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Contact: Cristina Guccione (916) 204-6715

# DII Global Quarterly Review Executive Summary -- Q3 2022

# **Draper Innovation Index Global Q3 2022 Key Takeaways**

1. Economic, civic, and social freedoms continue to drive top ranked nations

The **United States**, **United Kingdom**, **Canada**, **Australia**, and **Norway** hold the top five ranks on the Draper Innovation Index Global's (DII Global) overall rankings while nations with more authoritarian governments held some of the lowest rankings, including **North Korea** and **Western Sahara**. **Russia** fell 40 more spots and now ranks 220<sup>th</sup> overall out of 228 countries tracked by DII Global. Additionally, **China** continues to fall, dropping from 15<sup>th</sup> to 29<sup>th</sup> in the last 3 months. Simply put, individual rights and freedoms correlate strongly with innovation and business growth; how nations treat their citizens has significant ramifications for future economic success and prosperity.

# 2. Cryptocurrency/Blockchain sectors continue to evolve

The prices of cryptocurrencies have been extremely volatile in a post-pandemic economy as uncertain economic and demographic trends served to impact both stock and digital coin prices. Yet, despite moderation on non-fungible tokens (NFTs), shift in digital real estate, and price volatility impacts on countries such as **El Salvador**, this sector continues to grow and expand. For example, the **Central African Republic** adopted Bitcoin as its official currency in April 2022.

#### 3. Crypto/Blockchain remains a significant opportunity for both small and large economies

Some of the top nations on the DII Global's Crypto Friendliness sub-index include **Vietnam**, **Ukraine**, **Liechtenstein**, and **India** as well as the **United States** and **United Kingdom**, leading to significant improvements in their respective rankings as shown above.

4. DII Global rankings reflect how quickly countries can rise and fall in the rankings in the competition for entrepreneurs and investors due to rapidly changing global circumstances

Due to updated data and new data sources emphasizing economic freedom, the DII core scenario saw a number of significant country movements. At the top, the **United Kingdom**, **Canada**, **Australia**, and **Norway** all improved their positions, while **China**, **Singapore**, **Iceland**, and **Poland** all dropped. **Peru**, **Angola**, **Brazil**, and **Puerto Rico** all rose significantly, while **Western Sahara**, **Belarus**, **Cuba**, **Kazakhstan**, and **Sri Lanka** fell precipitously down the rankings. In this light, countries need to monitor and continually rethink their value proposition to better appeal to shifting entrepreneurship and investor preferences.



# 5. The Increasing Importance of Robust, Accurate, Impartial Real-Time Data in Monitoring and Assessing Global Entrepreneurship and Innovation Trends

In a corollary to Key Takeaway #4, updated DII Global data and new data sources continue to track evolving global entrepreneurship trends. The primary driver of our new data model results from the significant issues regarding World Bank data, which caused World Bank Group management to come to the difficult decision of discontinuing their Doing Business data series following an independent audit that uncovered significant data irregularities. The audit documented that World Bank leadership pressured researchers to manipulate the 2018 and 2020 Doing Business results, specifically favoring **China** and **Saudi Arabia**.

DII Global's expert and varied approach of using a broad, diverse set of credible data sources is designed to circumvent any of the potential issues and biases of any one index.

# 6. Global economic, political, and social uncertainty weigh heavily on many nations

Despite making it through the COVID-19 pandemic, the world has also recently had to contend with the **Russia-Ukraine** war, major supply chain disruptions, global inflation concerns, and increased tensions between **Taiwan** and **China**. These global concerns may have disparate impacts on different regions and are thus likely to result in dramatic shifts in DII Global rankings in the future. **Russia's** steep decline to nearly the bottom of the global rankings should be taken as a cautionary tale. Small countries, such as **Sri Lanka** risk financial insolvency in the face of skyrocketing food and fuel prices as the **Russia-Ukraine** war rages on, while major affordability concerns more established countries.



