

The 2020 Geography of Cryptocurrency Report

Analysis of Geographic Trends in Cryptocurrency
Adoption, Usage, and Regulation

September 2020



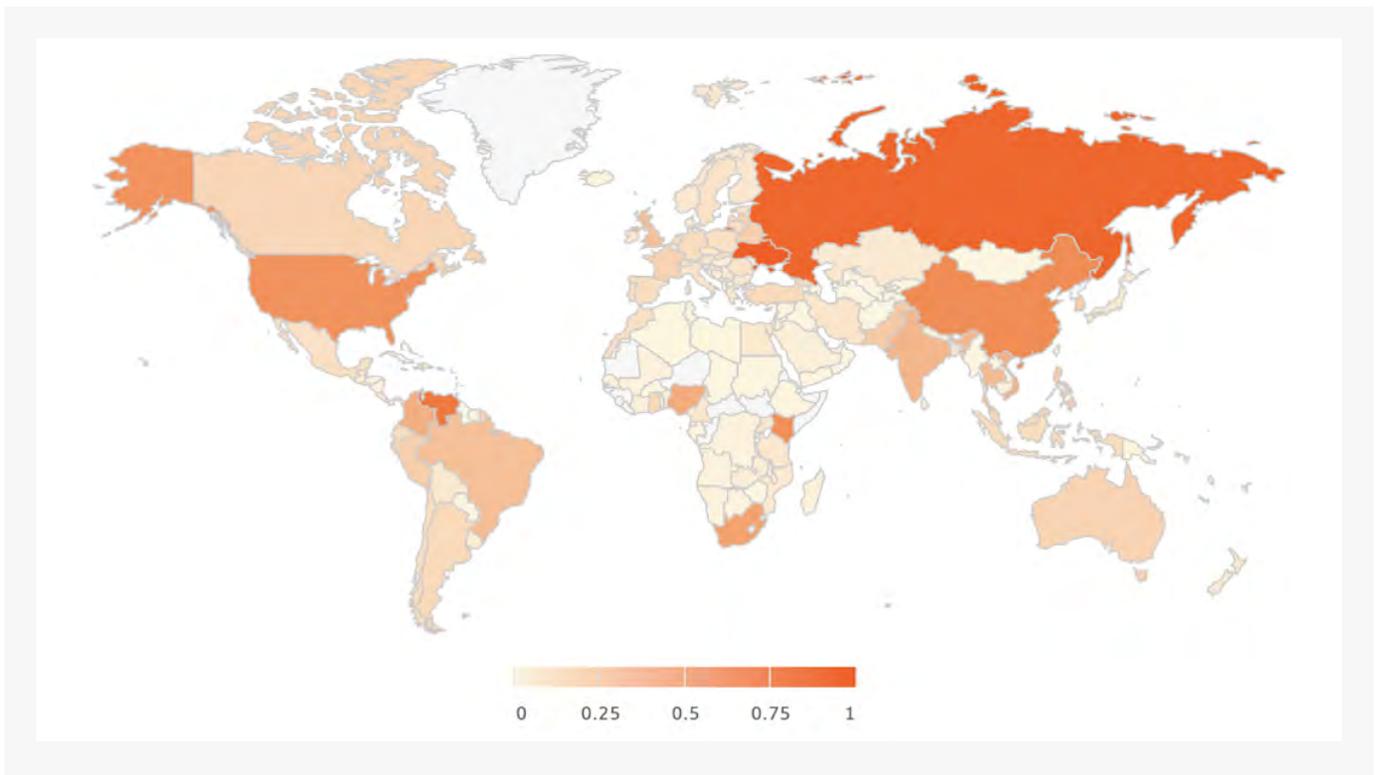
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The 2020 Global Crypto Adoption Index: Cryptocurrency is a Global Phenomenon

The Crypto Adoption Index | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Cryptocurrency adoption continues to grow around the world. But aside from anecdotal evidence, there haven't been many objective measures of how rates of adoption and usage patterns differ around the world. That's why we created the Global Crypto Adoption Index. Our goal is to quantify the differences in adoption between countries across the globe.

However, we wanted to do more than just report the countries trading the most cryptocurrency. Most cryptocurrency volume moved reflects trading and speculation carried out by professional or, increasingly, institutional investors dealing in large sums. While trading and speculation are important to the cryptocurrency economy, we wanted our index to emphasize grassroots adoption by everyday users. After all, any long term speculation on cryptocurrency is likely predicated on the idea that cryptocurrency can become a mainstream means of value transfer and, eventually, payments. Our index is meant to show which countries are leading the way toward that eventuality.



To do this, we weighted our index formula to measure cryptocurrency activity while also accounting for each country's population and economy size. The intention is to highlight the countries where the most residents have moved the biggest share of their financial activity to cryptocurrency. Below, we'll explain our index methodology in more detail, show you the top ten countries on the index, and share a few key takeaways.

Our methodology

The Global Crypto Adoption Index is made up of four metrics, which we'll explain in detail below. We rank all 154 countries according to each of those four metrics, take the geometric mean of each country's ranking in all four, and then normalize that final number on a scale of 0 to 1 to produce the overall rankings. The closer the country's final score is to 1, the higher the rank.

Here are the four metrics that make up each country's final score in the Global Crypto Adoption Index:

On-chain cryptocurrency value received, weighted by purchasing power parity (PPP) per capita

The goal of this metric is to rank each country by total cryptocurrency activity, but weight the rankings to favor countries where that amount is more significant based on the wealth of the average person and value of money generally within the country.

We calculate the metric by estimating total cryptocurrency received by that country, and weighting the on-chain value based on PPP per capita, which is a measure of the country's wealth per resident. The higher the ratio of on-chain value received to PPP per capita, the higher the ranking, meaning that if two countries had equal cryptocurrency value received, the country with the lower PPP per capita would rank ahead.

On-chain retail value transferred, weighted by PPP per capita

The goal of this metric is to measure the activity of non-professional, individual cryptocurrency users, based on how much cryptocurrency they're transacting compared to the wealth of the average person. We approximate individuals' cryptocurrency activity by measuring the amount of cryptocurrency moved in retail transactions, which we designate as any transaction for under \$10,000 USD worth of cryptocurrency. We then rank each country according to this metric but weight it to favor countries with a lower PPP per capita.



Number of on-chain cryptocurrency deposits, weighted by number of internet users

The goal of this metric is to rank countries based on whose residents are carrying out the highest number of cryptocurrency transactions. We measure this by taking the ratio of on-chain cryptocurrency deposits to the country's total number of internet users. The higher the ratio, the higher the ranking, meaning that if two countries had an equal number of deposits, the country with fewer internet users would rank higher.

Peer-to-peer (P2P) exchange trade volume, weighted by PPP per capita and number of internet users

Unlike our other three metrics, P2P trade volume isn't expressed on blockchains, but still makes up a significant percentage of all cryptocurrency activity, especially in the developing world. We rank countries by their P2P trade volume and weight it to favor countries with lower PPP per capita and fewer internet users, the goal being to highlight countries where more residents are putting a larger share of their overall wealth into P2P cryptocurrency transactions.

Our tools can't capture P2P trade volume because it isn't recorded on the blockchain — all we can see are funds entering or leaving P2P platforms. Instead, we rely on data supplied by two of the largest P2P platforms operating — LocalBitcoins and Paxful — to calculate each country's P2P trade volume. While this means that we aren't capturing all P2P value, we believe these two exchanges are popular enough for their metrics to act as an overall approximation. We will likely need to update this portion of the formula to account for the rise of other P2P platforms, such as that offered by Binance, whose popularity is growing.

How we estimate country-level cryptocurrency transaction value

Due to cryptocurrency's decentralized nature, it's impossible to know the precise amount sent and received on-chain by addresses in a specific country. However, we can produce a strong estimate by measuring the cryptocurrency activity occurring on each platform and distributing it by country based on the breakdown of countries accounting for web traffic to each platform's website. We use the web analytics service [SimilarWeb](#) for those country-based traffic numbers. We also consider time zone analysis of platforms' cryptocurrency activity, most popular fiat currency pairs, website language options, and headquarters location to further refine our country-level analysis.



P2P transaction value is assigned to countries based on the fiat pairs involved in transactions. We only apply web traffic data to P2P transaction value for activity conducted with fiat currency used in multiple countries, such as the Euro.

Other notes on methodology

Because of the way geometric means are calculated, any country scoring zero in any of the four metrics would be scored at a 0 for its overall index score. While this doesn't necessarily mean those countries have no cryptocurrency activity, it indicates that they likely have very little, so we rank those countries last on the index with a ranking labeled "Among lowest" of the 154 countries. For transparency, the countries ranked among lowest for this reason are:

- Afghanistan
- Algeria
- Cape Verde
- Chad
- Fiji
- Laos
- Libya
- Mongolia
- Tajikistan
- Turkmenistan
- West Bank and Gaza
- Zimbabwe

We acknowledge that there are clear limitations to this methodology, including the usage of VPNs and other products that can mask the geographic origin of web activity. However, the data that forms the trends we explore comprises millions of transactions, so this activity would need to be extremely widespread for it to meaningfully affect our data. That's one reason we vetted our data with experts in each of the geographic regions we cover, including many who are not quoted in the report itself. While experts sometimes had differing explanations for what accounted for certain data points, virtually none of them were surprised by the data itself. Nearly all of our findings aligned with their experience as on-the-ground operators or regional observers. This methodology represents one of the first ever attempts at a comprehensive country-level breakdown of global cryptocurrency activity. We'll continue to tweak the methodology and share updates as we refine it.



The top ten countries in our Global Crypto Adoption Index

In the table below, we show the top ten countries in our Global Crypto Adoption Index, along with their rankings in each of the four individual components that make up the overall rankings:

Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Ukraine	1	1	4	4	7	11
Russia	0.931	2	7	8	5	9
Venezuela	0.799	3	19	14	15	2
China	0.672	4	1	1	95	53
Kenya	0.645	5	37	11	57	1
United States of America	0.627	6	5	6	39	16
South Africa	0.526	7	12	9	41	10
Nigeria	0.459	8	14	7	112	3
Colombia	0.444	9	25	18	61	4
Vietnam	0.443	10	2	2	44	81

You can [sign up for Chainalysis Market Intel](https://markets.chainalysis.com/#geography) here to view the full index as an interactive map. (If the link doesn't work, try typing <https://markets.chainalysis.com/#geography> directly into your browser.) You can also see the full rankings in list form in this report starting on page 126.

Key takeaways from the top ten

Three observations jumped out at us most after calculating the index and analyzing the top ten countries represented.

Cryptocurrency is truly global. Of the 154 countries we analyzed, only 12 had so little cryptocurrency activity that we gave them an index score of zero. That's a testament both to the excitement around cryptocurrency as an investment and, especially in the developing world, as a means of value storage and medium of exchange.

Developing countries have high grassroots cryptocurrency activity. Venezuela represents an excellent example of what drives cryptocurrency adoption in developing countries and how citizens use it to mitigate economic instability. As we analyze in-depth later in the report, our data shows that Venezuelans use cryptocurrency more when the country's native fiat currency is losing value to inflation, suggesting that Venezuelans turn to cryptocurrency to



preserve savings they may otherwise lose. We also see this pattern in other Latin American countries, as well as Africa, East Asia, and elsewhere. Our data and interviews also suggest that some residents in many developing countries use cryptocurrency to carry out commercial transactions.

P2P platforms are essential to adoption in developing countries. The top four countries for P2P cryptocurrency activity weighted by number of internet users and PPP per capita all appear in the Global Crypto Adoption Index's top ten, and all four are developing countries. This illustrates how important P2P platforms are to cryptocurrency adoption in the developing world. As cryptocurrency observer and data scientist Matt Ahlborg [explores here](#), P2P platforms don't custody any of the cryptocurrency or fiat traded on their platforms, meaning they don't have to connect to the banking system and face fewer regulatory hurdles. This allows them to onboard residents of developing countries more easily, many of whom are excluded from the traditional financial ecosystem.

[Click here to go to Chainalysis Market Intel](#), where you can get an interactive map of the **Global Crypto Adoption Index**. (If the link doesn't work, try typing <https://markets.chainalysis.com/#geography> directly into your browser.)

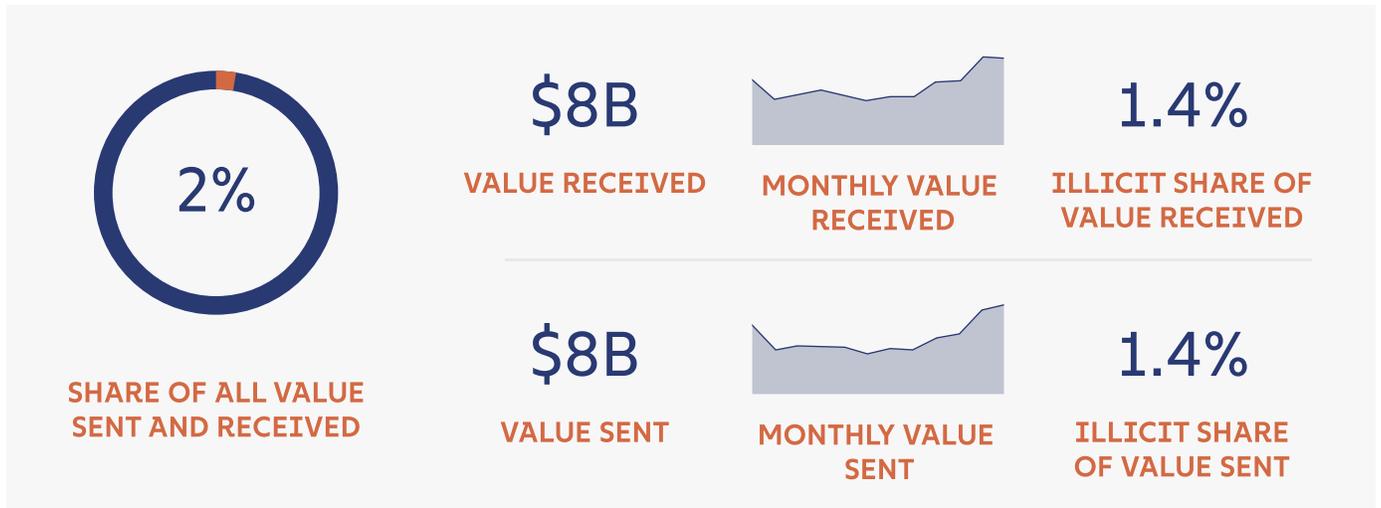


Africa

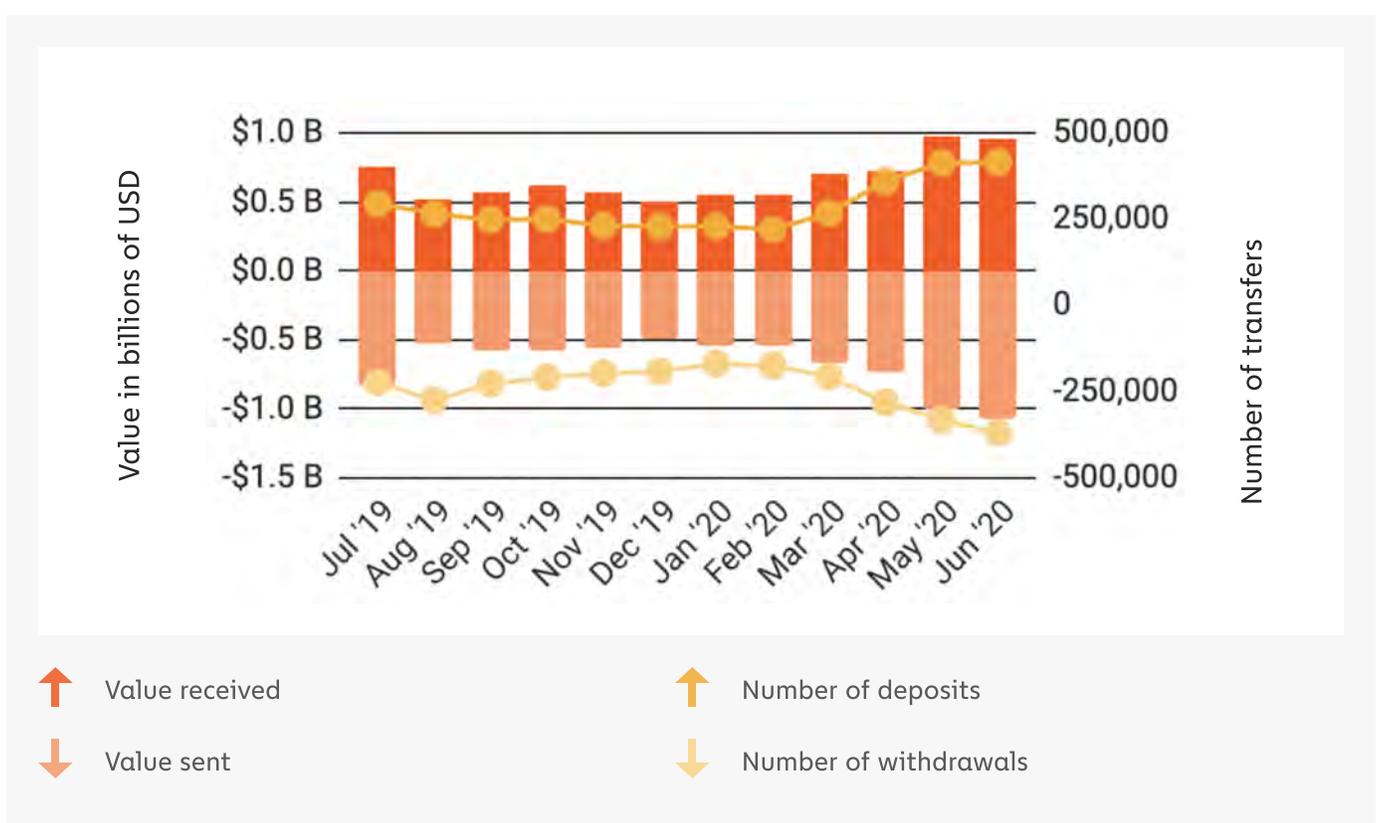
Remittances and Fiat Currency Devaluation Drive Africa's Growing Cryptocurrency Economy, and Big Exchanges Recognize the Opportunity



Summary of Africa's cryptocurrency activity | Jul '19 - Jun '20



Value and transfers in and out of Africa | Jul '19 to Jun '20



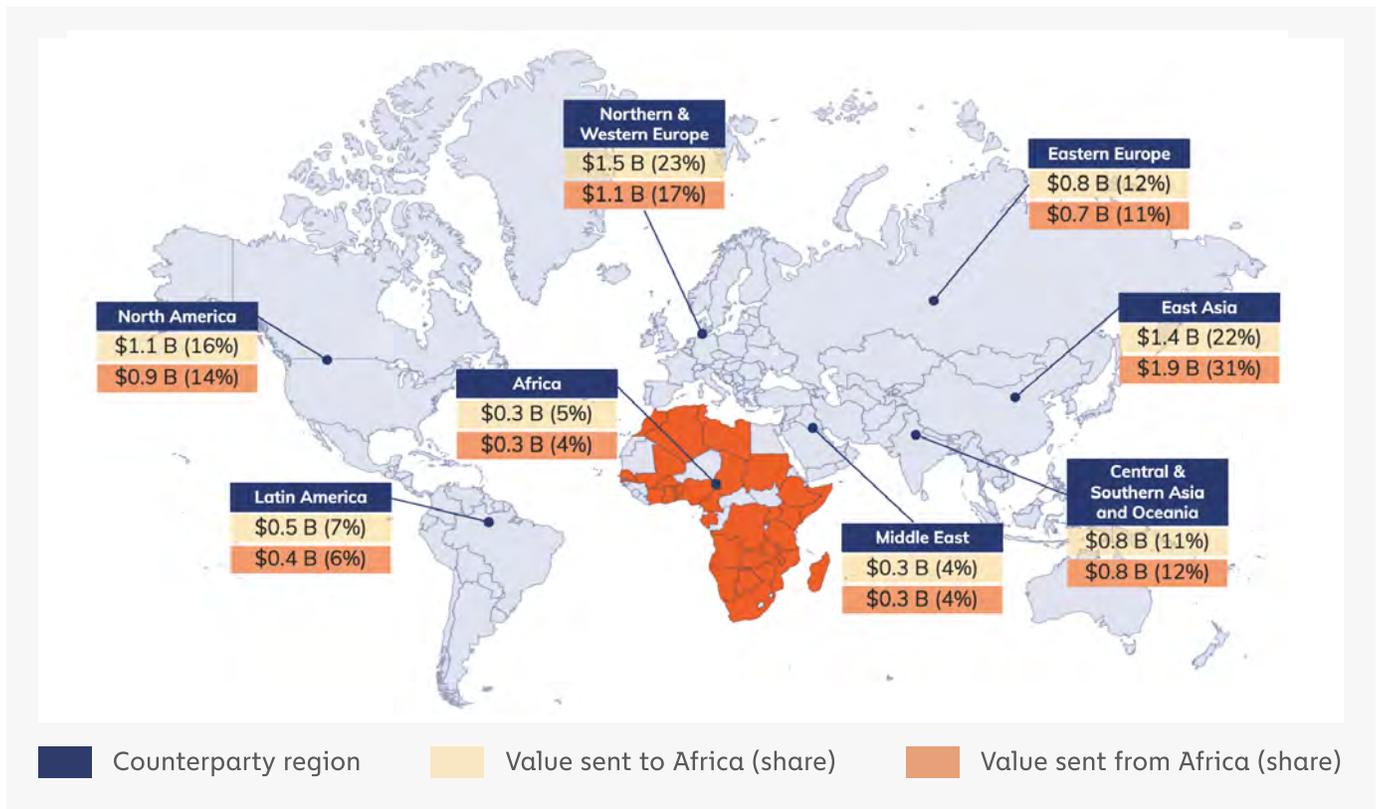
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



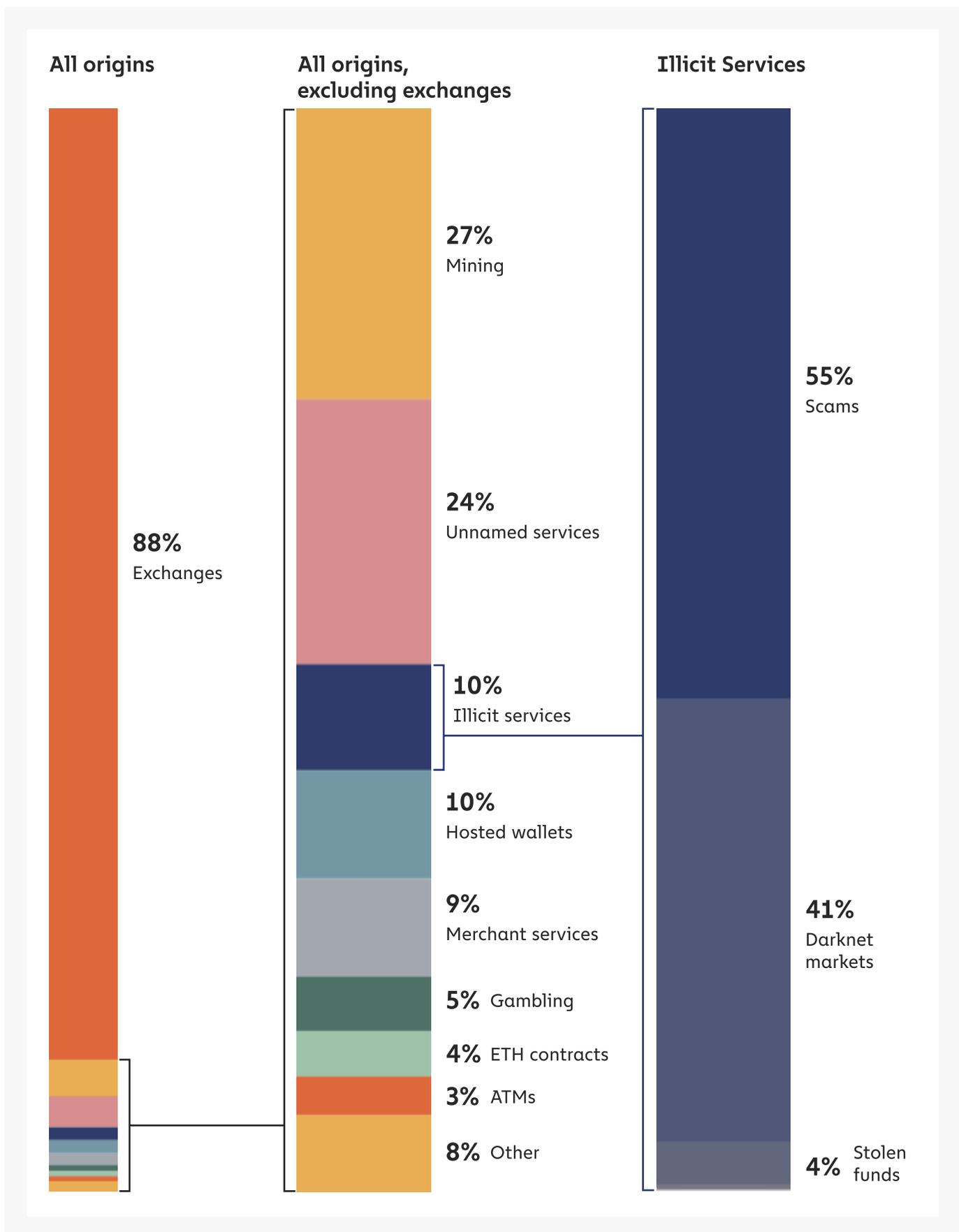
Africa's regional counterparties by volume | Jul '19 to Jun '20



Currencies included for above charts: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



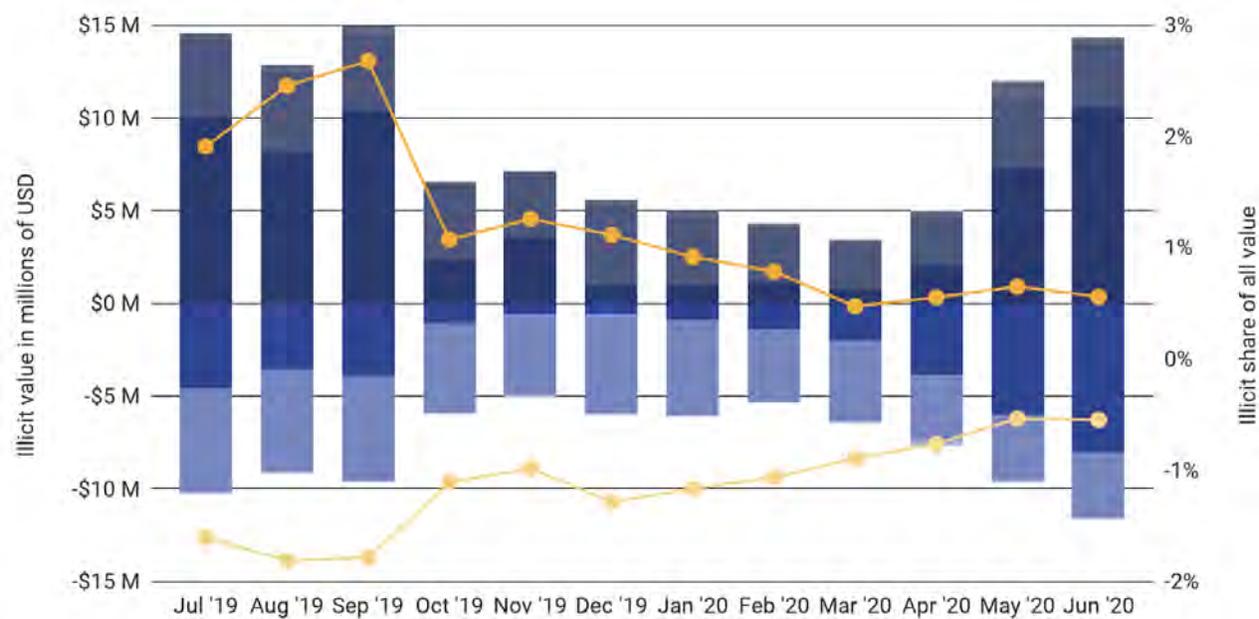
Origin of value sent to Africa | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Africa | Jul '19 - Jun '20



VALUE SENT TO AFRICA: Scams, Darknet markets, Stolen funds, Other illicit services

VALUE SENT FROM AFRICA: Scams, Darknet markets, Stolen funds, Other illicit services

● Illicit share of all value received ● Illicit share of all value sent

Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

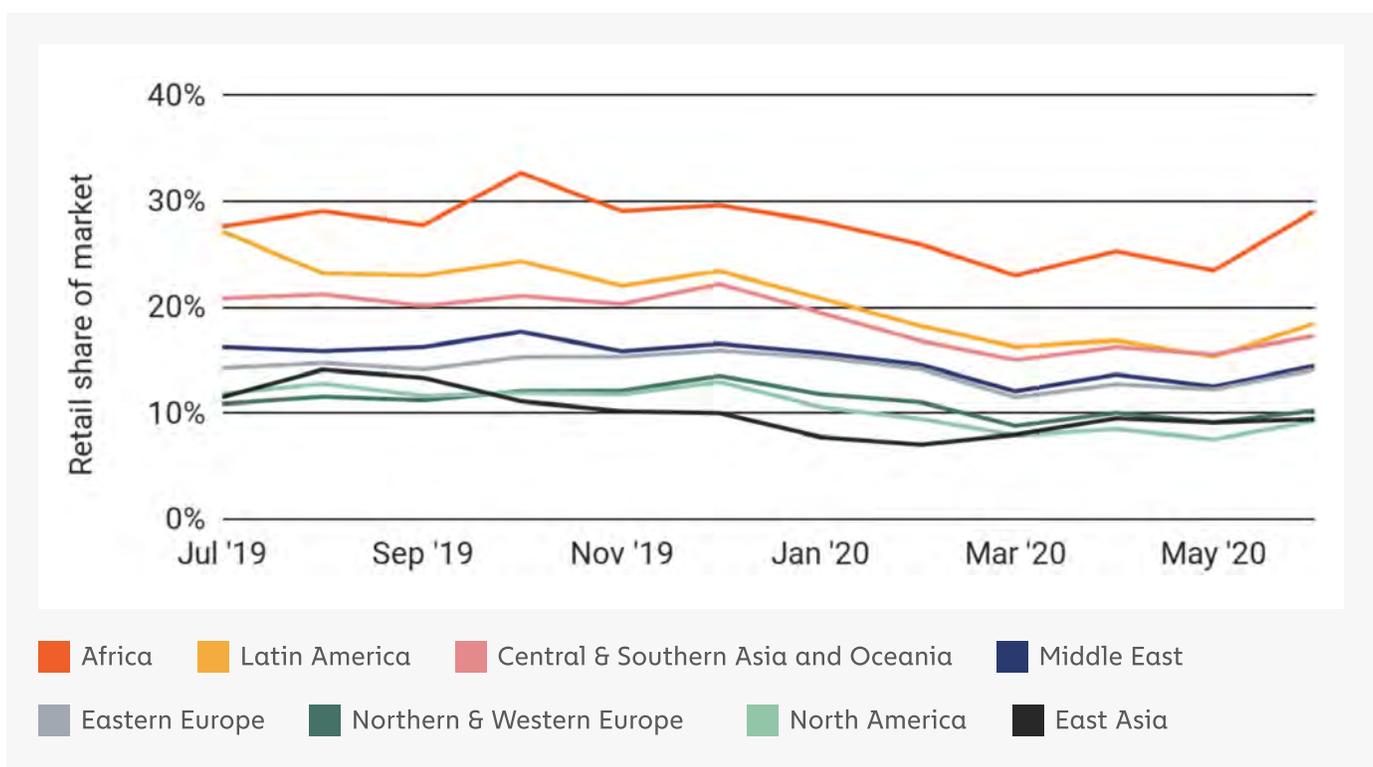
Region overview

Africa has the smallest cryptocurrency economy of any region we analyze in this report, with just \$8.0 billion worth having been received and \$8.1 billion sent on-chain in the time period studied. However, that relatively small amount of activity is creating life-changing value for users in the region facing economic instability, offering low-fee remittances and an alternative way to save.



Remittances are an early use case for this developing cryptocurrency economy

Retail share of cryptocurrency volume by region | Jul '19 to Jun '20



Currencies included: BTC

Retail-sized transfers (transfers under \$10,000 USD) make up a larger share of Africa's cryptocurrency activity than any other region, and the need for remittances is a big part of this.

Similar to Latin America and other regions in the developing world, overseas remittances are a crucial part of the economy for many parts of Africa. A 2018 study from the [Pew Research Center](#) found that Sub-Saharan Africa accounts for eight of the ten countries with the fastest-growing international migrant populations since 2010, growing by 50% between 2010 and 2017 compared to the worldwide average of 17%. The roughly 25 million expats of Sub-Saharan Africans living abroad **remitted \$48 billion** in fiat back to the region in 2019.



Africa's total value, number of transfers, and average transfer size sent and received by counterparty region | Jul '19 - Jun '20



Currencies included: BTC

Bubble size denotes average transfer size

The chart above suggests many are turning to cryptocurrency to send funds back to the region as well. Roughly \$3.7 billion worth of cryptocurrency was transferred to and from overseas addresses to ones based in Africa over the time period studied, with \$562 million of that coming in retail-sized payments under \$10,000. While it's highly unlikely that all of this represents remittances from expats, many regions with high concentrations of African migrants, such as North America, Northern & Western Europe (NWE), and East Asia, are well-represented.

But maybe just as important as overseas remittances are intra-region remittances between African countries, which have historically been made difficult by large fees. According to [research from the World Bank](#), remittances below \$200 between two Sub-Saharan African countries cost an average of 9% in fees, compared to the global average of 6.8%. For some country pairs that see large remittance flows, such as South African to Nigeria or South Africa to Malawi, the fees can be as high as 15%.

When we spoke with Ray Youssef, CEO and founder of peer-to-peer (P2P) cryptocurrency exchange Paxful, he emphasized the role these in-region remittances play for African users on the platform. "Some of our users in Africa are even building their own remittance businesses on top of Paxful. One guy I spoke to who lives in South Africa but is originally from Nigeria saw how hard it was to send money back home, and started a business where he would take cash from other Nigerian expats, convert it into Bitcoin, send it to someone



in Nigeria via Paxful, and have that person convert it into naira and deliver it to the person's family. Another woman living in Kenya has done the same thing, sending money back to people in Malawi." Youssef also added that while Africa doesn't account for the most cryptocurrency moved on the Paxful platform, it does account for the biggest share of individual transfers.

African users aren't just utilizing cryptocurrency for overseas transfers between individuals. Our interviews suggest that a significant share of transactions between Africa and other regions – particularly Eastern Asia – are for business purposes. Ray Youssef has seen examples of this activity amongst Paxful users as well. "In one instance, a user ran a business importing video games from China to sell in Nigeria. His bank wouldn't let him wire money to China, so historically he had to get U.S. dollars on the black market and somehow get it to China, usually via Hong Kong. But with cryptocurrency, he can sell bitcoin to receive CNY in any major Chinese digital wallet and send it directly to his counterparty in China."

Dovey Wan, a venture fund founder and cryptocurrency expert based in China, described similar dynamics when we asked her about the high volume of cryptocurrency transferred between Africa and East Asia. However, she indicated that in many cases, Chinese nationals account for both sides of the transactions. "Lots of Chinese merchants are living in Africa for business, and use cryptocurrency to send funds home." For example, she indicated that some of these users are running mining rigs, as many parts of Africa offer cheap hydropower. Others may be inclined to send cryptocurrency home rather than go through banks if they're working on business ventures that aren't entirely legal, such as those operating in the illicit diamond trade.

Cryptocurrency mitigates currency instability

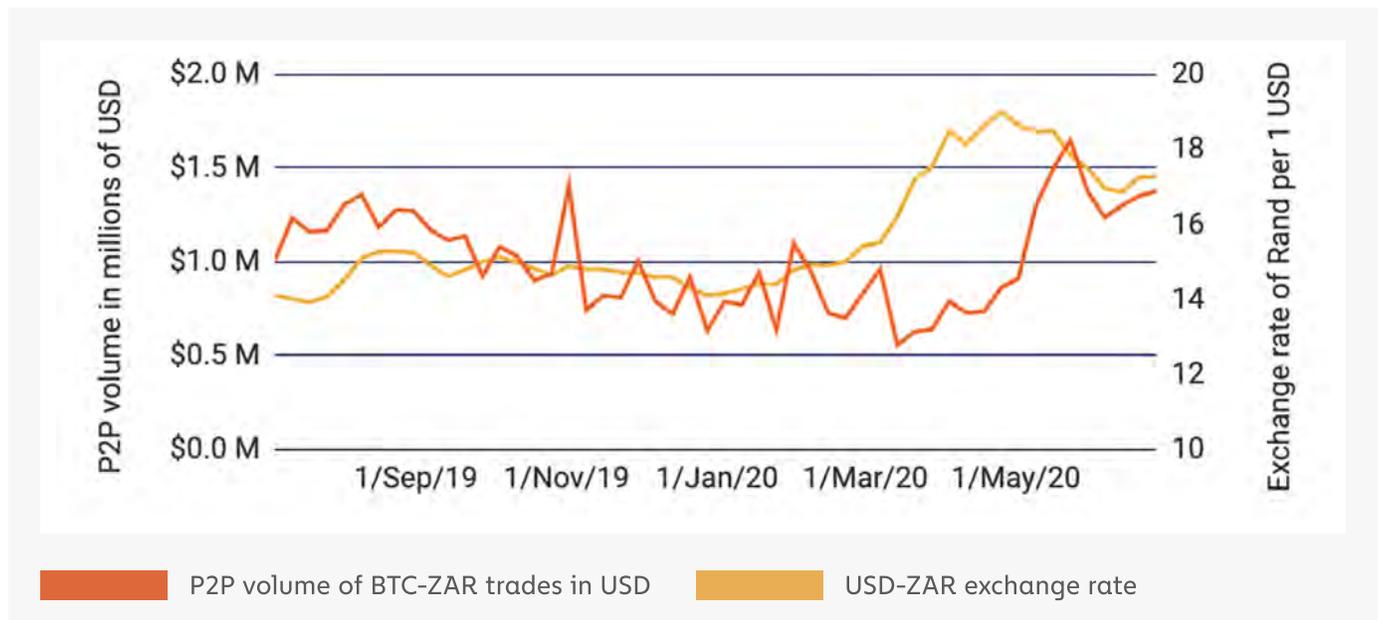
Many African countries suffer from severe currency devaluation and instability, which makes it difficult for residents' savings to hold their value. The South African Rand (ZAR), for example, has **lost over 50% of its value** against the U.S. dollar in the last decade and is consistently one of the most volatile fiat currencies. Nigeria, Egypt, Algeria, Ethiopia, and Ghana face similar issues with their own currencies.

Cryptocurrency can act as a more stable value store for people living under these conditions. Anecdotally, we've heard several examples of this use case in Africa, and our data confirms that this is likely happening. The charts below show the level of currency devaluation, expressed as the amount of native currency units needed to trade for \$1 USD – the faster that number grows, the more currency devaluation is happening – and P2P cryptocurrency trading volumes in two African countries: South Africa and Kenya.

