

WHAT IS THE METAVERSE, WHAT ARE ITS USE CASES, AND WHY IT IS HERE TO STAY?

Almost on a daily basis I am referred to as 'boomer' by my children 🙄, both of whom are teenagers with the now typical preference for tech-enabled life, which was probably inevitable but no doubt accelerated by the pandemic. And for dinosaurs like me – late 40s, professional, employee more than entrepreneur – dabbling in, or worse yet making pronouncements on things like the metaverse, NFTs, Web3 etc, is not just embarrassing for my children 😬 but makes for rather awkward dinner party conversation; “Daahlinngg I heard you're having some sort of...conference...in the metaverse?? WHY?? [How can I get in?](#) Download [what?](#) What do you mean avatar? OH! Can you make mine look young and slim?” 😬 I have great news - your avatar can look like anything you want - no Botox or BBL necessary! And you can meet me (well, my avatar 😊) in the metaverse (if you want to) before and during the event on November 18th, to chat and shake hands virtually. We can even go for a walk!

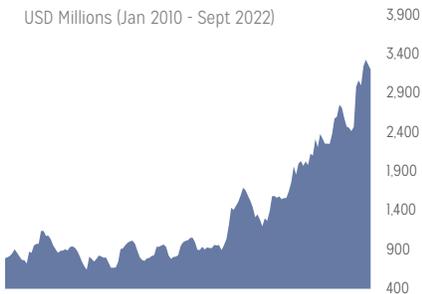
As to why – well, in 2019 I was slated to speak at Bretton Woods, but bad weather = cancelled flights. When I asked repeatedly to deliver my presentation remotely, the answer was patently no. We don't do that. In 2019!? Also, a particular Chairman comes to mind, who insisted that Directors attend ALL quarterly Board meetings in person. Then came the pandemic. Necessity didn't give birth to any inventions then – just a major change in mindset and behaviour (finally!) precipitated by the inability of the dinosaurs of my generation (and above) to resist the inevitable any longer. We had to succumb, even if kicking and screaming. Now on the eve of 2023, we love to hate online meetings, and we are all Zoomed out and want to fly out.

| With its potential to generate up to USD5 trillion in value by 2030, the metaverse is too big for companies to ignore - [McKinsey](#)

But what of those instances where online collaboration is unavoidable or even optimal? For sure my annual delivery of the Caribbean Economic Outlook has always been online even before the pandemic, because it is optimal for this particular event. And my team and I don't do sub-optimal 😬. But because everyone is Zoomed out, we knew we had to do better this year.

The metaverse emerged optimal for many reasons, some of which are outlined in a [recent Blog by the IDB](#). To be sure, the metaverse is not likely to solve all our meeting and collaborating needs, just like Zoom et al didn't. Most of us prefer face to face, but when that's not possible or optimal, meeting in the metaverse is by far the most friendly, immersive, enjoyable, flexible, and 🔥 option. Beyond these compelling truths, we'd prefer not to devolve or become extinct, but to embrace an industry that is blossoming, having attracted over [USD120 billion in investment](#) in 2022. Imagine, more than 15% of corporate revenue is expected to come from the metaverse in the next 5 years according to 25 senior executives, and more than 79% of metaverse users have already made purchases there according to McKinsey. [Over USD500 million worth of real estate](#) was purchased in the metaverse so far, there are over 400 million metaverse monthly active users, 51% of the metaverse userbase is 13 or younger, and by 2026 one quarter of us will spend an hour or more in the metaverse each day. Last year Christie's auctioned the first digital-only artwork for USD69.4 million with 22 million people from 11 different countries, in the metaverse.