# **Draper Innovation Index Global Quarterly Review Executive Summary – Q3 2022**

Russia Dives to Near Bottom of DII rankings; China slides as well Belarus, Cuba, Kazakhstan, Sri Lanka, and Western Sahara Fall Dramatically; Germany, Poland and Iceland Drop out of Top Ten, Singapore Falls from 2<sup>nd</sup> to 9th

# U.S. remains #1 by a significant margin, while United Kingdom, Norway, Australia, and New Zealand make Significant Gains

San Mateo, California, September 26, 2022 – The Draper Hero Institute (DHI) announces its most recent Draper Innovation Index Global (DII - Global) Q3 2022 Quarterly Review Executive Summary, which evaluates each nation's ability to attract, develop, support, and retain entrepreneurs, investors, and innovators. This new quarterly update integrates a number of updates to data metrics and replacements for discontinued metrics in order to provide the most current, reliable portrait of each nation's business climate for start-ups. With a number of global trends including inflationary pressures, rising political tension, wars, and supply-chain disruptions the global economic landscape is filled with uncertainty and challenges as never before, but also great opportunities in emerging sectors such as Crypto/Bitcoin and Blockchain.

"The geopolitical uncertainties of the last few months have been an important reminder of governments' roles in facilitating a healthy, robust entrepreneurial and innovation business climate and investment outlook," said Tim Draper, founder of the Draper Hero Institute. "Nonetheless, there is a limit to this role, and the highest ranking countries on this list find that striking the right balance between freedom, economic stability, and burdensome regulation pays significant, tangible benefits in terms of prosperity and economic growth."

While the **United States** registered a slight slow-down in inflationary pressures in July 2022 and boasts a strong labor market with near-record low unemployment rates, a global recession or possible stagflation environment appears somewhat likely on the horizon. Driven by higher energy prices, Inflation continues to wreak havoc on countries such as **Turkey**, **Iran**, and **Nigeria**. It is expected to remain high in countries such as the **United Kingdom** and **German**y which rely on energy imports from **Russia**. Additionally, in July 2022, the Euro fell into parity with the U.S. Dollar for the first time since its inception; while this drop is beneficial to American travelers, it may create significant trade consequences.

"With a major economic downturn likely around the corner, countries across the world need to reflect on the kind of business climate they are creating," said Dr. Wallace Walrod, DHI's Chief Economic Advisor. "In an exponentially more global economy, businesses, entrepreneurs and talent will go to where the best opportunities can be found."

The Q3 2022 DII Global includes a number of metric updates and replacements in order to ensure it provides the most up-to-date and real-time snapshot of countries. Replacements include using Chainanalysis's Decentralized Finance (DeFi) adoption index, a robust assessment of bitcoin legality.



Additionally, due to the World Bank Doing Business indicators being halted due to data manipulation issues, the Regulatory category now takes into account the best sources available on this topic:

- a) Heritage Foundation's Economic Freedom Index;
- b) Freedom House's Global Freedom Scores;
- c) The Fraser Institute's Economic Freedom Index;
- d) AM Best's Country Risk Assessment; and
- e) DHL's Global Connectedness Index.

# Our Baseline: The "Balanced" Ranking

These new and updated metrics -- including the U.S. State Department's Travel Advisory and the World Uncertainty Index – allow DII Global's proprietary Country Sentiment algorithm to be capable of capturing much more frequent, real-time changes than other sources. Countries with the largest declines include Western Sahara (-140), Belarus (-106), Cuba (-99), Kazakhstan (-94) and Brunei Darussalam (-91). To account for rapidly changing conditions in the current global economic environment, the DII Global Balanced scenario is placing greater emphasis on each country's Innovation Environment, Government Quality ranking, and County Sentiment to reflect actual changes occurring in real-time around the globe. These significant declines reflect continued economic, political, and social concerns within these regions so far in 2022.

The **United States** retained its top spot across all three scenarios, an impressive achievement demonstrating continuing leadership and commitment to developing a world-leading entrepreneurial, innovation, and investment during a time of uncertainty. As in the past several quarters, the United States finished with the world's top Innovation Environment while also recording high finishes in the Regulatory Environment and Crypto Friendliness subcategories.

**Russia**, which incurred significant drops in previous updates due to the consequences resulting from its war against **Ukraine**, once again registered a dramatic decline in the rankings, falling from 180<sup>th</sup> in the DII Global balanced scenario to 220<sup>th</sup> (out of 228 countries tracked by DII Global). **Russia** also experienced dramatic declines in the Emerging Opportunity scenario falling from 184<sup>th</sup> to 221<sup>st</sup> and in the Government Quality scenario from 194<sup>th</sup> to 218<sup>th</sup>. Despite considerable monetary policies that bolstered the Russian ruble early in the Russia-Ukraine war, continued sanctions have taken a significant toll.

