,120,275	2,009,597	(1,110,677)	-36%	(1,095,536)	-35%
Latinx	2,070,896	1,412,925	(657,971)	-32%	(583,009)	-28%
Asian	888,528	657,896	(230,632)	-26%	(195,041)	-22%
U.S. Born	11,892,417	9,700,763	(2,191,654)	-18%	(2,256,417)	-19%
Caucasian	10,553,415	8,761,531	(1,791,884)	-17%	(1,928,907)	-18%
Female	5,389,399	4,048,205	(1,341,194)	-25%	(1,029,305)	-19%
Male	9,623,293	7,662,156	(1,961,137)	-20%	(2,184,231)	-19%
Total	15,012,692	11,710,360	(3,303,331)	-22%	(3,302,331)	-22%

Source: National Bureau of Economic Research
Notes: Estimates are from CPS microdata. Predicted changes switch the group's industry distribution for the U.S. industry distribution but continue to use the group's rate of change from February to April 2020.

Milken asked Cuban: "what is your message for the entrepreneurs of America? Should they try to rebuild the businesses that they had before? Should they try to focus in different areas? What would be your advice?"

Cuban responded: "Agility. When there's change, there's opportunity. And every small business goes through that pain and uncertainty factor at some point in their life cycle. And when you face such a unique challenge, such as the pandemic and the social unrest, that is going to halt a lot of businesses, but at the same time, it's going to create opportunities. So if you have the ability to just hold on, this is also an opportunity to really reevaluate and reset your business and say, what can I do better? Now that we're going through all these changes, how can I reinvent this company for a new world, for a new type of customer, a new opportunity because you typically don't get those types of chances while you're running your business."

Cuban agreed that COVID and other challenges has not hit every industry or every business equally. Companies in bio-science have done well and expanded. Those in the food delivery or distribution of food business have done well. Many businesses were hurt such as hotels, airlines, cruise lines, restaurants, et cetera.

Asked, "What are the areas of the future that you're looking at as to growth?" Cuban responded:

"If you have a vision for what America 2.0 post-reset should look like, there will never be a better time to create a business that goes into an entirely new direction, something that hadn't been thought of before, something that's completely disruptive because the biggest players in the country and in the

world, the medium-sized, even the small businesses in the chart that you posted earlier, all have challenges just trying to stay alive or trying to determine what their businesses are going to look like."

"Also, I'd look at Ambient Voice. Ambient Voice, if you used an Amazon Alexa or Google Home or Microsoft Cortana, as examples. We're seeing particularly with Alexa, that they'd become very prevalent, if not ubiquitous in many homes. I'd become an expert in scripting in those languages in on those products. I So I'll do tutorials on Amazon Alexa and Google Home."

"And so with that, being able to go to businesses who are looking for ways to go as touchless as possible, and by definition, ambient voice is touchless, you'll be able to work with them and charge them and create a business around supporting businesses using ambient voice. It can be simple things like elevator (commands) or commands when you walk into a conference room. It could be more complex things like purchase order listings, product listings, etc."

Infrastructure 2.0?

Milken stated that over one $Trillion is planned to spend on infrastructure. He cautioned it may not create the jobs and economic growth that is estimated, and he asked Cuban where to put the money.

Cuban responded: Highways, airports, seaports, etc. "cannot be leveraged" easily. They're maintenance and they're not really leverageable. "the key area is robotics. If we truly want it to compete globally and become once again, a global manufacturing hub, rather than offshoring all of our manufacturing, we as a country, need to invest in robotics and the AI that's associated with it and other opportunities. The United States was first in so many technologies, but not close to first in robotics. There is Japan, Germany, Korea. We're tied with China, but China is moving quickly ahead of us."

"We do okay with software and robotics, but we are way behind in physical manufacturing, and need to invest there. And there are so many inflection points right around the corner for robotics, manual dexterity among the most important so that if we can become the leaders and push forward through those inflection points, we can recapture and re-shore a lot of the manufacturing."

"We're not going to look to recreate what was done in the past. We're looking to push forward, but it's very difficult for individual organizations, no matter what their size to do it at a scale that's going to compete with other nations. And so when we talk infrastructure, I like to talk about infrastructure 2.0, and I think a real focus of that has to be robotics."

"Vladimir Putin said, whoever controls AI, controls the world and he's right. And so we have to recognize that we're not doing this in a vacuum, that other nations are investing to compete, but we're not. We can't build a wall around ourselves for global commerce."