The early metaverse adopters and the biggest winners thus far have been creatives and gamers, including digital fashion designers such as [T&T's Anya Ayoung-Chee](#). But it doesn't stop there. On November 18th, you will witness [3Canal's](#) first ever performance in the Metaverse and you will see and hear from other early adopters who are actively using the metaverse in their business, to learn first-hand how this technology has enabled their growth. You will also hear about the financial and legal considerations of doing business in the metaverse and get insights from the IDB's research team on technology and development. Most importantly, you will get to test it out for yourself – we will ease you in with training wheels and give you the chance to explore at your leisure. Only a computer and internet connection is required - no Virtual Reality headset or any special equipment needed. Purchase your ticket at marladukharan.com/metaverse and on November 18, you will become the one at the office (and at dinner parties!) who understands this inevitable trend.

	THE BAHAMAS	BARBADOS	THE CAYMAN ISLANDS
UPDATE	<p>Moody's downgraded Bahamas to B1 from Ba3, meaning the risk of Gov't default is rising. Moody's cited the "higher degree of government liquidity risk" as the main justification for its actions. Moody's further cited elevated borrowing costs to access bond financing on international capital markets given perceived greater risks. External reserves reached USD3.2 billion in Sept, up by USD488 million y/y while Gov't external debt has grown by USD624 million y/y. Higher demand for USD to import reconstruction related materials, combined with below-forecast tourism activity could further increase balance of payments risks. For Aug 2022, inflation was 6.3%, with prices for Recreation & Culture +19%, Hotel & Restaurant +16.4% and Food +14%. Total tourist arrivals for Jan-Aug 2022 reached 84% of 2019 levels. Most job gains in the economy are in the Tourism and the Construction sector. The Central Bank's employment outlook remains below pre-pandemic levels.</p>	<p>Fitch has assigned Barbados a Long Term Foreign Currency and Short-Term rating of B (highly speculative) with a stable outlook. This is following S&P affirming its B-Foreign Currency Long Term credit rating with a stable outlook. The IMF approved support at USD183 million under the Resilience and Sustainability Trust, and USD110 million under a 36-month Extended Fund Facility is pending. The sixth consecutive quarter of growth was recorded in Q3 2022 as GDP grew by 9.8% y/y, bringing the overall growth for the first three quarters of 2022 to 10.1%, mainly driven by recovery in the Tourism sector. Tourism GDP for Jan-Sept reached 72.7% of the 2019 value for the same period. The UK was the main source of tourist arrivals, accounting for 40% of total arrivals. For Jan-Sept, Agriculture grew by 3.8% y/y, Manufacturing grew by 3% and the Non-traded sector grew by 2.3%. Headline inflation was 8.5% in Aug with Food prices up by 11.4%, Restaurant prices up by 11.2% and Transport prices up by 9.7%.