Reflecting the increasing importance of government quality, regulatory environment, and transparency, **China** saw large declines, falling from 15th in the DII Global Balanced Scenario to 29th, from 2nd in the Emerging Opportunity scenario to 7th, and from 56th to 77th in the Government Quality scenario. **Hong Kong**, which continues to be impacted by a "Do Not Travel" advisory continues to fall in the rankings reaching 65th in the Balanced scenario, a decline of 36 places, and even further by 40 places in the Emerging Opportunity scenario.

This new data results show **Australia**, **Norway** and **New Zealand** rising by 7, 9, and 8 ranks, respectively, with all entering the DII Global Top 10. At the same time, **Iceland**, **Poland**, and **Germany** fell out of the Top 10 list. Within the Top 10, the **United Kingdom** rose to 2<sup>nd</sup> place while **Singapore** fell to 9<sup>th</sup>, **Canada** took the 3<sup>rd</sup> rank while **Switzerland** fell to 6<sup>th</sup> overall. **Denmark** saw a small improvement helping it to rise above **Sweden** and jump from 10<sup>th</sup> overall to 7<sup>th</sup>.



June 2022 Top Ten		September 2022 Top Ten		Change
United States	1	United States	1	-
Singapore	2	United Kingdom	2	
Switzerland	3	Canada	3	
United Kingdom	4	Australia	4	
Canada	5	Norway	5	
Sweden	6	Switzerland	6	
Iceland	7	Denmark	7	1
Poland	8	Sweden	8	1
Germany	9	Singapore	9	
Denmark	10	New Zealand	10	

**Peru, Angola, Brazil, Curacao,** and **Puerto Rico** all saw significant improvements in the rankings due to the updated data, regulatory, and cryptocurrency metrics. **Vietnam**, which ranked first in Chainanalysis's Cryptocurrency Adoption Index, saw dramatic improvements in its rank, jumping 45 places in the Balanced scenario and 89 places in the Emerging Opportunity scenario. Other countries which saw improvements thanks to their Cryptocurrency category scores included **Ukraine, India**, and **Liechtenstein**.

"The improving data analytics surrounding Crypto/Bitcoin such as Chainanalysis's Cryptocurrency Adoption Index are key additions to the DII Global," said Dr. Wallace Walrod, DII's Chief Economic Advisor. "As fiat currencies continue to fluctuate due to a variety of factors, cryptocurrency investment might start to play an even larger role in business attraction, investment, and start-up creation."

#### **Looking to the Future: The "Emerging Opportunities" Ranking**

DII Global's Emerging Opportunities ranking methodology has placed new emphasis on Social Conditions, Regulatory Environment, Innovation Environment, Government Quality, and Country Sentiment to reflect the stark realities confronting entrepreneurs and investors around the globe.

Australia (+8 to 4th), Norway (+19 to 5th), and Denmark (+5 to 8th) all managed to break into the Top 10 of the Emerging Opportunities scenario, pushing China adown to 7<sup>th</sup> (from 2<sup>nd</sup>) and Singapore to 9<sup>th</sup> (from 3<sup>rd</sup>) ranks, respectively. Norway's dramatic rise to 5<sup>th</sup> from 24<sup>th</sup> was largely due to its first place finishes in both Innovation and Government Quality, highlighting the increasing importance of these categories. Elsewhere in the Government Quality scenario, the United Kingdom (+3 to 2nd) improved in the rankings.

#### The Government Quality Ranking: An Important Underlying Driver Throughout DII

More than ever before, DII Global rankings reflect the increasing importance of government quality and regulatory and tax environment. Democracies saw notable jumps – the **United Kingdom moved up to 2**<sup>nd</sup> (+4), **Norway** moved up 6 spots to 4<sup>th</sup>, and **Australia** jumped from 9<sup>th</sup> to 4<sup>th</sup>. **Singapore**, on the other hand, fell to 10<sup>th</sup> from 2<sup>nd</sup>, **New Zealand** fell to 8<sup>th</sup> (-3), **Sweden** declined to 9<sup>th</sup> (-5), and **Germany** declined by 4



places to 12<sup>th</sup>. **Angola, Guam, Curacao, Jersey, Brazil**, and **Peru** made large jumps, while **Brunei Darussalam, Sri Lanka**, and **Western Sahara** saw significant declines.