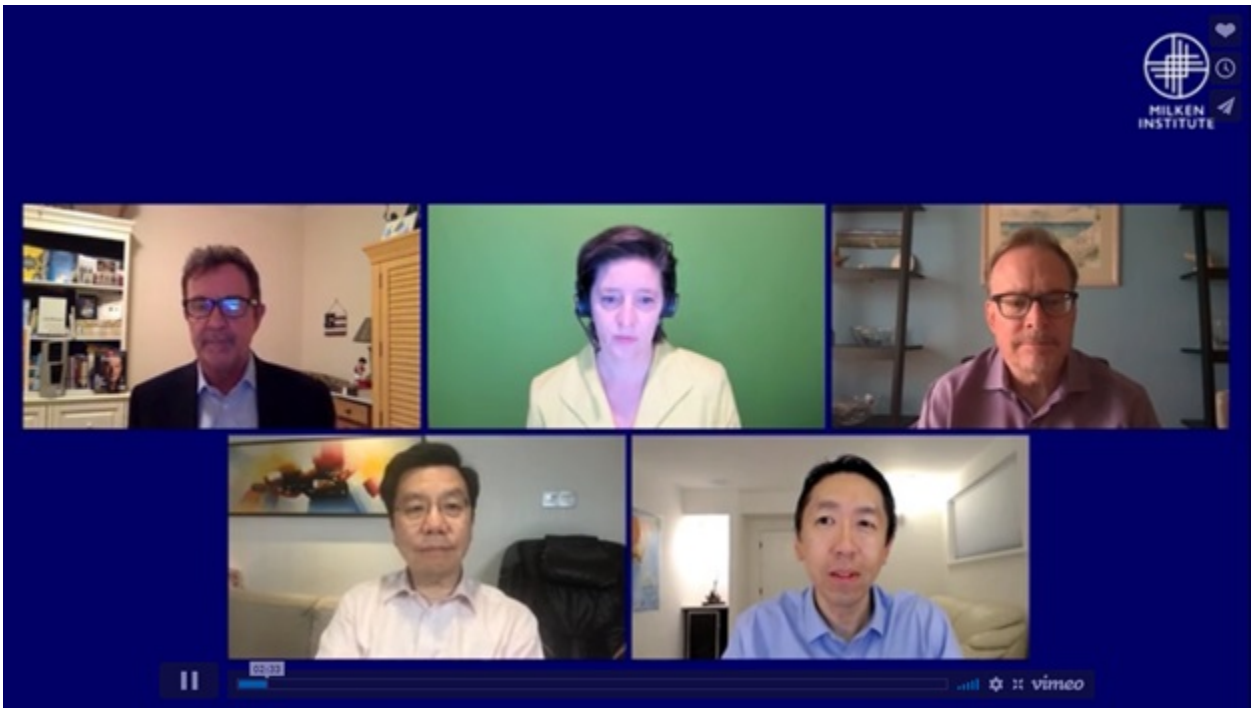
A novel way to deal with sick leave-The Sick Bank:

Cuban left us with a novel way to manage sick leave, especially in the era of Covid-19. “understand that 20 days is not going to be enough of sick days from your employer if you get COVID. On the 21st day, what happens to them? They quit, they lose their jobs, whatever. They can't go to work, particularly if it's a smaller company. And so the concept of sick bank is that we work with employers and employees, and we say to the employer, if you'll pay and the employee will donate one day, one day of their sick time to sick bank, then we'll aggregate all those sick days and allow all the participants to withdraw up to an additional 20 days.”

“For example, if you have 20 days from your employer and you donate one day, and you're just an average wage earner, and that's $263, the employer pays the $263 in. Now you have 19 days of sick days available to you. But if you need them, after a 30-day preparation period, you take them from the sick bank and sick bank will pay you for those days. The program gives peace of mind, that employees can get an extra 20 days.”

Panel: Predicting the Future: What's Next for AI and Data Analytics?

Artificial intelligence and predictive models have played key roles both in gaining insight into COVID-19 and in enabling companies to continue business operations. What is next as these technologies continue to evolve and redefine what was thought possible? Some the world's most notable CEO's and Directors who are moving Artificial Intelligence (AI) software and systems forward. These systems are being touted as answers to business development to childhood education.