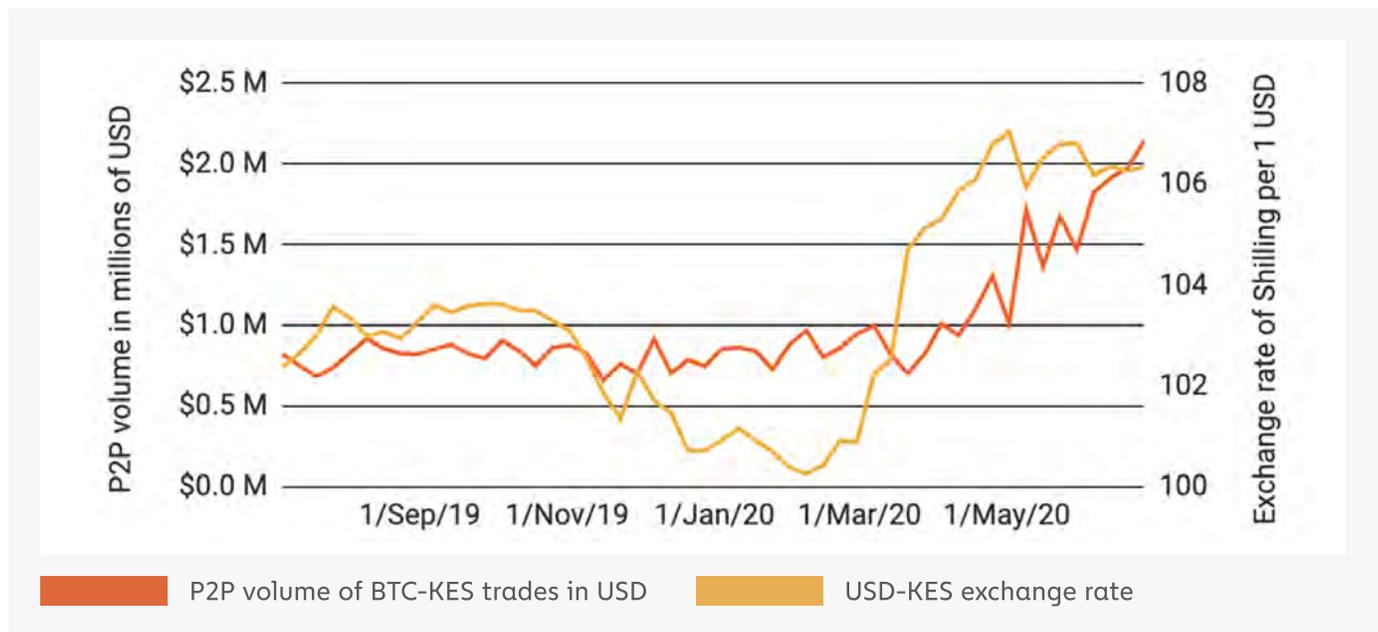


South Africa's P2P volume in USD and USD-ZAR exchange rate

| Jul '19 - Jun '20



Kenya's P2P volume in USD and USD-KES exchange rate | Jul '19 - Jun '20



Currencies included for above charts: BTC

Source: LocalBitcoins, Paxful via CoinDance

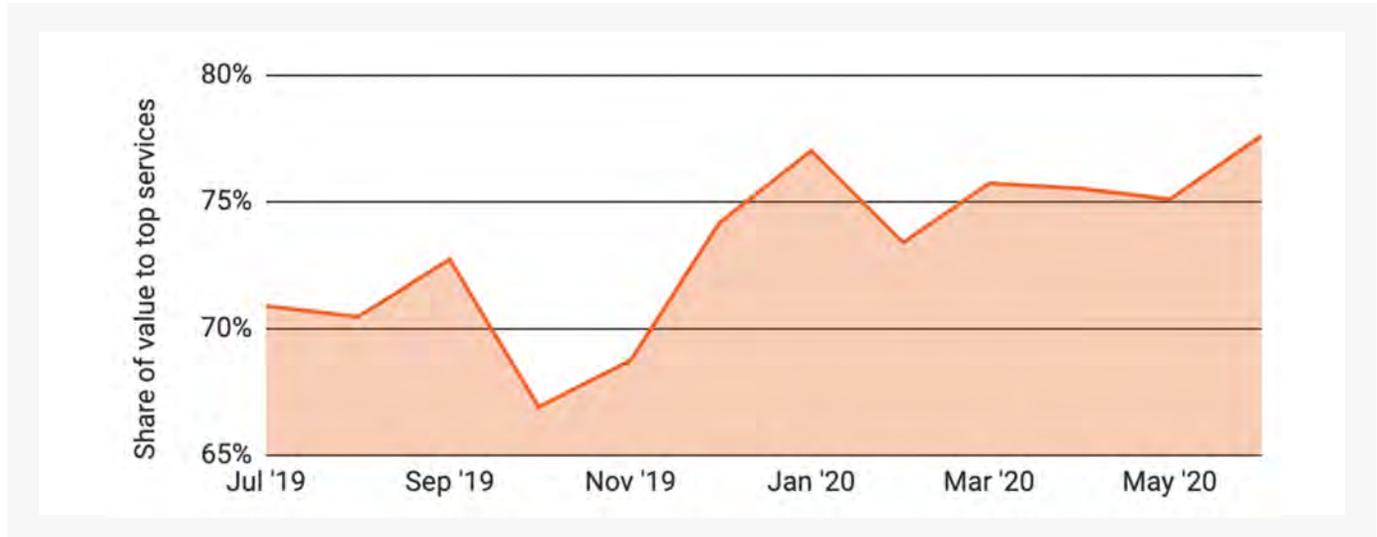
Both countries follow a clear pattern: When the native currency loses value, P2P trading volumes rise soon after. We believe this reflects users' strategy of mitigating currency devaluation by shifting savings and possibly even remittances and other payments to cryptocurrency assets.



Activity consolidating on the biggest platforms

Share of Africa's value transferred to top ten services in Africa

| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

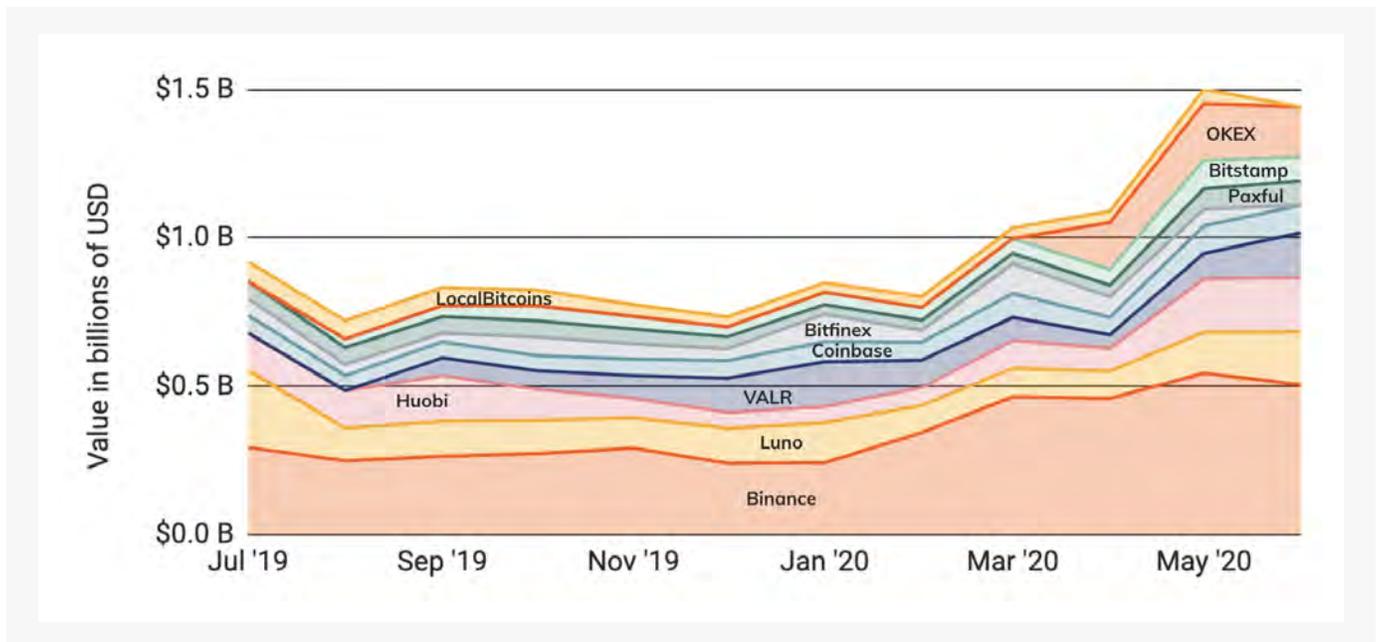
Over the time period studied, Africa's on-chain cryptocurrency activity has consolidated further onto the ten largest services in the region by volume, with those services' share of overall activity in the region rising from 67% in October 2019 to 78% today.

Most of the activity from Africa is going to Binance, whose share of all cryptocurrency activity in Africa has risen sharply since the beginning of 2020. Adedeji Owonibi, a senior partner at the Nigeria-based blockchain forensics consultancy A&D Forensics and expert in cryptocurrency activity in the region, wasn't surprised when we showed him this data. He explained, "When Binance came to Nigeria, it afforded the opportunity to many to buy and trade. I was able to perform fiat-crypto transactions I could never before. They have more liquidity than other exchanges within the region, recruit local community managers from the cryptocurrency communities in the region, and they provide free rewards to get new people to sign up." Owonibi also pointed to Binance's aggressive marketing strategy in Africa, which he said focuses heavily on educating novices on how to use cryptocurrency.

The liquidity and variety of trading pairs offered by top exchanges like Binance are likely attractive to the growing professional trading market (which we define as being made up of transfers above \$10,000 USD worth of cryptocurrency), which despite making up a lower share of Africa's overall activity compared to other regions, still accounts for 70% of all on-chain volume transacted.



Top ten services sending value to or from Africa | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

This appears to be confirmed by the graph below charting the growth of Africa's professional market over the time period studied, as the rises in professional activity coincide with rises in African transaction volume on Binance.

Value sent and received by Africa's professional market | Jul '19 to Jun '20



Currencies included: BTC

Note: Graph above includes direct counterparty transfers only.

In a recent [YouTube Ask Me Anything](#) (Q&A session), Binance CEO Changpeng Zhao, better known as CZ, cited his company's ability to build relationships with local banks, who in turn allow users to on-ramp from fiat to cryptocurrency on Binance, as crucial to the platform's growth in Africa over the last two years.



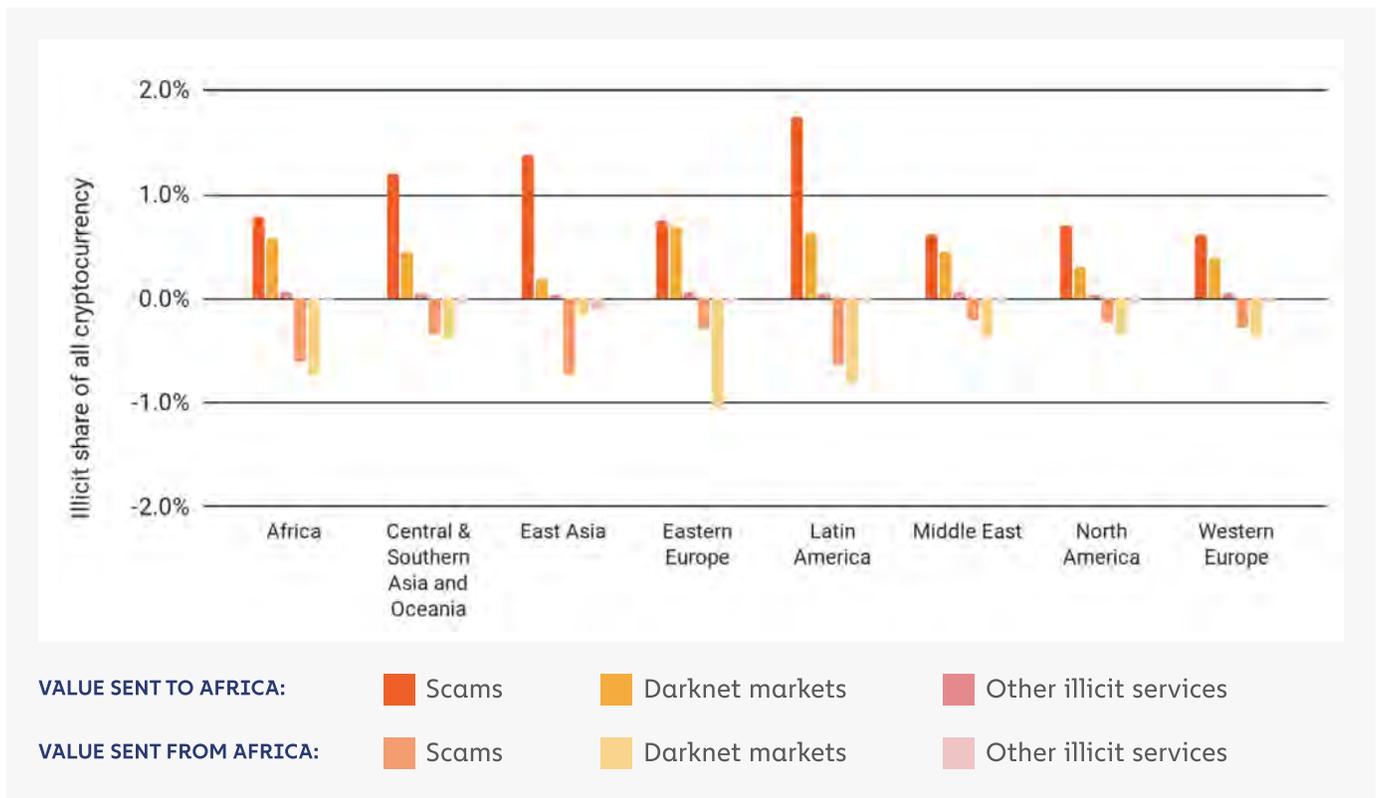
Scams make up lower share of illicit activity compared to other regions

Illicit activity makes up roughly 1.4% of all African cryptocurrency activity by volume, in terms of both sending and receiving, which is about average compared to all other regions.

As is the case for all regions, scams and darknet markets make up the vast majority of illicit transaction volume sent and received from Africa. Historically, people in many parts of Africa have fallen victim to financial scams common in the fiat world, such as pyramid schemes and other investment scams. Ray Youssef cited the resulting wariness of being scammed as an obstacle in pitching new African users on Paxful and cryptocurrency in general. Interestingly given that context, the data suggests that cryptocurrency scams aren't as prevalent in Africa as they are in other regions.

Illicit share of all cryptocurrency sent and received by region

| Jul '19 to Jun '20

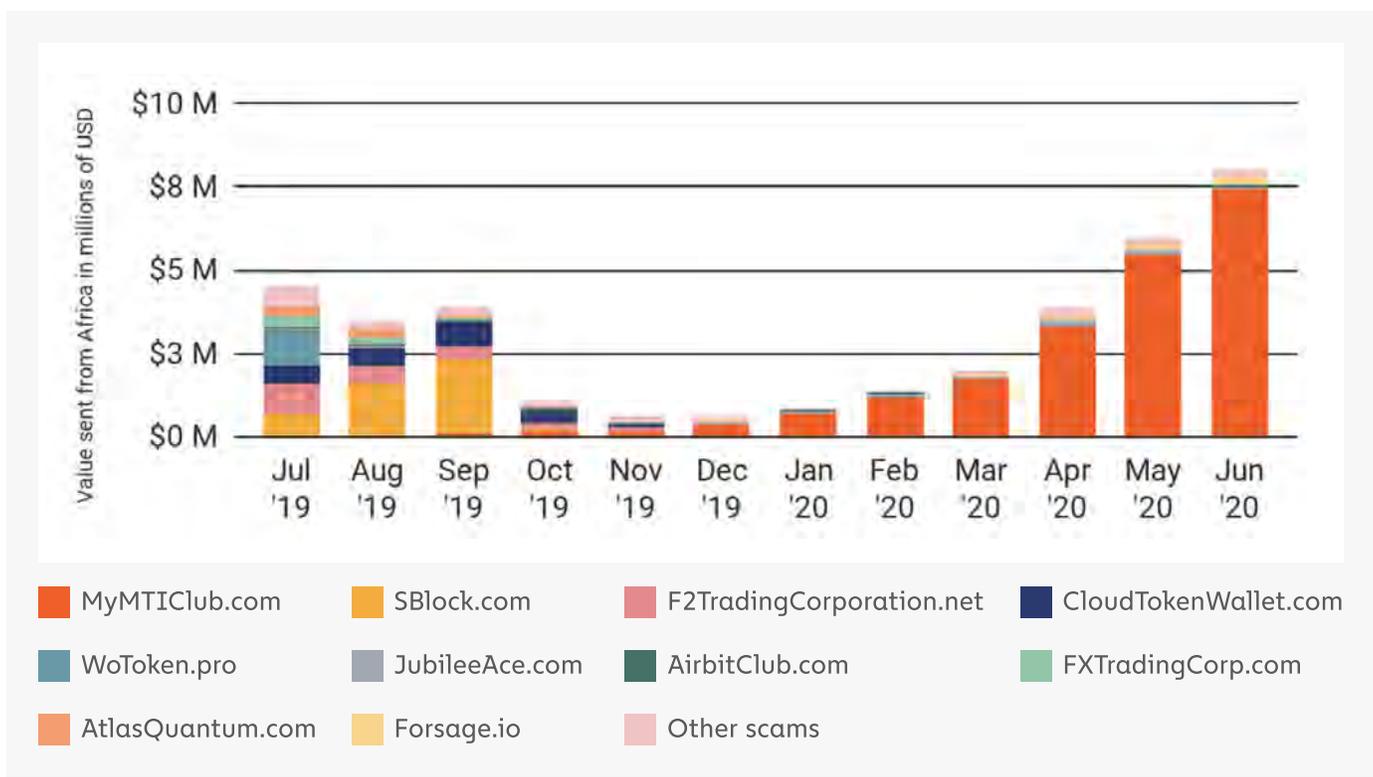


Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

While scams still make up a large portion of illicit cryptocurrency activity in Africa, the share isn't as high as it is elsewhere. However, this may also be an issue of underreporting. Next, we show the top scams receiving funds from Africa.

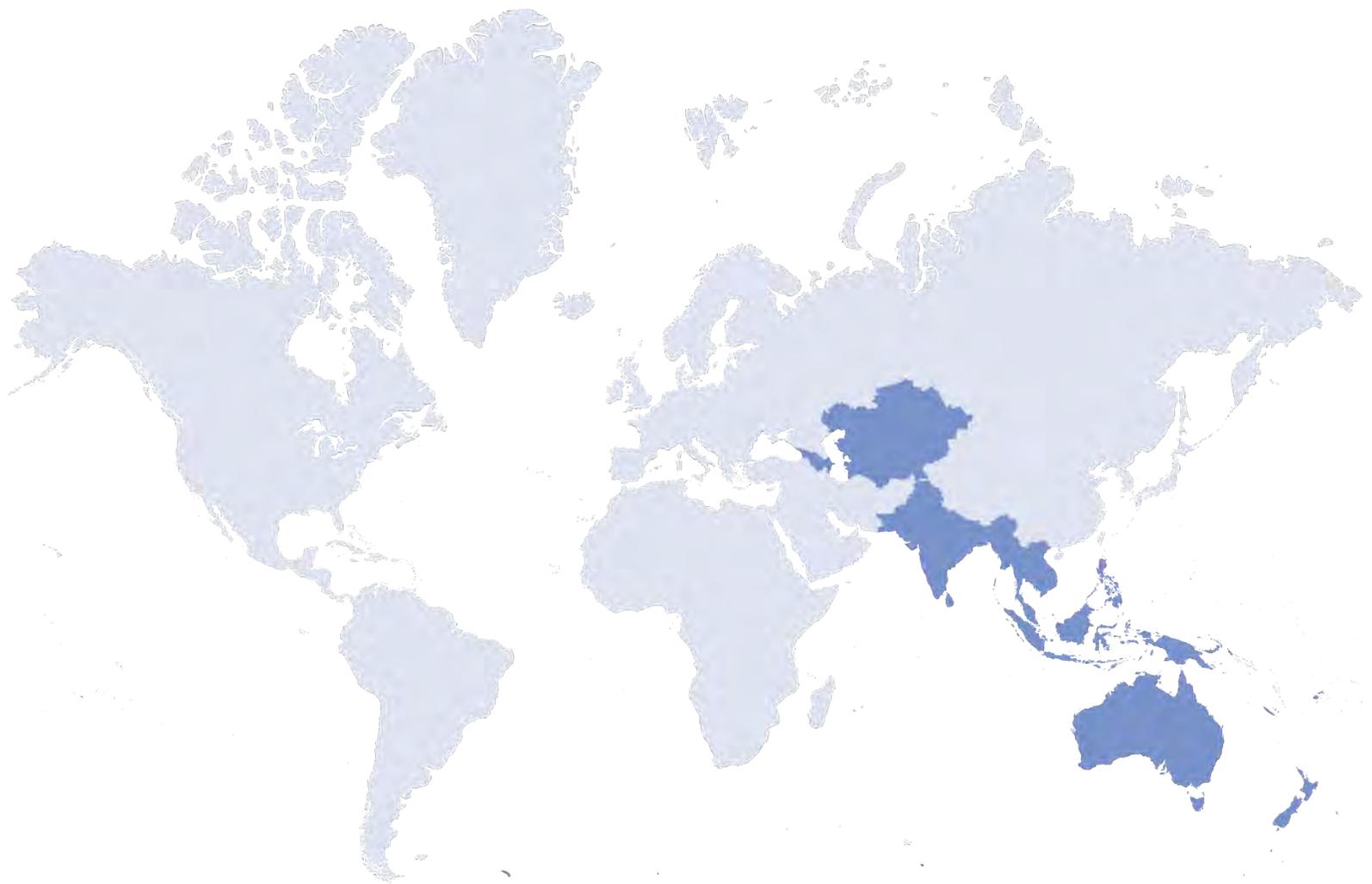


Scams receiving the most cryptocurrency from Africa | Jul '19 to Jun '20



Currencies included: BCH, BTC, ETH, LTC, OMG, PAX, USDC, USD

SBlock led the way until October 2019, before MyMTIClub began growing to become the dominant scam in the region. Both SBlock and MyMTIClub defraud victims by claiming they can grow customers' Bitcoin deposits through algorithmic trading.

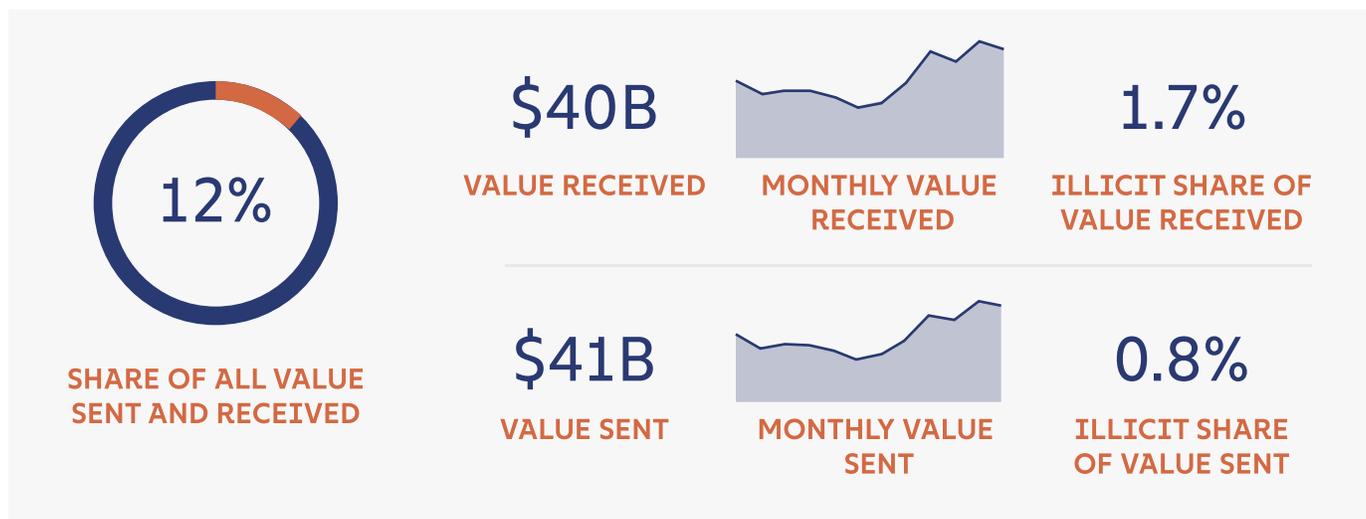


Central & Southern Asia and Oceania

Growth already strong as regulations take shape throughout the region



Summary of Central & Southern Asia and Oceania's cryptocurrency activity | Jul '19 - Jun '20



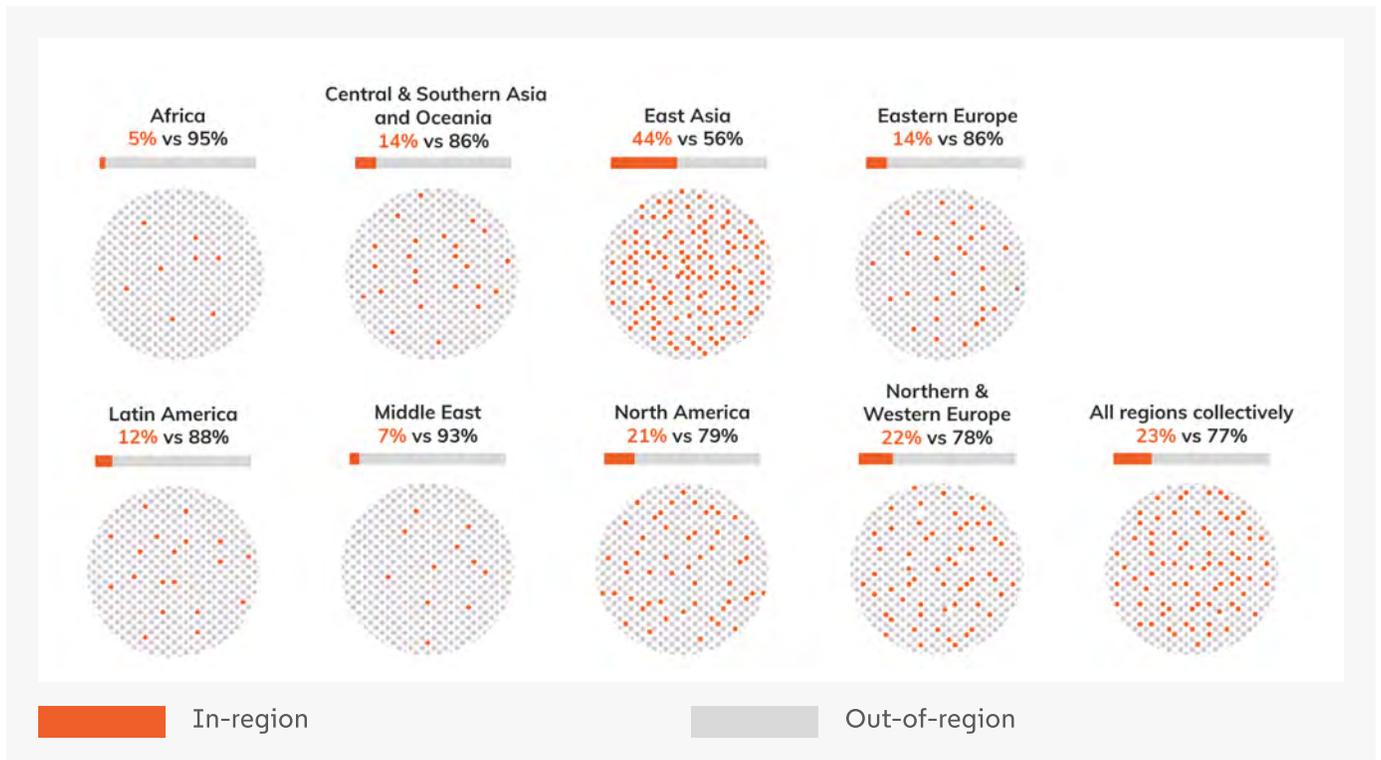
Value and transfers in and out of Central & Southern Asia and Oceania | Jul '19 to Jun '20



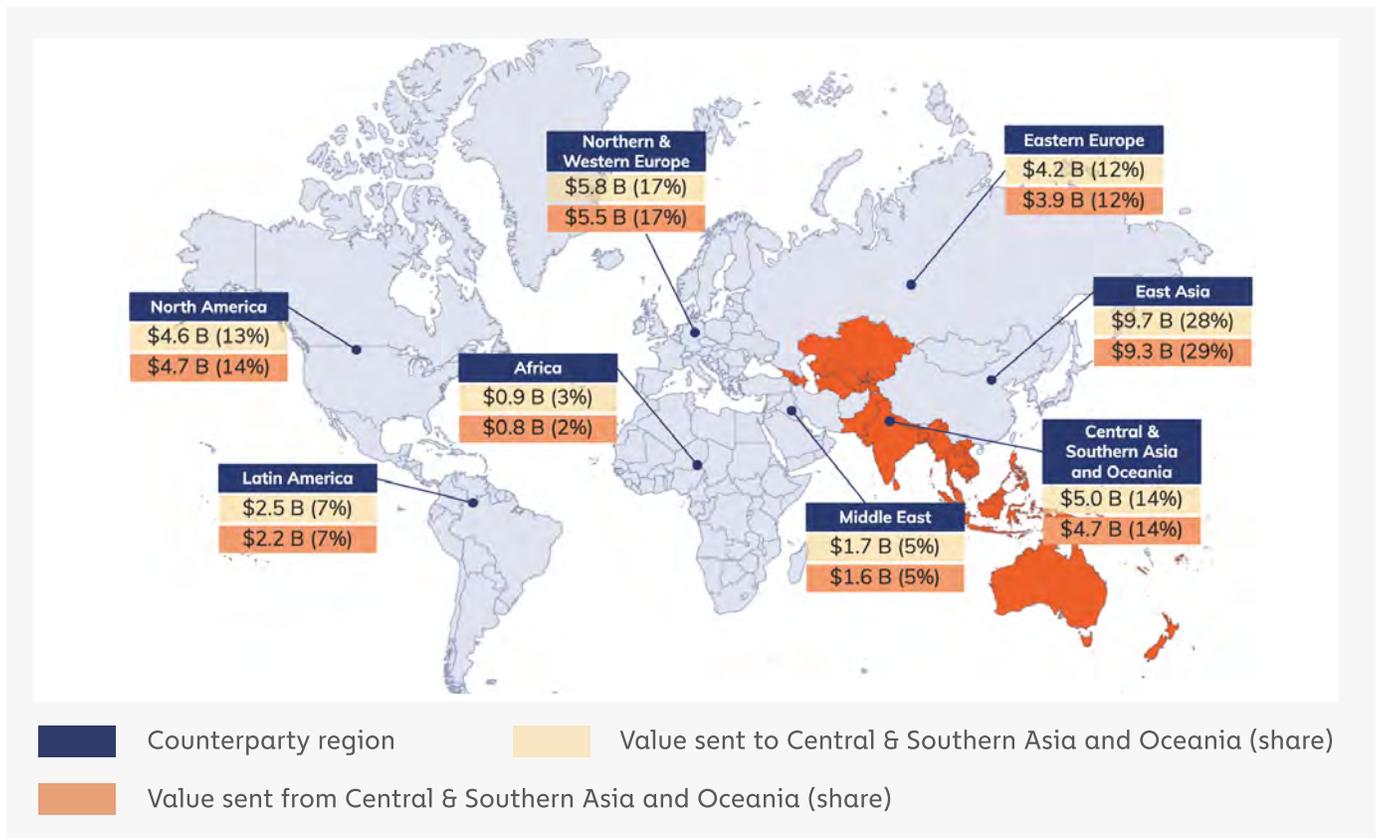
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



Central & Southern Asia and Oceania's regional counterparties by volume | Jul '19 to Jun '20

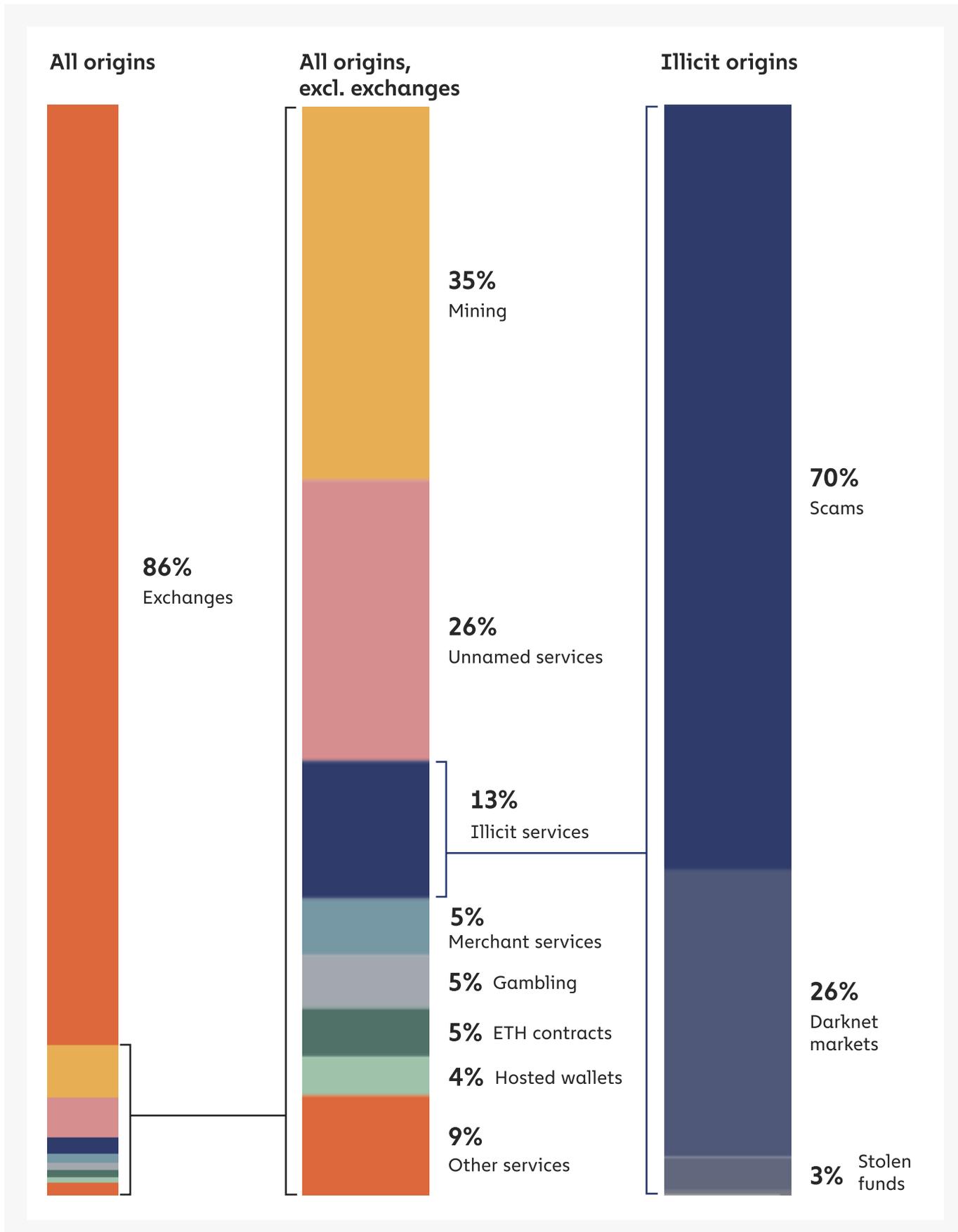


Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Origin of value sent to Central & Southern Asia and Oceania

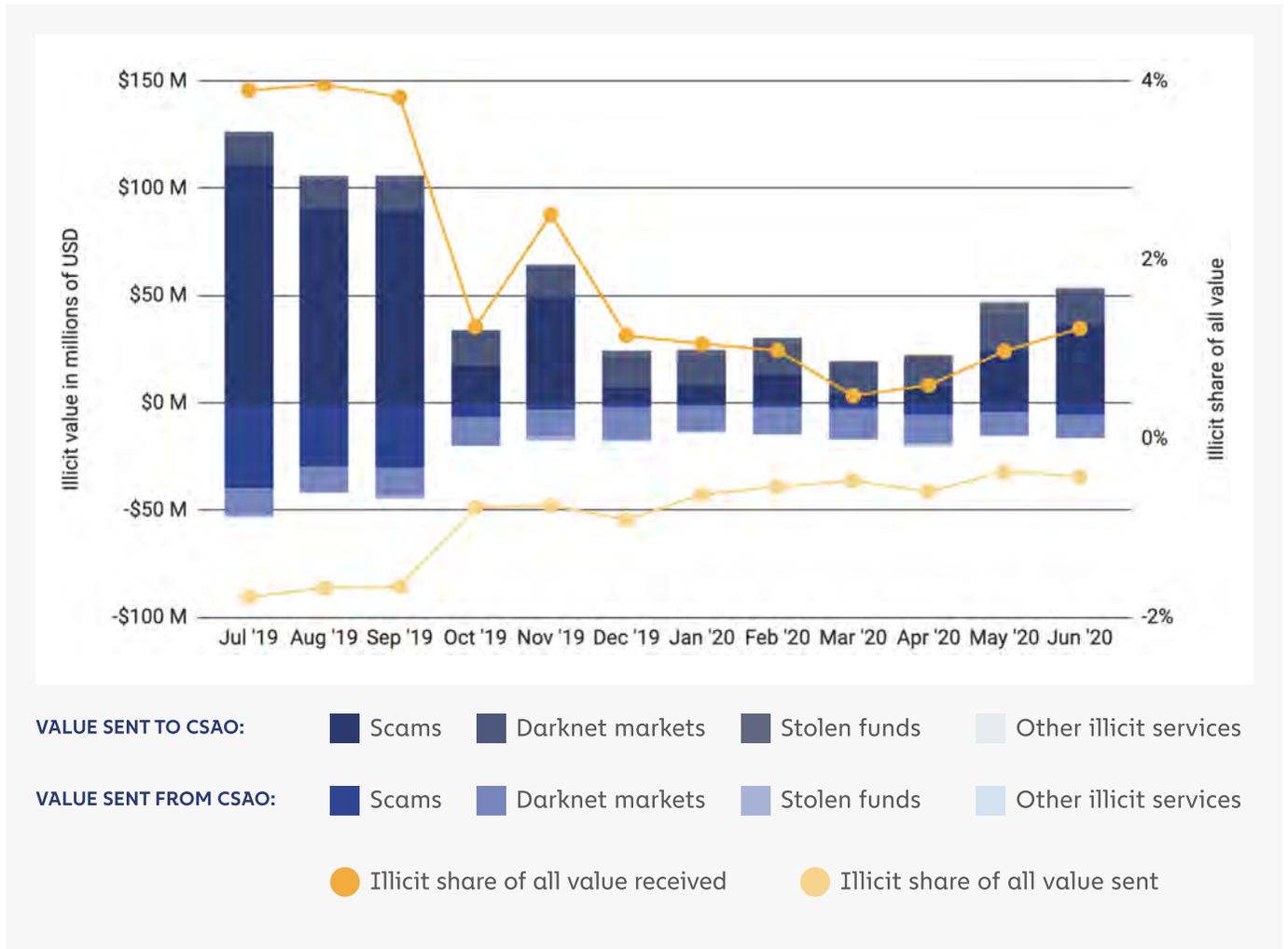
| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Central & Southern Asia and Oceania | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

Central & Southern Asia and Oceania (CSAO) has the fifth-most cryptocurrency activity of the eight regions we study. With over \$41 billion worth of cryptocurrency sent and \$40 billion received between June 2019 and July 2020, CSAO accounts for 11.5% of all on-chain cryptocurrency volume transferred in the time period studied. With many developing countries in the region, we see heavy retail activity, which could suggest users are turning to cryptocurrency for remittances and possibly even everyday transactions. Below, we'll summarize our findings on how cryptocurrency is being used in CSAO – in particular, India and Vietnam – as well as some updates on cryptocurrency's regulatory situation in the region.

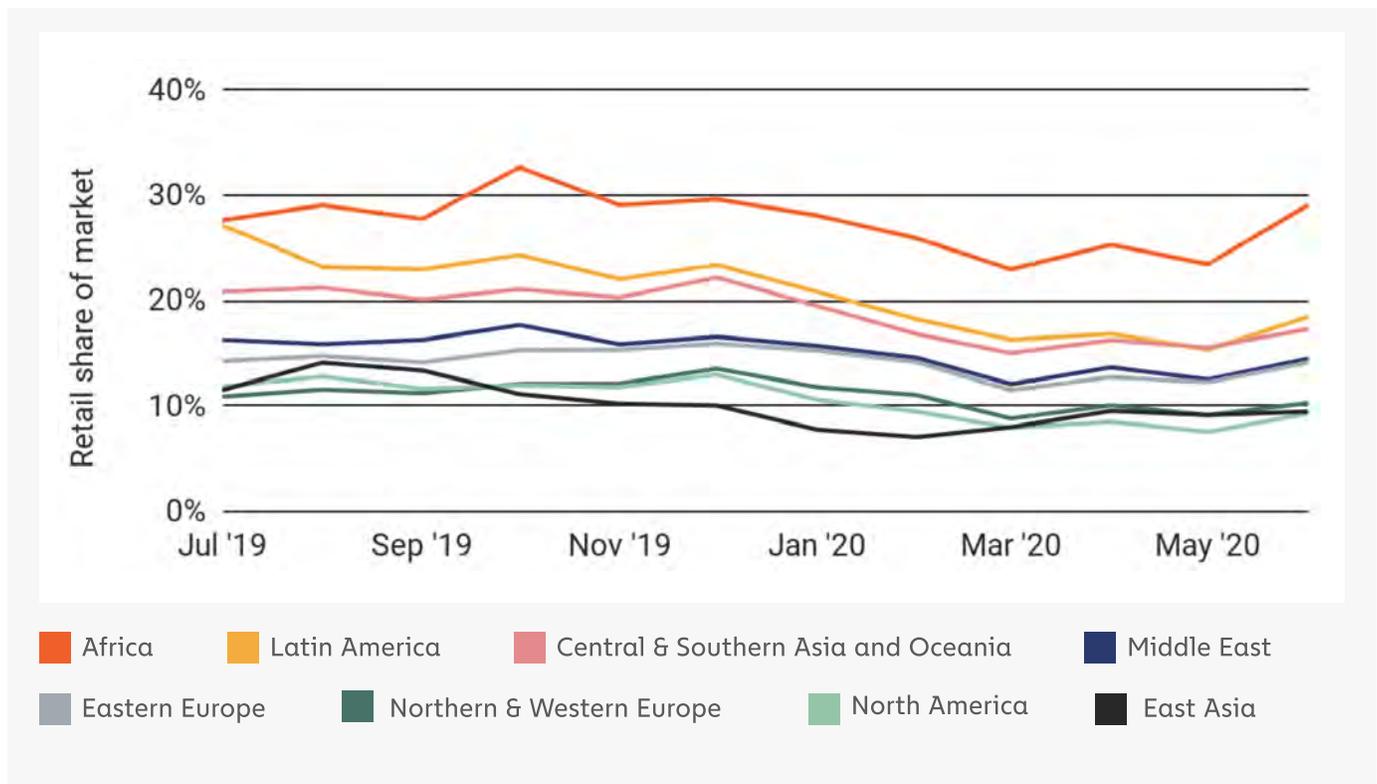


Retail transactions are high but professional traders drive the market

CSAO has the third-highest share of its cryptocurrency market made up of retail activity, with between 15% and 22% of transaction volume coming in retail-sized transfers of \$10,000 worth of cryptocurrency or less during the time period studied.