The DII Global will continue monthly updates and Quarterly Executive Summaries throughout 2022 to continually reflect the latest developments in global innovation and entrepreneurship.

#### **About the Monthly DII Global Data Methodology**

In prior updates, the DII Global consisted of eight sub-indices. As part of this quarterly update, and in an effort to better streamline and improve the proprietary DII algorithm, Venture Capital Momentum — a previously stand-alone sub-index — has been combined with the 'Innovation Environment' sub-index. Below is a list of the updated, seven sub-indices which reflect key aspects of country-level business, regulatory and innovation environments.

- Government Quality;
- Economic Environment;
- Regulatory Environment;
- Innovation Environment;
- Social Environment:
- Tax Rates; and
- Crypto Friendliness.

While a number of metrics have been updated to reflect the most recent data available, other sub-indices have seen their metrics change to better reflect real-time trends and impacts. The Regulatory Environment category is one of those sub-indices. The new metrics are highlighted below in the Methodology portion of this update. Despite these changes, the DII Global's monthly indicators have remained the same and consist of:

- S&P Global Equity Indices Monthly Update (Market Cap)
- Change in Price Per Bitcoin in Local Currency
- World Uncertainty Index
- State Department Travel Warnings

# **About Draper Hero Institute**

Founded by legendary Silicon Valley venture capitalist and entrepreneur Timothy C. Draper, Draper Hero Institute (DHI) provides applicable and modern resources for future entrepreneurs globally and ensures inclusiveness and opportunities for all. As an action-based research institution, DHI focuses its efforts on non-traditional pathways to guide future entrepreneurs in the new economy. Through programs that ignite innovative research; united through connectivity and networking; and mentoring efforts through applied education, DHI provides a portal for creative thinking and ultimately driving change to better prepare future entrepreneurs to take on heroic endeavors.

https://www.draperhero.org/



#### DII GLOBAL METHODOLOGY

#### **Data Sources and Metric Definitions**

A more complete listing and description of DII Global's data inputs is available on the DHI/DII website, along with weightings for each factor in the 3 DII Global scenarios.

#### Regulatory Rank

Note) Regulatory Indicators Have Been Replaced

As mentioned in the last quarterly update, the DII-Global's Regulatory Rank category had to undergo several data replacements in order to ensure category reflected the most up-to-date, current realities facing countries today. As a result, the Regulatory Rank category is now comprised of the following indicators:

# 1) Economic Freedom Index (The Heritage Foundation)

The Index of Economic Freedom focuses on four key aspects of the economic and entrepreneurial environment over which governments typically exercise policy control including: Rule of Law, Government Size, Regulatory Efficiency, and Market Openness.

#### 2) Global Freedom Scores (Freedom House)

The Global Freedom Score created by Freedom House tracks and assesses democratic values, political rights, civil liberties, and a number of other socially relevant metrics. The Freedom Scores study the real-world rights and freedoms enjoyed by individuals, rather than governments or government performance, and provides scores across 10 political rights indicators and 15 civil liberties indicators.

#### 3) Economic Freedom Index (Fraser Institute)

Based on the cornerstones of economic freedom including: personal choice, voluntary exchange coordinated by markets, freedom to enter and compete in markets, and protection of persons and their property from aggression. Overall, the index takes into account five major areas with 26 components including: size of government, legal system and property rights, sound money, freedom to trade internationally, and regulation.

#### 4) Country Risk Assessment (AM Best)



Defined as the risk that country-specific factors could adversely affect an insurer's ability to meet its own financial obligations, the Country Risk Assessment places countries into 5 tiers based on their overall investment risk.

#### 5) Global Connectedness Rank (DHL)

Provides a thorough examination of the state of globalization, analyzing trade capital, information, and people flows at the global, regional, and national levels. This rank considers more than 3.5 million data points for more than 150 countries and ranks them according to their connectedness to the global economy.