Watch Video:

https://milkeninstitute.org/events/global-conference-2020/livestream/ai-data-analytics-predicting-future

Business

Ubiquitous as Electricity

The ripples throughout society were discussed by Susan Athley of Stanford University. She discusses how fundamental algorithms are used across business solutions. She expressed this succinctly by stating "A lot of the advances that we've seen in the last 10 years are from algorithms like convolutional neural nets that... They're not really domain specific to start with, you can use a general set of algorithms and apply them in lots of cases. I think that leads to this rapid diffusion that we've seen. General purpose technologies are things like **electricity,** you know they affect every part of the economy."

The analogy of "electricity" and the equivalence to AI was further defined by Andrew Ng of CEO and Founder, Landing AI; Co-Founder, Coursera; Adjunct Professor, Stanford University. Where he explained

his analogy "..I was making an analogy to the rise of electricity about 100 years ago starting here in the United States, where it also similarly transformed every industry. I don't know what major industries we can run today without electricity."

One visualizes a digital Ouroboros plotting the next path to sell you lower cost electric car insurance.

Affecting Traditional Business

The new AI technology will effect all traditional businesses. Andrew Ng gives the example "Once upon a time, you could be a small farmer here in the United States, running a small chicken farm or running a small farm, and have a pretty good living, but with the rise of the Internet, it now becomes possible for centralized players... Say major chicken conglomerates, Tyson Chicken, to use IoT to centralize data from all around the country into headquarters, use AI to process the data and push technology and IP back out to the periphery, so that every little chicken farmer now has a licensed data technology, more from the centralized players."

I hope Seth Green will be open for a new series of Robot Chicken soon.

Robot Intelligent Salesforce

Digital Ecosystems

The coalescing of data to prevent "silos" of data in companies and society are the aim of the digital ecosystem. The data now scattered throughout is connected; then, predictions could be followed using AI to connect these data breadcrumbs.

James Golden, CEO of World Quant where he states "We think a lot about how do we use AI and how it's a better able prediction of scale. For us, whether we work with other CEOs in retail or in finance or in health care, we think about how do we better model consumer behavior and human behavior in aggregate. If you think about someone's purchase behavior or a patient moving through the health care system, where can we use AI and ML to make better predictions about how those people will behave?"

Later, James Golden states "What do we know from mobile phone data? What do we know from buying behavior data? What do we know from geospatial data? How do we build signals off of alternative data sets to build models that are constantly being updated and applied.."

Retail Data

For all the promise of Artificial Intelligence the statement by James Golden summarizes it's real power: "We believe that families will not go on vacation this summer. How much lawn furniture and barbecues should we stock?"

It turns out for all the power of AI the real aim is to triangulate on your tastes and wishes and upsell you to supersize your order.

Education

The use of AI for teaching children was quickly mentioned due to time constraints. After COVID lockdowns the advent of computer learning is being developed and adopted and so is probably here to stay.

Kai-Fu Lee of Chairman and CEO, Sinovation Ventures stated "In China, it's called an AI course. An AI course is a course taught by a fun character that's virtually rendered and generated. In advanced case, it converses with you. In the basic case, it just dances around, but all of which are targeting user needs. I'm very excited about the possibility of using AI to get the young kids excited by doing targeted teaching and increases their comprehension as well as engagement."

Increasing inequality

As businesses adopt AI new businesses will swallow and leave behind old businesses. In this process inequality will become more pronounced.

Andrew Ng "AI's creating tremendous wealth, that's great. I think that unfortunately it will contribute to inequality in society. One of the things we see about both the internet and AI is it causes more industries to become winner take all."

I for one am glad that engineers are finally solving the big problems that keep the 1% their God given right to become the .1%ers.

Advantages of China and AI

The advantages of AI in China were represented by Kai-Fu Lee Chairman and CEO of Sinovation Ventures. Kai-Ful Lee extols the advantages of China and their ability to produce products to service the users of the product and to iterate on producing that product. He gave the example of TikTok product, where He states "TikTok, today, it's a product that has really been become a runaway success and has proven to be un-copyable by top American companies."

Later, he declares "I think it is a great example to look at how the company has leveraged the huge amount of data in China to develop an interface that shows you videos that becomes very attractive and even addictive for you to use and then gathering all that and then using it to bootstrap in US and other countries and creating similar experiences."

Apparently, TikTok's ability to gather and collection all the data you've viewed and download in the last month can really help enhance your Tinder account.