Retail share of cryptocurrency volume transferred by region

| Jul '19 to Jun '20

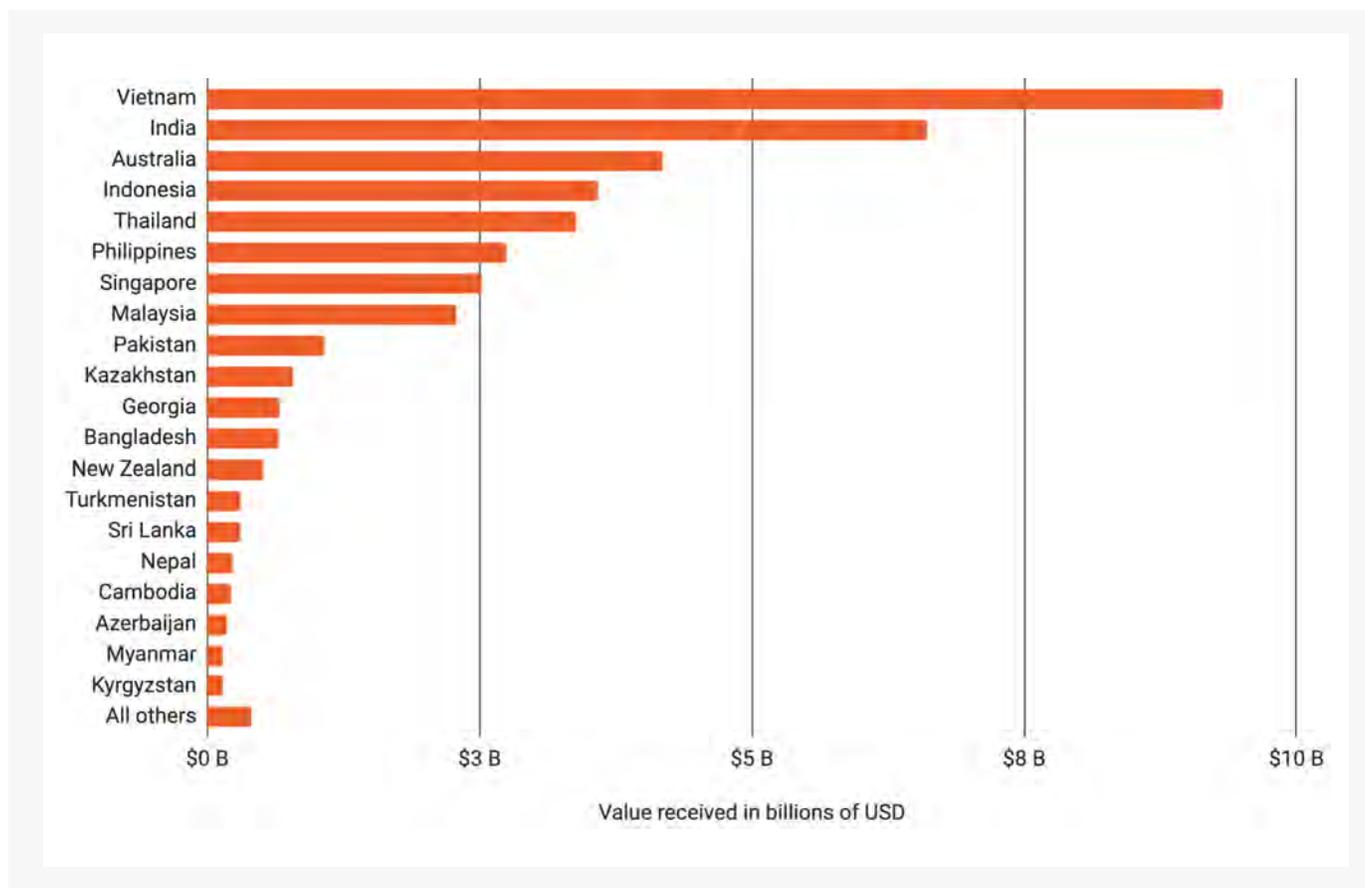


Currencies included: BTC

We believe that some of this activity is due to remittances from overseas. Below, we see the individual CSAO countries ranked by cryptocurrency received during the time period studied.



Central & Southern Asia and Oceania's value received on-chain by country | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Several of the countries driving significant cryptocurrency transaction volume in the region are also among the world's largest receivers of fiat remittances. According to [a report](#) from migration studies group Knomad, in 2017:

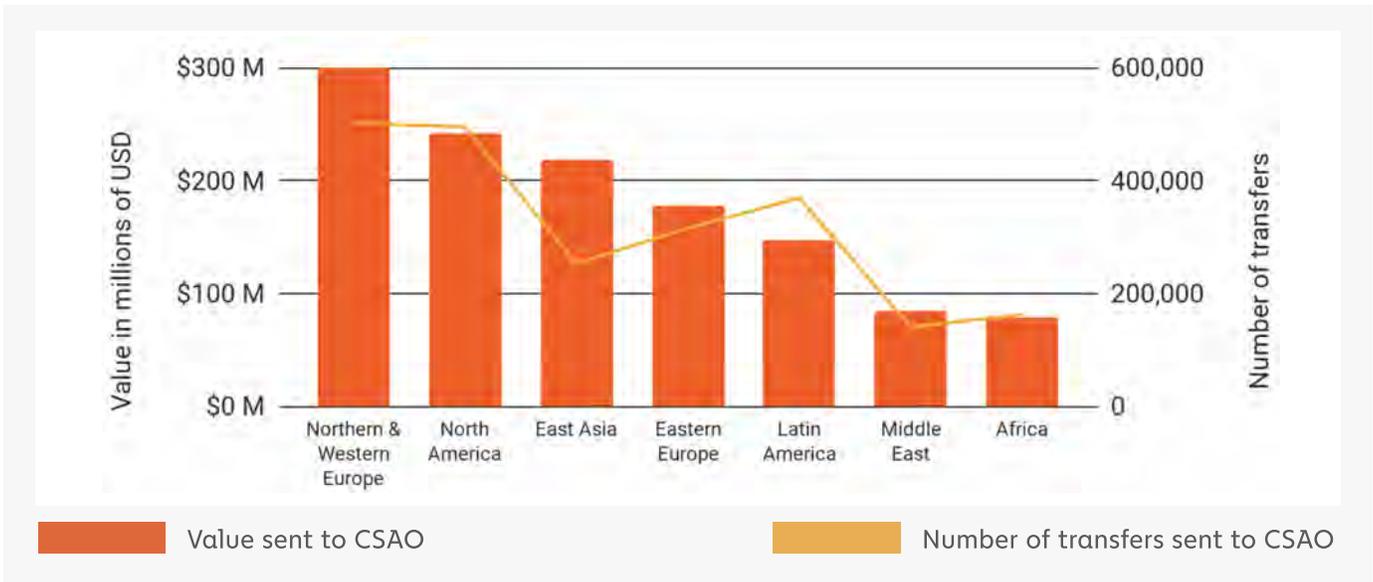
- India led the world in fiat remittances received at \$69.0 billion
- Vietnam ranked tenth at \$13.8 billion
- Indonesia ranked 17th at \$9.0 billion
- Thailand ranked 24th at \$6.7 billion

All four of those countries are among the largest cryptocurrency markets in the CSAO region, so it's possible that residents have shifted some of their remittance activity to cryptocurrency to take advantage of lower fees and shorter wait times, as we've observed in Latin America and Africa. Below, we try to size possible incoming cryptocurrency remittances to the CSAO region by looking at the regions sending the most cryptocurrency to CSAO in retail-sized transfers below \$10,000.



Value received by CSAO in retail transfers by sending country

| Jul '19 to Jun '20



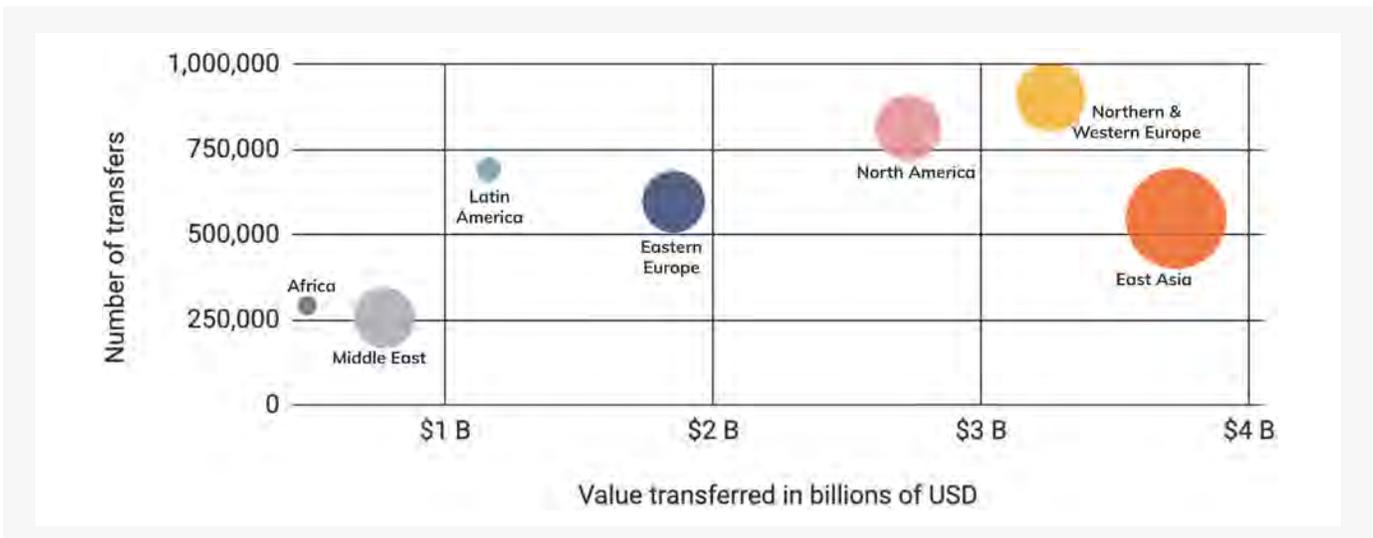
Currencies included: BTC

Northern & Western Europe (NWE) and North America lead the way. Countries in both regions are among the biggest senders of remittances to CSAO countries, so it appears possible based on the above that some of that activity has shifted to cryptocurrency.

When we look at CSAO's regional counterparties for all transactions regardless of size, the region resembles the others we've studied.

Central & Southern Asia and Oceania's total value, number of transfers, and average transfer size received by counterparty region

| Jul '19 - Jun '20



Currencies included: BTC

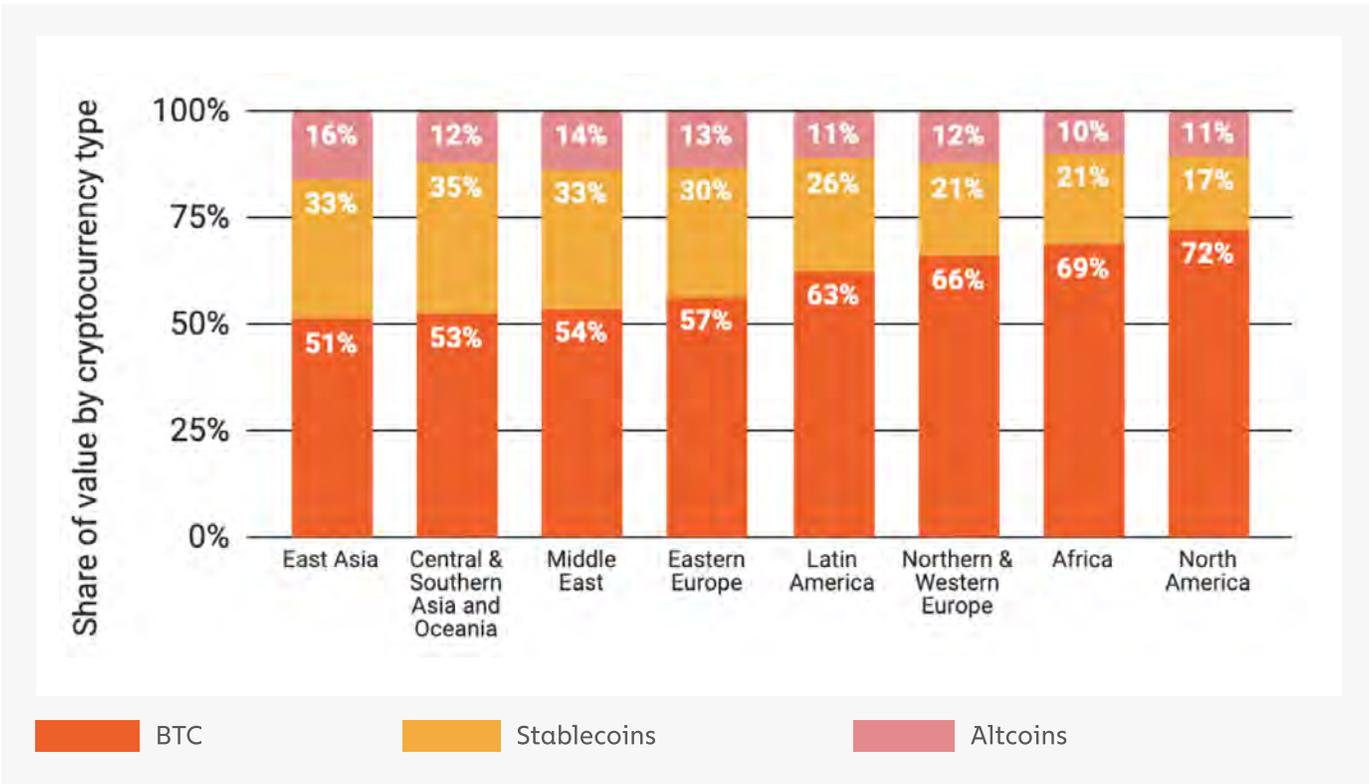
Bubble size denotes average transfer size



East Asia is the region's largest counterparty, accounting for over \$3.7 billion worth of cryptocurrency transfer volume at an average transaction size of \$6,800. NWE and North America are second and third, at average transfer sizes of \$3,600 and \$3,350 respectively. These numbers suggest that CSAO's activity with East Asia counterparties skews much more toward professional activity.

CSAO's breakdown of preferred cryptocurrencies resembles those of East Asia and Eastern Europe, with interest skewing more toward stablecoins than Bitcoin compared to other regions like North America and NWE.

Share of regional activity by cryptocurrency type | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

A **recent report** from cryptocurrency research group Coinpaprika and exchange OKEx attributes stablecoin usage in India specifically to users' need to protect savings in times when the native rupee is volatile or losing value. Whereas exchanging rupees for US dollars directly is difficult due to local regulations, stablecoins like Tether give users an easy way to get exposure to the dollar and lock in savings.



Regulatory outlook improving

The regulatory landscape for some of CSAO's biggest cryptocurrency markets has been in flux for the last few years but appears to be looking up. India is a great example.

In March 2020, India's Supreme Court **struck down** a rule from the country's central bank that prohibited all of the country's banks from dealing with cryptocurrency companies, including by allowing customers to transfer funds to cryptocurrency businesses. This rule, originally brought into effect in April 2018, effectively banned cryptocurrency trading in India. We spoke to Vikram Ranga, Chief Marketing Officer of Zebpay, one of India's biggest cryptocurrency exchanges, about what this ban meant for the cryptocurrency industry in the region. "After the RBI circular, Indian crypto was hit hard," he told us. "With the loss of that crypto-fiat revenue, ZebPay expanded its global exchange, based in Singapore, and opened in Malta and Australia. We also maintained hundreds of thousands of customer wallets at no charge and offered crypto-crypto trading to our 3 million users."

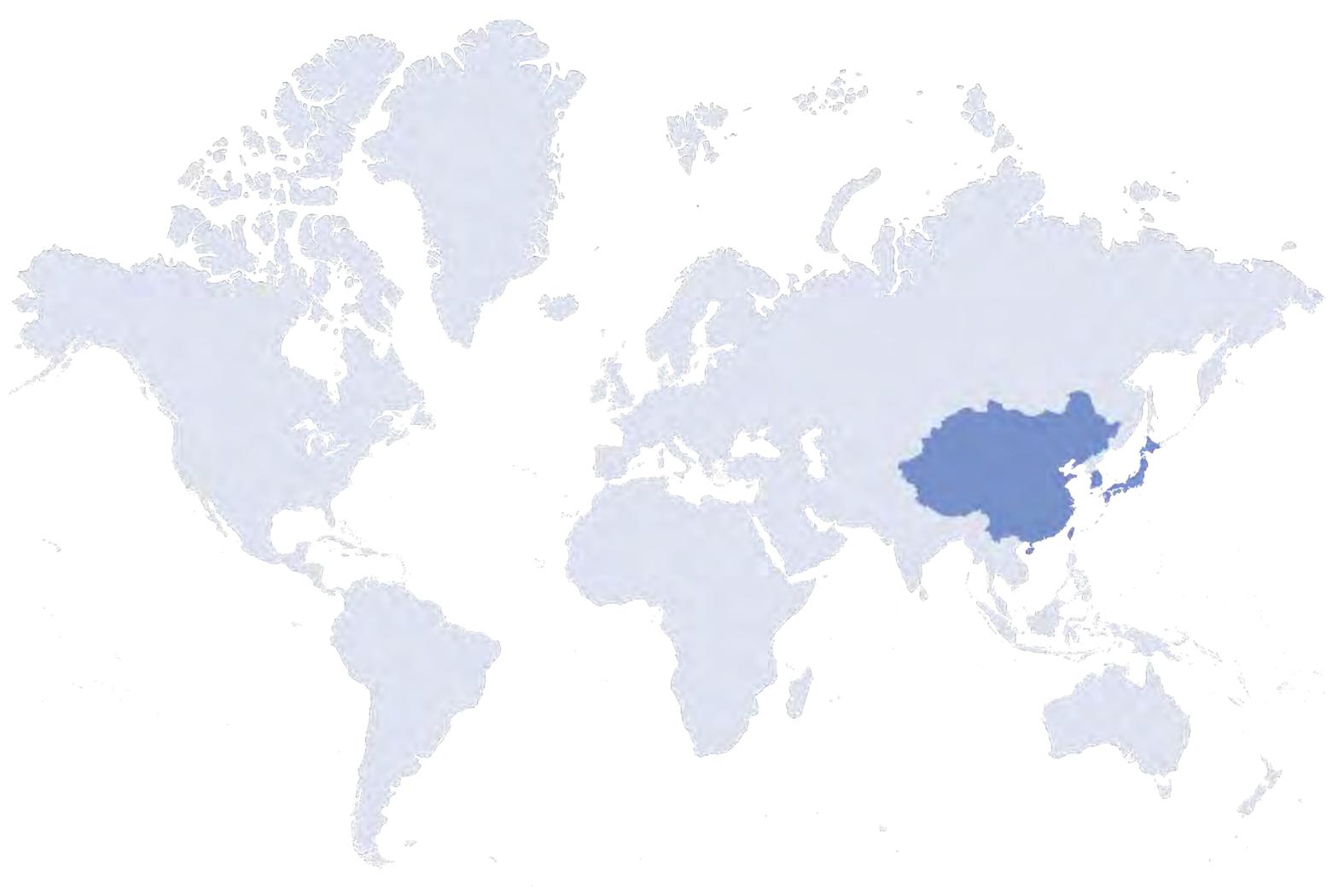
Zebpay stayed the course though, and reaped huge benefits when the ban was lifted this year. The platform remains one of the largest in India, but still has plenty of room to grow in a country of more than one billion people, many of whom need new ways to improve their finances. "If Bitcoin and blockchain grow the way we expect, we want everyone to share in that new economy, not just the wealthy. Bitcoin was designed to fight poverty and inequality and ZebPay's mission is basically the same: to reduce the have and have-not divide," said Vikram.

Other Indian cryptocurrency businesses have grown substantially since the ban was lifted as well, with interest surging in the country. International exchange OKEx has reported a **545% increase** in site visits from India in the month after the ban ended, while others like Kraken and Binance have voiced their intention to move into India. To that end, Binance purchased the India-based exchange WazirX and has established a \$50 million fund to invest in Indian cryptocurrency projects. Likewise, asset managers have rushed to invest in the Indian cryptocurrency space, with CoinDCX, the country's largest exchange, **raising \$3 million** from Bain Capital and BitMEX. **Recent reports** suggest the government may move to enact another cryptocurrency ban, but industry operators in the country are confident that growing cryptocurrency adoption since the initial ban's lift — and especially during the Covid crisis — will convince the government not to do this.

Regulators elsewhere in the CSAO region also look to be warming up to cryptocurrency. Just two years after government officials **voiced concern** about cryptocurrency, Vietnam has now established a **cryptocurrency research group** to evaluate the technology and plan future



legislation. Australia on the other hand, whose government established cryptocurrency regulations legitimizing the technology **long ago in 2017**, has seen steady growth in adoption and ranks 20th out of 154 countries in our Global Crypto Adoption Index. Despite that, India and Vietnam already have higher grassroots-level adoption than Australia, as they rank higher on our index at 11th and 10th respectively. With bans being lifted and reasonable regulations appearing to take shape, the outlook for the two countries appears to only be getting brighter.



East Asia

Pro Traders and Stablecoins Drive World's
Biggest Cryptocurrency Market



Summary of East Asia's cryptocurrency activity | Jul '19 - Jun '20



SHARE OF ALL VALUE SENT AND RECEIVED

\$107B

VALUE RECEIVED



MONTHLY VALUE RECEIVED

1.6%

ILLICIT SHARE OF VALUE RECEIVED

\$108B

VALUE SENT

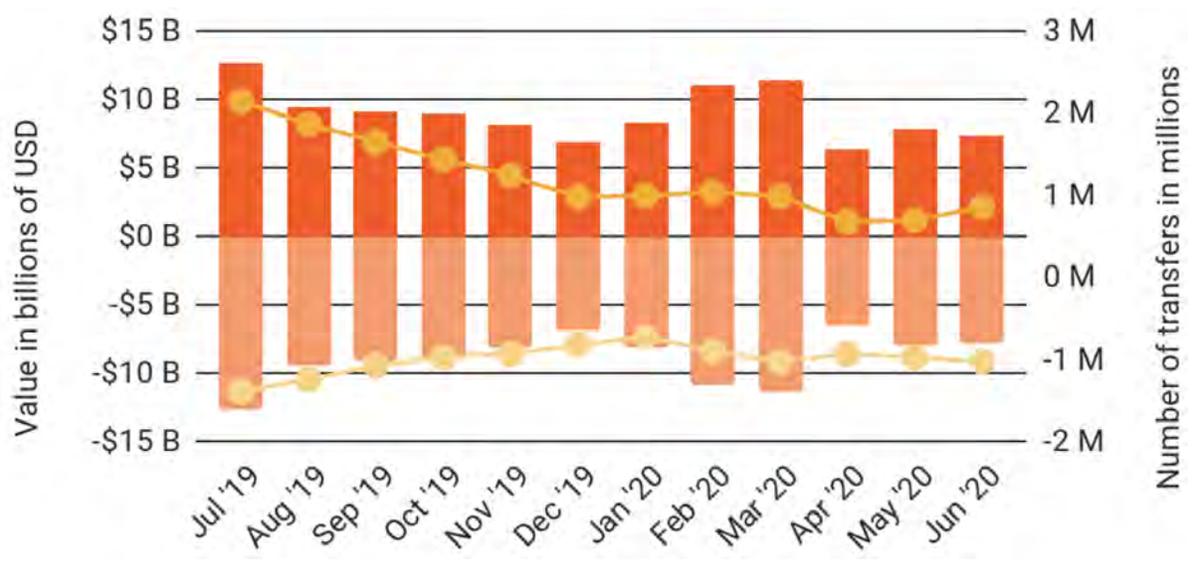


MONTHLY VALUE SENT

0.7%

ILLICIT SHARE OF VALUE SENT

Value and transfers in and out of East Asia | Jul '19 to Jun '20



↑ Value received
 ↓ Value sent

↑ Number of deposits
 ↓ Number of withdrawals

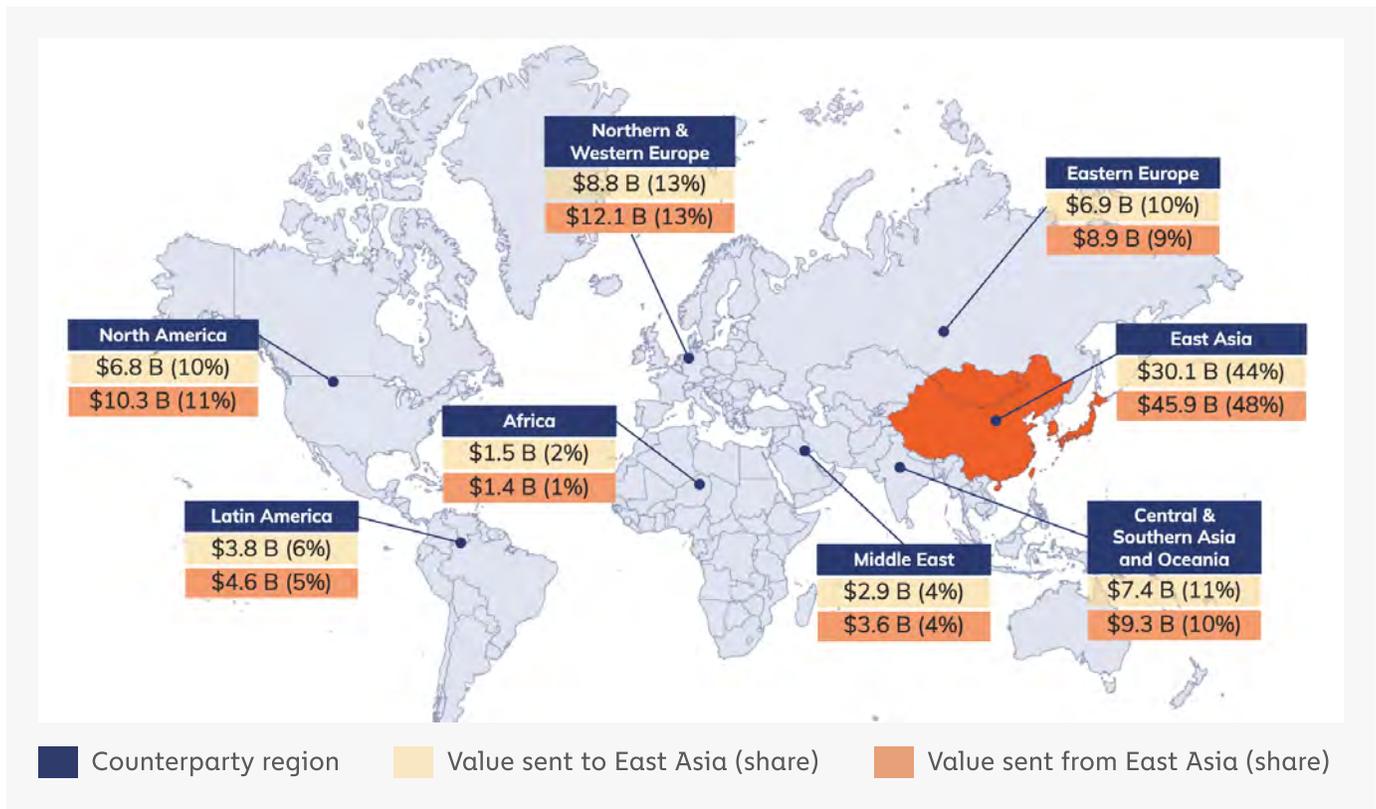
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



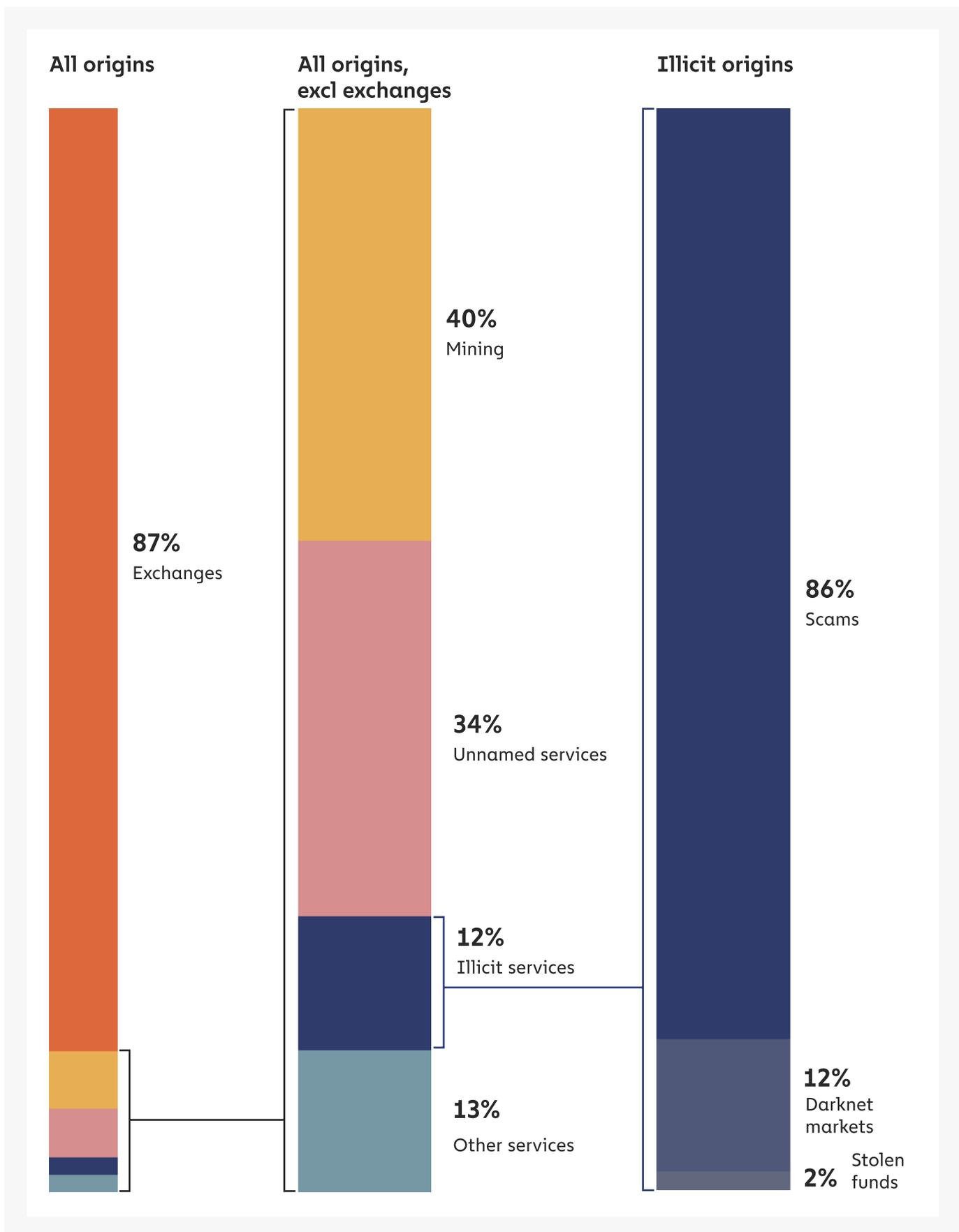
East Asia's regional counterparties by volume | Jul '19 to Jun '20



Currencies included for above charts: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



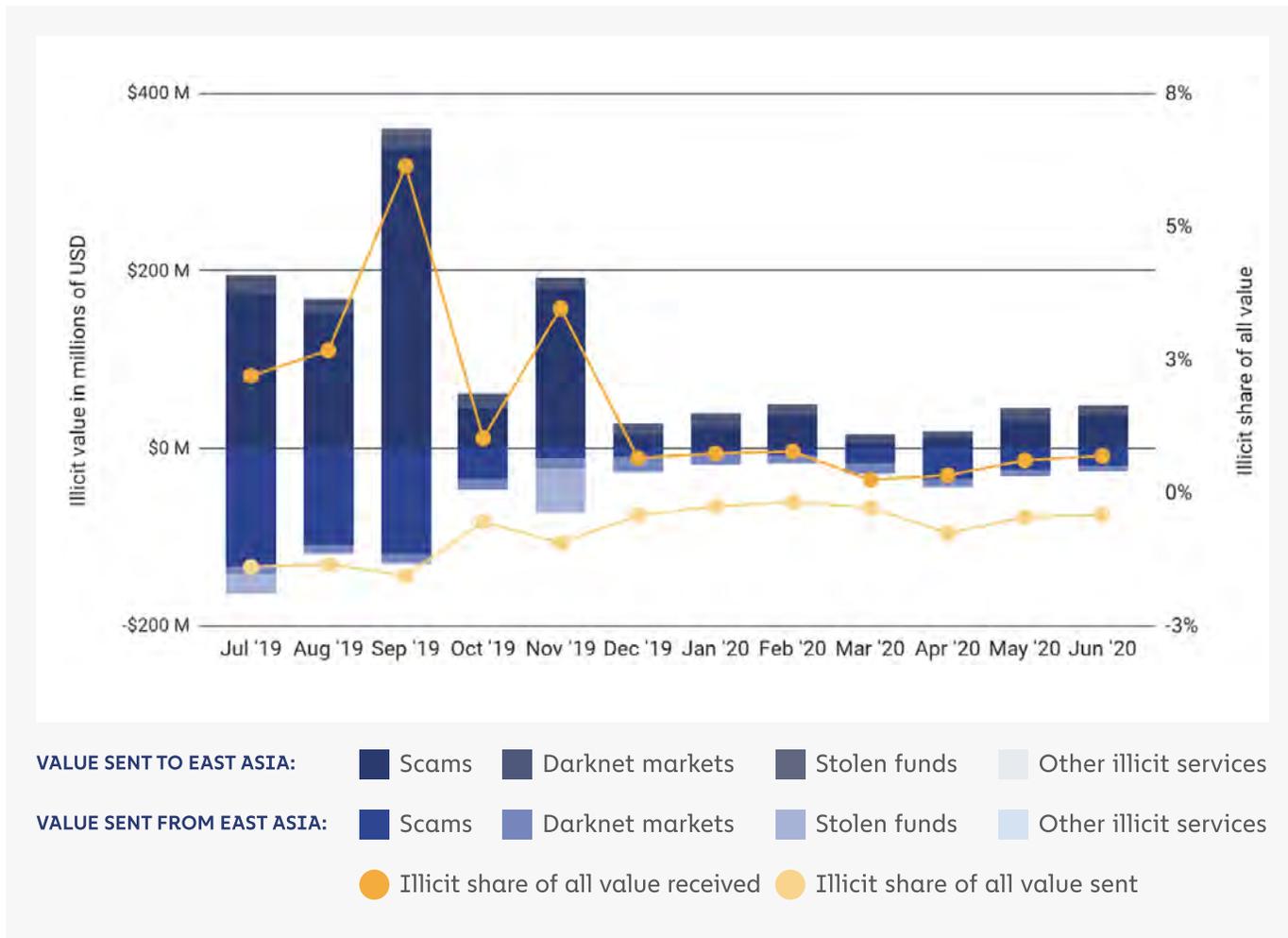
Origin of value sent to East Asia | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in East Asia | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

East Asia is the world's largest cryptocurrency market, accounting for 31% of all cryptocurrency transacted in the last 12 months. East Asia-based addresses have received \$107 billion worth of cryptocurrency in that time period, which is 77% more than Northern & Western Europe (NWE), the second-highest receiving region. Much of this can be attributed to the region's stranglehold on mining activity. China alone controls **65% of Bitcoin's global hashrate** – the measurement of how much computing power goes toward mining Bitcoin – which means that the majority of all newly-mined Bitcoin starts out at Asia-based addresses, giving the market a massive liquidity boost.

East Asia's trading volume is driven by a robust professional market, but as we'll explore, the retail market is also extremely active. The liquidity of the East Asia market also makes it the



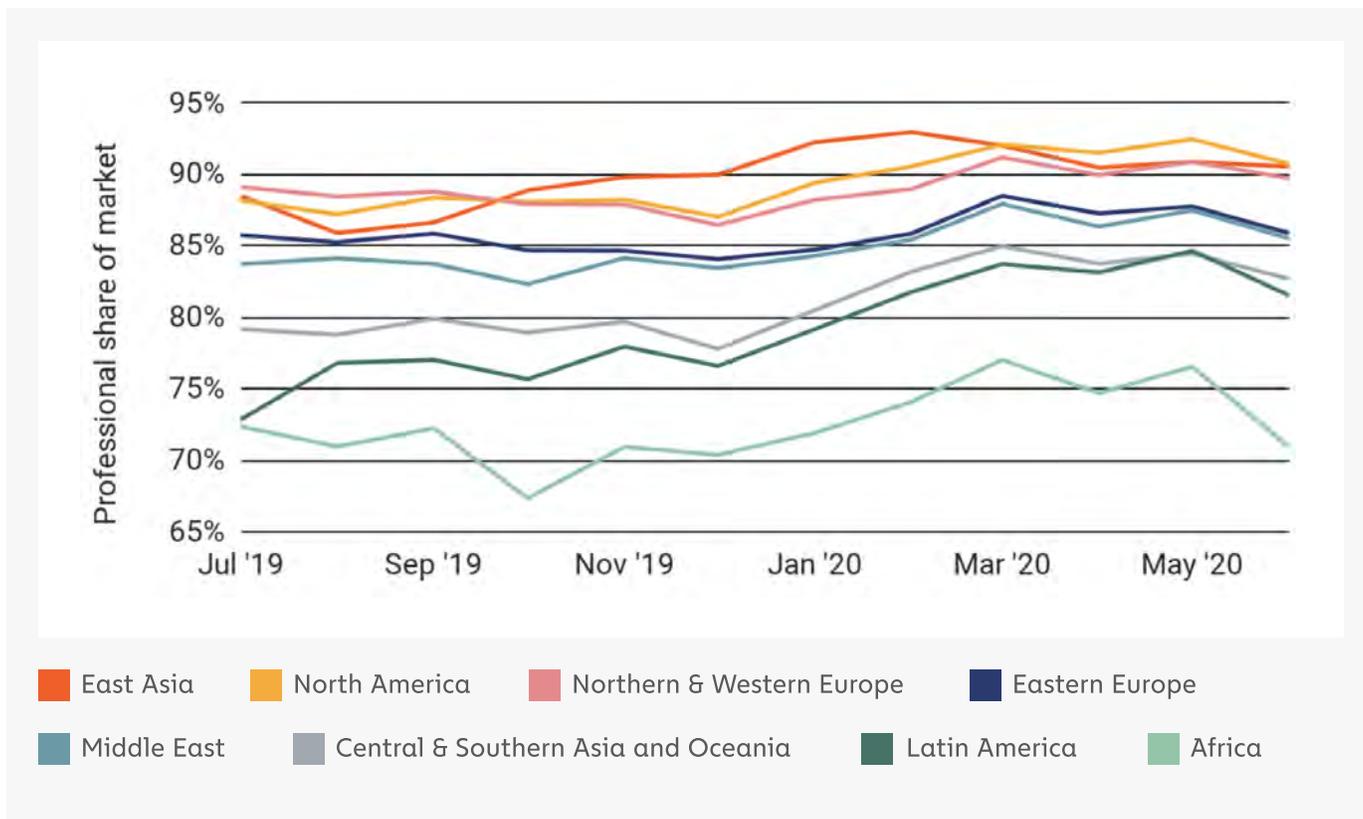
closest we have to a self-sustaining market. 44% of transactions by volume involving an East Asia-based address are counter-partied with another East Asia-based address, compared to just 22% for Northern & Western Europe, the next closest region. The liquidity and large trading population of the East Asia market makes it a key trading partner for other regions' cryptocurrency economies – in fact, East Asia is either the largest or second-largest counterparty for every other region we study in this report. The mining dominance we discuss above is one source of East Asia's liquidity, as it means a steady stream of newly-mined cryptocurrency is always traveling to East Asia addresses.