</p>	<p>Real GDP growth for Q1 2022 was 3.8% y/y with projected growth for all of 2022 at 3.4%. As the Tourism sector began to recover, Hotels, Restaurants and Bars grew +27.8% and Transport, Storage and Communication +14.3%. Unemployment in H12022 reached 3%, down from 5.1% in Oct 2021. The total labour force for H12022 increased by 11.7% y/y. Air arrivals for Jan-Sept reached 46.8% of 2019 levels and cruise arrivals were up to 39% of 2019. Merchandise imports also increased 17.6%. Food imports accounted for 16% of the total and mineral fuels 13%. Central Gov't debt was 10% lower y/y, reaching KYD218.0 million in Q1. The fiscal surplus increased by 14.5% y/y as revenue increased by 10.6%, which rose by 7.1%. At the end of Q1, the number of stocks listed on the Cayman Islands stock exchange reached an all-time high of 2,667 - a y/y increase of 13.5%. Census data revealed 91% of households had an Internet connection in 2021 up from 74% 5 years prior.</p>
TOURISM	<p>Stay-over: 2022: 892,738 (July) @ 77% of 2019</p> <p>Cruise: 2022: 2,700,075 (July) @ 83% of 2019</p>	<p>Stay-over: 2022: 303,394 (Sept) @ 58% of 2019</p> <p>Cruise: 2022: 178,170 (Sept) @ 32% of 2019</p>	<p>Stay-over: 2022: 180,624 (Sept) @ 47% of 2019</p> <p>Cruise: 2022: 426,293 (Sept) @ 32% of 2019</p>
GROWTH	-23.8% (2020) / +13.7% (2021)	-13.7% (2020) / 0.7% (2021)	-5.7% (2020) / +1.8% (2021)
RESERVES	<p>External Reserves USD Millions (Jan 2010 - Sept 2022)</p>  <p>Source: Central Bank of The Bahamas, Marla Dukharan</p>	<p>International Reserves USD Millions (Jan 2010 - Sept 2022)</p>  <p>Source: Central Bank of Barbados, Marla Dukharan</p>	<p>Foreign Reserve Assets USD Millions (Dec 2017 - June 2022)</p>  <p>Source: CIMA, Marla Dukharan</p>
OUTLOOK	<p>We expect growth of 6% in 2022 and 4% in 2023, backed by Reconstruction and Tourism, with economic activity below its 2019 level to 2025. The IMF forecasts 8% growth for 2022, 4.1% for 2023, averaging below 2% to 2027.</p>	<p>Gov't expects growth of 7-9% in 2022, with a medium-term average of 3% per year thereafter. The IMF forecasts 10.5% growth for 2022 and 5% for 2023, averaging 2.4% to 2027. ECLAC projects growth of 5.9% for 2022.</p>	<p>ESO currently projects growth at 3.4% for 2022 and 3.0% for 2023, backed by Construction activity and the gradual recovery of Tourism. We expect growth to pick up in 2023 to around 4% then averaging around 3% to 2027.</p>