Regulation of AI

The regulation and control of AI is a deep concern and was discussed at great length in this presentation.

Andrew Ng states, "AI world is that the AI community cares deeply about these ethical issues. I speak with young engineers and they're actually very concerned about how can we make sure AI is a force for the good. There's a survey paper doing a survey of AI ethical principles, where I think over 80... Probably

over 100 by now different organizations have published various ethical principles. I think It's great that there's so many organizations working on this important problem, but the fact that so many different companies are publishing this is, I think, also a sign that we as a community, the AI community, we've not yet conversed a set of norms on what we should do and what we shouldn't do."

Later, Andrew Ng went on to say, "Health care went through some bad stuff. During the Second World War, doctors practiced on prisoners of war and ran horrible experiments. Health care went through some truly horrible things before we came to convention that doctors have a duty of loyalty to the patient. AI's still undergoing that process and how do we measure?"

Maybe, a Nuremberg Code for AI will be instantiated after the great social media war of 2032.

Summary

This presentation is very important to understand where Artificial Intelligence is finding application in business, farming and education.

Panel: Betting on the Future: Tech, Software, and Beyond

Technology and software applications have dominated innovation and economic growth for decades. Yet, the current crisis and its ensuing work-from-home have accelerated a tech revolution in which our lives and business dealings are increasingly layered around software and technology. What does it mean for investors and companies as they seek to adapt to and invest in this transformative inflection point? Four notable guests from the software investment community talk about the bullish nature of software investment.

Watch Video:

https://milkeninstitute.org/events/global-conference-2020/livestream/Betting-Future-Tech-Software-Beyond

Software is the business

The future of all business will be directly tied to software development and use. Orlando Bravo of Founder and Managing Partner, Thoma Bravo stated, "we are really convinced that software is everything. It will in five years from now, no longer be considered an industry or an industry vertical. It's a business model. You're so intertwined with your customers, given the way software is being delivered and given the operational aspects that it's improving versus the gross margin improvements that it was doing and focused on 30 years ago. That five years from now, people will just look at it as a business model and a diversified industry."

All four guests agreed with this statement as would most non-coal miners.

Operations

Software has been used for operation and management as well as logistics. Businesses are now using software to keep track of operations and their productivity.

Orlando Bravo stated, "What I mean by that is supply chain issues, materials, resources, et cetera. With the advent of software service and cloud computing, new companies started solving really big problems, operational problems... where 80% of the cost of companies are, where people can work a lot more productively."

Healthcare

Anu Duggal of Founding Partner, Female Founders Fund stated, "The first one I'll touch on that we're excited about, has really been the consumerization of healthcare. I think you've seen with the rise and the use of telehealth throughout the pandemic, there are a lot of others, I think, verticals in industries within healthcare that are realizing that software can really accelerate how they reach their end consumer."

I for one have insisted that whenever possible, a telephonic proctology exam is preferable.

Growth Business

The guests all invest in high growth and breathtaking opportunities.

Anton Levy Co-President, Managing Director and Global Head of Technology, General Atlantic stated, "we are a growth equity investing firm which basically means we're investing in companies that are growing fast. For us, we define growing fast as 20% to 200%, 300% plus annual growth rate."

Deven Parekh Managing Director, Insight Partners stated, "30% growth or higher is our typical strategy. I think a lot of good points were already made. I was talking with a hedge fund manager the other day trying to understand his view on where software multiples are today. His quote was, "Software is God's gift to capitalism."

Deven Parekh later stated, "I think the trend that you have in software is two things. One, you have a secular trend where you're able to compound at a rate that almost no other industry can. And then the second thing you have particularly in enterprise businesses is this concept of net retention. "

Business school has not been wasted on the guest as they expound the importance on buying low and selling high. Sound words of wisdom.

High Valuations

Anton Levy later went on to state, "Valuations have stayed elevated really, since the middle of 2013 based relative to historical norms. There's some sub-segments that have gone up and down during that time period. Even in the last maybe six months here, you maybe have even seen a little bit of the higher end of that. Maybe think valuations are 20% to 30% higher than they were on average relative to the last 70 years. But we've been operating at an elevated valuation environment for some time, and software included."

Anton Levy later went on to state, "I do think you're in a high valuation risk environmental. We're not doing a lot of investments in really good companies because people are out bidding us by 30%, 40% on price."

Over forty percent of software companies fail but the treasure of Sierra Madre is around the corner.