Still, East Asia's share of global cryptocurrency activity has slipped somewhat over that time period, in part because other regions are catching up, but also due to some stagnation in its professional market, the reasons for which we'll explore below. In addition, we'll examine the unique role stablecoins play in the East Asian market, as well as other key differences between professional traders in the region versus others we study.



Professional traders with heavy altcoin focus dominate East Asia

Professional share of cryptocurrency volume received by region | Jul '19 to Jun '20



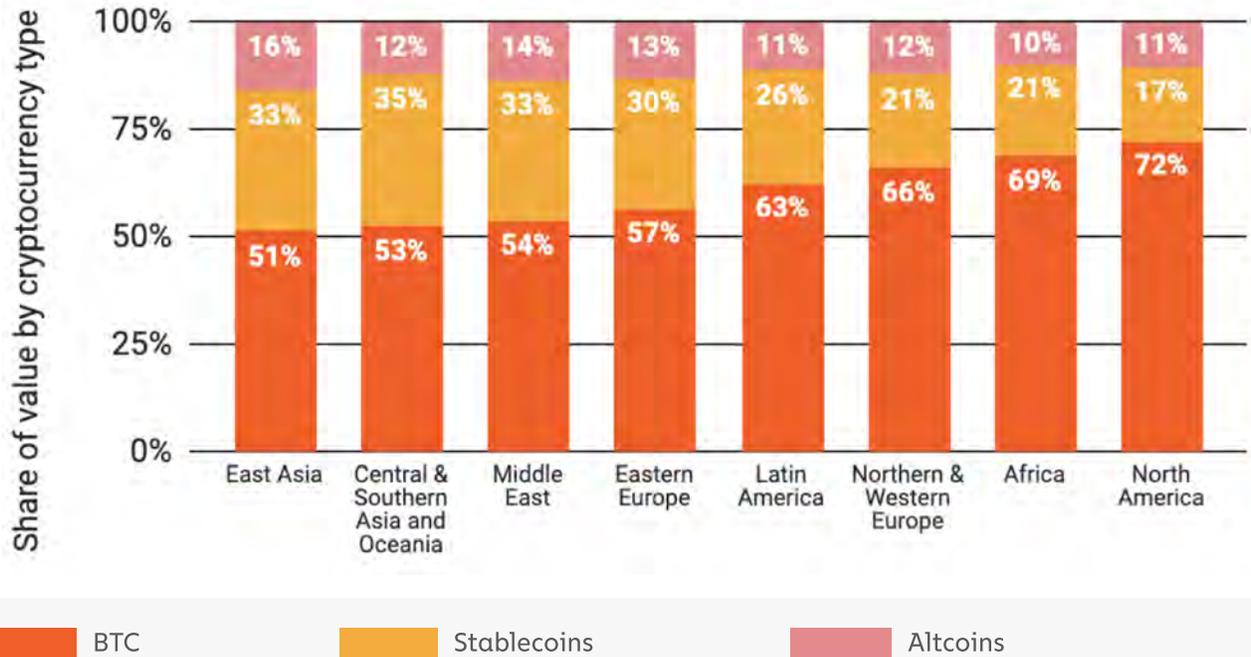
Currencies included: BTC

The East Asia cryptocurrency market is dominated by professional traders, with roughly 90% of all volume transferred by East Asia in any given month attributed to professional-sized (above \$10,000 USD worth of cryptocurrency) transfers. Only North America and NWE have matched or exceeded that share of market going to professional traders in the time period studied.

Interestingly, professional cryptocurrency investors in the East Asian market appear to engage in more speculative trading of a wider variety of assets compared to similar regions like North America, where the pros tend to focus more on Bitcoin and hold for longer. In the chart below, we see a comparison of transfer volume by type of cryptocurrency for each region.



Share of regional activity by cryptocurrency type | Jul '19 - Jun '20



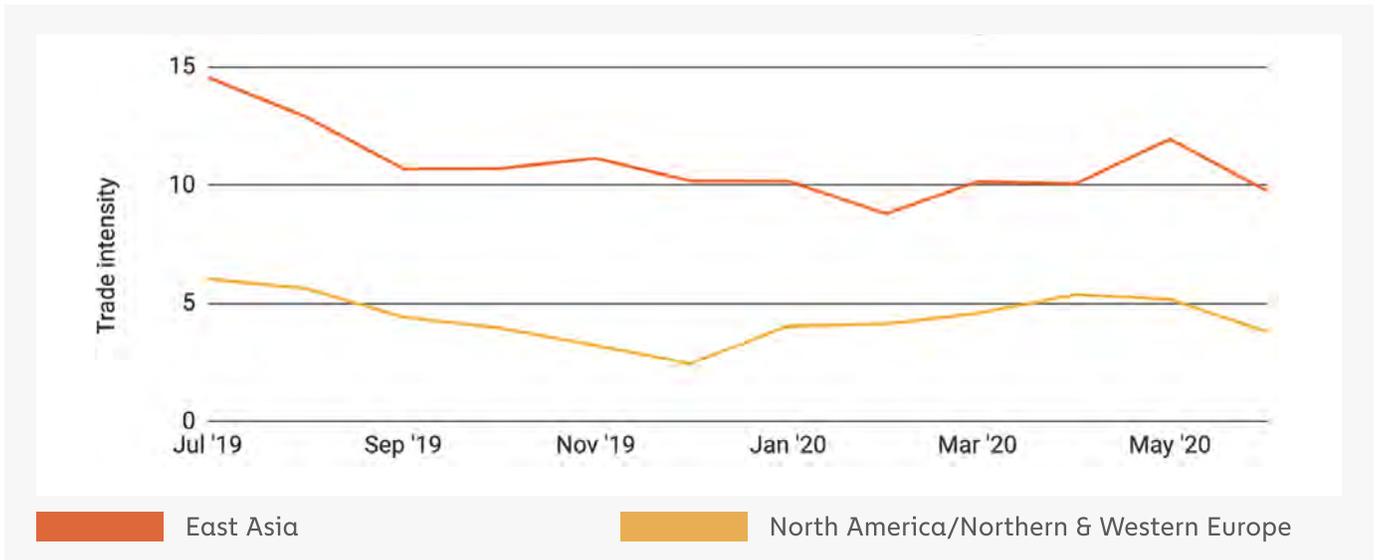
Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

East Asia has the lowest share of on-chain volume devoted to Bitcoin at 51% of transfers by volume. Of the three comparably-sized regions, Eastern Europe comes closest with 57% of transfers made up of Bitcoin. North America and NWE, on the other hand, comprise 72% and 66% of all transaction volume with Bitcoin respectively. As we'll explore later, much of the remaining volume is made up of stablecoins — primarily Tether — but the chart above also underscores the role altcoins play in the East Asia market. Altcoins, by which we mean all non-stablecoin alternatives to Bitcoin, make up 16% of trading volume for Eastern Asia addresses, more than any other region. Litecoin specifically makes up a 2.9x larger share of trading volume for East Asia than the average share across all other regions. That same figure is 1.9x for Crypto.com Coin, 1.3x for Maker, and 1.2x for Bitcoin Cash.

Traders based in East Asia also appear to trade more frequently. Below, we compare the Bitcoin trade intensity of five exchanges with predominantly East Asia-based users to that of five with predominantly North America and NWE-based users. Trade intensity measures the number of times each coin deposited on an exchange is traded within the exchange before exiting, and can help us understand how much an exchange's users tend to hold versus trade.



Trade intensity in East Asia versus North America and Northern & Western Europe | Jul '19 - Jun '20



Currencies included: BTC

Trade intensity compares the value of order book trades to exchange inflows. An increase in trade intensity suggests more market participants want to buy than to sell.

Note: The East Asia-based exchanges included above are Bitflyer, Bitbank.cc, Bithumb, Huobi and OKEX The North America/Europe-based exchanges are Bitfinex, Coinbase, Gemini, Kraken, and Bitstamp.

Source: Kaiko

The East Asian exchanges have a trade intensity between 1.4x and 3.8x higher than those catering to North America in any given month over the time period studied, showing that East Asia cryptocurrency users trade more frequently than those in North America, who tend to buy and hold.

However, while the professional market dominates in East Asia, its retail market is still one of the largest in the world, as countries like China, Japan, and Korea have seen substantial adoption amongst everyday users. Why is this? Krishna Sriram, Head of Partnerships at Japan-based cryptocurrency security firm [Quantstamp](#), attributes it in part to pre-existing electronic payments infrastructure. "Services like AliPay in China and LINE in South Korea were already quite popular by the time cryptocurrency began to gain steam, so the idea of electronic money wasn't as big of a leap," he told us in an interview. "Despite not having as much of an electronic payments precedent, Japan also saw strong early adoption, as many Japanese corporations saw the value of cryptocurrency and set up mining operations. Japanese regulators set out clear rules early, which helped exchanges grow there quickly."

Still, the East Asia cryptocurrency market does appear to be sagging somewhat in comparison to other regions over the time period studied.



East Asia's share of all cryptocurrency value and number of transfers

| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

While East Asia is still the biggest cryptocurrency market by a wide margin, its share of overall activity has declined since October 2019. We asked regional expert and [Primitive Ventures](#) Founding Partner Dovey Wan why this might be. One reason she cited was fallout from the [PlusToken scandal](#). PlusToken was a notorious Ponzi scheme that netted over \$2 billion worth of cryptocurrency from millions of victims, mostly concentrated in Asia. Wan indicated that this dampened some of the positive sentiment around cryptocurrency in the region.

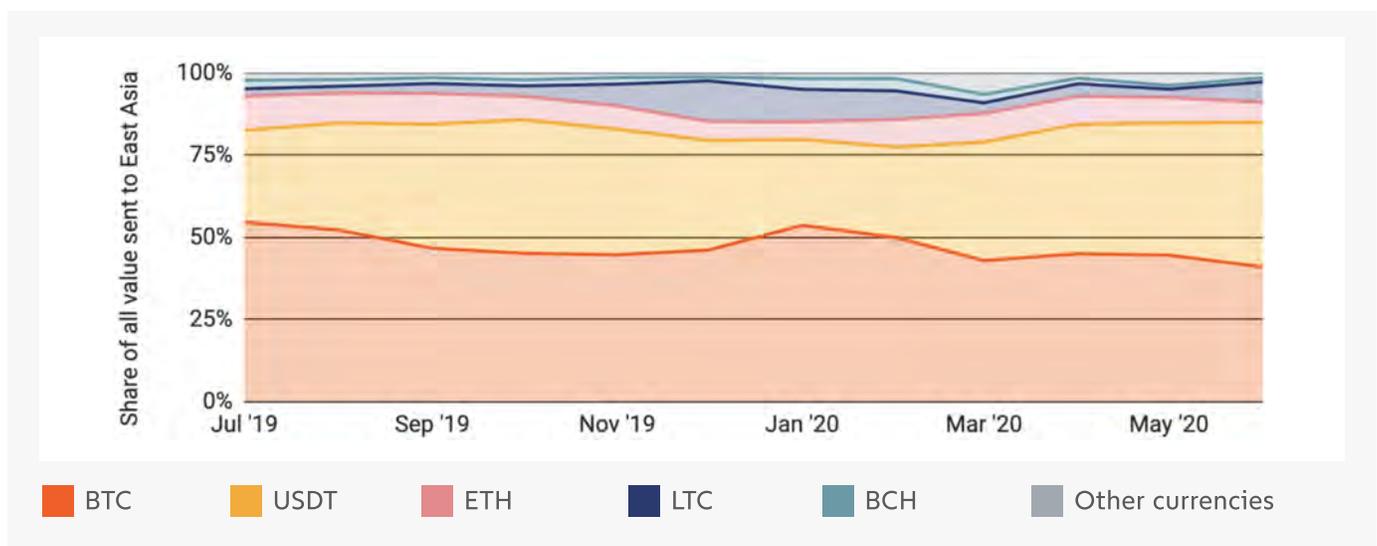
Perhaps most interestingly though, Wan told us that in China specifically, uncertainty around the government's plans for cryptocurrency have many cryptocurrency entrepreneurs putting projects on hold. In October 2019, right around the time East Asia's share of the global cryptocurrency market began to decline, Chinese President Xi Jinping [gave a speech](#) indicating the country may launch a digital yuan – in other words, a digital version of the Chinese national currency with its own blockchain, also known as a Central Bank Digital Currency (CBDC) – which could mean the government won't allow or support new coins. "Undertones matter. It's important that Xi talked about 'the blockchain' but not 'Bitcoin.' It implies that the digital yuan will be the only official, state-sanctioned cryptocurrency and dampens the view of crypto as a private asset," she said. Wan believes that this sentiment has prevented new coins from launching, as entrepreneurs feel safer starting neutral blockchain-adjacent companies rather than new cryptocurrencies or exchanges.



Stablecoin usage is off the charts

As we touched on above, stablecoin usage is especially high in East Asia, making up 33% of all value transacted on-chain. That share has been rising over the last few months though, with Tether – a popular stablecoin pegged to the U.S. dollar – actually beating out Bitcoin to be the most-received cryptocurrency by East Asia-based addresses in June 2020.

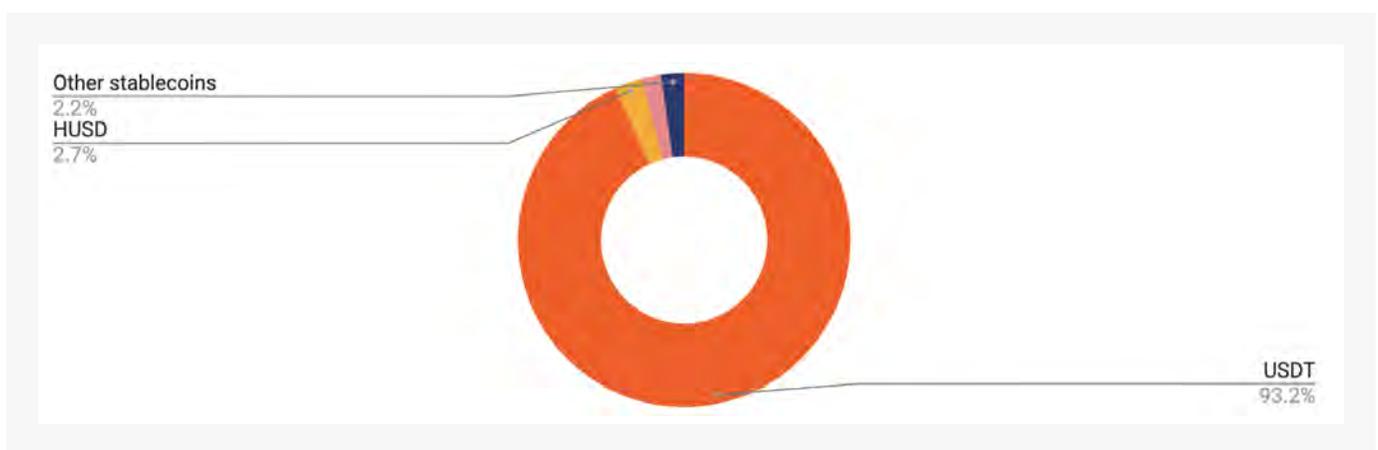
Share of value sent to East Asia by currency | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, TUSD, USDC, USDT, WETH, ZIL, ZRX

Tether is by far the most popular stablecoin in East Asia, making up 93% of all stablecoin value transferred by addresses in the region.

Stablecoin usage in East Asia | Jul '19 to Jun '20



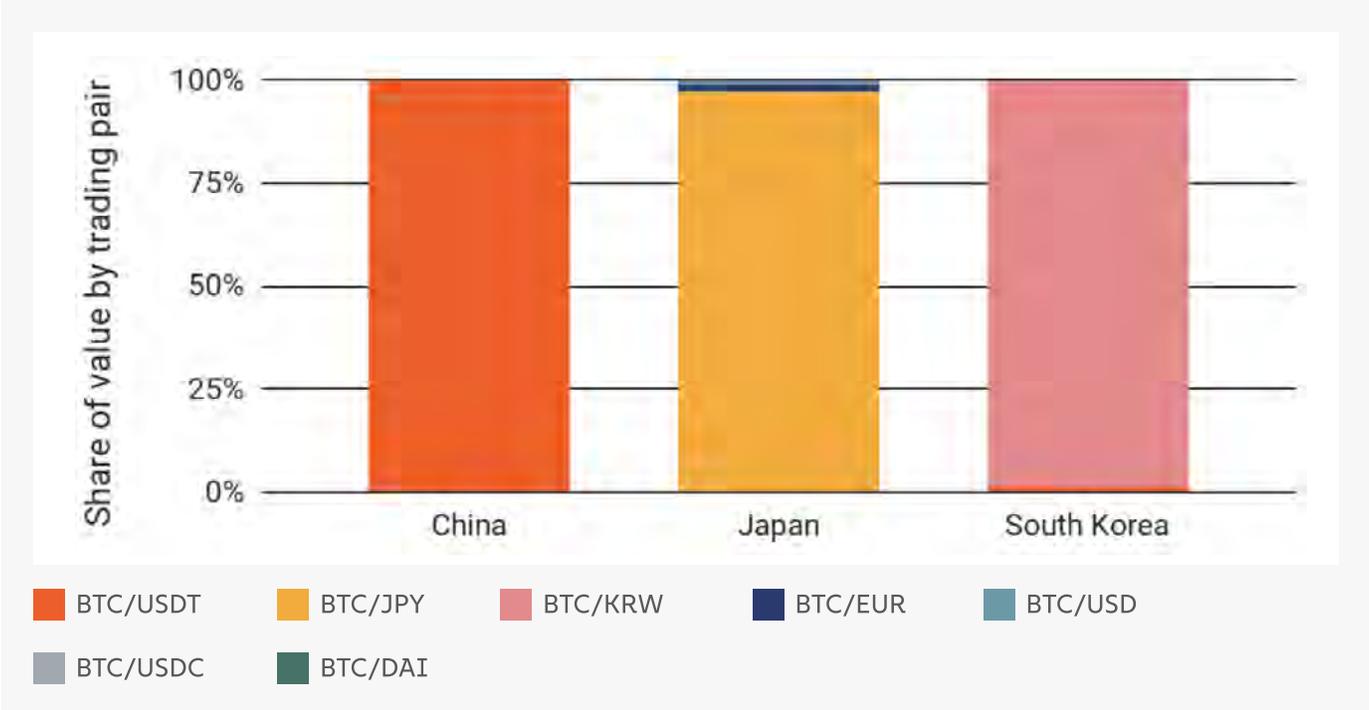
Currencies included: BUSD, DAI, GUSD, HUSD, PAX, PAXG, TGBP, TUSD, USDC, USDT



As **we discussed** in our 2019 APAC report, much of stablecoins' popularity in East Asia stems from the Chinese government's decision in 2017 to ban **direct exchanges** of yuan for cryptocurrency. As a result, Tether has become the de facto fiat stand-in for Chinese cryptocurrency users and primary means of on-ramping to Bitcoin and other standard cryptocurrencies. Though yuan-for-Tether trades are also not allowed under the ban, it's common for users to buy Tether under the table from OTC brokers or through other, quasi-legal means, such as by using a foreign bank account. By using Tether as a fiat stand-in instead of, say, Bitcoin, traders can lock in gains without off-ramping into fiat by simply converting other currencies into Tether and leaving the Tether in their wallet or exchange account. Bitcoin, by contrast, has too much price volatility for this to be feasible. We see this in the chart below, which compares the most popular fiat-crypto trading pairs (with Tether counted as a fiat currency) on exchanges in China, Japan, and South Korea.

Share of Bitcoin trading for fiat and stablecoins by country

| Jul '19 to Jun '20



Currencies included: BTC, DAI, USDC, USDT

Source: Kaiko

Paolo Ardoino, CTO of Tether discussed this phenomenon with us and said, "Tether tokens are neither a panacea nor a replacement for fiat. Instead use cases have organically grown where traditional financial assets have been found to be lacking. Tether tokens may not be best suited for buying coffees, but the fast settlement, deep liquidity, low fees and stable price associated with tethers have created unique opportunities for crypto traders,



remittances, lending products and safe havens for people in jurisdictions with less stable fiat currencies.”

While traders, specifically prop traders, represent Tether's primary use case, we have identified significant secondary use cases as well. Krishna Sriram at Quantstamp told us that ordinary users in emerging markets both in and out of East Asia use Tether as a means of value storage, as well as for cross-border remittances. As we'll explore in greater detail later, some of those international payments may represent capital flight from countries like China.

When we spoke to Dovey Wan about East Asia's outsized Tether usage, she agreed the yuan trading ban was a major factor, and also pointed out Tether's effectiveness for carrying out everyday transactions. “Tether has become a U.S. dollar replacement for many people in China. Lots of Chinese businesses and merchants, especially those working overseas, now accept Tether from customers,” she told us. Without knowing the cryptocurrency addresses of businesses accepting Tether for transactions, we can't know exactly how big this use case is today, though the evidence suggests most Tether volume moved is related to trading. But the fact that this use case appears to be developing organically for Tether speaks to stablecoins' potential as a medium of exchange.

However, all of this begs the question: Why Tether over any other U.S. dollar-pegged stablecoin? Wan indicated to us that many popular cryptocurrency influencers in China have historically been big proponents of Bitfinex, whose parent company also owns Tether. Many of those influencers became wholesalers of Tether, selling the stablecoin to a large network of OTC traders around China. Those OTC traders in turn sell Tether to the masses. “It's very decentralized,” says Wan. “There's usually one go-to OTC broker in each town, and they've played a big role in facilitating Tether's everyday use over the last year.”

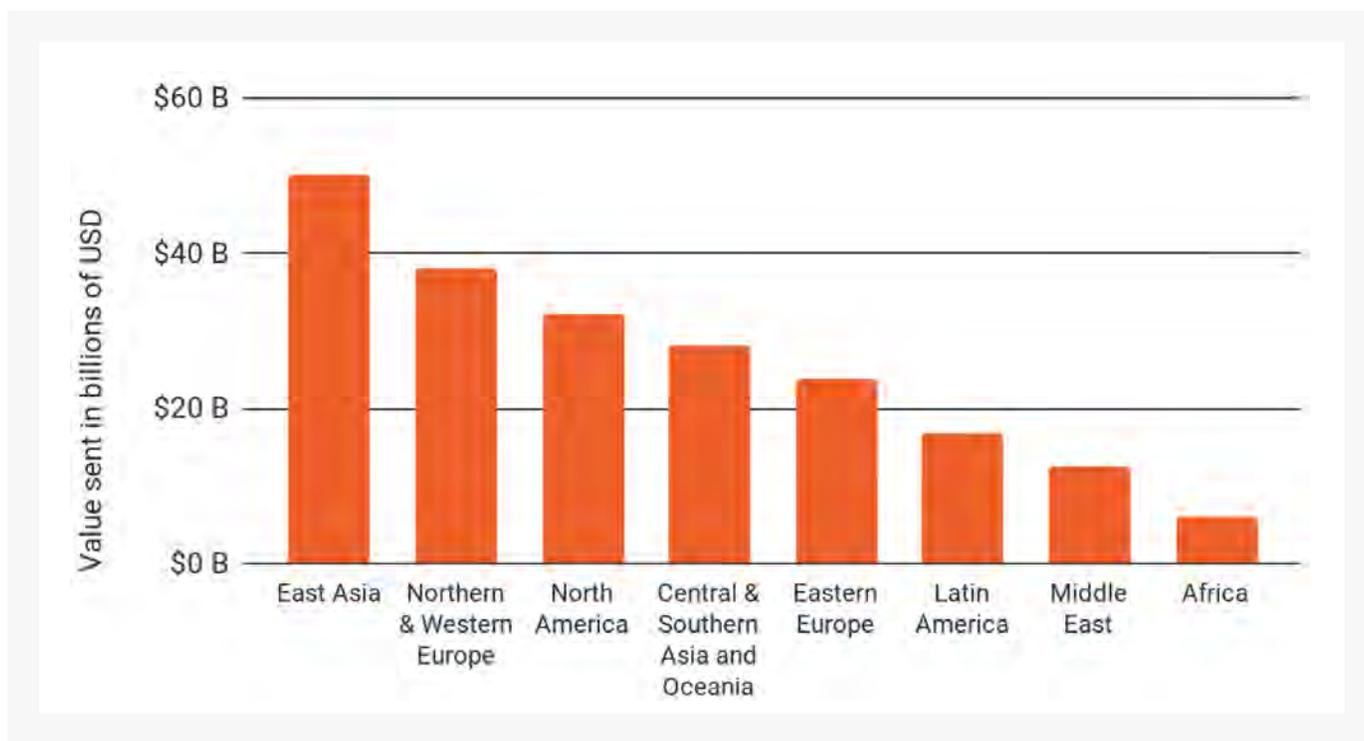


East Asia, led by China, trades heavily with other regions

East Asia is arguably the linchpin of the global cryptocurrency market. With 78% higher trading volume than the next closest region, it has liquidity to spare and sends more cryptocurrency around the globe than any other region, despite also having the highest proportion of trading that occurs within the region.

Let's look more closely at East Asia's relationship with other regions.

Value sent from East Asia | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

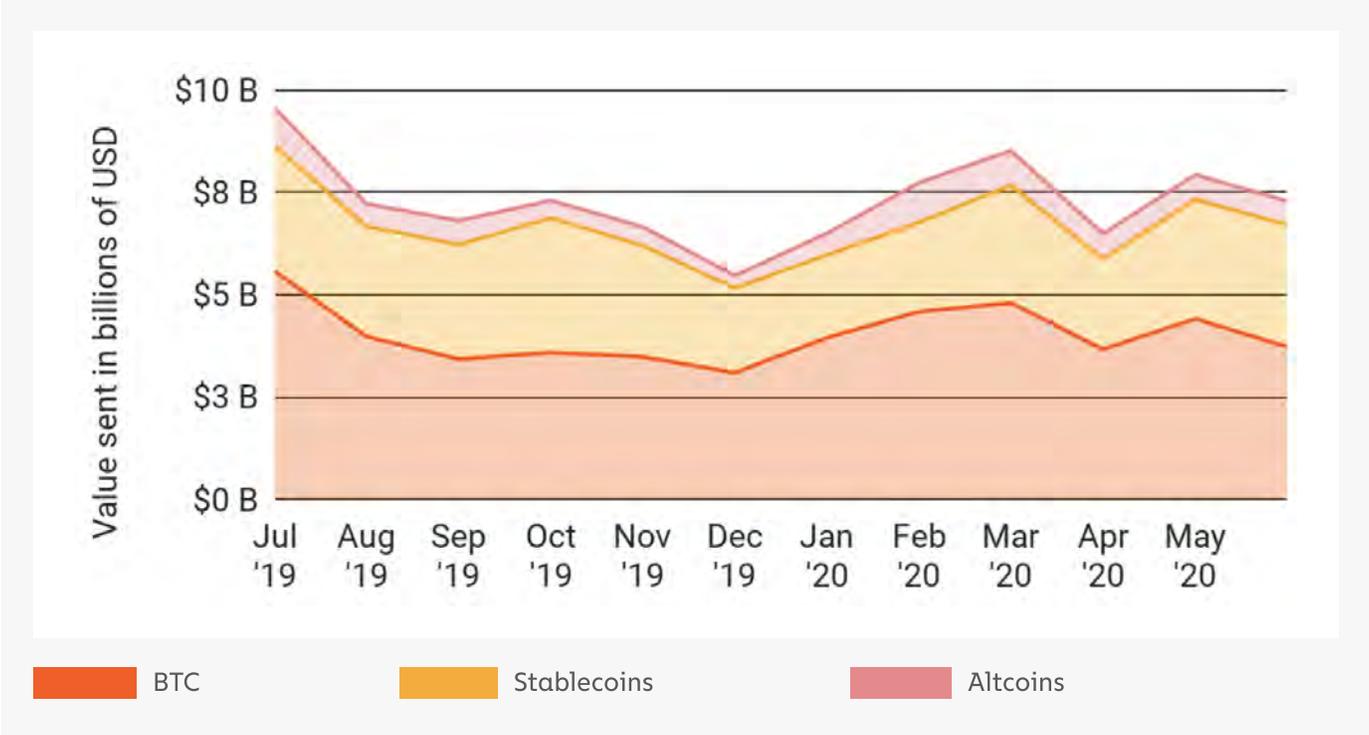
Despite having the highest proportion of domestic activity, East Asia still sends more cryptocurrency to foreign addresses than any other region. Over \$50 billion traveled from East Asia addresses to addresses in other regions, compared to just over \$38 billion for Northern & Western Europe, the region next in terms of value sent out of region. Some of this is undoubtedly related to East Asia's mining dominance – it makes sense that a significant share of the newly mined cryptocurrency coming from East Asia would go to North America and NWE, as these are the next-largest cryptocurrency markets. However, we believe that at least some of this activity represents capital flight from China.



The Chinese government only allows citizens to move the equivalent of **\$50,000 USD or less** out of the country each year. Historically, wealthy citizens have gotten around this through foreign investments in real estate and other assets – sometimes even using shell companies to carry out investments – but the government has cracked down on some of these methods. Cryptocurrency could be picking up some of the slack though.

Monthly value sent from East Asia to other regions by currency type

| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Over the time period studied, with China's economy suffering due to trade wars and devaluation of the yuan at different points, we've seen over \$45 billion worth of cryptocurrency move from China-based addresses to overseas addresses. Obviously, not all of this is capital flight, but we can think of \$45 billion as the absolute ceiling for capital flight via cryptocurrency from East Asia to other regions.

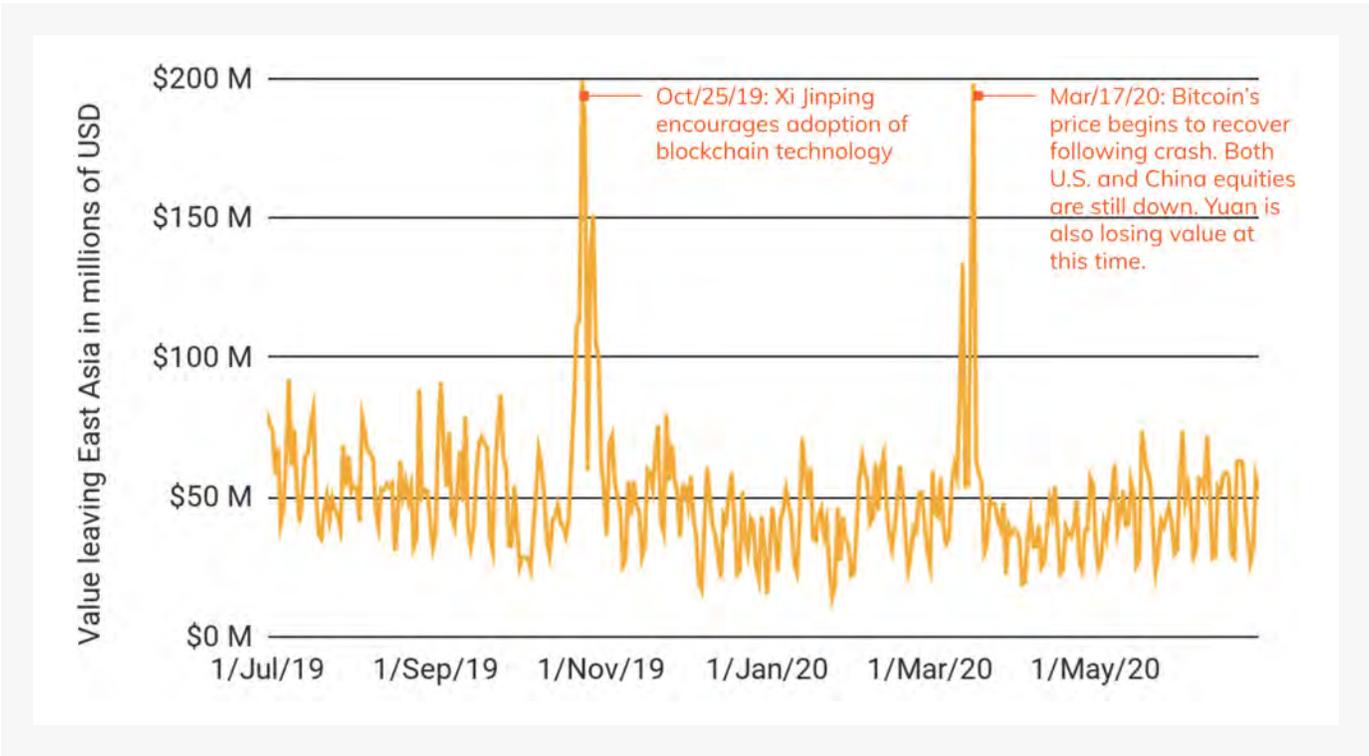
We also see above that stablecoins make up a significant portion of East Asia's cryptocurrency sent overseas. That isn't too surprising since, as we covered above, stablecoins – especially Tether – are disproportionately popular in East Asia compared to other regions. However, stablecoins are particularly useful for capital flight, as their fiat currency-pegged value means users selling off large amounts in exchange for their fiat currency of choice can rest assured that it's unlikely to lose its value as they seek a buyer.



Grayscale Director of Research Philip Bonello told us that anecdotally, users in many regions use stablecoins for capital flight, in addition to other forms of cross-border remittances. “Anecdotally, it appears that users in many regions use stablecoins to access US dollars for cross-border payroll, remittance, and capital flight from local currencies,” he told us.

Given stablecoins' conduciveness to capital flight, and the fact that Tether is by far East Asia's most popular stablecoin, we look below at the amount of Tether that has moved from East Asia addresses to foreign addresses over the time period studied.

Daily USDT flows out of East Asia | Jul '19 to Jun '20



Currencies included: USDT

In total, over \$18 billion worth of Tether has moved from East Asia addresses to those based in other regions over the time period studied. Again, it's highly unlikely that all of this is capital flight. Much of it is likely related to mining activity, as we've heard anecdotally that China-based miners or their counterparties often convert newly-mined coins into Tether before sending it on to larger exchanges serving more regions. But still, it's interesting that we see spikes in Tether volume moved overseas that appear to correspond with news events in China that have cryptocurrency-related implications. The first occurred around October 25, soon after Chinese President Xi Jinping gave the speech we previously referenced, in which he indicated China may soon launch its own national cryptocurrency. As Dovey Wan explained, this speech may have dampened China's cryptocurrency outlook somewhat, as it



implied that there may be fewer opportunities for cryptocurrency entrepreneurship and even private ownership of cryptocurrency. Perhaps this drove some of China's cryptocurrency community to move portions of their holdings overseas?

The second large spike occurred around March 17, a time when Bitcoin's price was **beginning to recover** after having dropped from around \$9,100 to under \$5,000 in the week preceding due to Covid-19 uncertainties. Equities in both the **U.S.** and **China** were still losing value at this time, as was the **yuan** itself. It's possible that the economic tumult may have prompted some capital flight from China, though much of the Tether movement could have been East Asia-based cryptocurrency traders moving their holdings to international exchanges in order to trade at a time when cryptocurrency price volatility was high.

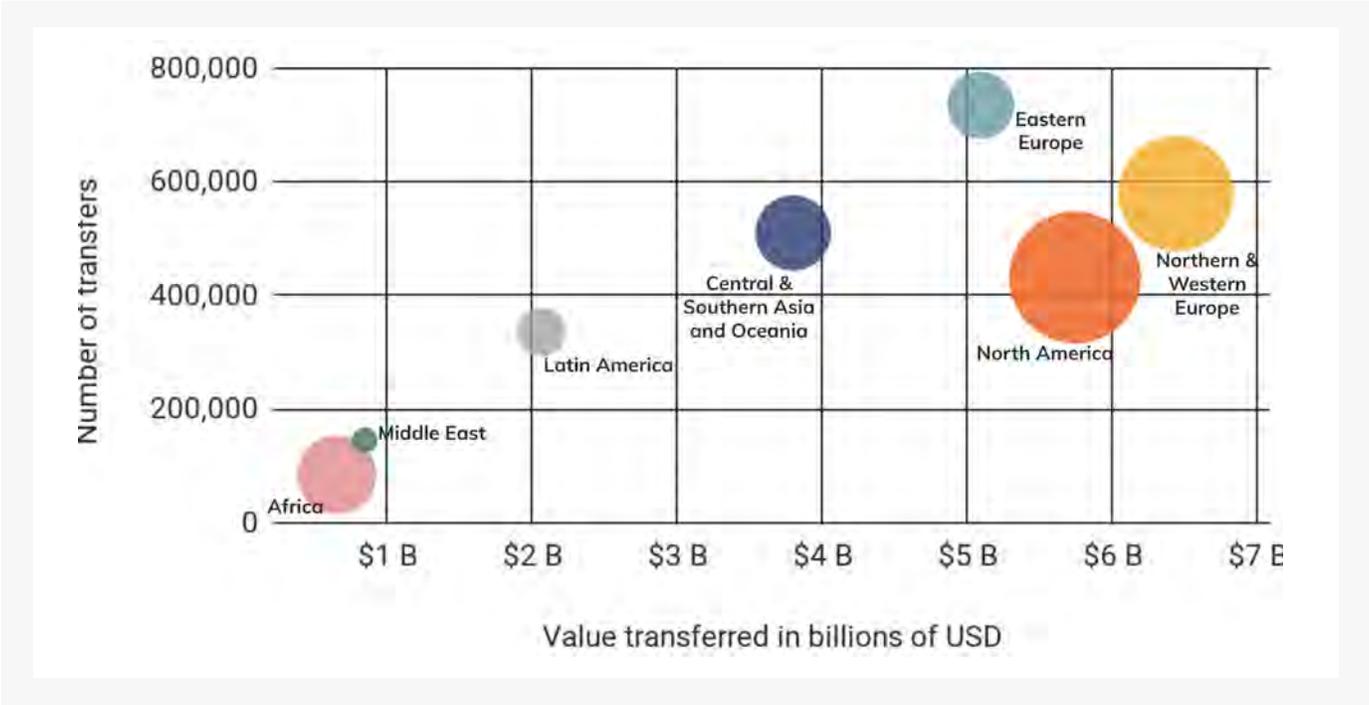
Of course, these spikes could also be related to trading arbitrage. Tether Chief Compliance Officer Leo Real told us that, while Tether's price is intended to remain constant at \$1 USD, it can sometimes fluctuate by a cent or two at times of high price movement in the wider cryptocurrency market. When this happens, traders will often sell huge volumes of Tether at the higher price for a profit. He also told us that Tether sometimes trades at different prices on exchanges serving different regions, and that some traders establish accounts at multiple exchanges to take advantage of these price differences for arbitrage. It's possible that such activity contributed to the two large spikes in Tether movement that occurred in the last year.

Ardoino of Tether clarified further how the currency's journey from issue to the wider market makes it difficult to track the relative commonality of Tether's potential use cases, adding, "Tether's minimum value threshold for transactions means that we attract institutional clients and high net worth individuals. Our direct clients are primary market participants who are incentivized to stabilize prices through arbitrage trading whenever the price oscillates in either direction, in response to market forces. In that sense, the ability of primary market participants to acquire tether tokens or redeem them for fiat on a 1:1 ratio creates a transparent, market driven stabilizing mechanism. Secondary market participants are not verified with Tether but use tether tokens for a myriad of reasons including trading, remittances, merchant services and other use cases."

East Asia's relationship with the Africa and Latin America markets is also interesting. While both are two of East Asia's smaller trade partners, East Asia is a huge source of cryptocurrency to both of them, as it's the largest sender to Latin America and the second-largest to Africa.