	CUBA	DOMINICAN REPUBLIC	GUYANA
UPDATE	<p>GDP growth fell from 10.9% in Q1 2022 to 1.7% in Q2. For Jan-June 2022, economic activity increased by a total of 6% y/y, mainly the result of Tourism with activity in Hotels & Restaurants growing by 41% y/y and Construction up by 24% y/y. Manufacturing activity fell by 11% y/y with severe power outages curtailing output. Sept 2022 inflation was 37% y/y according to official figures, with Food prices up by 58%, Recreation and Culture prices up 69% and Hotel & Restaurant prices up 44%. International tourist arrivals for Jan-Sept reached only 32% of the 2019 level at 1.07 million with 30.2% coming from Canada and 22.3% from the Cuban diaspora. Russia had supplied 35% of tourists YTD by Sept 2021, which this year has fallen to under 4%. On Oct 2nd the CUP depreciated on the informal market by 64% relative to Jan 2022, reaching CUP200:USD1 then subsequently recovering to CUP170:USD1 on Nov 4th 2022.</p>	<p>Inflation for Oct 2022 was 8.2% y/y, with prices for Housing +11.5%, Food +9.9% and Rest & Hotels +9.8%. The Central Bank expects inflation to end 2022 at around 7%. Policy rates were hiked to 8.5% at the end of October. YTD, policy rates have been increased by 400bps. Preliminary figures suggest that unemployment fell to 4.8% in Sept, down from 8% at the peak of the pandemic, and are now below 2019 levels. Tourism is expected to have generated around USD6.3 billion in FX revenues Jan-Sept 2022 and is now forecast to reach USD8.7 billion for 2022. Jan-Sept stay-overs were 5.3 million or 7% above 2019. Jan-Sept remittances totalled USD7.3 billion and are forecast to grow to USD10 billion for 2022. FDI is expected to continue to increase and reach USD3.2 billion this year. Reserves were over USD13.8 billion in Sept at 5.7 months of imports. The DOP has been appreciating since mid-2021, reaching +6% y/y in Sept 2022.</p>	<p>The IMF warned that expansionary fiscal policy can cause real exchange rate appreciation which can negatively impact export competitiveness and reserves. Gov't announced a reduction in excise tax on gasoline and diesel from 35% to 20% at the beginning of Oct to cushion the effects of increasing fuel prices. Headline inflation for Sept 2022 was 6.5% with Food prices +11.2%, Transport & Comms +3.6% and Furniture +3.4%. At the end of Oct, the Natural Resource Fund balance was USD1.21 billion, up 94% since Jan 2022. Robust loan growth continued in Sept 2022, with loans to residents in private business enterprises up 22.7% y/y, with a 14.1% increase to the Agriculture sector, 5.5% increase to the Mining and Quarrying sector, 40% increase to the Manufacturing sector and 20.3% increase to the Services sector. Net international reserves reached USD823.4 million - a 5.5% increase since Jan and roughly 2.9 months non-oil import cover.</p>
TOURISM	<p>Stay-over: 2022: 1,074,814 (Sept) @ 32% of 2019</p> <p>Cruise : n/a</p>	<p>Stay-over: 2022: 5,334,291 (Sept) @ 107% of 2019</p> <p>Cruise: 2022: 816,408 (Sept) @ 106% of 2019</p>	<p>Stay-over: 2022: 105,905 (May) @ 86% of 2019</p> <p>Cruise : n/a</p>
GROWTH	-10.9% (2020) / +1.3% (2021)	-6.7% (2020) / +12.3% (2021)	43.5% (2020) / +23.8% (2021)
RESERVES	n/a	<p>Net International Reserves USD Millions (Jan 2010 - Oct 2022)</p> <p>Source: Central Bank of the Dominican Republic, Marla Dukharan</p>	<p>Net International Reserves USD Millions (Jan 2015 - Sept 2022)</p> <p>Source: Bank of Guyana, Marla Dukharan</p>
OUTLOOK	<p>Gov't expects growth of 4% in 2022, while UN ECLAC projects 3%. Recovery beyond this depends mainly on FDI, Tourism, investments in Agriculture and Power Generation, international relations / sanctions, and Russia's invasion of Ukraine.</p>	<p>The external sector will continue to see robust activity, with the recovery of Tourism to continue in 2023. The IMF's growth forecast for 2022 was revised to 5.25% and is expected to remain around 5% over the next 5 years.</p>	<p>The IMF expects real GDP will grow by 57.8% in 2022, with non-oil GDP increasing by 7.2% and oil GDP increasing by 116.1%. For 2023-2026, oil GDP is forecast to increase by an average of 30% and non-oil GDP by 5.1%.</p>