Revenues

Anton Levy stated, "It used to be companies would go public when they maybe had $30, $40, $50, $60 million in revenue. The time to stay private is extended. Companies, whether it's Airbnb or some of the large software companies, a lot of those companies have stayed public until billions of revenue. I think just there's that dearth of product. There's demand, whether it's retail investors, institutional investors, hedge funds, mutual funds. Some of those companies have moved into the private markets to get some of that product, but a lot of those people can't or don't have the resources or ability to help those companies and so they've struggled a little bit doing that."

Uber, Snapchat and Spotify are recent examples of irrational exuberance comes to mind.

A Conversation with Richard Sandor: Leaving LIBOR for the AMERIBOR

By Jim Altenbach, CFA

I had the honor of doing an exclusive interview with Richard Sandor, Chairman of the American Financial Exchange (AFX), and fellow of the Milken Institute. He is considered the "Father of Financial Futures." The interview was published recently in RealClearMarkets. I will share with you highlights.

For the full interview see:
https://www.realclearmarkets.com/articles/2020/12/03/leaving_libor_for_ameribor_conversation_with_richard_sandor_651817.html

LIBOR had over $350 Trillion of assets priced on it, but it is now planned to be phased out by 2021, to be replaced by other benchmark rates. The U.S. Treasury's Secured Overnight Financing Rate (SOFR) is being considered as a replacement benchmark. SOFR is really designed to serve the largest banks, institutions, and corporations. One of the other U.S. based rates is Sandor's AMERIBOR (American Interbank Offered Rate.)

Both reference rates are market priced, which is a tremendous advantage over LIBOR. However, SOFR is really designed to serve the largest banks and corporations. Sandor's AMERIBOR offers an alternative that better matches the capital costs of regional medium and small size community banks and companies, including minority owned banks and their customers. Also emerging SME growth companies will be better served by AMERIBOR.

I first met Dr. Richard Sandor over 20 years ago at the Milken Institute Global Conference, and always enjoyed listening to his thought-provoking panel presentations. I caught up with Dr. Sandor via telephone interview in late October.

Hello Dr. Sandor, welcome.

Q1) As LIBOR is being phase out in 2021, could you tell us briefly about the status of the transition, given business disruptions due to Covid-19 and will we still meet the December 31, 2021 target date to be transitioned out of LIBOR?

Sandor observed he does believe the December 31, 2021 target date will still be met or extended for a short period of time as "preparations by the banks are high."

Q2) Dr. Sandor, you are a fellow at the Milken Institute, and you have participated in the Milken Institute's Center for Financial Markets (CFM) which is researching the constraints placed on local financial institutions, like the Community Development Financial Institutions and Minority-owned Depository Institutions (MDIs), and is designing strategies to provide increased growth capital and financing in these underserved communities.

Could you describe some of the constraints which are inhibiting access to capital and financing in underserved communities?

Sandor observed there are issues that are problematic. He stated there are 140 plus Minority Depository Institutions and about 21 African American Institutions in the country, and they have the ability to provide capital within the local community and they have very capable underwriting standards and are increasing the amount of loans in their communities. "But they need two things to happen. They need to have more equity capital, and more loan participation outside their own communities. Like all banks today, MDIs are flush with cash."

He stated the AFX is "working with AFX's MDIs to provide a way for them to participate in loans that are made by larger institutions. They need two things: Equity and access to high-quality loans and loan participation." He added AFX "is working strongly on the latter (access to loan participation) with AFX's regional and midsize banks to develop a mechanism to loan flow from the larger banks into the minority-owned banks."

Asked about helping intermediating equity investments, Sandor observed the larger banks are working on that, however not AFX member banks.

Q3) Could you share with us a brief description of SOFR as well as your AMERIBOR benchmark, and describe why AMERIBOR is a better reference rate for smaller banks, especially minority owned ones?

"AMERIBOR is a dual-purpose product. AFX provides an exchange for overnight unsecured lending. That is a dual-purpose product. One, it is for banks to have access to a peer-to-peer fintech network to borrow and lend for liquidity purposes. The second purpose is the calculation of the daily weighted-average of the interest rate on that market, which is AMERIBOR."

"By definition, AMERIBOR reflects the costs of borrowing. If they know what their costs are, they can lend appropriately. SOFR reflects secured risk-free interest rate. AMERIBOR represents an interest rate that reflects credit risk and therefore is useful in asset-liability management for AFX's banks to lend at rates based on AMERIBOR, so their costs and revenues are tied together."