East Asia's total value, number of transfers, and average transfer size sent and received by counterparty region | Jul '19 to Jun '20



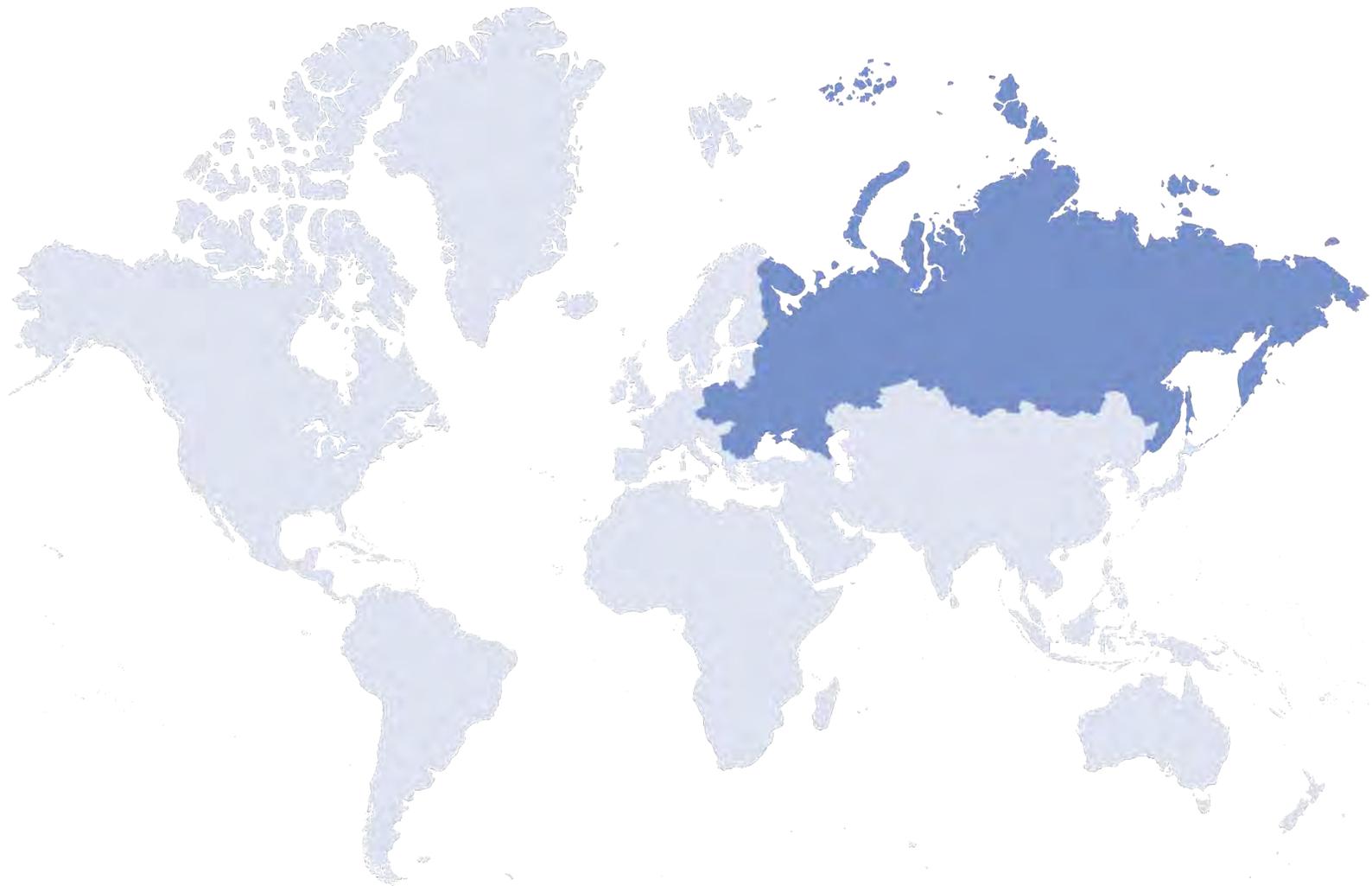
Currencies included: BTC

Bubble size denotes average transfer size

While some of the funds these regions receive from East Asia, especially in the case of Africa, represent remittances from expats, our interviews suggest that much of it also represents commercial transactions between Chinese businesses and their customers and partners in the region. Luis Pomata, co-founder of the Paraguay-based exchange Cripex, told us that many Latin American businesses use cryptocurrency to pay Chinese importers for goods they then sell. Ray Yousseff, founder and CEO of popular peer-to-peer (P2P) exchange Paxful, told us about similar business relationships in Africa.

In some cases, Chinese merchants living abroad are responsible for these transactions. Dovey Wan told us about Chinese cryptocurrency miners who set up shop in parts of Africa that offer cheap hydropower and send portions of their proceeds home regularly, as well as others in non-cryptocurrency businesses, such as gem mining, who do the same thing.

All of this goes to show how crucial East Asia is to the worldwide cryptocurrency economy. In the case of China, it's particularly interesting to think about these cryptocurrency trade relationships in the context of national projects like the **Belt and Road Initiative**, through which the Chinese government wants to expand its global influence by investing in infrastructure projects around the globe. Whether intended by the government or not, the data indicate that cryptocurrency may have a key role to play in advancing that goal.

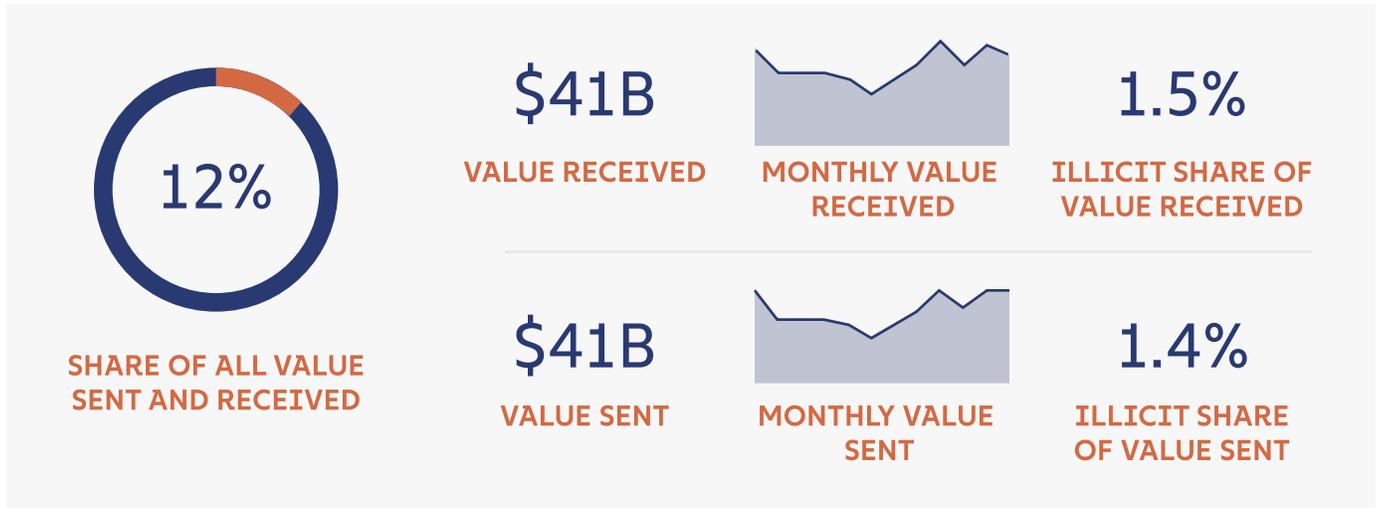


Eastern Europe

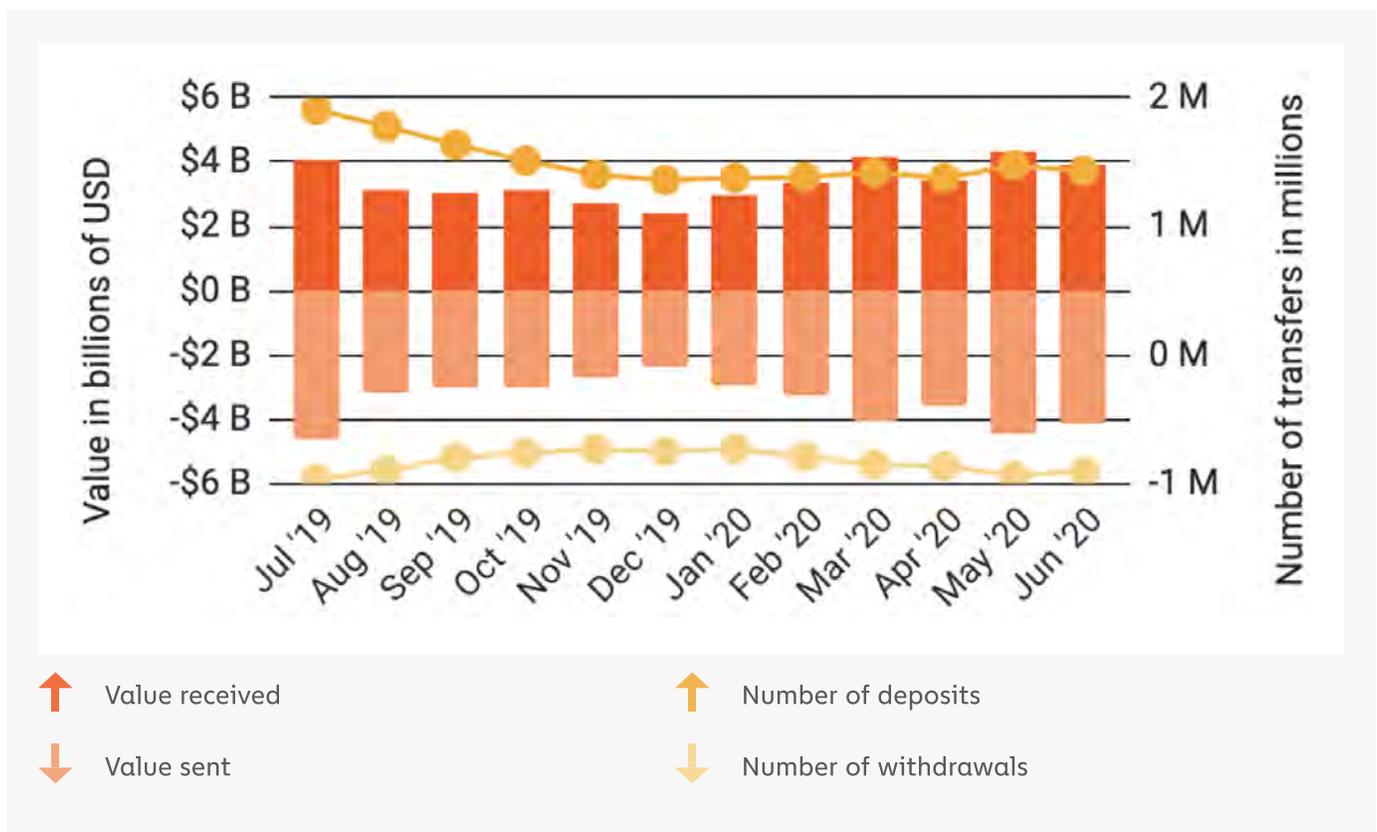
High Grassroots Adoption, Outsized Darknet Market and Ransomware Activity



Summary of Eastern Europe's cryptocurrency activity | Jul '19 - Jun '20



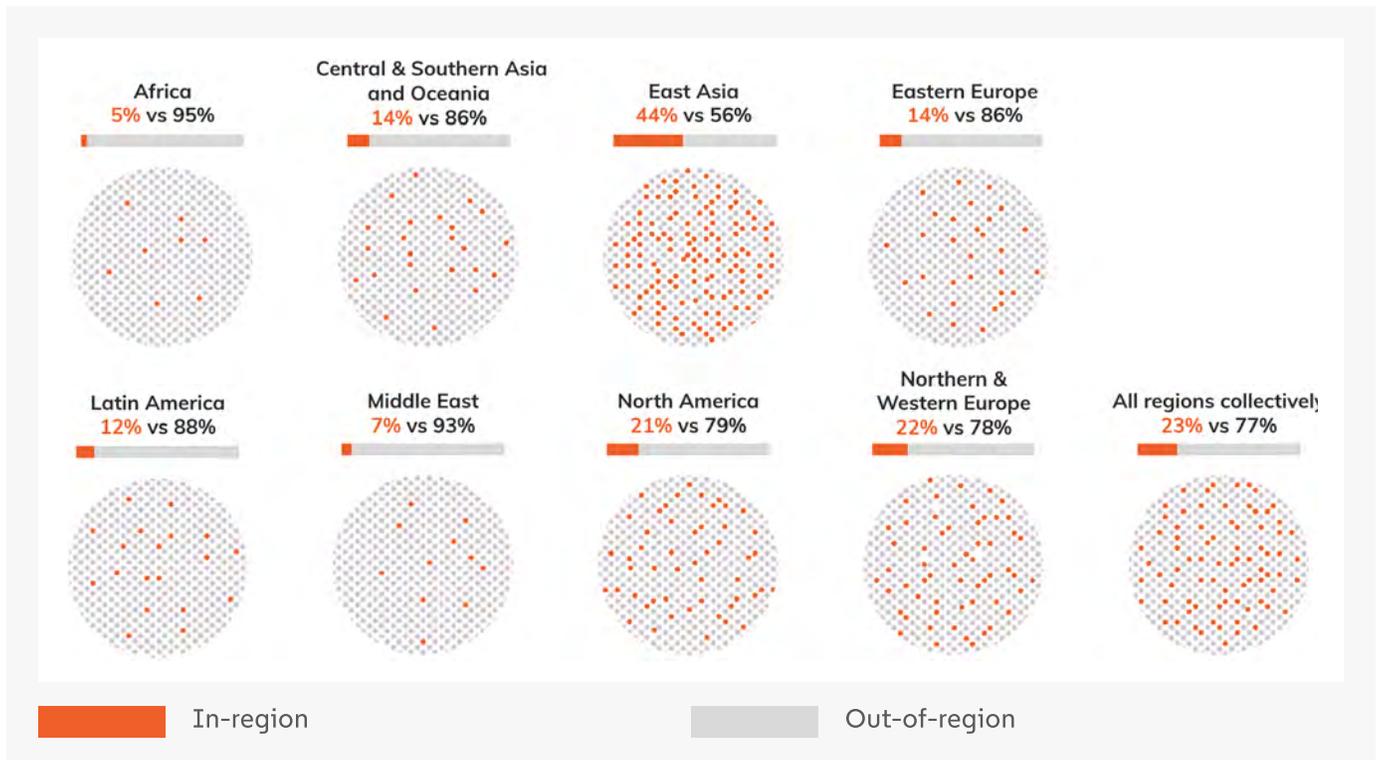
Value and transfers in and out of Eastern Europe | Jul '19 to Jun '20



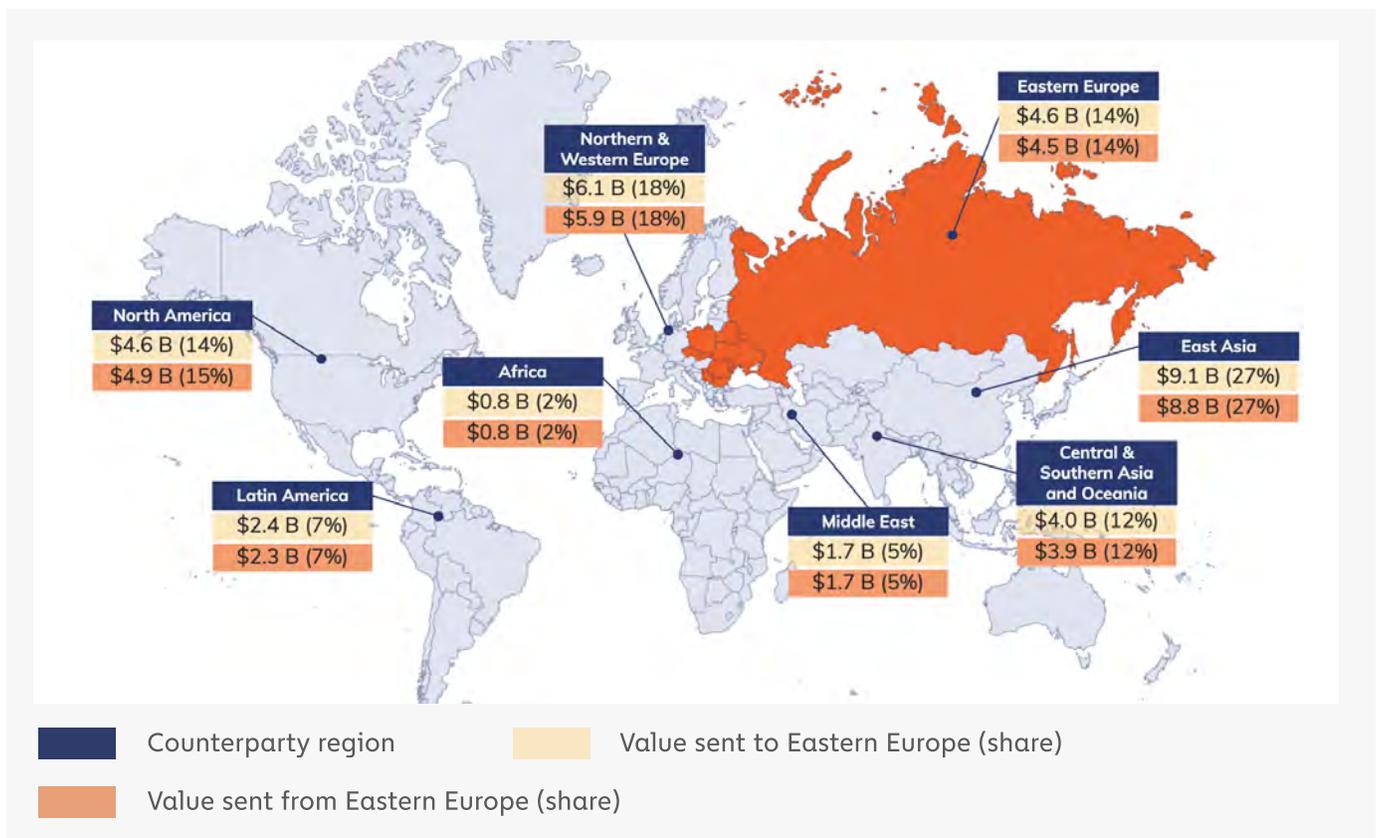
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



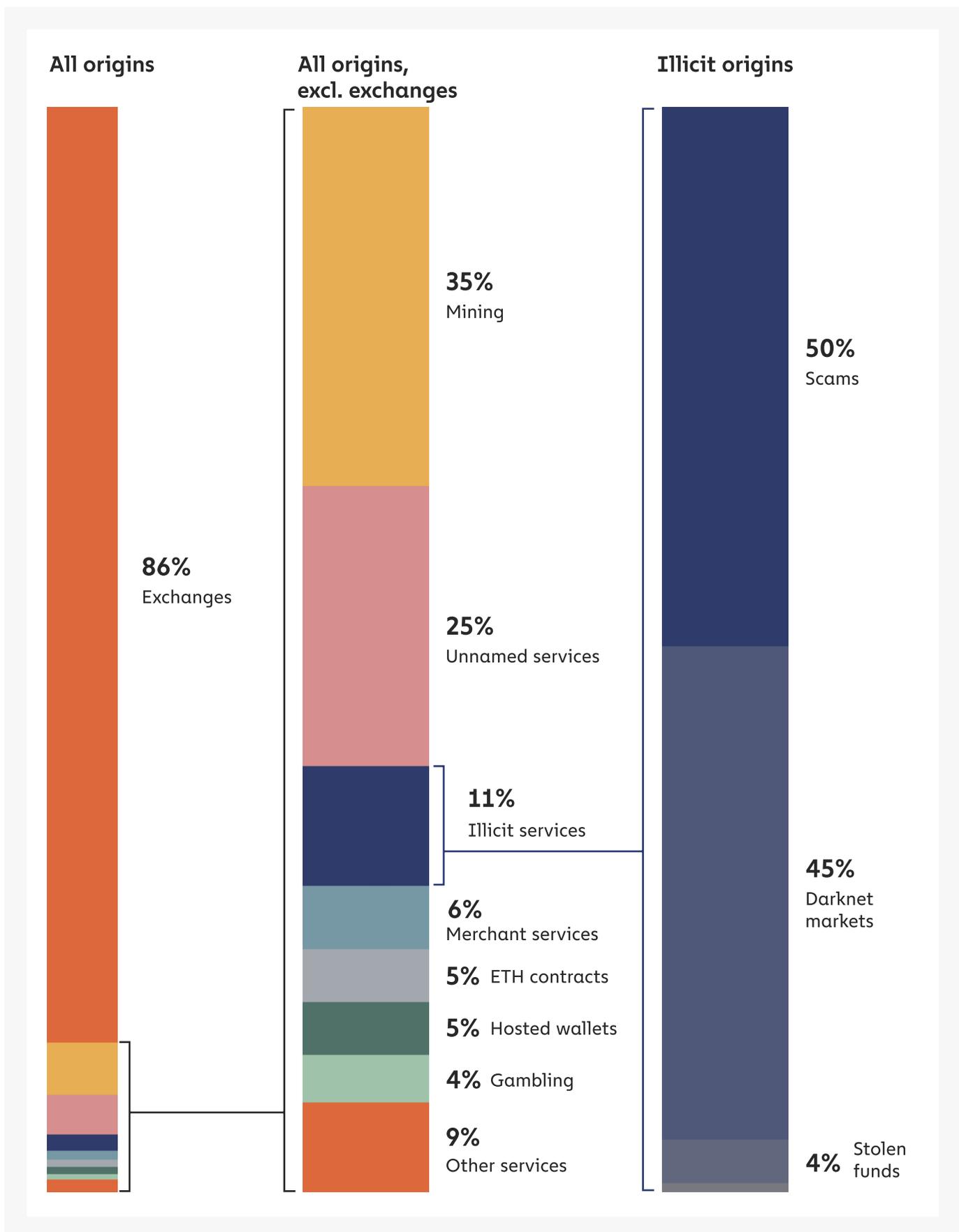
Eastern Europe's regional counterparties by volume | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



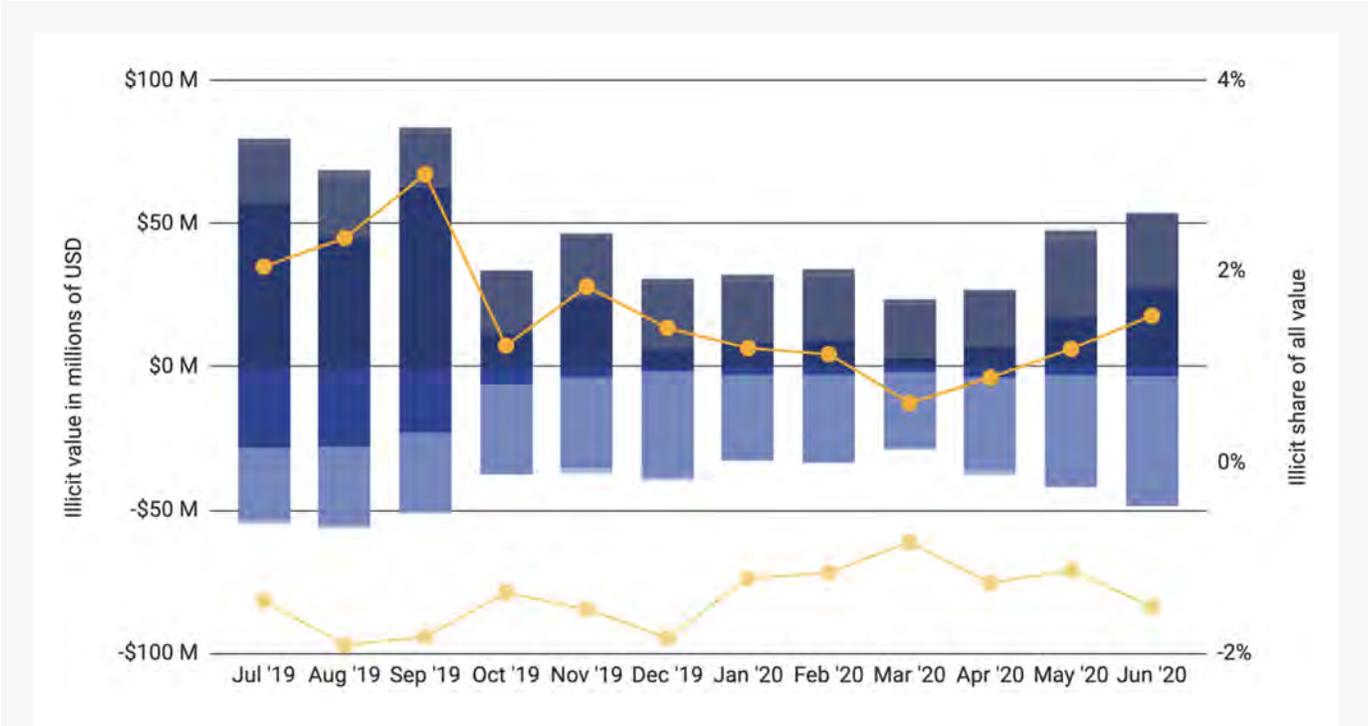
Origin of value sent to Eastern Europe | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Eastern Europe | Jul '19 - Jun '20



- VALUE SENT TO EASTERN EUROPE:** Scams, Darknet markets, Stolen funds, Other illicit services
- VALUE SENT FROM EASTERN EUROPE:** Scams, Darknet markets, Stolen funds, Other illicit services
- Illicit share of all value received** (Yellow line)
- Illicit share of all value sent** (Orange line)

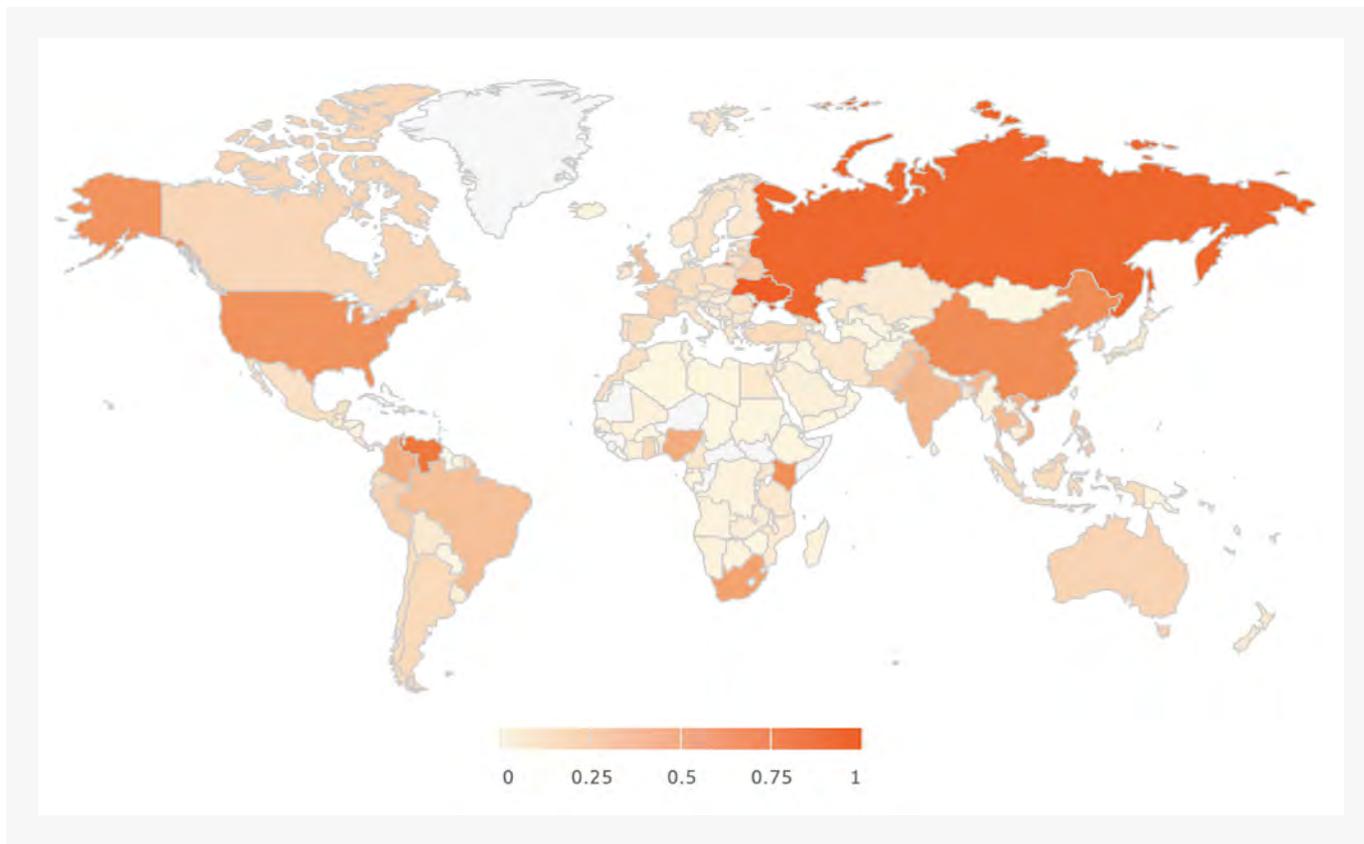
Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

While Eastern Europe may only have the fourth-largest cryptocurrency market by transaction volume of all the regions we analyze, it also has the first and second-ranked countries on our Global Crypto Adoption Index: Ukraine and Russia.



The Crypto Adoption Index | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

How is this possible? Remember, our Adoption Index accounts for a country's population and wealth in addition to pure market size, as the goal is to highlight the countries with the highest grassroots adoption by everyday users. Russia and Ukraine top the list because they have disproportionately high cryptocurrency usage across all components of the index, indicating that a larger share of residents have shifted more of their financial activity to cryptocurrency than residents of other countries.

Below, we'll explore why that is, look at trends in Eastern Europe's trading activity, and analyze the unique landscape of cryptocurrency-related crime in the region.



Ukraine and Russia lead the world in cryptocurrency adoption

Eastern Europe shows strong grassroots-level adoption of cryptocurrency, with Ukraine and Russia ranking first and second respectively in our Global Crypto Adoption Index. Belarus, also located in Eastern Europe, comes in at 19th.

Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Ukraine	1	1	4	4	7	11
Russia	0.931	2	7	8	5	9
Belarus	0.241	19	42	44	25	12

In the 12-month period studied, we estimate that Russia has sent over \$16.8 billion USD worth of cryptocurrency and received \$16.6 billion, while Ukraine has sent \$8.2 billion USD and received \$8.0 billion. While those numbers are much lower than the amounts we see for China, the US, and other leading countries, they indicate a much higher level of adoption when we consider the size of both countries' populations and economies. Our index also factors in two other on-chain metrics as well as peer-to-peer trade (P2P) volumes. Belarus, for example, ranked third in the region and 19th overall largely because of its strong P2P activity. Neither Ukraine nor Russia ranks first in terms of the four individual metrics in the index, but they outperform many countries in terms of consistently ranking among the top ten to eleven countries for those metrics.

Why do we see such high adoption in Russia and Ukraine? There are a few possible reasons.

One is the widespread lack of public trust, with a [recent survey](#) from public relations firm Edelman placing Russia dead last in public trust in government, business, and media. [Bribery, cronyism, and other forms of corruption](#) are common in [both countries](#), and it's common knowledge that funds can be seized from businesses and private citizens who find themselves out of favor with government officials. Banks in particular face a lack of trust, with one [recent study](#) from the Herald of the Russian Academy of Sciences finding that 56% of Russians don't trust banks, with much of the negative sentiment stemming from the nation's economic crises in the 1990s. Ukraine has also seen its citizens' [trust in banks diminish](#) following the collapse of several prominent ones in the country over the last decade. Distrust of banks and/or government financial policy famously inspired many of the original proponents of Bitcoin, and we believe it could also be fueling outsized adoption of cryptocurrencies in Russia, Ukraine, and other parts of Eastern Europe.



In addition, consumers in both countries have a pre-existing familiarity with electronic payments and e-money that may have made cryptocurrency adoption easier. A 2014 poll from a UK-based retail shopping trade organization, for instance, found that **46% of internet users in Russia** regularly used e-money for online purchase, mostly through platforms like Yandex, WebMoney, and Qiwi. For comparison, as of 2019, even as electronic payments offerings have become more robust, just **26% of American consumers** report electronic payments as their first choice for online purchases.

Roman Sannikov, Director of Cybercrime and Underground Intelligence at cybersecurity provider **Recorded Future**, told us more about the unique payments landscape in Russia specifically. "The banking industry in the Eastern Block did not develop the same way it did in the West. Particularly, the process of transferring funds between accounts and overseas was particularly problematic because much of the infrastructure was simply not there," he said. "As a result, a lot of homegrown and unofficial methods were created to move funds. Even before the use of cryptocurrencies, there were other financial instruments such as vouchers and hawala type exchanges. Many of these had very limited know-your-customer standards, if any, and allowed for rampant money laundering, and capital flight." Payments systems developed in Russia following the Cold War allowed for significant financial crime. This may also be one reason behind the unique role crime plays in Eastern Europe's cryptocurrency economy, as we'll explore later.

Finally, there may be a remittances use case for cryptocurrency in Ukraine and other Eastern European countries. Peter Toth, co-founder of **Block Unison**, a Slovakia-based software development studio providing blockchain-focused engineering as part of **Hotovo Group**, told us more about it. "Many Ukrainians are migrating to neighboring countries within Eastern Europe like Slovakia in the last couple of years, and are using cryptocurrencies to send funds back to friends and family at home," said Toth.

High cryptocurrency adoption in both countries has come amidst regulatory uncertainty. Ukraine currently has no cryptocurrency regulations, though its lead financial intelligence unit (FIU) **began monitoring** cryptocurrency activity in the country in April and its parliament is currently drafting the country's first cryptocurrency laws. Russia, on the other hand, has sent mixed signals on cryptocurrency's legal status. Though President Vladimir Putin recently **signed the country's first cryptocurrency law** giving virtual assets legal recognition in the country, Russia's parliament also recently passed a new measure banning deposits to anonymous online wallets, affecting users of both cryptocurrencies and popular e-money services. While some experts don't believe the anonymous wallet ban will end up affecting cryptocurrency usage, it calls into question the Russian government's overall stance on the technology. However, if Russia and Ukraine write and enforce fair, reasonable cryptocurrency regulations, it could mean adoption will continue to grow.

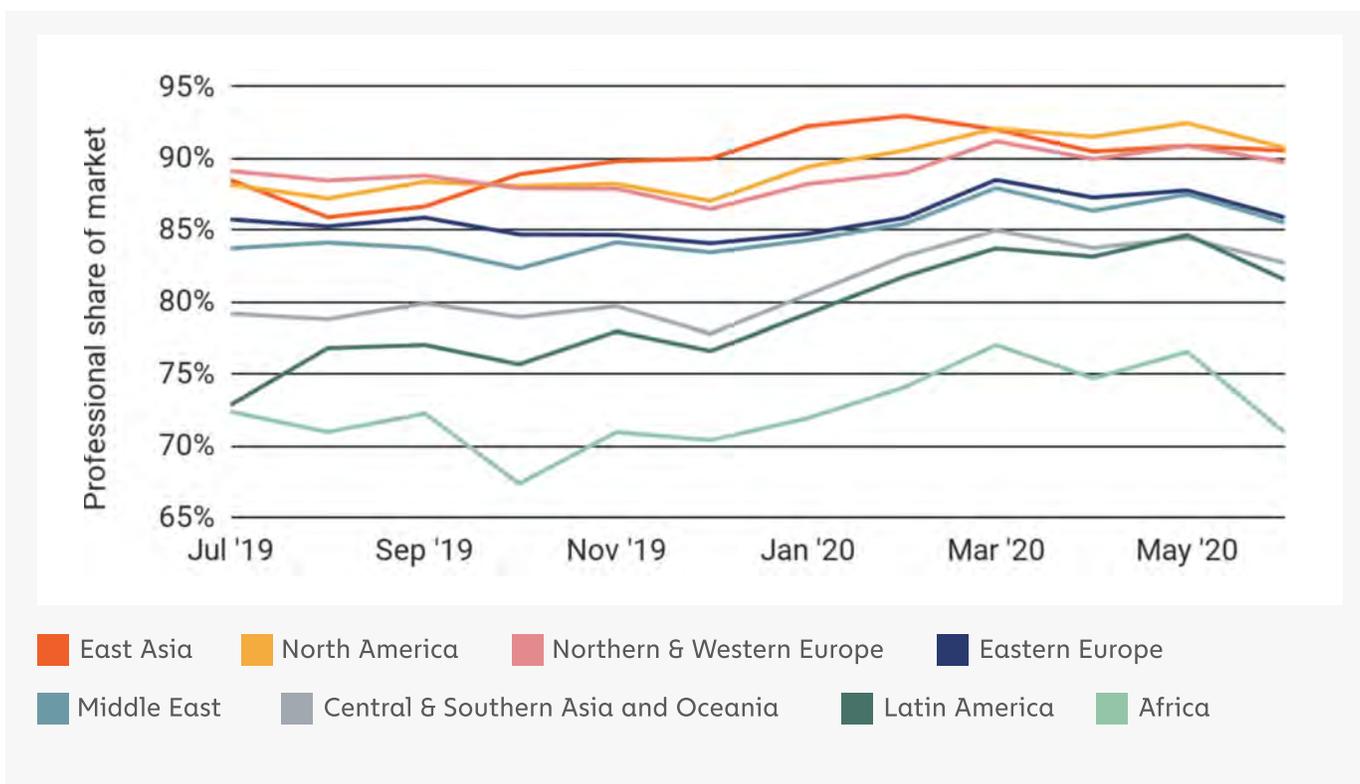


Popular services and cryptocurrency trends in Eastern Europe

Like other regions with large cryptocurrency markets, most of Eastern Europe's cryptocurrency activity is driven by the professional market.

Professional share of cryptocurrency volume received by region

| Jul '19 to Jun '20



Currencies included: BTC

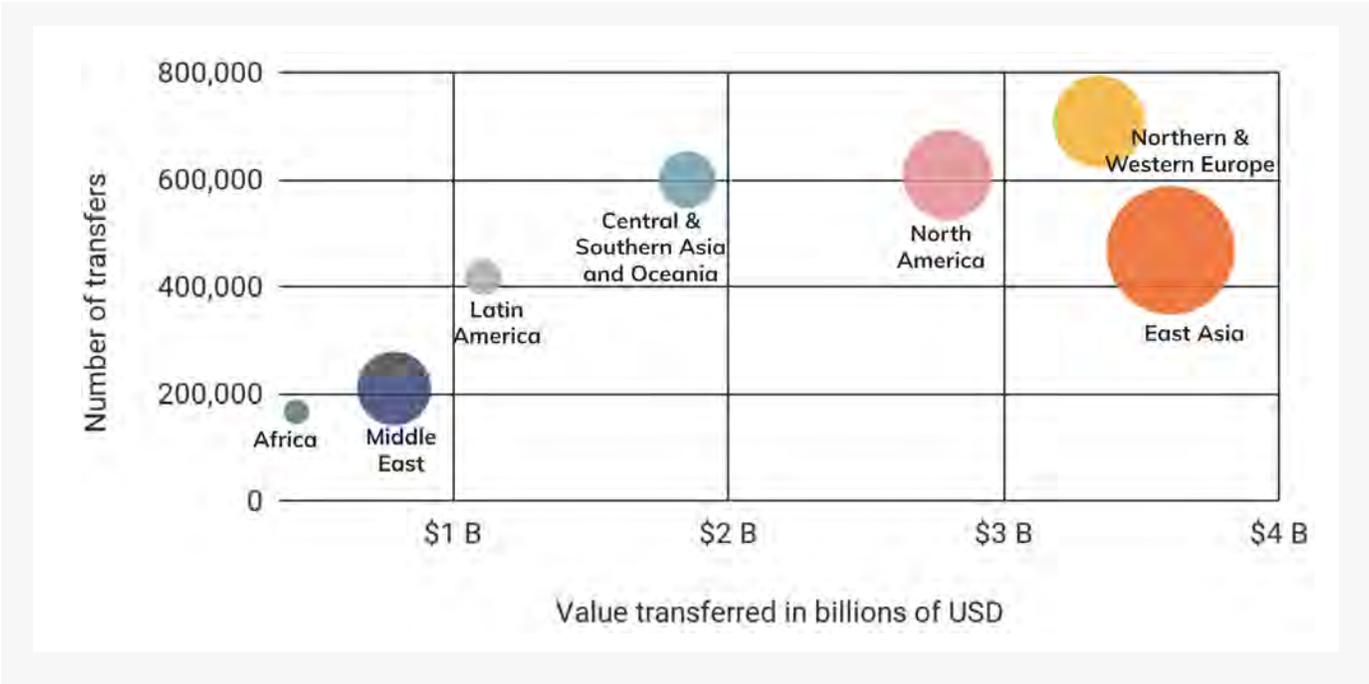
Roughly 85% of all Eastern European transaction volume in the 12-month period we study is made up of professional-sized transfers of over \$10,000 worth of cryptocurrency. Though institutional investment in cryptocurrency in Eastern Europe hasn't yet reached the level of other regions like North America and Northern & Western Europe (NWE), some asset managers in the region have given the new asset class a shot. One example is [ITI Funds](#), which launched a \$70 million cryptocurrency fund in 2019 focused on both cryptocurrencies themselves and investments in early-stage industry projects. ITI also claims to have built a cryptocurrency investment platform with built-in compliance measures in an effort to attract dollars from other institutional investors.



P2P exchanges also appear to be gaining traction in Eastern Europe and in Russia in particular, where high P2P trading volumes contribute greatly to the country's high ranking on our Global Crypto Adoption Index. Representatives from popular P2P exchange Paxful said in late July 2020 that its Russian user base has **grown 350%** over the course of the Covid-19 pandemic, with the exchange's Russia market manager attributing much of the success to a lack of other compelling investment options offered by the country's "monolithic banking system...dominated by a few players." According to him, cryptocurrency presents Russian users with a new means of growing their earnings and participating in financial markets.

Eastern Europe's regional counterparties also resemble those of other regions, with East Asia leading the way, followed by NWE and North America.