	JAMAICA	SURINAME	TRINIDAD & TOBAGO
UPDATE	<p>Inflation was 9.3% in Sept - still well above the BoJ's target, so the policy rate was increased by 50bps to 6.5%. Prices for Restaurant & Accommodation services were up +19.4%, Food +10.5% and Housing, Water, Electricity, Gas and Other Fuel +8.5%. Tourist arrivals for the month of Oct are estimated to have surpassed 2019 levels by 8.8%. Real GDP is expected to have increased by 3% in Q3 2022. In October, S&P affirmed Jamaica's Long-Term Foreign and Local Currency rating at B+ with a stable outlook. For the first five months of FY2023, Revenue & Grants surpassed the budgeted target by 11.6% contributing to a reduction in the estimated fiscal deficit by 93%. For Oct 2022, the value of the JMD depreciated by 1.5% y/y to JMD153.81 : USD1.00, though it has appreciated from JMD155.15 in Dec 2021. Net International Reserves remain robust at USD3.8 billion or 24 weeks goods & service imports coverage. Remittance inflows remained strong for Jan-Sept at USD2.65 billion - 43% higher than the 2019 level. The unemployment rate increased marginally to 6.6% in July relative to 6% in April, with the number of jobs only 4,700 short of the Jan 2020 level.</p>	<p>The monthly economic activity index increased by 1.6% y/y for June 2022. Activity in the Accommodation and Food services industry increased by 70%, Transportation and Storage activity increased by 41.5% and Construction activity increased by 21.8%. Major flooding in May-June caused a contraction in the Agriculture, Forestry and Fishing industry output by 28.8%. Information & Comms activity was down 17.5%. At Aug 2022, central Gov't total debt to GDP ratio was 116.1%, up from 114.4% in Jan. The SRD continued to depreciate, reaching SRD28.49 : USD1.00 in Oct 2022 compared to SRD21.61 : USD1.00 in Oct 2021. Headline inflation for Sept was 41.9% y/y, with Housing and Utilities prices up 72.7%, Communication prices up by 59.8% and Food away from home prices up by 48.3%. For Jan-Aug, Mining contributed to 47% of total revenue. Subsidies and transfers account for 41.7% of total expenditure, while interest payments and arrears account for 10% of expenditure. Foreign currency reserves reached an all-time high of USD791.1 million in Sept 2022, equal to roughly 4 months of import cover.</p>	<p>Higher energy prices will not save T&T's economy as energy output continues to decline. LNG production in 2022 has averaged around 2003 levels, natural gas is comparable to 2004 levels, and crude oil stands at only half of 2000 levels. Non-energy sector weakness persists with only Food & Beverage Mfg, Financial Services & Real Estate recovering pre-pandemic levels in Q1 2022, while Construction lagged Q1 2019 levels -24%, Hotels & Restaurants -19%, Transport & Storage -18% and Agriculture -7%. FY2023 budget deficit is projected at 0.8%/GDP, with oil and gas price assumptions of USD92.50/bbl and USD6.00/mmbtu. Despite a USD162.5 million deposit to the HSF in FY2022, the Net Asset Value in Sept 2022 was USD4.8 billion - the lowest level since 2012, with injections and withdrawals since 2015 totalling a net -USD2.3 billion. Foreign reserves reached USD6.77 billion in Sept - similar to Dec 2007 levels. Headline inflation reached 6.2% in Aug, while core inflation was 4.9%: Food prices +11.7% and Transport +8.6%. Fuel prices were increased in Sept as gov't reduced the fuel subsidy - the effect on inflation will only become visible in Q4 2022.</p>
TOURISM	<p>Stay-over: 2022: 1,430,404 (July) @ 86% of 2019</p> <p>Cruise: 2022: 361,513 (July) @ 37% of 2019</p>	n/a	<p>Stay-over: 2022: 155,393 (Sept) @ 53% of 2019</p> <p>Cruise: 2022: n/a</p>
GROWTH	-10% (2020) / +4.6% (2021)	-15.9% (2020) / -3.5% (2021)	-7.4 (2020) / -0.7% (2021 est)
RESERVES	<p>Net International Reserves USD Millions (Jan 2010 - Sept 2022)</p> <p>Source: Bank of Jamaica, Marla Dukharan</p>	<p>Foreign Currency Reserves USD Millions (Jan 2010 - Sept 2022)</p> <p>Source: Centrale Bank van Suriname, Marla Dukharan</p>	<p>Net Official Reserves USD Millions (Jan 2010 - Sept 2022)</p> <p>Source: Central Bank of Trinidad and Tobago, Marla Dukharan</p>
OUTLOOK	<p>BOJ expects growth of 2-4% in FY 2022/23 as the Tourism recovery strengthens. Pre-COVID GDP levels could return in FY2022/2023. The IMF forecasts growth of 2.8% in 2022, 3% in 2023, averaging 1.8% to 2027.</p>	<p>The IMF program underway supports a recovery from the debt / balance of payments crisis. The IMF projects growth of 1.3% in 2022, 2.3% in 2023, averaging 3% to 2027.</p>	<p>The IMF lowered its GDP growth forecast to 4.0% for 2022, then averaging 2.5% to 2027. We expect a debt restructure in the coming years, absent significant reforms to address debt and declining reserves.</p>

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