In materials provided to the author by AFX, the AMERIBOR is a volume-weighted average of daily transactions in the AFX's overnight unsecured loan market.

Q4) Dr. Sandor, in a recent Op-Ed, you wrote: "Building on government programs, new initiatives are needed to increase the flow of funds to minority-owned banks and their communities. Expanding lending to minority entrepreneurs and businesses will significantly impact the real economy——financing new companies and create jobs."

What is your perception of the best means to achieve these goals – large/small bank partnerships, government intervention, Federal Reserve regulation?

Sandor responded "the best combination is the Private/Public Partnerships where vehicles are created that can enhance the ability to leverage the knowledge of minority owned banks to reach entrepreneurs within their communities. Programs that could be developed include SBA guarantees, and opportunity zones attracting capital into different areas. There is a variety of tax incentives or guarantees coupled with private capital that can be focused on the African American community." Sandor stressed this should be part of our public policy and engage the private sector in large programs.

Q5) Weren't many minority-owned businesses already without a traditional banking relationship and thus were not getting the funding they needed, even before the pandemic? Challenges often include the need to get a loan for vary small amounts, or to get a reprieve on a mortgage. Did community banks come in to fill the need by servicing the Paycheck Protection Program (PPP)?

Sandor explained the "community banks did an enormous number of PPP loans relative to their size," indicating they performed very well, and he is impressed how hard they worked with staff working on weekends. They produced a proportionately significant amount of the PPP programs. The community banks are able to get into and service loans in communities that the large money center bank wouldn't.

Sandor gave an example of Citizen's Trust Bank in Atlanta, an African American owned bank, which wrote a loan for $400, which is not something a big bank would do or could do, as they lack the underwriting ability. The small banks "reach into the communities and put the money where it can do the most good and be successfully underwritten," Sandor says. He says it's not that the big banks are not doing their job, "but rather the PPP program allowed the community banks and mid-size banks to do what they do best: Underwrite into the small and mid-size market. This is what is important."

Q6) Could you explain how the policies of the Trump administration have helped or hindered the minority owned banks and businesses?

Sandor observed that at this point, he doesn't have a particular view of this. He did explain "the most important thing has been the bi-partisan effort that occurred with the PPP program. Sandor wishes for 'more bi-partisanship' especially with regards to small and medium size businesses. This is a precious resource. We need a bi-partisan approach.'"

Update: On November 6th, in a joint statement, banking regulators told financial institutions they can choose any reference rate to replace the LIBOR. The regulators endorsed SOFR as the best replacement, but said that the "use of SOFR is voluntary and banks may use any reference rate for its loans that the bank determines to be appropriate for its funding model and customer needs." The statement comes after many small and medium-sized banks said that that they would prefer to use AMERIBOR.

AMERIBOR is now being used by smaller/midsize corporations. It will likely be a better benchmark for growth-oriented companies.

Banking with Purpose: Supporting Black Banks and Businesses

Restricted access to capital has been a longstanding factor limiting the ability of many minority-owned businesses to increase scale and drive economic development for their communities and the nation at large. The COVID-19 crisis was devastating for African Americans, and Black-owned businesses. Minority Depository Institutions (MDIs) and Community Development Financial Institutions (CDFIs) are federally designated financial institutions with well-evidenced track records of targeting underserved populations.