Eastern Europe's total value, number of transfer, and average transfer size sent and received by counterparty region | Jul '19 - Jun '20



Currencies included: BTC

Bubble size denotes average transfer size

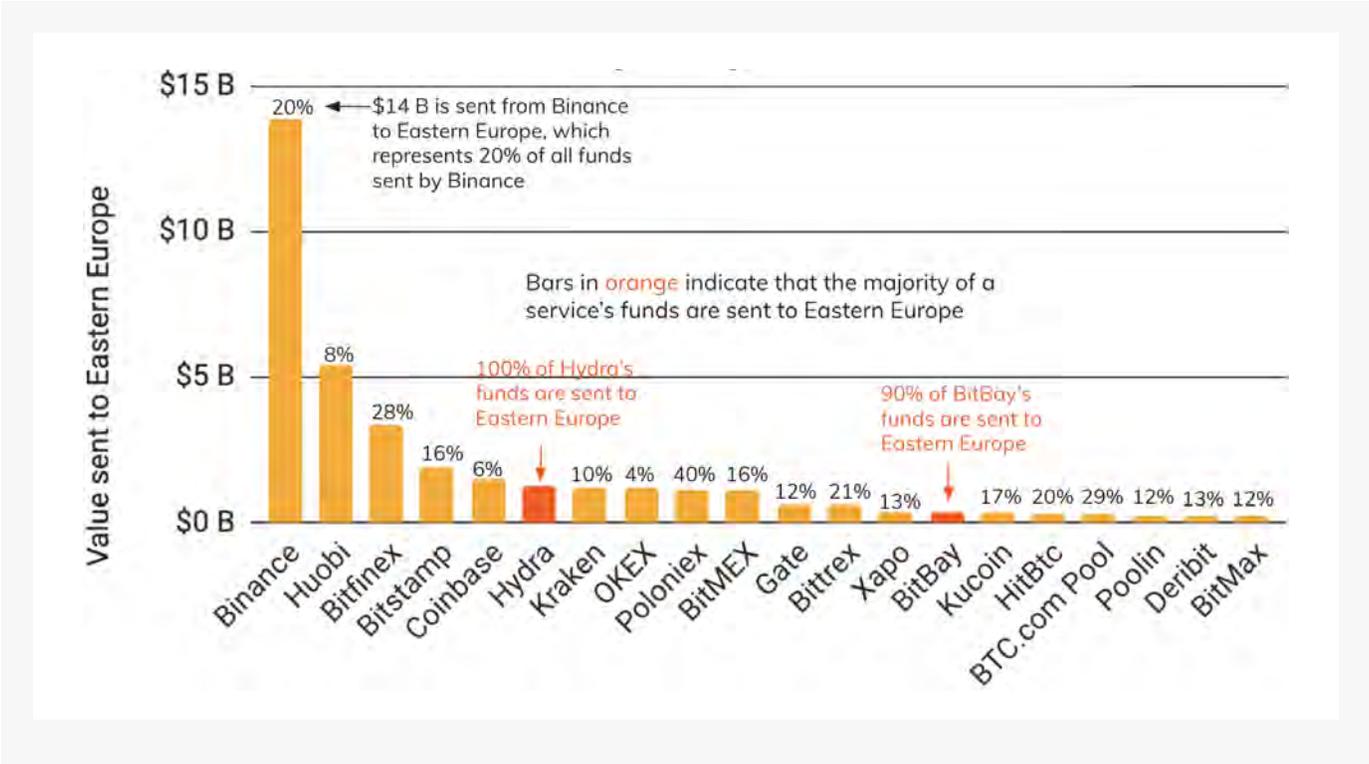
Some of the volume moving between Eastern Europe and East Asia likely represents Chinese merchants operating in the region sending funds home, a dynamic we also observe in Africa. In fact, a **recent report from Coindesk** claims that these merchants are buying up to \$30 million worth of Tether per day from Russian OTC desks for this purpose. Historically, China has strong trade relationships with **Russia, Belarus**, and other countries in the region, though



we're unable at this time to verify if cryptocurrency is being used to facilitate commercial transactions between businesses in China and Eastern Europe, as we see in other regions like Latin America.

However, where Eastern Europe sets itself apart is in the specific services and types of services that account for most of its cryptocurrency activity.

Top 20 services by value sent to Eastern Europe | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Above, we see the cryptocurrency services sending the highest volume of funds to Eastern European addresses, along with the percentages of those services' total transaction volume that Eastern Europe accounts for. A few things stand out. Unsurprisingly, most of the top services interacting with Eastern Europe addresses are large exchanges. However, what's interesting is that Eastern Europe makes up a small share of those exchanges' overall activity. This isn't the case for other regions. East Asia, for instance, has lots of cryptocurrency activity concentrated on Huobi, OKEX, and Bithumb, and accounts for 52%, 80% and 96% of the platform's total activity, respectively. Similarly, North America has



exchanges like Coinbase and Gemini in its top ten services for the region, and accounts 46% and 82% of each platform's respective total activity. However, most of Eastern Europe's cryptocurrency transaction volume goes through services that cater primarily to other regions. We believe this is likely a function of the lack of regulatory clarity with regards to cryptocurrency in Russia and Ukraine. Both countries drive most cryptocurrency transaction volume in Eastern Europe, but it's possible entrepreneurs in Russia and Ukraine shied away from starting cryptocurrency businesses since cryptocurrency did not have legal status in Russia until very recently, and still doesn't in Ukraine.

The one exception to the seeming lack of homegrown Eastern European cryptocurrency businesses with significant volume is the darknet market Hydra Marketplace. With over \$1.2B worth of cryptocurrency in revenue between June 2019 and July 2020, Hydra is one of the largest darknet markets in the world, despite the fact that it only serves vendors and buyers in Eastern Europe, with 100% of its transaction volume attributed to the region. Below, we'll explore the role that crime and illicit activity play in Eastern Europe's cryptocurrency economy.

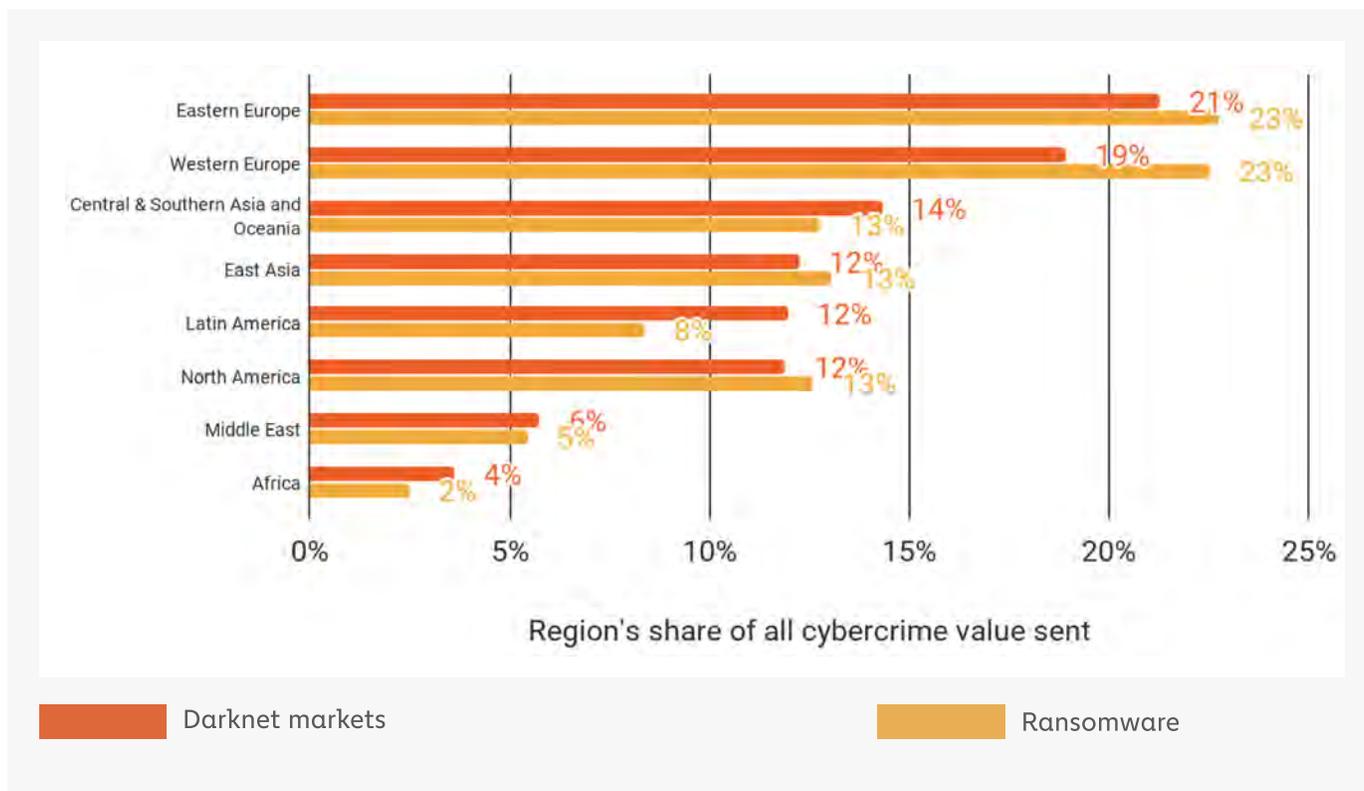


Darknet markets and ransomware drive crypto crime in Eastern Europe

With 1.4% of its \$41 billion in total transaction volume sent to illicit entities, Eastern Europe is second only to Latin America with 1.6% of its volume sent to illicit entities. Darknet markets account for most of Eastern Europe's illicit value sent in many months during the 12-month period studied, and on the whole account for the vast majority of sending activity, which would indicate a high volume of funds being paid out to darknet vendors in Eastern Europe from the markets themselves. In fact, Eastern Europe accounts for more global darknet market activity than any other region.

Share of darknet market and ransomware value sent to region

| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

As we mentioned previously, most of Eastern Europe's darknet market transaction activity occurs on Hydra Marketplace, which is the sixth-largest service by volume in the region — no other region has a darknet market or other illicit service in its top ten services. As one of the largest darknet markets in the world, Hydra has built out a complex drug delivery system in



Russia and other Eastern European countries, in which couriers receive delivery orders in a manner similar to Uber drivers and drop off packages in discrete locations broadcast to buyers later so that neither party ever has to see each other or make an in-person exchange. No other regions are comparable in terms of darknet market revenue or sophistication of operations.

Our data also shows that Eastern Europe leads the world in ransomware. The region accounts for more than 23% of funds received from ransomware addresses, indicating that Eastern Europe is home to the highest-earning ransomware network administrators and ransomware-as-a-service (RaaS) operators. While we can't say for sure why this is, **security researcher Brian Krebs attributes** the comparative hacking prowess of Russia specifically to the greater emphasis on computer science in youth education, estimating that more than double the number of Russian secondary school students take the country's national computer science test than American students do for their equivalent test. Higher prevalence of computer science education, combined with lower economic opportunity and, in some cases, **government sponsorship** of hacking activities, may explain why Eastern Europe accounts for such a high share of ransomware activity.



Latin America

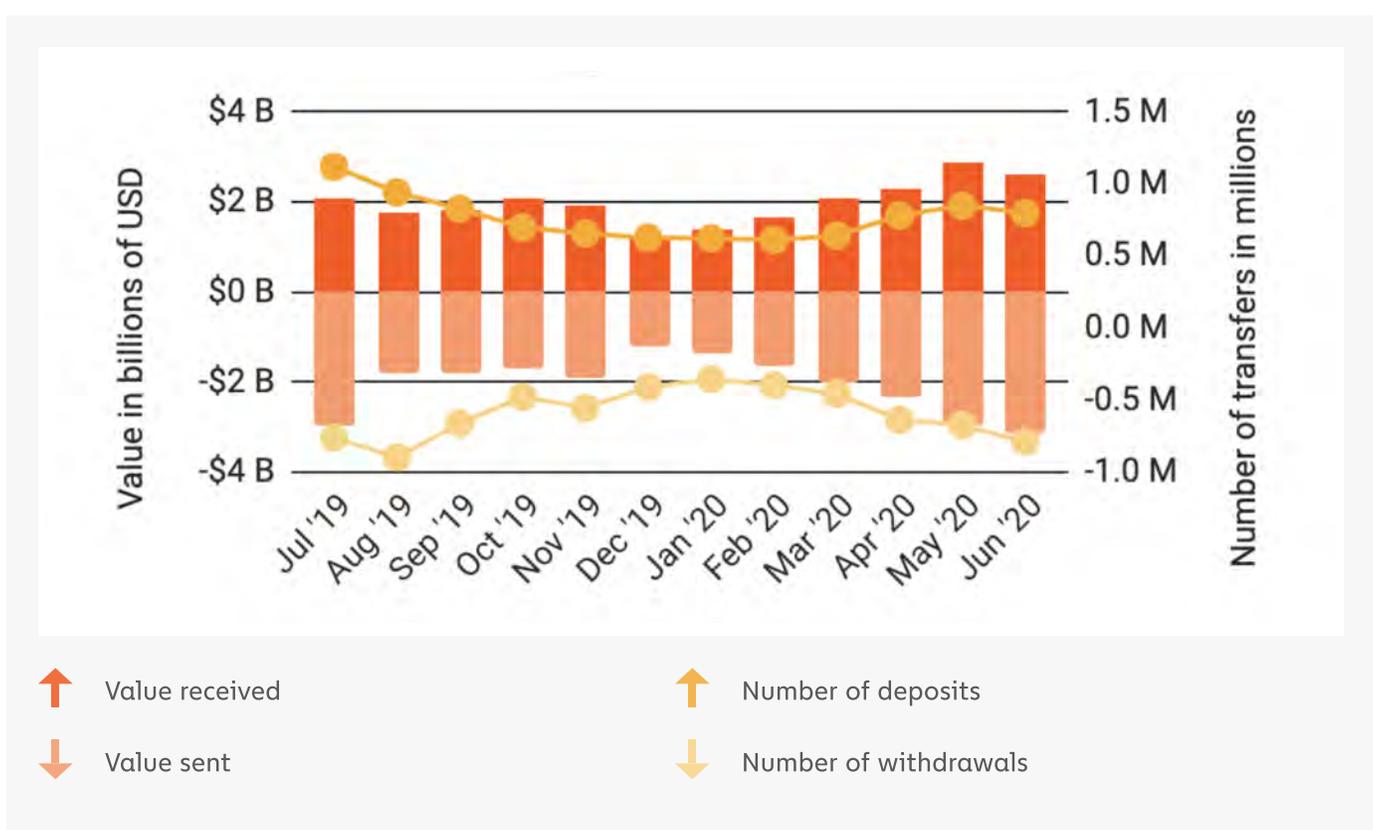
Latin America Mitigates Economic Turbulence
with Cryptocurrency



Summary of Latin America's cryptocurrency activity | Jul '19 - Jun '20



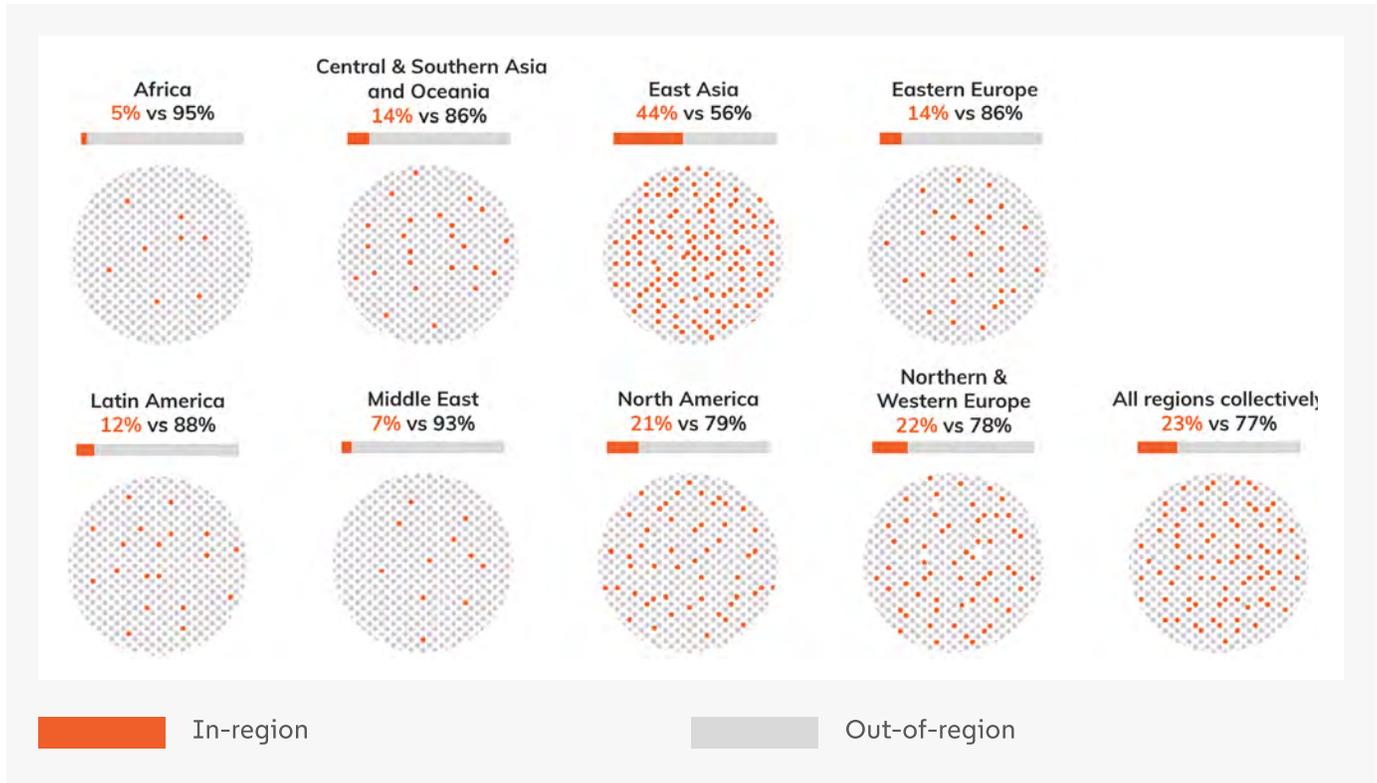
Value and transfers in and out of Latin America | Jul '19 to Jun '20



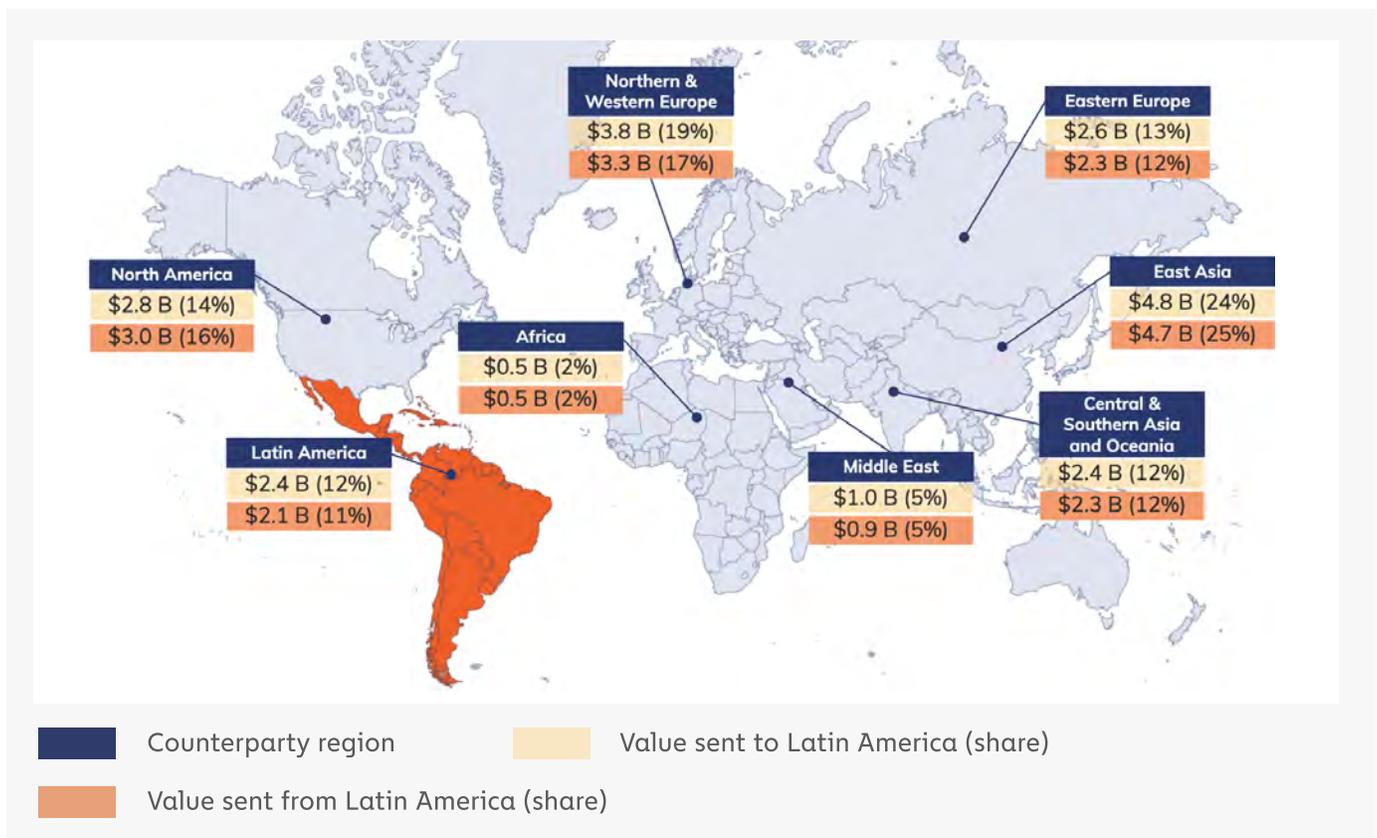
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



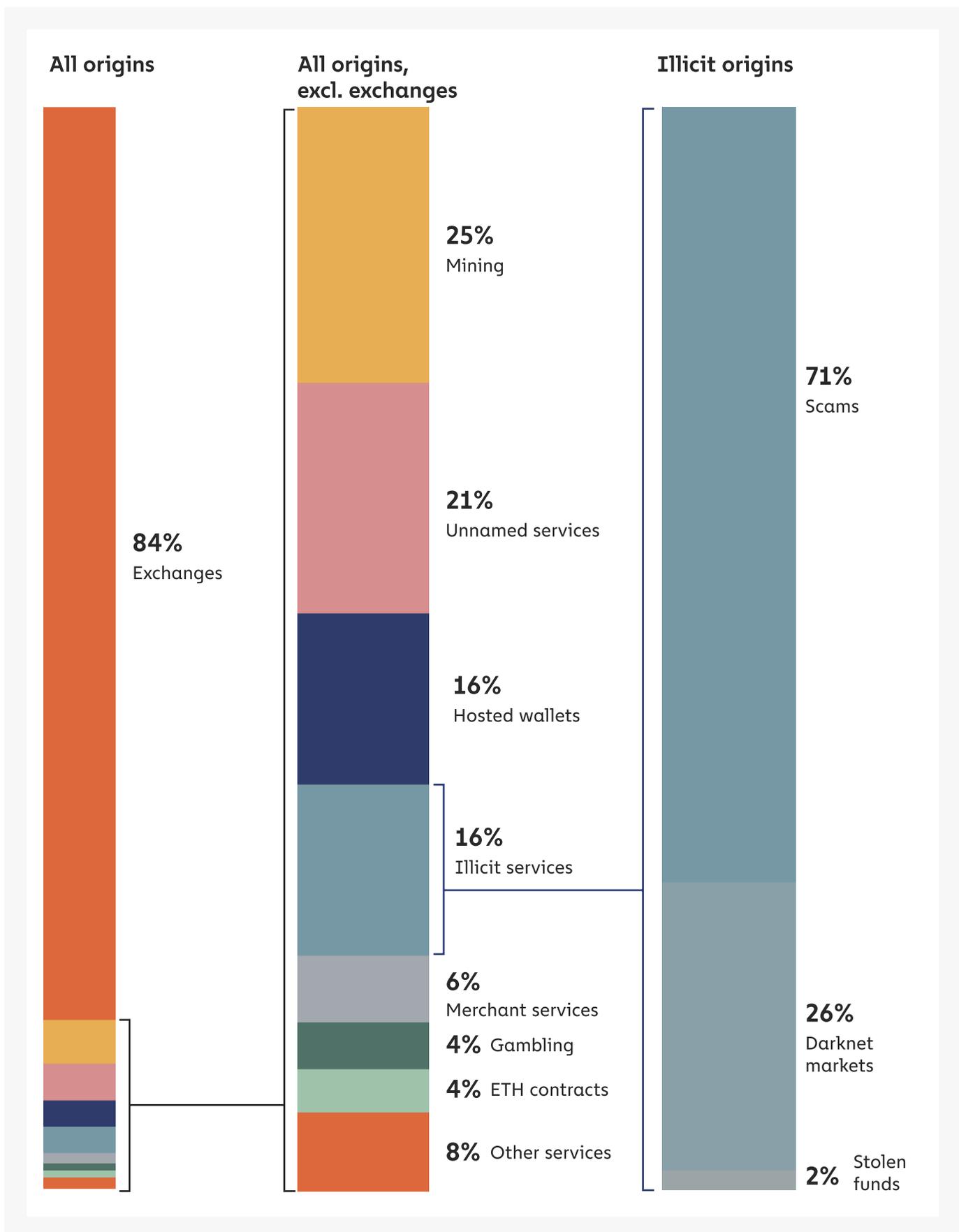
Latin America's regional counterparties by volume | Jul '19 to Jun '20



Currencies included for above charts: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



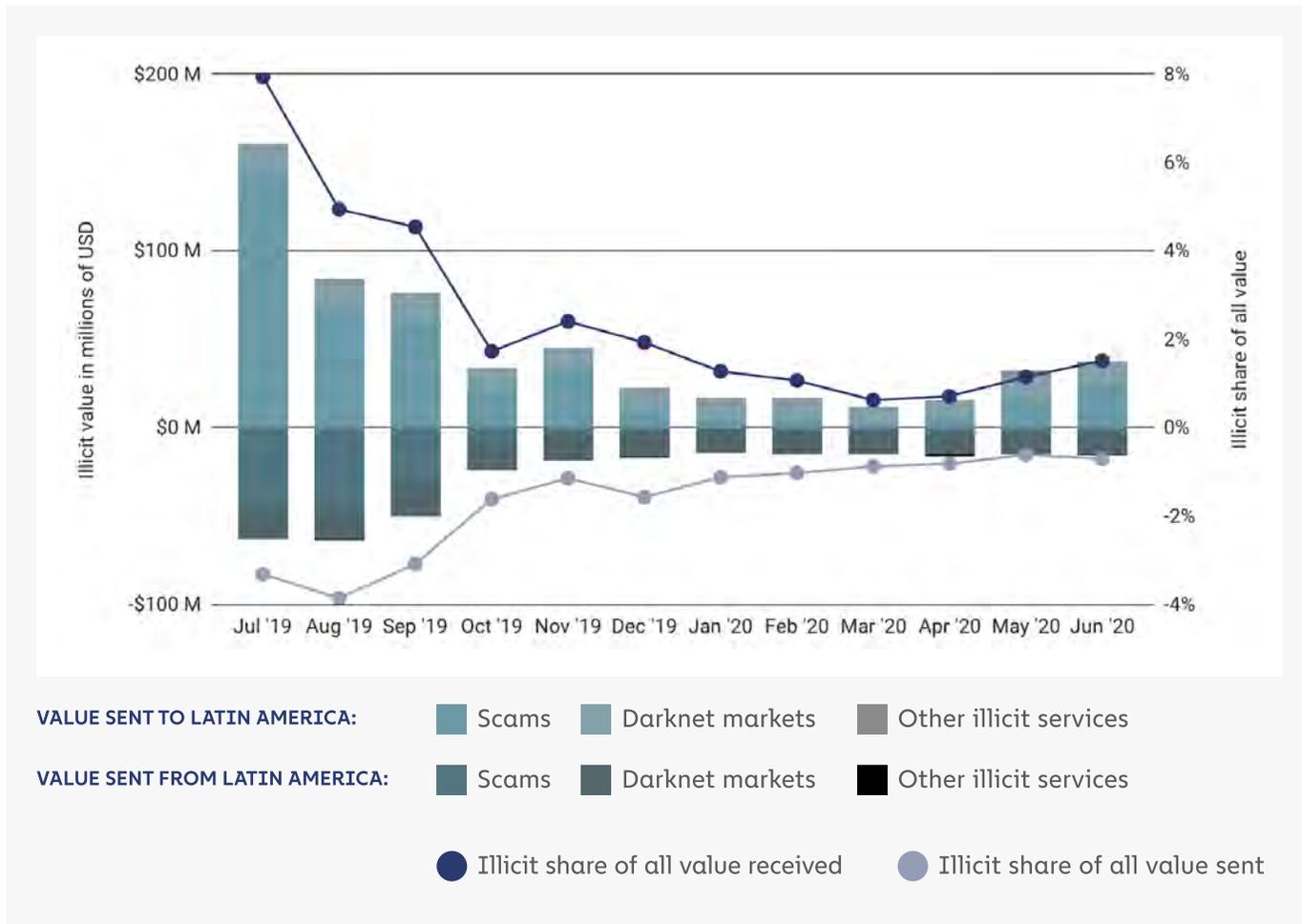
Origin of value sent to Latin America | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Latin America | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

With \$25 billion worth of cryptocurrency sent and \$24 billion received over the time period studied, Latin America has one of the smaller crypto economies by volume transacted, ahead of just Africa and the Middle East. The region represented between 5% and 9% of all cryptocurrency activity in any given month over the time period studied. Counterintuitively, Latin America's crypto economy has shown the second-lowest growth rate during that time period of any region we studied, despite being one of the **hottest markets** in the adjacent fintech industry. Despite this, our data, paired with interviews with experts in the region, reveals that some of the same factors fueling Latin America's fintech wave, such as banking access issues and the need for remittances, are driving unique patterns of cryptocurrency usage beyond the speculative investment common to other regions. These issues are even driving Latin American businesses – not just individuals – to carry out commercial transactions with cryptocurrency.

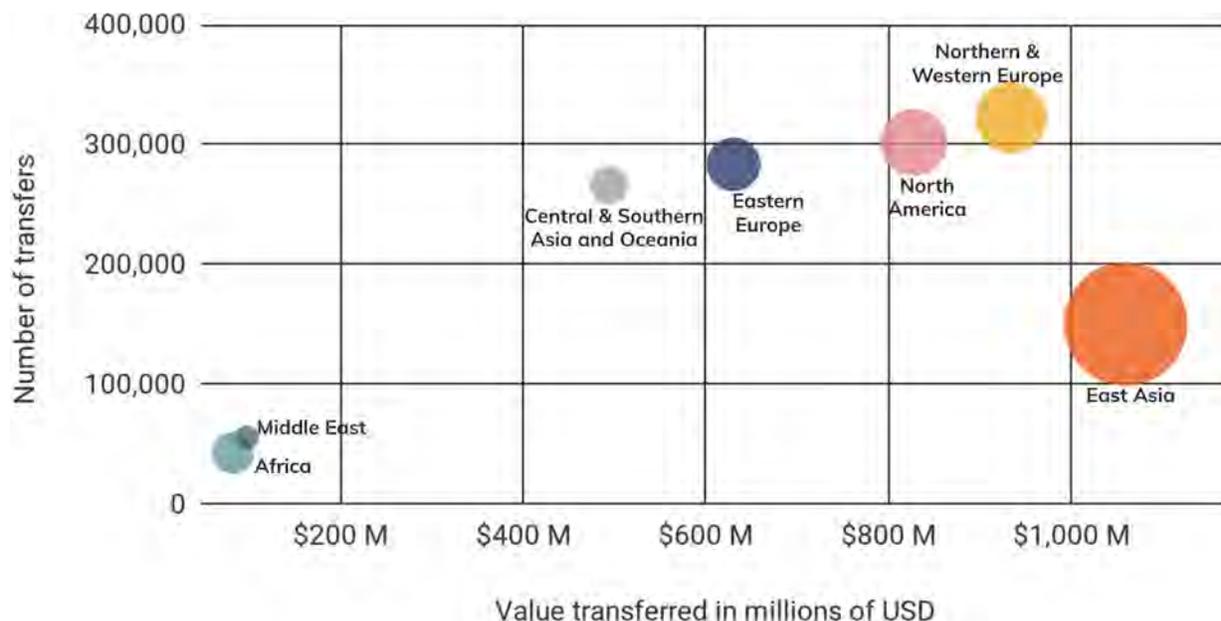


Remittances are key

The high cost and wait times of remittances have long been considered a problem that cryptocurrency can solve today, as virtual assets can be moved overseas instantly without the high fees common to overseas transfers of fiat currency. Given the importance of remittances in the region, Latin America is one place we would expect to see such activity. According to the [World Bank](#), remittances make up 1.7% of the total GDP in Latin America, with only the Middle East and North Africa (MENA) and sub-saharan Africa having a larger GDP share made up of transfers from overseas. The high-level on-chain data comports with this, with 90% of cryptocurrency received by Latin America coming from outside the region.

Let's dig deeper into which countries are on the other side of Latin America's cryptocurrency remittances, which we quantify below based on direct transfers from overseas to Latin America addresses.

Latin America's total value, number of transfers, and average transfer size received by counterparty region | Jul '19 - Jun '20



Currencies included: BTC

Bubble size denotes average transfer size



It's no surprise to see North America well-represented here, as the United States is the **biggest source** of remittances to Latin America in fiat currency. Patricia Risso, Head of Regulatory Risk at **Bitso**, an exchange primarily serving Mexico, Argentina, and Brazil, confirmed this in an interview with Chainalysis, noting that as we see in the fiat world, cryptocurrency remittances from the United States to Mexico are a common use case for her company's exchange users. Indeed, our estimates show that Mexico received around 11% of the region's retail payments, behind only Brazil and Venezuela. However, while they wouldn't show up on the chart above, others also pointed out to us the importance of remittances between countries in Latin America, particularly from countries like Argentina and Colombia to Venezuela.

Interestingly, our data shows that East Asia is a significant counterparty for Latin America. In interviews with Latin America-based cryptocurrency operators, we learned that many of these payments are in fact commercial transactions between Asia-based exporters and Latin American businesses buying goods from them to sell retail at home. Luis Pomata, co-founder of the Paraguay-based exchange **Cripex**, gave us some insight into how this works.

"Lots of goods are imported into Paraguay from China, and then make their way to other countries like Brazil. Lots of the businesses buying these goods use Bitcoin because it's faster and easier. Banks in Paraguay are worried about money laundering and picky with whom they'll work, so the banking application process is long and difficult — many businesses are rejected. And even if you have a bank, it is still very hard and costly to make a wire transfer due to the amount of supporting documentation you need to provide. That is the main reason people switch to crypto."

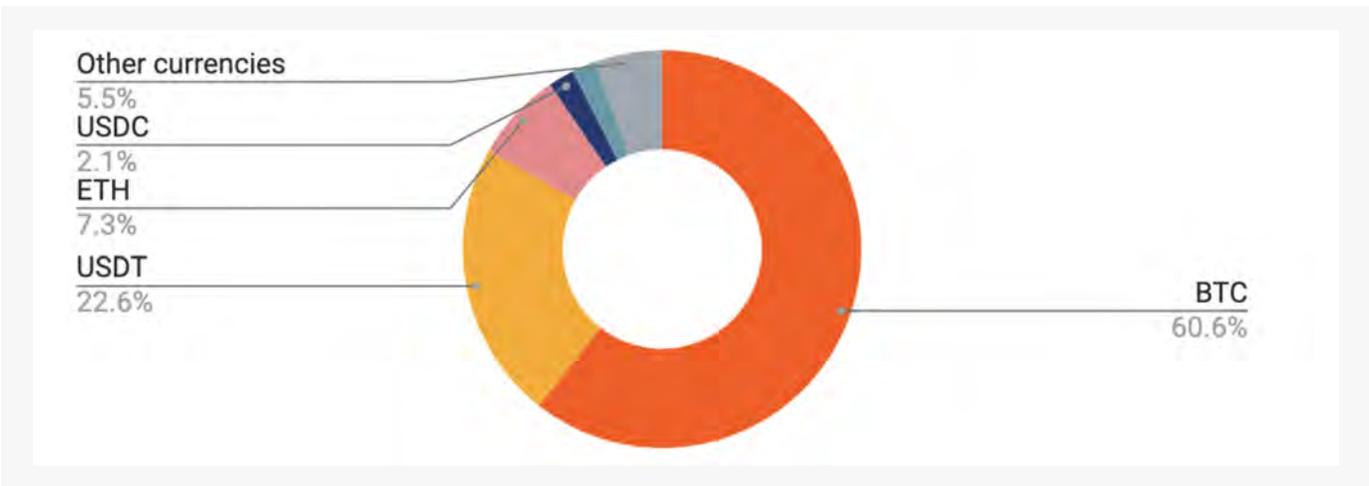
Pomata also notes that in many of these cases involving commercial transactions, businesses are skirting import taxes, which can be easier if they buy using cryptocurrency.



A safe store of value in a tumultuous market

It's not just businesses in Latin America having problems with banks. Many individuals are also unable to get bank accounts, which is another factor driving cryptocurrency adoption. "Lots of people here have uneven income because they do gig work for Uber or places like that, which makes it hard for them to get a bank account," says Sebastian Villanueva, who manages the Chile operations of [SatoshiTango](#), a cryptocurrency exchange serving several Latin American countries. Without easy banking access, many young people in Latin America turn to cryptocurrency as a means of storing value. Villanueva also notes the importance of stablecoins like DAI and USDC for Latin Americans looking to lock in their savings, which our data reflects as well.

Share of value sent to Latin America by currency | Jul '19 to Jun '20



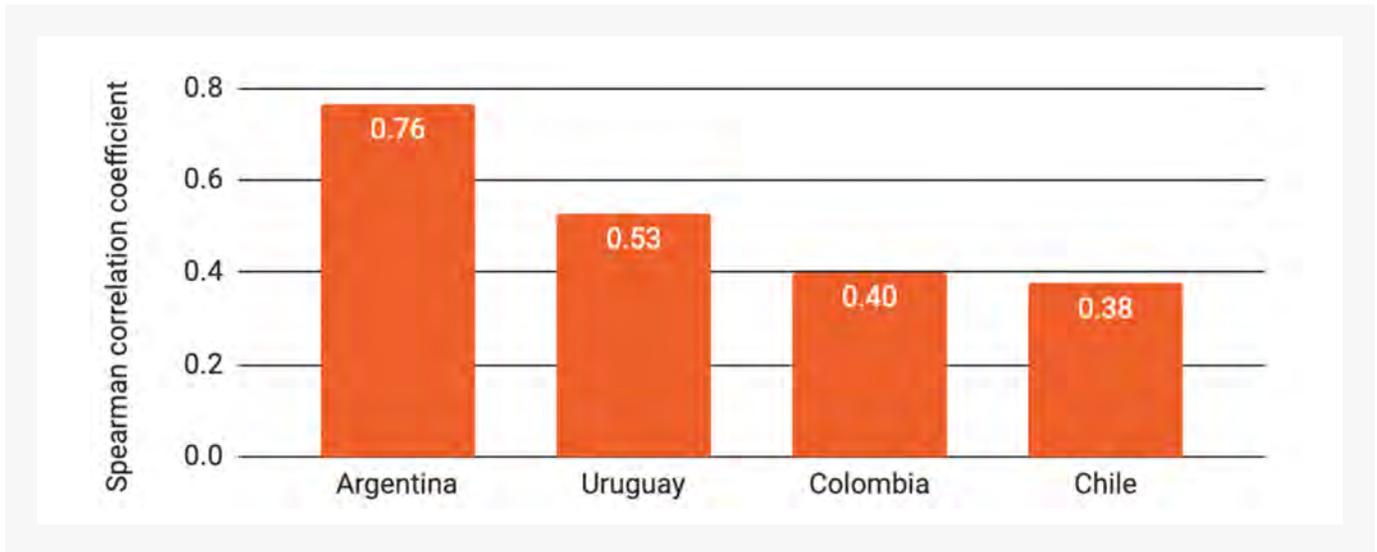
Currencies included: BAT, BCH, BNB, BTC, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, TUSD, USDC, USDT, WETH, ZIL, ZRX

Currency instability is another factor driving cryptocurrency adoption in Latin America. This has unfortunately been a problem in the region for decades. Wences Casares, CEO of the popular cryptocurrency wallet provider [Xapo](#) named the issue as a primary motivation for starting his company at a recent [Chainalysis virtual event](#), citing the memory of his family seeing their savings decimated multiple times due to the collapse of the Argentine peso.

Analysis of peer-to-peer (P2P) exchange trading volume reveals just how much currency devaluation drives cryptocurrency adoption in many Latin American countries. The bar chart below shows the correlations between the USD value of P2P transaction volume and currency devaluation in several Latin American countries, measured by the amount of native currency units needed for \$1 USD.