#### **Innovation Environment Rank**

1)Global Entrepreneurship and Development Index (GEDI-The Global Entrepreneurship and Development Institute)

The GEDI methodology collects data on the entrepreneurial attitudes, abilities and aspirations of the local population and then weights these against the prevailing social and economic 'infrastructure' – this includes aspects such as broadband connectivity and the transport links to external markets.

#### 2) Venture Capital Average (Pitchbook)

Measures average annual growth in venture capital by country.

3) Pitchbook # of Startups, 2017-2021 (Pitchbook)

Measures the total number of startups created.

#### 4) Venture Capital Momentum (Pitchbook)

In order to better streamline the Innovation Environment rank, this year's DII Global has removed the Venture Capital Momentum as its own individual category and rolled it into the Innovation Environment category. Venture Capital Momentum measures the country's growth in average venture capital investments measured between 2012 and 2016 to 2017 and 2021.

# **Government Quality Rank**

1) Corruption Perception Index (Transparency International)



The CPI scores and ranks countries/territories based on how corrupt a country's public sector is perceived to be by experts and business executives. It is a composite index, a combination of 13 surveys and assessments of corruption, collected by a variety of reputable institutions. The CPI is the most widely used indicator of corruption worldwide.

#### 2) Democracy Index (Economist Intelligence Unit)

Index based on 60 indicators in five different categories measuring pluralism, civil liberties, and political culture. The index categories each country into four different regime types: Full Democracy, Flawed Democracy, Hybrid Regimes, and Authoritarian regimes.

#### 3) Countries with Dictators (World Population Review)

Highlights and lists countries currently under the rule of a dictator – a type of government in which a single person or party has absolute power or complete control and the rights of the people are suppressed.

#### Social Rank

# 1) Human Development Index (United Nations Development Programme):

The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living.

#### Tax Environment Rank

#### 1) Corporate Tax Rates (Tax Foundation)

Tax rates were researched only for jurisdictions that are among the around 250 sovereign states and dependent territories that have been assigned a country code by the International Organization for Standardization (ISO).

#### **Economic Rank**

1) Inflation Rate (World Bank)



In an effort to include the most up-to-date and relevant information possible, the 'Most New Business Per Capita' metric, which measured the number of new businesses per 1,000 people in a country, has been replaced with inflation rates by country as measured by the World Bank. With significant concerns surrounding inflation rates across the world, this metric will provide more meaningful insight into the health of a country's business environment.

#### 2) Capital Flows (Trading Economics)

Measures the movement of money for the purpose of investment, trade, or business operations. Inside of a firm, these include the flow of funds in the form of

investment capital, capital spending on operations, and research and development. Data are in current U.S. dollars.

# 3) Stock Exchange in Country (World Federation of Exchanges)

Identifies the presence of a stock market exchange in the studied area or region.

#### 4) Number of Listed Companies (TheGlobalEconomy.com)

Listed domestic companies, including foreign companies which are exclusively listed, are those which have shares listed on an exchange at the end of the year. Investment funds, unit trusts, and companies whose only business goal is to hold shares of other listed companies, such as holding companies and investment companies, regardless of their legal status, are excluded. Only companies admitted to listing on the exchange are included.

#### 5) FDI Inbound % GDP (The World Bank)

Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. Data are in current U.S. dollars.

# Crypto Friendliness Rank

# 1) Crypto Adoption Index (Chainanalysis)

Provides an objective measure of which countries have the highest levels of cryptocurrency adoption which includes analysis of total cryptocurrency activity per capita, non-professional cryptocurrency users and peer-to-peer exchange trade volume.



# 2) Crypto Friendly Ranking (Liquid, Nomad Capitalist)

Highlights and includes countries which promote or have attempted to attract cryptocurrency investments and transactions.

# 3) Decentralized Finance (DeFi) Adoption Index (Chainanalysis)

DeFi platforms are platforms which can run without the support of a central company and are built on top of smart contract-enriched blockchains such as the Ethereum Network and can perform certain functions. Each country is rated based on three indicators including: total DeFi activity, DeFi activity by non-professionals, and measuring where countries are seeing the highest number of DeFi transactions.