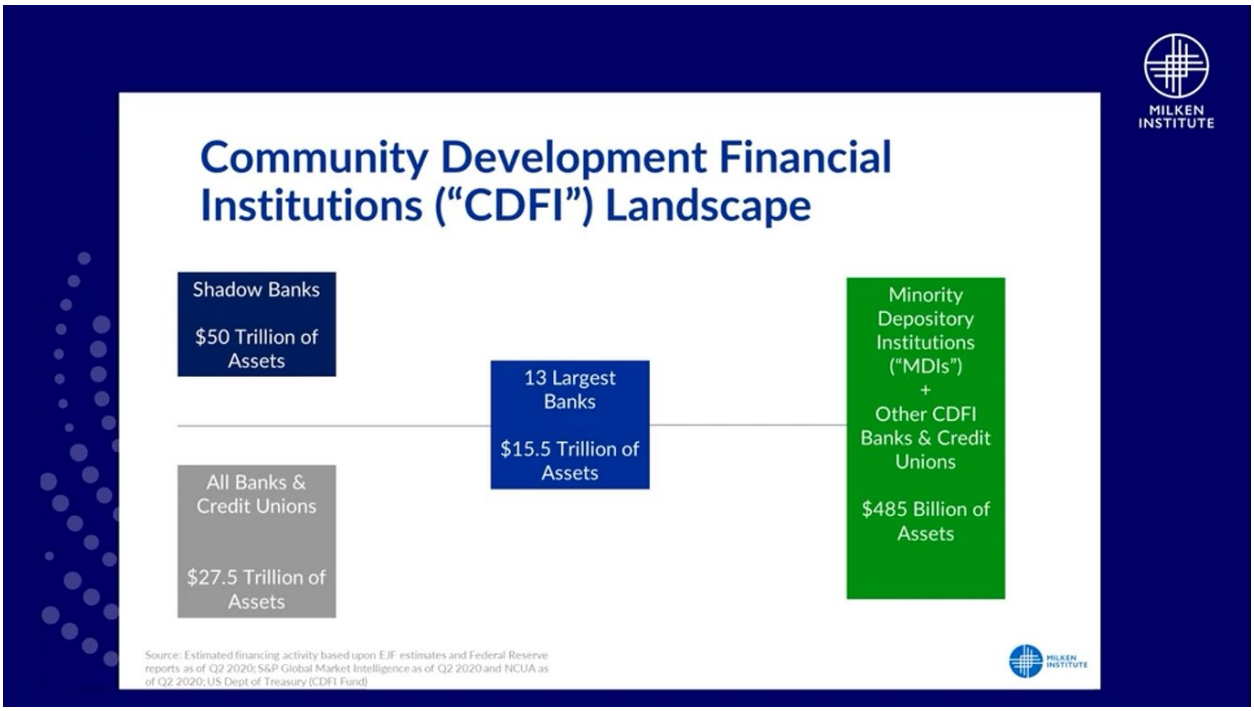
See Video: https://milkeninstitute.org/events/global-conference-2020/livestream/supporting-black-banks

Asked to contextualize challenges that minority bankers face today and to share what lenders are experiencing in their efforts to scale up their operations in black communities across the nation, Kenneth Kelly, CEO of First Independence Bank, and also the lead for the National Bankers' Association the Association of Black Banks in America, responded:

There is a contextual structure that is very different when you look at African American banks in African American communities. There are two instances in the midst of COVID-19. One) The life issue, which is a health issue. Two), the livelihood (economic issue.) The challenges we face as institutions is having the bandwidth to meet the need of the communities that we serve.

He added: There are over 5,500 banks with about $21 trillion. The African American banking structure is about $5 billion in assets. On a proportional basis, it is a small finite. Most African Americans, 70%, do not have a banking branch in their neighborhood, creating an access problem. Minority institutions have a greater impact in the communities we serve.

Emanuel Friedman is CEO of EJF Capital LLC. Asked about the need to scale, MDIs (Minority Deposit Institutions) and African American banks, he shared a slide "to put this point in a little bit of a context:"



Friedman, explained: "It's actually worse. Thirteen percent of the population is African American, and also big portions of other populations are in the areas and are substantially below the median income. You can see that not just MDI's, because there's MDI's, there's minority institutions that are depository institutions, there's credit unions that are depository institutions, and we also have loan funds, CDFI's. And they're about $500 billion."

Friedman observed "of the total bank assets half of 1% is active in this area (lending in minority communities)." Few are completely committed. "There are no assets, no massive loan ability the way you have in other areas." He said these conditions remain for over 20 years, and "this is a systemic problem so extreme we need to think about big solutions. Minority communities "are 'under banked' which means tech could play a role as they did in PPP."

Asked about scalable ideas, Friedman stated: "The Federal Reserve Board talks a great game, but the net result is zero. I haven't seen any Section 13(3) programs for this community."

"Two things are needed, massive amounts of real capital. That means capital that is equity-like, that makes these institutions stronger. The same way many small banks that were a $100 million are now $40 billion in 10, 15 years. When they had access to capital, they grew. And those numbers are mind-boggling."

PANEL: Africa: Economic Recovery and Transformation

Young demographics and decisive government leadership spared many African countries from worst-case COVID-19 scenarios early on. But the pandemic has sent the continent into its first recession in 25 years. What is the path for recovery? How can African countries build back better, in a way that can secure resilience and more broadly shared prosperity? What role will African youth, rising entrepreneurs, and digital technologies play in the transformation of economies and markets across the continent?