Correlation between P2P transaction volume and exchange rate of native currency per USD | Jul '19 to Jun '20



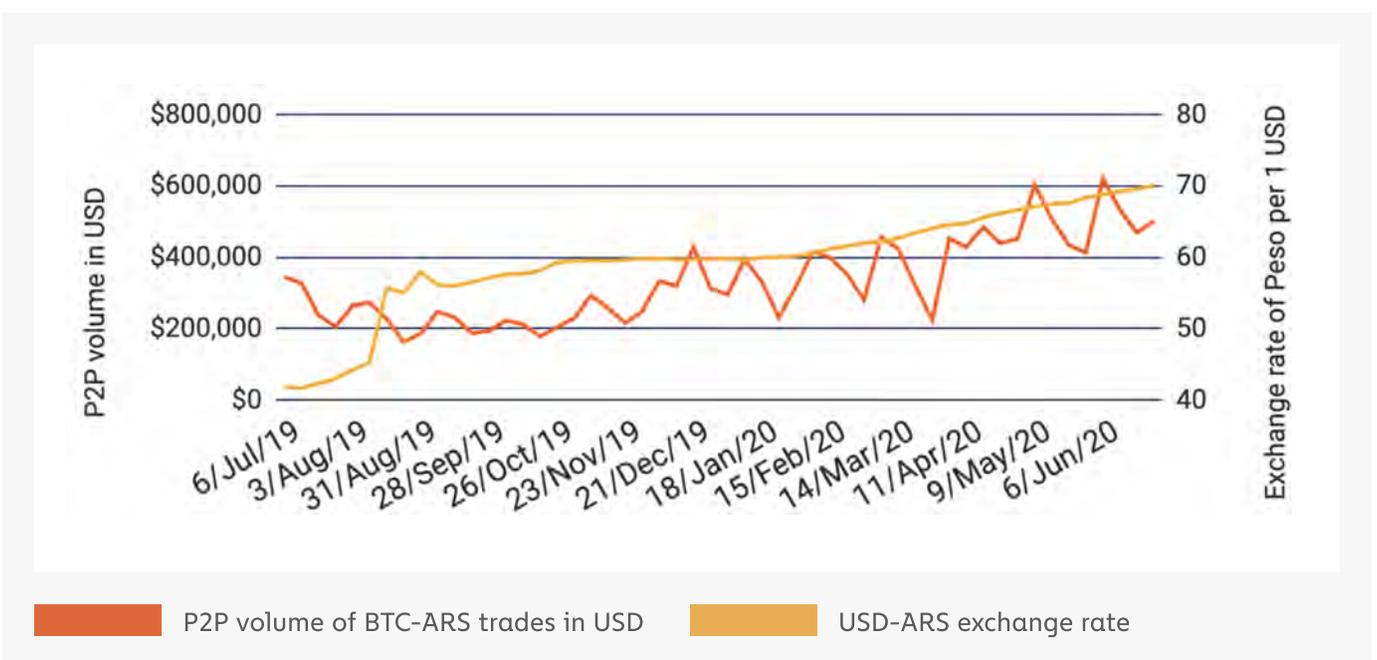
Currencies included: BTC

Source: LocalBitcoins, Paxful via CoinDance

The correlations, each of which is statistically significant, suggest that cryptocurrency users in Argentina, Uruguay, Colombia, and Chile in particular are turning to cryptocurrency as a means to store value when their native fiat currencies are losing value.

Argentina's P2P volume in USD and USD-ARS exchange rate

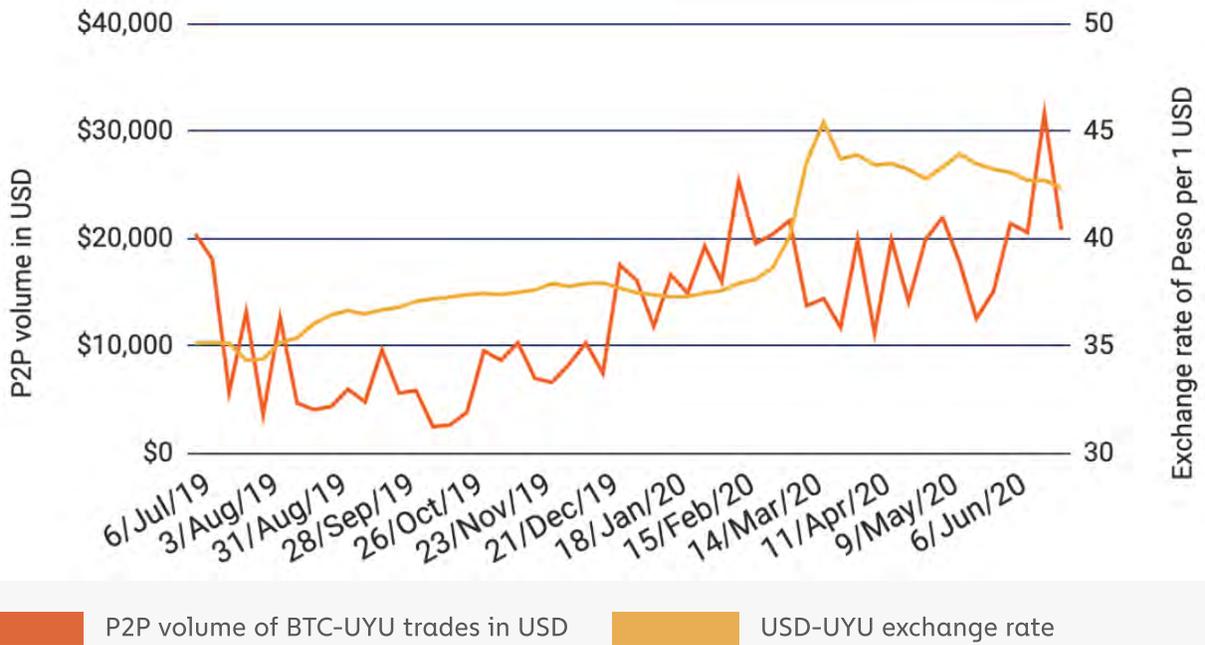
| Jul '19 - Jun '20





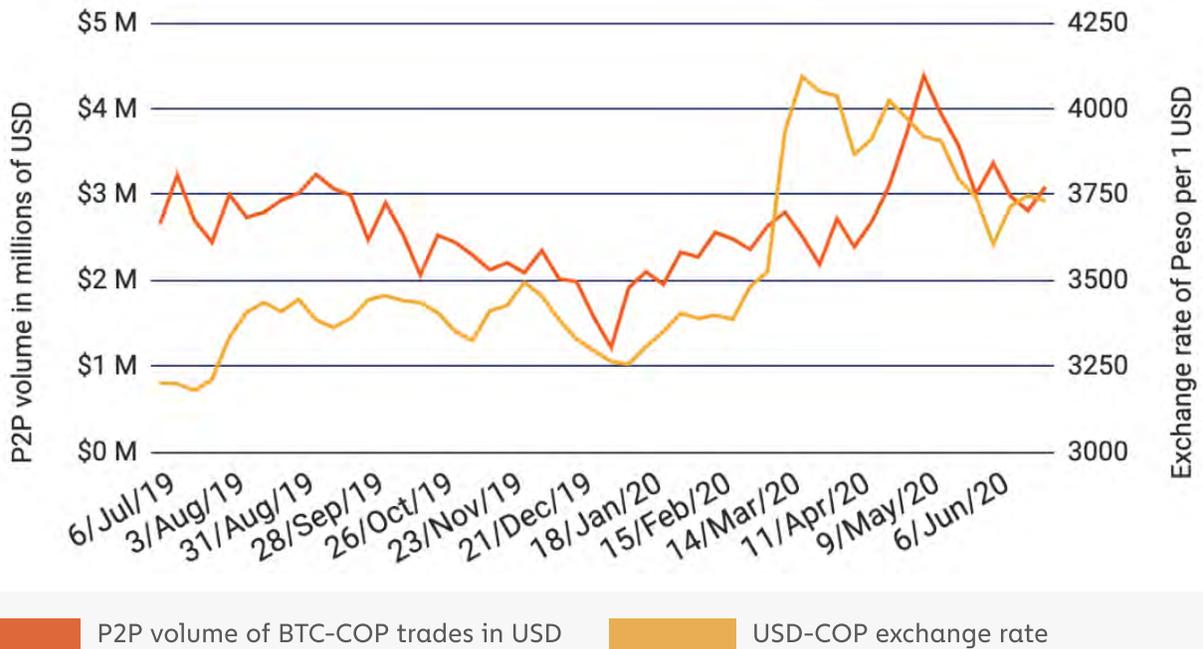
Uruguay's P2P volume in USD and USD-UYU exchange rate

| Jul '19 - Jun '20



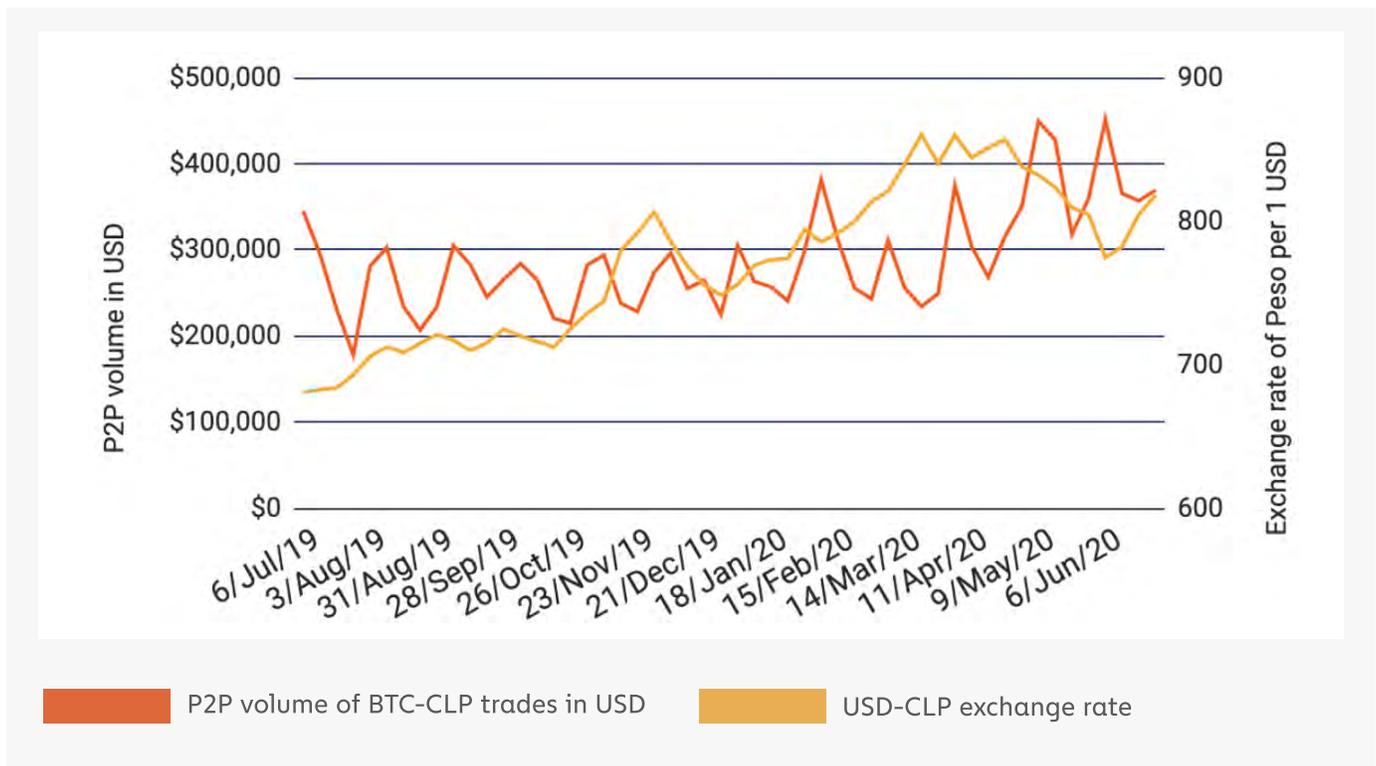
Colombia's P2P volume in USD and USD-COP exchange rate

| Jul '19 - Jun '20





Chile's P2P volume in USD and USD-CLP exchange rate | Jul '19 - Jun '20



Currencies included: BTC

Source: LocalBitcoins, Paxful via CoinDance

Indeed, the amount of P2P trading volume in many Latin American countries rises as native currency depreciates. Latin America-based cryptocurrency operators gave us first-hand accounts of how currency devaluation and economic instability bring users to their platforms. "Venezuela and Argentina especially are printing money like crazy, so their fiat currencies are losing value. That drives a lot of cryptocurrency adoption," said Sebastian Villanueva of SatoshiTango. He also notes that some countries, like Argentina, limit the amount of U.S. dollars citizens can buy per month, which further restricts their options for secure savings and increases the need for cryptocurrency.

Villanueva went on to describe how worsening economic conditions and associated civil unrest drive cryptocurrency adoption. "Last October in Chile, there were mass protests over education, healthcare, and overall economic conditions. Fiat pay platforms saw huge decreases in activity during that time, but we grew by about 35%," he remembers. "People just want a safe way to store money, and there are no gatekeepers in crypto."

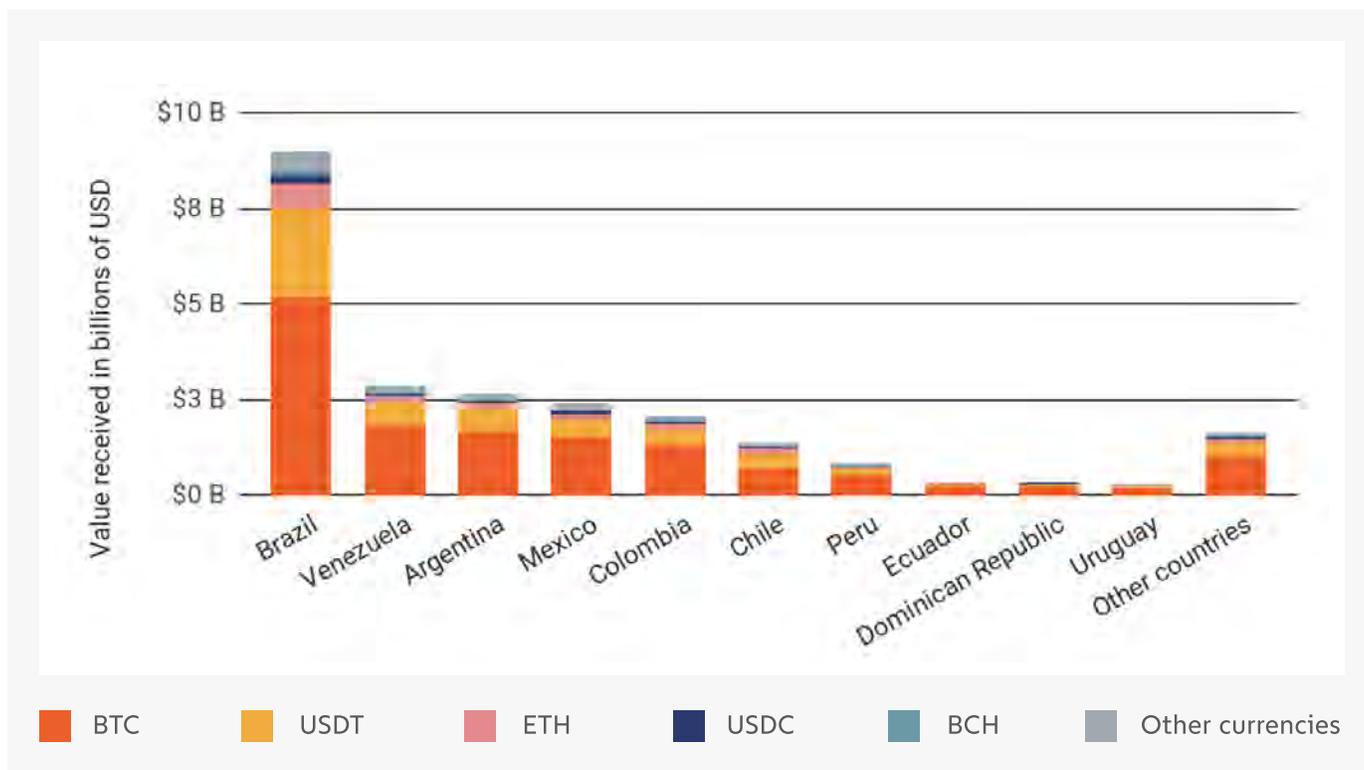


Trading and speculation, but also scamming

While Latin America has unique cryptocurrency usage patterns based on value storage and transfer for the underbanked, there's also a robust trading and speculation market in the region similar to what we see in the rest of the world.

Let's start with a country by country breakdown.

Value received by country and currency | Jul '19 to Jun '20

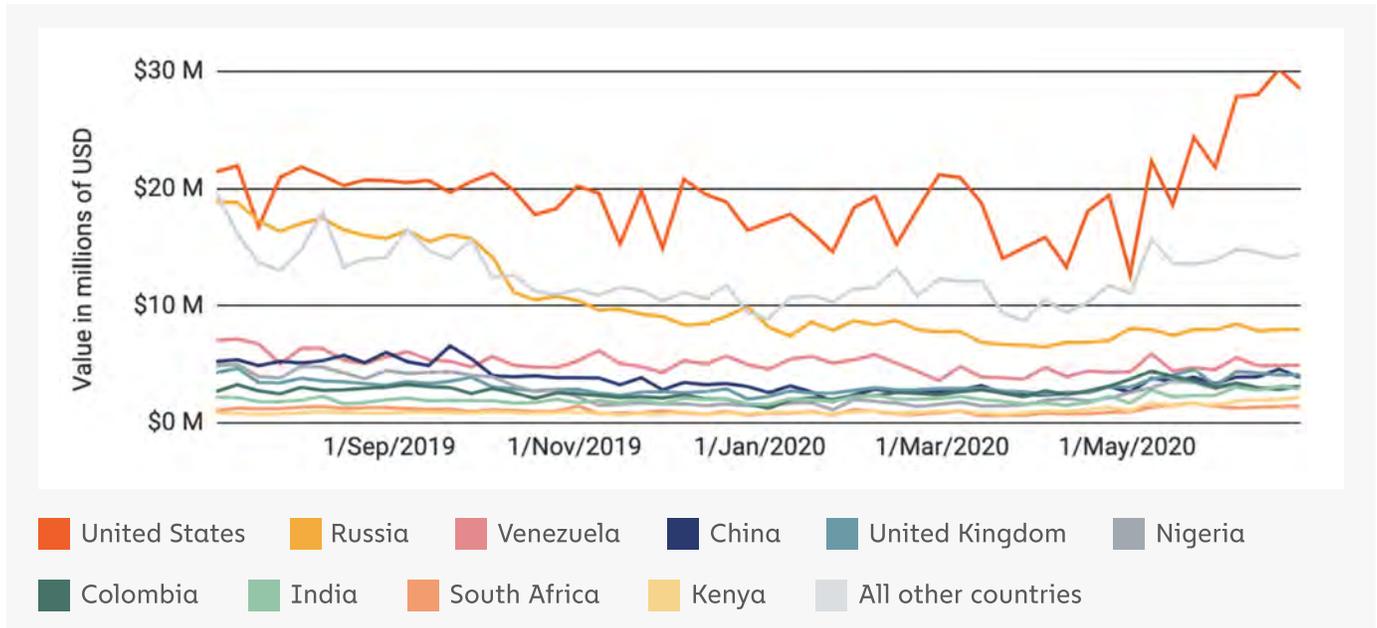


Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Brazil accounts for by far the most cryptocurrency usage by on-chain volume of all Latin American countries. However, while Venezuela appears to be a distant second, its role becomes more pronounced when we look at P2P trading volumes. In fact, Venezuelans account for the third-highest number of transfers on LocalBitcoins and Paxful, two of the most popular worldwide P2P exchanges.



Weekly P2P trading volume in USD | Jul '19 to Jun '20



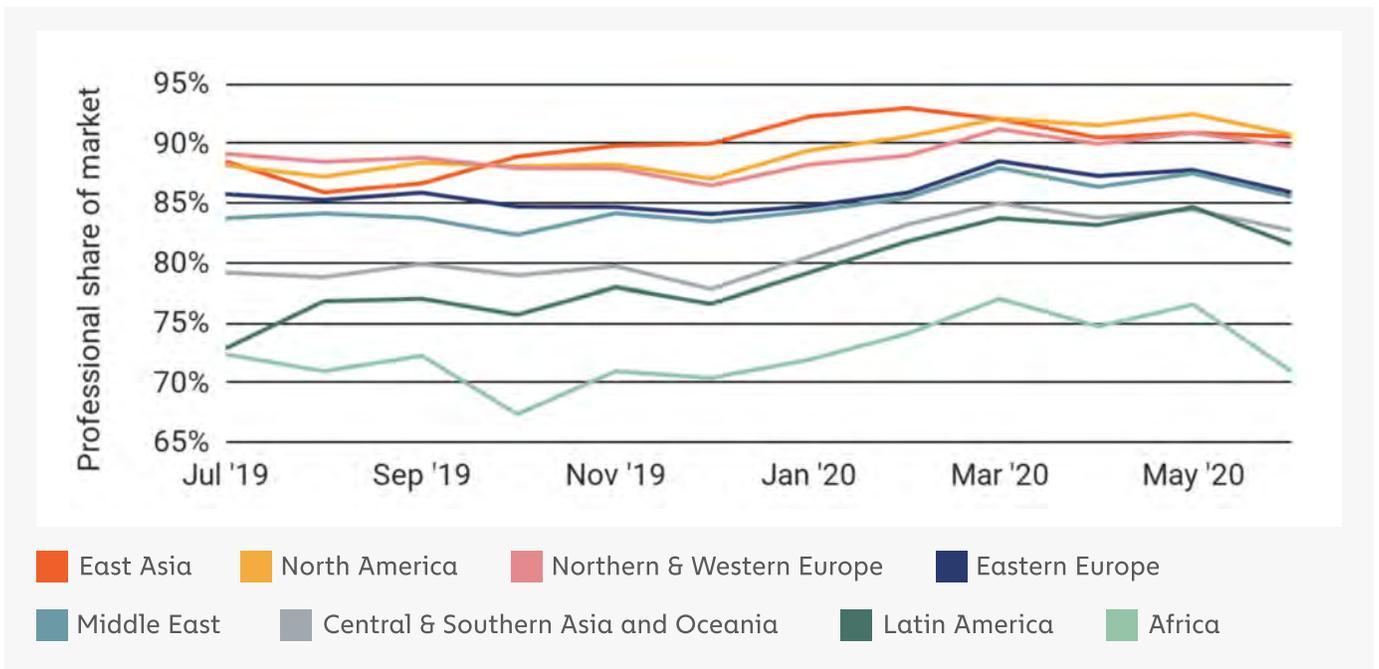
Currencies included: BTC

Source: LocalBitcoins, Paxful via CoinDance

While Latin America has the second-highest share of total activity composed of retail trades (defined as transfers of under \$10,000 USD worth of cryptocurrency), the professional market still accounts for roughly 80% of all volume transferred in a given month.

Professional share of cryptocurrency volume received by region

| Jul '19 to Jun '20



Currencies included: BTC



We spoke with representatives from Hashdex, a cryptocurrency-focused hedge fund headquartered in Brazil, who told us that a desire for potential high yield assets with uncorrelated returns is driving cryptocurrency adoption amongst professional investors, such as those representing pension funds and family offices.

However, similar to other parts of the world, Latin America has a class of quasi-professional investors engaging in significant trading and speculation. Most of these traders prefer to operate on large, international exchanges like Binance, which we see reflected in the table below showing the top five services receiving cryptocurrency from and sending it to Latin America.

Top cryptocurrency services in Latin America by cryptocurrency received on-chain | Jul '19 to Jun '20

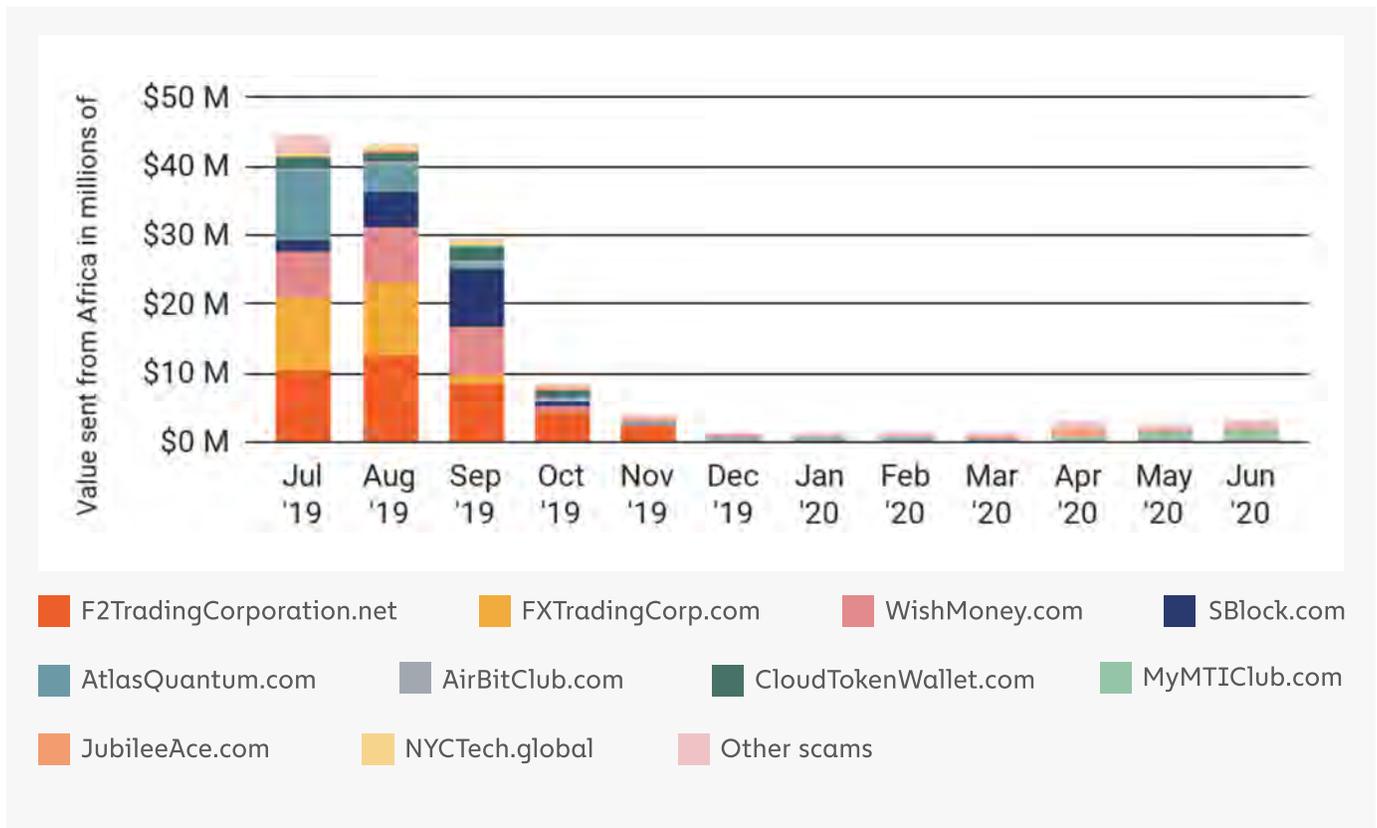
Service	Amount received (USD)
Binance	\$3.13 billion
Huobi	\$2.75 billion
OKEX	\$1.10 billion
Coinbase	\$1.05 billion
Bitstamp	\$1.03 billion

Bitso Head of Regulatory Risk Patricia Risso explained to us that many traders will use fiat to buy Bitcoin or stablecoins like Tether from local services or P2P exchanges, and then use those funds as an on-ramp to larger exchanges like Binance, where they can access more trading pairs and greater liquidity. Several other sources confirmed this is a common pattern not just in Latin America, but in other developing regions as well. We believe that this activity makes up a significant share of the stablecoin transfer volume we note elsewhere in this section.



Top ten scams receiving the most cryptocurrency from Latin America

| Jul '19 to Jun '20



Latin America also has the highest share of cryptocurrency activity made up of transfers to or from criminal entities, making up 2.4% of all the region's receiving volume moved over the time period studied and 1.6% of sending volume. 61% of this activity is related to cryptocurrency scams, the largest collecting value from Latin American victims being F2TradingCorp, FXTradingCorp, and WishMoney, which accounted for most of the illicit transfers between July and November 2019 when Latin America crypto crime was at its highest. For the time being though, illicit transfers in Latin America appear to be on a sharp decline.



Venezuela

Hyperinflation and Sanctions Evasion: What On-Chain Data Tells Us About Venezuelans' Trust in Cryptocurrency



Hyperinflation and Sanctions Evasion: What On-Chain Data Tells Us About Venezuelans' Trust in Cryptocurrency

Venezuela is suffering through one of the worst economic crises in modern history, with its national currency, the Bolivar, becoming practically worthless as hyperinflation rates hit 10,000,000% last year. It's nearly impossible to overstate how badly these conditions affect the average Venezuelan. "This is the worst humanitarian crisis in modern Latin American history," says Moises Rendon, a Venezuela expert at the Center for Strategic & International Studies (CSIS). "Venezuela used to be one of the wealthiest countries in Latin America. Now, it's one of the poorest, facing water shortages, blackouts, and hospitals with practically no supplies. This has destabilized the entire region."

Under these circumstances, cryptocurrency has taken on an important role in Venezuela's economy. In fact, Venezuela's cryptocurrency market represents a confluence of several topics at the core of cryptocurrency's key value propositions and risk factors. The country has reached one of the highest rates of cryptocurrency usage in the world, placing third on our Global Crypto Adoption Index, as many Venezuelans rely on cryptocurrency to receive remittances from abroad and preserve their savings against hyperinflation. At the same time, Venezuela's contested government, led by OFAC-sanctioned Nicolas Maduro and known for its corruption and human rights abuses, has launched its own cryptocurrency projects it claims will mitigate poor economic conditions for its citizens. However, officials have also stated that bypassing sanctions — a point of concern around cryptocurrency for the U.S. and its allies — is a key goal of these projects.

Aside from the concerns around sanctions violations, the Maduro regime's cryptocurrency projects raise questions of whether people would embrace government-led efforts to utilize a tool initially designed to immunize currency from government financial policy — especially when that government has so squandered its people's trust as Venezuela's has. Below, we examine the role that cryptocurrency plays in Venezuela's economy and compare the country's usage of mainstream P2P exchanges with that of the government-sponsored exchanges.



The Maduro regime's cryptocurrency project

In 2018, the Venezuelan government started the PETRO: a national cryptocurrency said to be backed by the country's oil reserves. While the goal of the project is ostensibly to combat the currency devaluation hurting Venezuela today, government officials have also stated that evading sanctions is another goal.

In addition to creating the PETRO, the Maduro regime also gave seven cryptocurrency exchanges permission to operate in the country, their goal being to facilitate the exchange of the PETRO so that it can circulate in the global cryptocurrency economy.



These exchanges aren't limited to the PETRO, of course – just like any other, users can buy and sell popular cryptocurrencies like Bitcoin. These exchanges also represent a risk of sanctions evasions, as individuals connected to the Maduro regime could theoretically use them to receive transfers from citizens of the U.S., E.U., or other jurisdictions that have Venezuela-related sanctions.

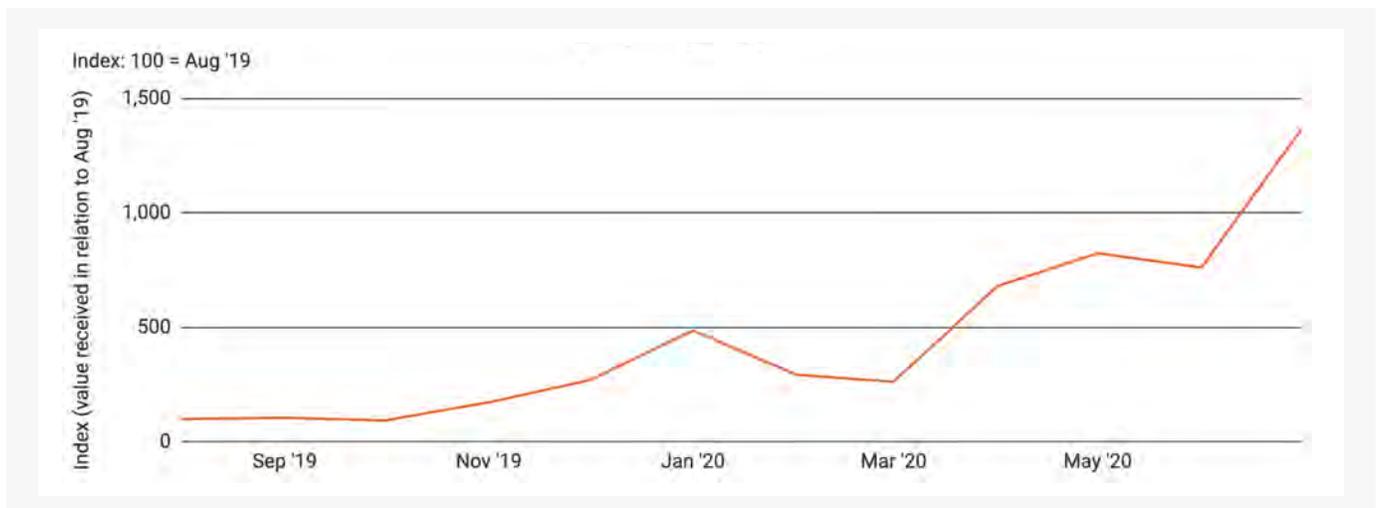
How big is the sanctions evasion threat? And conversely, are Venezuela's state-approved cryptocurrency exchanges mitigating poverty in the country? We can try to answer these questions by analyzing one of the platform's transaction activity. Criptolago will be our example.



According to reporting from financial intelligence provider Sayari, Criptolago is owned by Venezuela's Zulia state, and its top management position is occupied by that state's governor, Omar Prieto. Prieto is a staunch Maduro ally who is personally under U.S. sanctions for refusal to deliver humanitarian aid.

Between August 2019 and July 2020, Criptolago addresses have received over \$380,000 worth of Bitcoin over 3,916 transfers and sent over \$360,000 worth over 2,297 transfers. Below, we see an index charting Criptolago's total month-over-month growth since August 2019.

Growth by Criptolago | Aug '19 to Jul '20

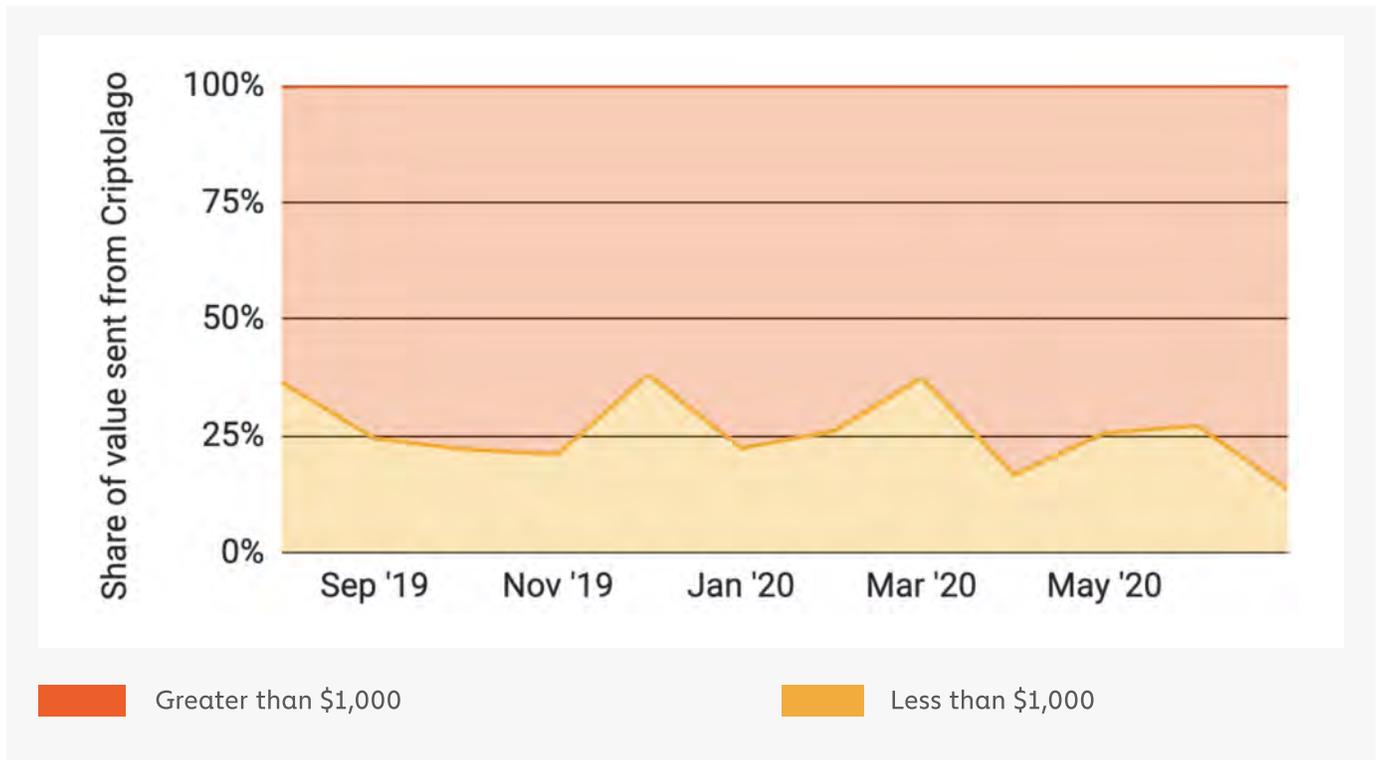


Currencies included: BTC

On the face of it, Criptolago's growth looks strong, as transfer volume has gotten over 13x bigger in the time period studied. But if we dig into the data on the transfers themselves, it doesn't appear that Criptolago is helping the Venezuelans struggling most.



Total transfer value from Criptolago by transfer size | Aug '19 to Jul '20



Currencies included: BTC

More than 75% of transfer volume is moved in transactions of \$1,000 USD or more worth of cryptocurrency. However, the average Venezuelan earns just 72 cents per day, meaning very few of them could afford such transfers. Rendon agreed with us that it was unlikely everyday Venezuelans are using Criptolago when he reviewed our data. "I suspect that most of the users of this platform are people close to the Maduro regime or otherwise able to take advantage of Venezuela's corruption to make money – the large transfers on Criptolago are likely them trying to preserve this wealth or move it somewhere to evade sanctions, as most of these high profile Venezuelans can't open bank accounts in other countries."

He added, "I think most Venezuelans would want to avoid a platform that could be monitored by the government. The Maduro regime is infamous, for example, for retroactively declaring certain activities illegal and prosecuting those who have taken them." Rendon here brings up the key issue of trust. The desire for an economic system detached from monetary policy, where participants could know based on an algorithm how much currency is and will be available without having to trust a government to get it right, is one of the primary reasons Bitcoin was invented in the first place. In Venezuela, the lack of trust in the Maduro regime appears to be pushing citizens away from government-connected cryptocurrency platforms. Instead, as we'll explore below, they're going to P2P exchanges that serve the world independent of any government, which is more in line with Bitcoin's original premise.