See Video: https://milkeninstitute.org/events/global-conference-2020/livestream/videos/africa-economic-recovery-and-transformation

Moderator Raj Kumar, Editor-in-Chief of Devex opened the panel by observing that Africa has not been in the news as much due to the world Covid-19 pandemic. The number of cases on the continent across the 54 countries is quite low. It's less than two million, out of 40 million globally. It's a young population, and so in general the health outcomes have been better across the African continent.

But this narrative misses a big point, which is that "Africa is going to suffer perhaps more than other regions from the secondary effects of the pandemic." It also misses the whole narrative around opportunity. Yes, the continent's going to be set back on its heels. It's looking at the first major recession perhaps in a quarter of a decade, but there's a big opportunity for innovation and technology and entrepreneurism in a young, dynamic continent to move forward out of this crisis.

The discussion began with the moderator Kumar asking Malado Kaba, Former Minister of Economy and Finance of the Republic of Guinea and Chairwoman, Orabank: "Minister Malado Kaba. Looking at this

broad perspective on how Africa builds back better, in a different way, in a unique way, how it transforms, how do you see the issues today?"

Kaba explained: "People refer to how to build better forward. I think the "forward" is probably a much better choice of words than "back" because as it stands right now, we really have to be able to come out of this terrible pandemic in a better shape than we entered it. It's quite a challenge. Our continent fared quite well in terms of health issues, and how our governments, together with the private sector, handled the pandemic, which is still ongoing, as we know. But I was probably part of those people who always feared much more the economic and financial impact on our continent."

Kaba explained the pandemic did shed light on Africa's weaknesses. Intra-African trade is still only 15% of total African trade, compared to the EU with 62%. Economies are not diversified, and don't transform what they grow from their own soil. "We need to push local transformation of our produce, and push to boost regional on the continent. We don't fare well with production integration and infrastructure integration. These are key aspects to boost intra-African trade."

Arunma Oteh, former Treasurer of the World Bank to Africa, and Oxford University Scholar re-emphasized the point stating the African Free Trade Agreement includes 54 countries (24 ratified as of 2019) on a large and diverse continent. Many are dependent on export of raw materials, such as oil and gas, and tourism. "Africa has 1.3 billion people, expected to be 2.3 billion by 2050. The African Continental Free Trade Area brings together a GDP of $3.4 Trillion. 90% of tariffs on goods and services, intellectual property, will all be eliminated. Small and fragmented economies are coming together. GDP can be boosted by $450 Billion, and exports boosted by $560 billion."

A challenge is Africa still needs electricity, energy, connectivity, reforms and basic rule of law, roads to foster successful entrepreneurs, and bring the innovation to the market.

Vivian Nwakah is Founder of Medsaf. Nwakah explained: "when I moved to Nigeria about seven years ago, there were a lot of problems, that a lot of people complained about, but from my travels around the world, I could see, "Okay, these are actually challenges that have been solved, or are being solved worldwide. What makes me so excited about Africa, even through all the turmoil, is there really are learnings we can bring together from around the world, to solve really hard problems, using technology, to completely disrupt the status quo, and leapfrog the US, and Europe."

Nwakah added: "That is exactly what my vision is for my company, Medsaf. We said, "Every single human being deserves to have quality and real medication, at an affordable price. How do we do that?" So, how do we use technology to reduce the friction between all of the players within the supply chain, to increase the access, affordability and quality of medications for the average person?"

Medsaf is an interesting company. Dr. Anil Grover of Grover Medical Lifestyle Clinic in Nigeria says of the company: "MEDSAF has a very robust supply chain unit. Now we are not bothered to check the source of the supply, or who is the manufacturer, is it genuine or not, is it fake or not. We trust MEDSAF."

Investors in other countries, emerging or developed such as the United States should be on the watch for any similar companies, as this business model can be a high growth proposition!

“What is key is we focused on, identifying what are the problems, what do people deserve to have, and how do we use technology to make it equitable? So, here we are in a situation, with COVID-19 and all the other challenges, to think about Africa as a whole, and think about ways to solve fundamental issues that work across Africa.”

Growth investors should be aware that Africa, with its young population healthy and eager to work, all that is needed for an enormous growth rebound is for the world economy to recover so it demands what Africa exports. Long term, intra-African trade will kick in!

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