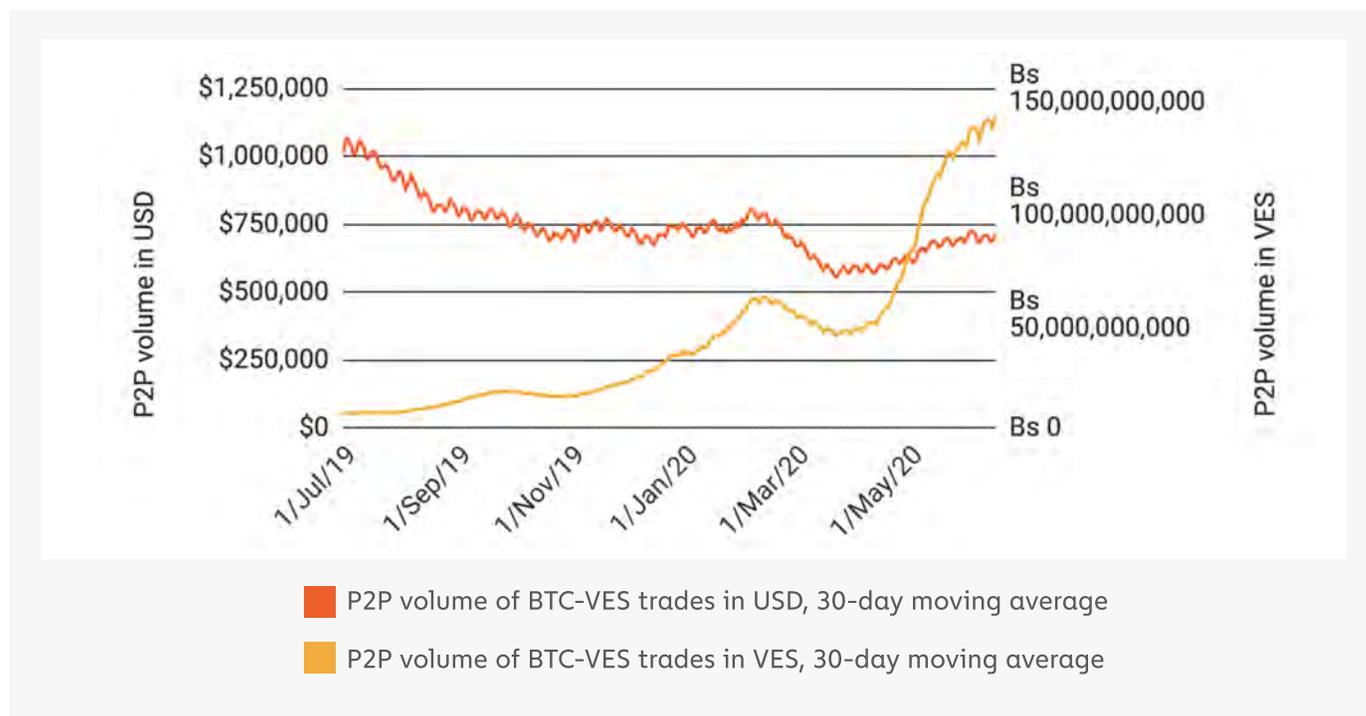


Cryptocurrency usage in Venezuela

As the Venezuelan bolivar has lost value in the midst of hyperinflation, Venezuela has become one of the most active cryptocurrency trading countries on earth. As we mentioned earlier, Venezuela is ranked third on our Global Crypto Adoption Index, with a score of 0.80 on a scale of 0 to 1. Most of this activity is driven by P2P exchange activity, specifically on LocalBitcoins. LocalBitcoins has active users all over the world, yet Venezuela is the third-most active country on the platform, or second-most active when we scale by the number of internet users and purchasing power parity per capita.

Venezuela ranks 3rd for P2P trading volume in USD, after the U.S. and Russia, but can we confirm that P2P usage coincides with periods of hyperinflation? At first glance, the yellow line of P2P volume traded on LocalBitcoins in Venezuelan bolivar would seem to indicate that P2P activity skyrockets in the presence of hyperinflation; however, the rapid rise in this line mostly stems from hyperinflation: more bolivars are required to purchase the same amount of Bitcoin over time. The orange line shows Venezuela's P2P volume in USD which is slower to increase in recent weeks. In the presence of hyperinflation, people are probably putting a larger share of their wealth into cryptocurrency, but it's hard to measure how people are adjusting their behavior day-to-day. The true growth pattern is likely somewhere in between the two lines.

Venezuela's P2P volume in USD and in VES | Jul '19 to Jun '20



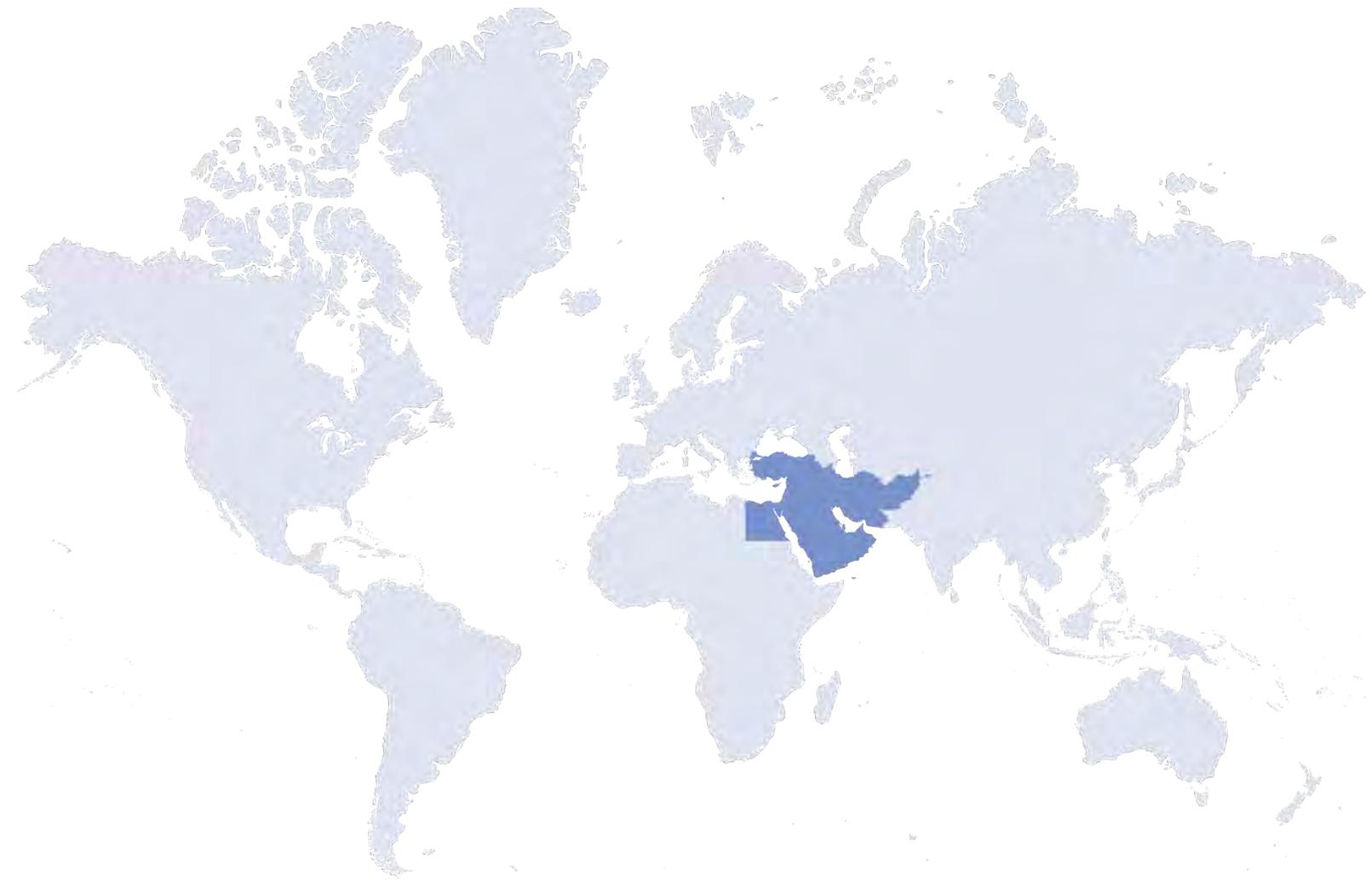
Currencies included: BTC

Source: Federal Reserve Bank of St. Louis, LocalBitcoins



We do however, have robust anecdotal evidence that people in Venezuela have become increasingly interested in cryptocurrency. That fits with our interviews of cryptocurrency experts on the ground in Latin America — users not just in Venezuela, but in other countries facing harsh economic conditions, turn to cryptocurrency to preserve their savings in the face of monetary devaluation. While not necessarily reflected on this chart, cryptocurrency is also important for remittances. Roughly 5 million Venezuelans have left the country to seek opportunity elsewhere during this economic crisis, and many of their friends and family back home rely on them to send money from abroad. Cryptocurrency is hugely helpful here, as users can utilize it to send funds overseas faster and with lower fees than they can with fiat. Cryptocurrency also enables them to do this without a bank account, which Rendon told to us is extremely hard to get for Venezuelans. “American banks, which offer money transfer services like Bank of America’s Zelle, began closing Venezuelans’ bank accounts because of sanctions concerns, as the balances on these accounts aren’t high enough to justify the banks’ costs of monitoring for sanctions violations,” he explained.

But Rendon is encouraged by Venezuela’s skyrocketing cryptocurrency usage. “I think that what we’re seeing is the Venezuelan people reclaiming their economic sovereignty. Crypto just makes sense for this country.” So far, the data suggests that international cryptocurrency exchanges that connect Venezuela to the rest of the world, rather than insular government-run exchanges, are the platforms delivering those positive results.



Middle East

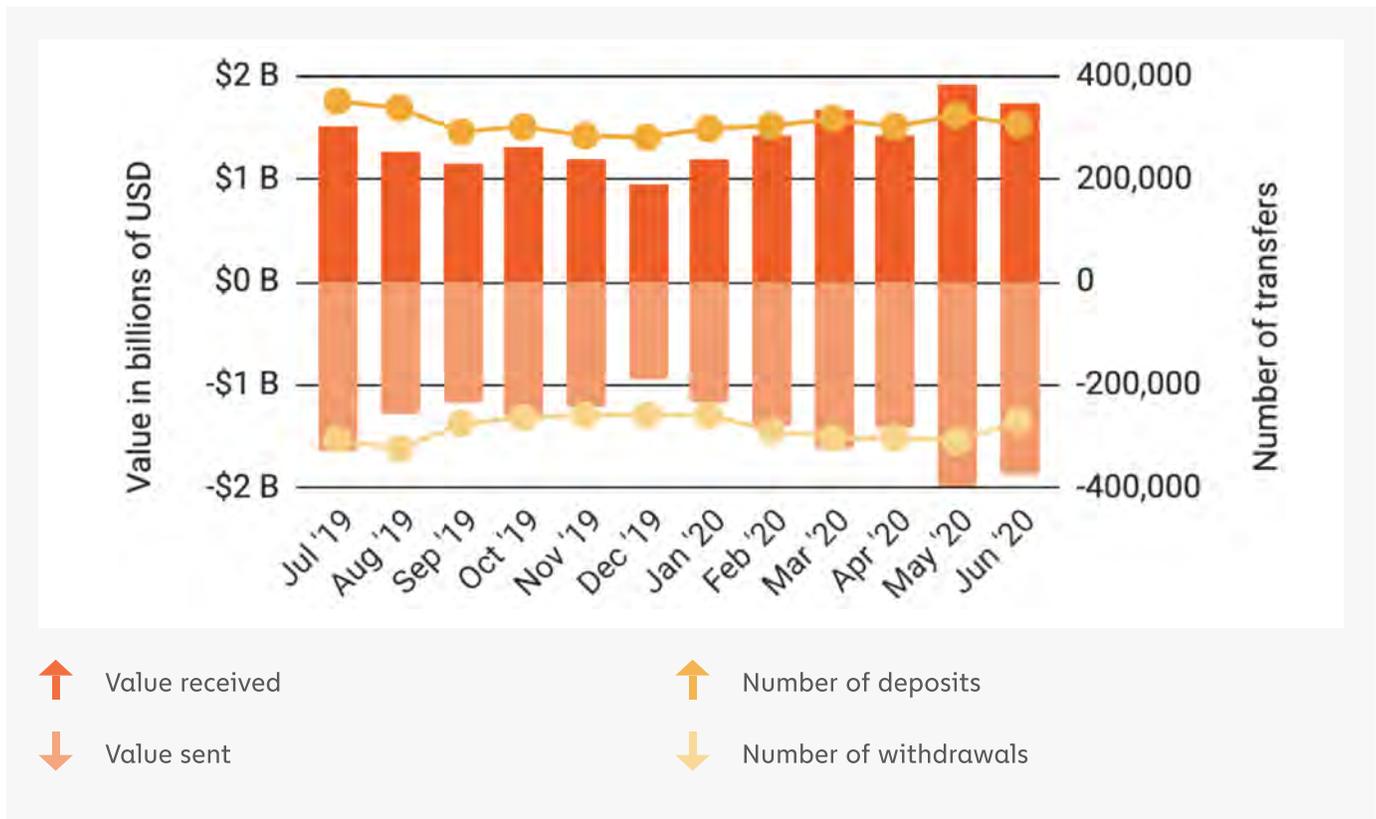
Cryptocurrency Small But Growing, with Some Governments Promoting the Technology



Summary of Middle East's cryptocurrency activity | Jul '19 - Jun '20



Value and transfers in and out of Middle East | Jul '19 to Jun '20



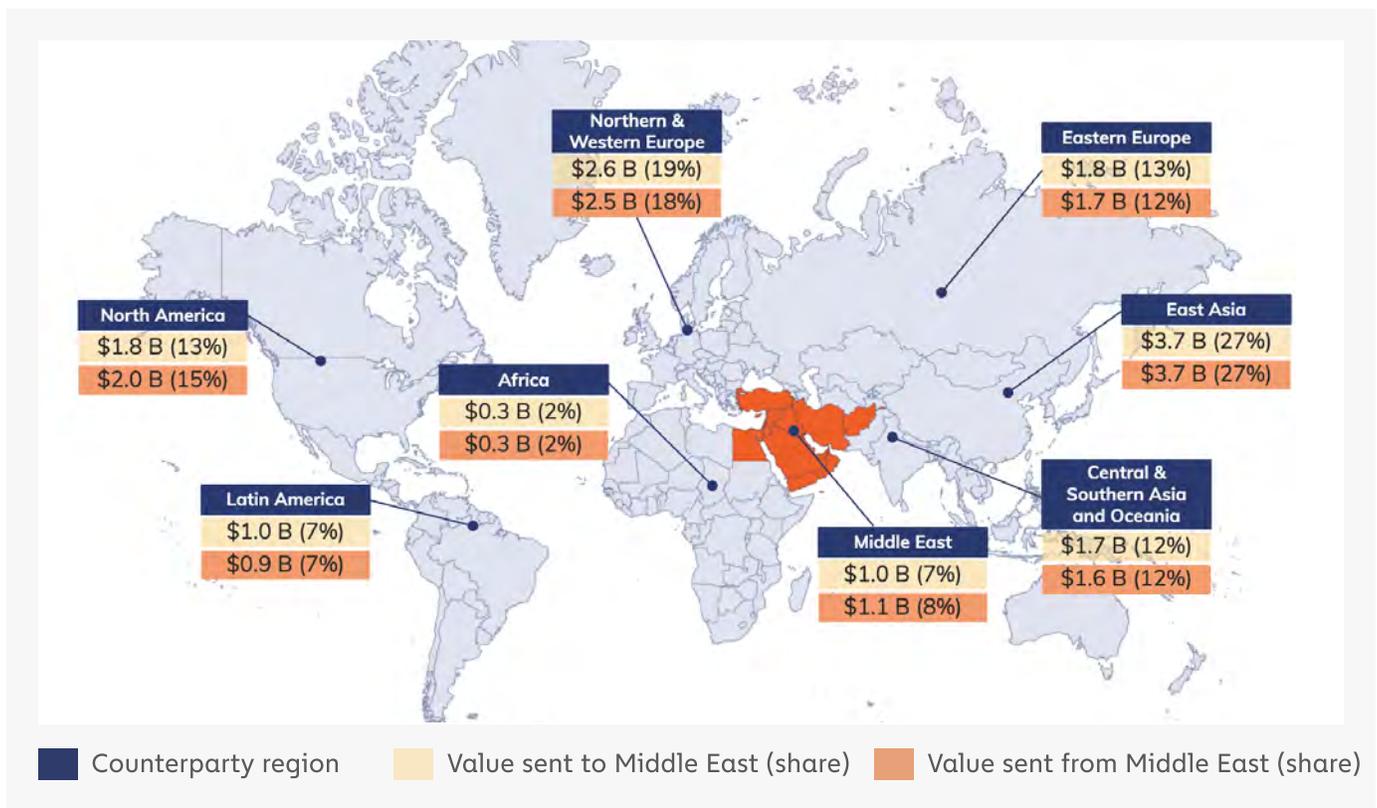
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



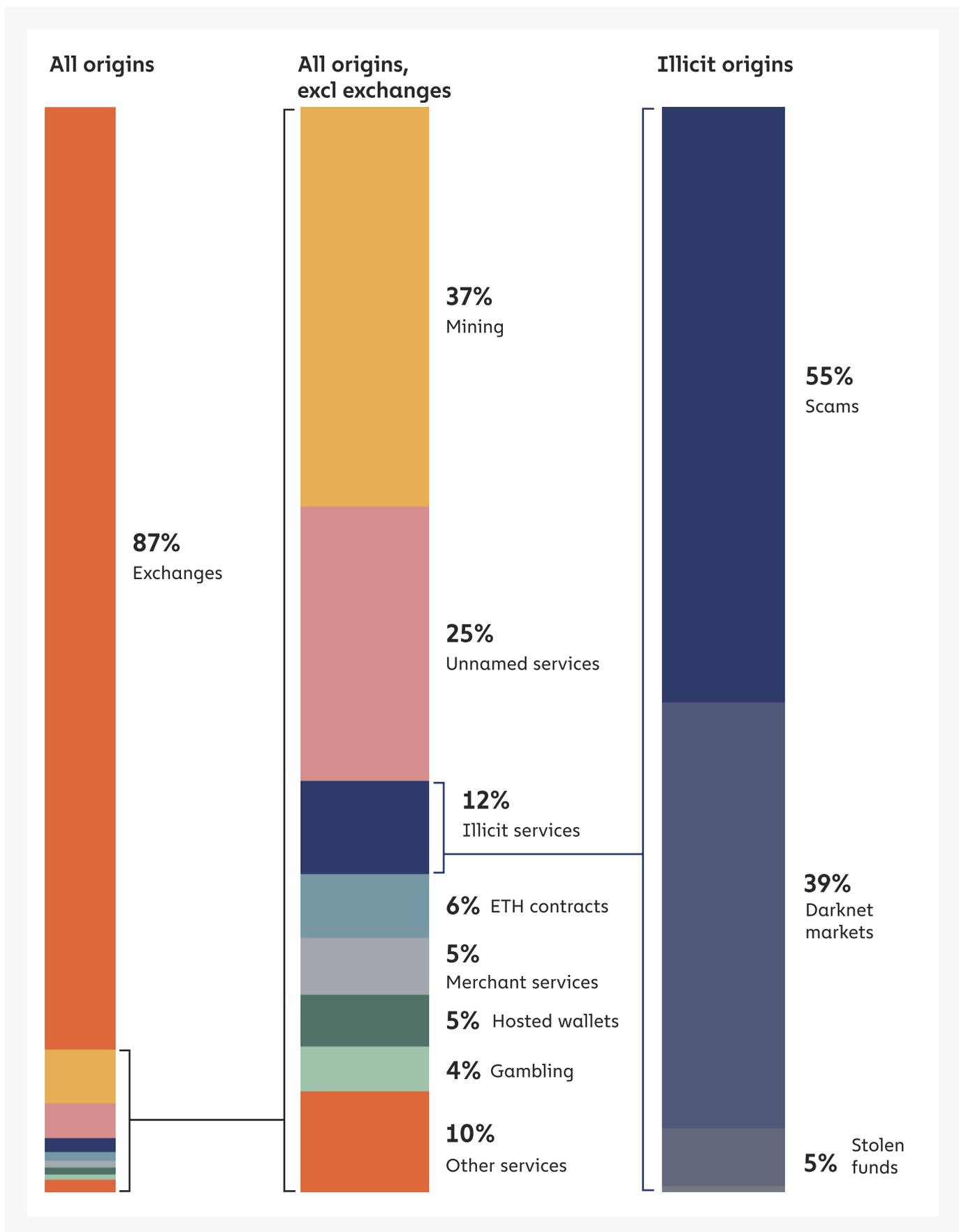
Middle East's regional counterparties by volume | Jul '19 to Jun '20



Currencies included for above charts: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



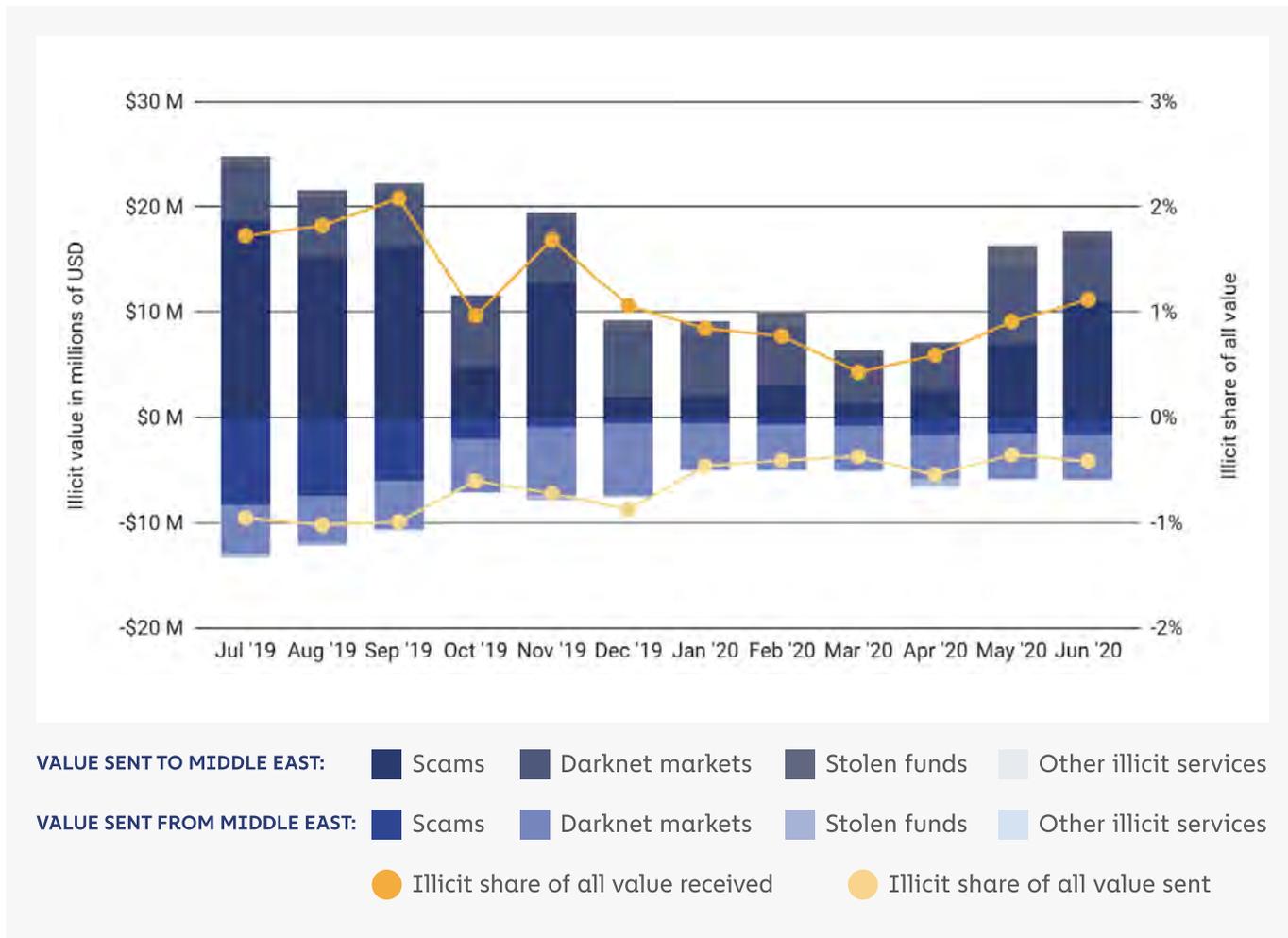
Origin of value sent to Middle East | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Middle East | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

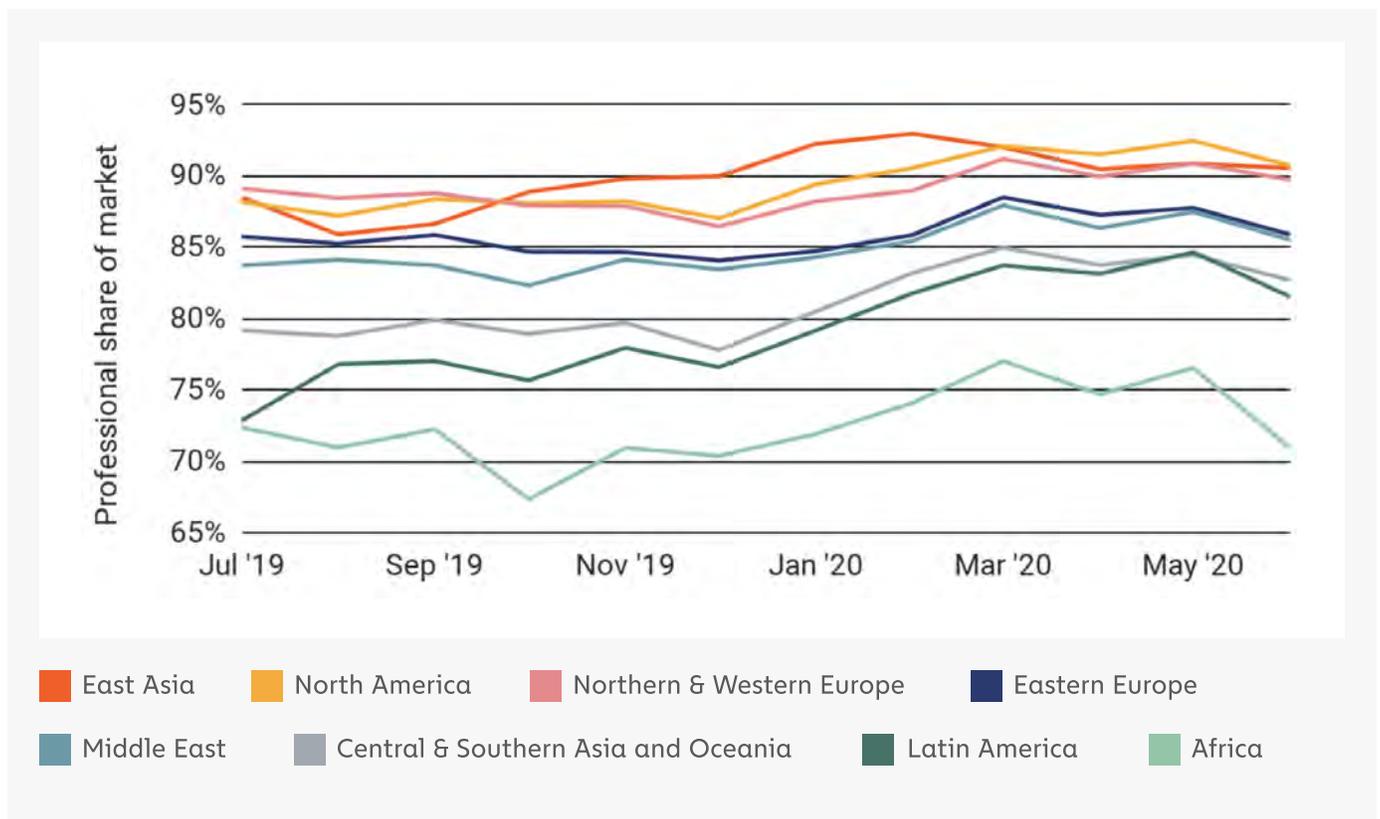
The Middle East has the second-smallest cryptocurrency market of the regions we study in this report behind only Africa, accounting for 5% of the world's cryptocurrency transaction volume between July 2019 and June 2020 at roughly \$17 billion sent and \$17 billion received. Below, we'll look more closely at cryptocurrency activity in the Middle East, as well as the regulatory environment and drivers of adoption in the region.



Turkey accounts for the most transaction volume, and professional traders dominate, unlike in comparable regions

Turkey is the highest-ranking country in the region on our Global Crypto Adoption Index at 29th overall, and also accounts for the most total transaction volume in the region. Iran and Egypt follow on our index at 52nd and 64th respectively. Saudi Arabia is also worth noting. While it ranks lower on our index at 93rd overall and has a formal ban on cryptocurrency trading, it has the highest P2P transfer volume in the region, with \$9.8 million worth of cryptocurrency moved in P2P transfers in the time period studied. As we'll explore later, its government has taken steps to promote the use of blockchain technology more broadly, making us optimistic that legalization and regulation of cryptocurrency may follow.

Professional share of cryptocurrency volume received by region, | Jul '19 to Jun '20



Currencies included: BTC

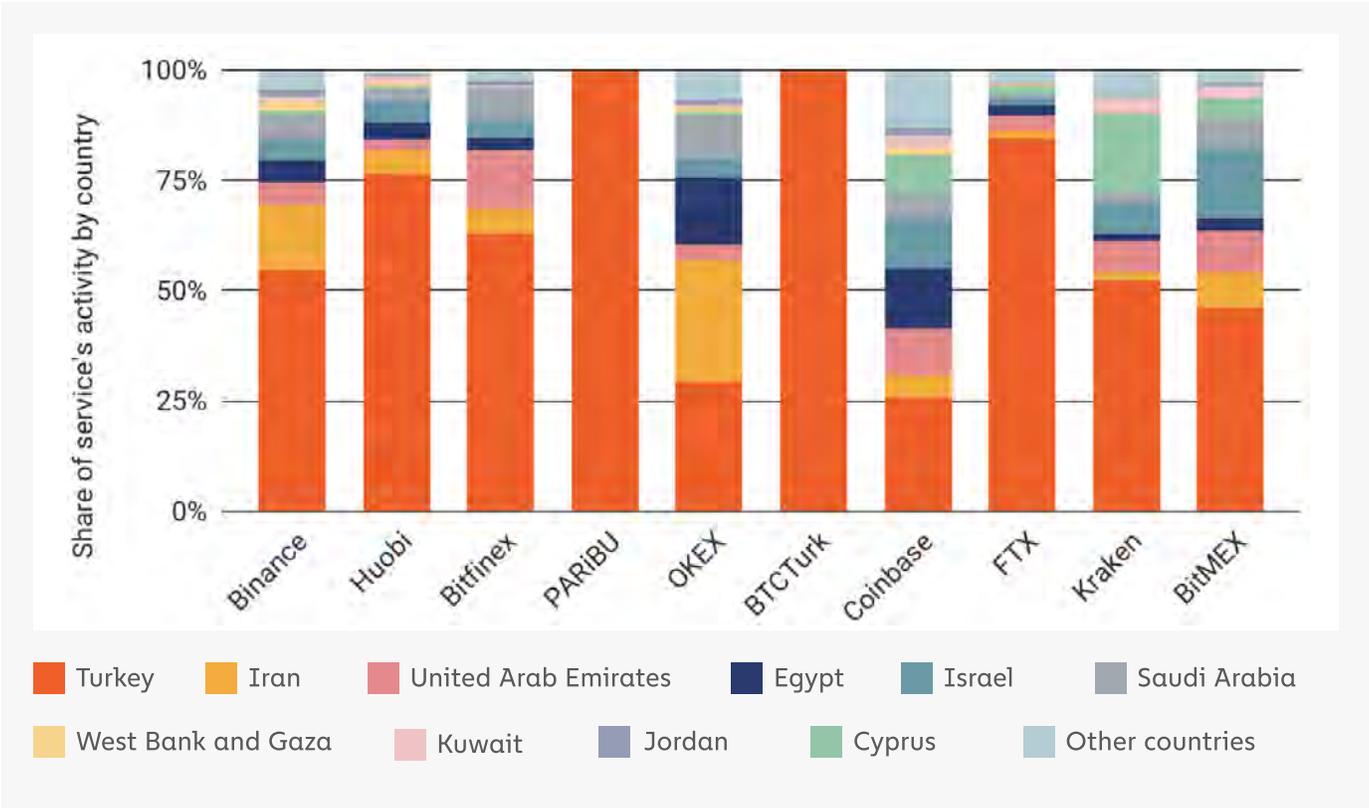
Unlike other regions with comparable cryptocurrency activity, such as Africa and Latin America, the Middle East's cryptocurrency activity is highly concentrated to professionals, with pro transfers above \$10,000 USD worth of cryptocurrency making up over 85% of total volume moved. That, along with the fact that most Middle Eastern countries have low



transaction volume considering their population and economic size, would suggest that grassroots adoption overall is low in the region, with Turkey being the key exception.

Turkey's prominence becomes even clearer when we look at the graph below, which shows the cryptocurrency services driving the most transaction volume in the region broken down by country.

Top ten services in Middle East by country | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Two observations stand out. Large, international platforms like Binance, Huobi, and Bitfinex are the biggest services in the region, catering to a diverse array of countries, as is the case in the other regions we study. However, we also see local Turkish services well represented in exchanges PARiBU and BTCTurk. Both services drive significant activity in the region, ranking 4th and 6th respectively by volume, with nearly all of it coming from Turkish users.

Below, we dig a bit deeper into BTCTurk's trade data and look at the most common trading pairs on the exchange.



Most common trading pairs on BTCTurk by number of trades

| Mar '15 - Sep '20

Quote currency	Base currency		
	Turkish Lira	USDT	BTC
BTC	3,710,579	1,637,797	0
ETH	1,974,432	502,450	65,349
XRP	1,754,281	170,198	19,971
LINK	1,474,752	425,096	26,942
USDT	1,362,047	0	0
XLM	1,167,621	122,104	12,404
LTC	995,561	97,890	10,754
ATOM	703,071	149,701	11,956
DASH	695,868	63,239	8,999
XTZ	538,821	126,167	9,227
NEO	516,745	127,308	15,710
EOS	478,550	83,990	7,432

Most common trading pair



Least common trading pair

Source: Kaiko

The most common trade by far on BTCTurk is the Turkish lira for Bitcoin, followed by several pairs of lira and other cryptocurrencies. In addition, the only other base currencies besides the lira allowed for on and off-ramping are Bitcoin and Tether. The data suggests that most of BTCTurk's transaction volume comes from Turkish users on-ramping from fiat into cryptocurrency, a pattern we've observed in local exchanges in other regions such as Latin America and Africa. If the pattern here is the same, it's likely that most users utilize BTCTurk to purchase cryptocurrency before sending it to other, larger platforms like Binance that offer more liquidity and trading pairs.



Cryptocurrency adoption and regulation in the Middle East

Below, we look at the regulatory landscape and adoption drivers in a few notable Middle Eastern countries, starting with Turkey.

Turkey currently has no cryptocurrency regulations, but that appears set to change. As of January, the country's Capital Markets Board (CMB) is **developing a framework** to observe and report on the country's cryptocurrency markets, with the eventual goal of enacting regulations. Turkish cryptocurrency observers and operators, such as Huobi Turkey General Manager Alphan Gogus, are optimistic. "[CMB regulation] will lead to a growth in the active user base and trading volume, thus the value of the Turkish crypto market will increase," Gogus told CoinTelegraph. Gogus went on to note that a strong regulatory framework should foster better cooperation between cryptocurrency businesses and traditional financial institutions, while also protecting consumers. Other reports indicate that Turkey's central bank intends to **launch a digital lira** in the near future.

However, even without regulations in place, Turkey has seen substantial cryptocurrency adoption already, ranking 29th out of 154 countries on our Global Crypto Adoption Index and first in the Middle East. **Experts attribute** Turkey's high adoption to economic uncertainty in the region. The lira has been extremely volatile in recent years, prompting some to shift portions of their savings to cryptocurrency. The country also had higher pre-existing adoption of mobile fintech and payments platforms — a **2015 survey** from ING showed that 56% of Turks had used such platforms versus 33% of Europeans — which experts say likely made the transition to cryptocurrency more natural for Turkish consumers.

Other Middle Eastern countries, despite having lower adoption, are further along in government acceptance, regulation, and even promotion of cryptocurrency and blockchain technology. The United Arab Emirates (UAE) is a perfect example. It ranks 76th overall on our Global Crypto Adoption Index and fifth in the Middle East, and in October its Securities and Commodities Authority (SCA) **published cryptocurrency regulation proposals** for which it's currently seeking industry feedback. However, the UAE government has also taken an active role in promoting blockchain technology generally. State-owned corporations, for instance, are **leading several blockchain projects**, such as the establishment of a blockchain-based financial trade platform known as the Digital Silk Road by bank Emirates NBD and the Dubai Chamber of Commerce. The Abu Dhabi Global Market (ADGM), a financial center established in the UAE capital of Abu Dhabi as its own jurisdiction with the goal of building up the area's financial sector, has passed its own cryptocurrency regulations and **attracted several cryptocurrency businesses** looking to operate in the region.

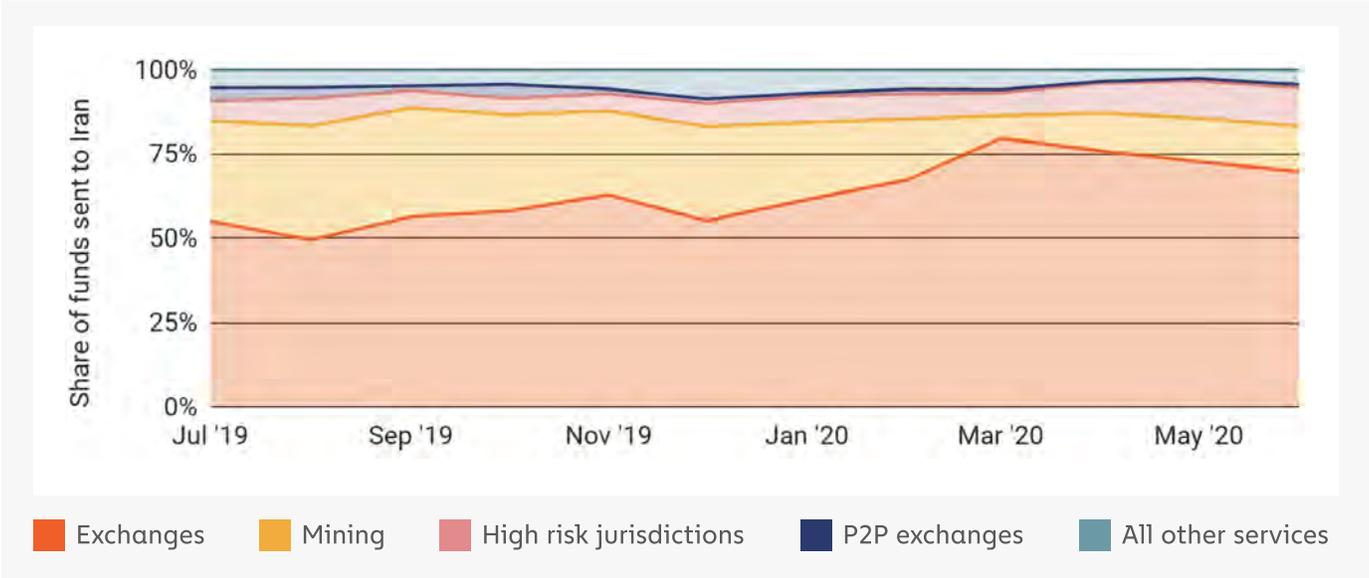


Saudi Arabia has taken a similar approach. Though cryptocurrency trading is formally banned, the country still generates some transaction volume, ranking 93rd overall on our Global Crypto Adoption Index. Despite the trading ban, the Saudi Arabian Monetary Authority (SAMA), the country's central bank, has **conducted several blockchain initiatives**, including using blockchain technology to deposit funds to local banks, giving them more liquidity. SAMA has also partnered with the UAE's central bank on a plan to establish a cryptocurrency for remittances between the two countries. Bahrain is another example. In early 2019, its central bank **established a regulatory sandbox** for cryptocurrency businesses and other fintech providers to test their products with limited users pending further legislation. Already, the cryptocurrency exchange Rain has graduated the sandbox and now operates in Bahrain with a full license, while several other cryptocurrency businesses continue to operate and grow in the sandbox.

Iran is another country whose government has promoted cryptocurrency and blockchain adoption, arguably with more success than the UAE and Saudi Arabia, as it ranks 52nd on our Global Crypto Adoption Index. Like many other countries, inflation appears to drive much of the grassroots adoption, with **CoinTelegraph noting** that Bitcoin demand in Iran skyrocketed in 2018 amidst heavy devaluation of the Iranian rial, driving Bitcoin prices to over \$34,000 USD locally on P2P exchanges.

The Iranian government has **actively solicited** mining projects in particular to set up shop in the country and take advantage of its low-priced power, granting over 1,000 licenses to these operations so far, the largest being run by **the Turkey-based iMiner**. That emphasis is visible in the cryptocurrency transaction data of local Iranian services, which have higher exposure to mining addresses than services in other countries.

Origin of funds sent to Iranian-based services | Jul '19 to Jun '20



Currencies included: BTC, ETH, TUSD, USDC, USDT



Nearly 17% of funds moving to local Iranian services come from mining entities, compared to just 5% for Middle East-based services overall.

In addition to promoting mining projects, Iran's Central Bank has also **voiced its intention** to launch a national cryptocurrency. Government leaders have explicitly said that one goal of this and other cryptocurrency projects is to skirt sanctions levied by the U.S. and several of its allies. Regulators and intelligence agents have long regarded sanctions violations as one of the most serious potential misuses of cryptocurrency, and dangers of sanctions violations have prompted some exchanges like LocalBitcoins to **deny service** to Iranian users.

Iran isn't the only security concern in the region either. Recently, the **DOJ brought complaints** seized more than \$1 million worth of cryptocurrency from Middle East-based terrorist groups and their financial facilitators who helped these groups solicit donations in cryptocurrency; though, to be clear, the majority of that sum came from money services businesses run by the financial facilitators and wasn't necessarily used to fund terrorism. Overall, terrorism financing remains a miniscule percentage of Middle Eastern cryptocurrency activity in total, and with countries like Turkey and the UAE promoting safe, productive cryptocurrency activity, we're optimistic about the future of the region.

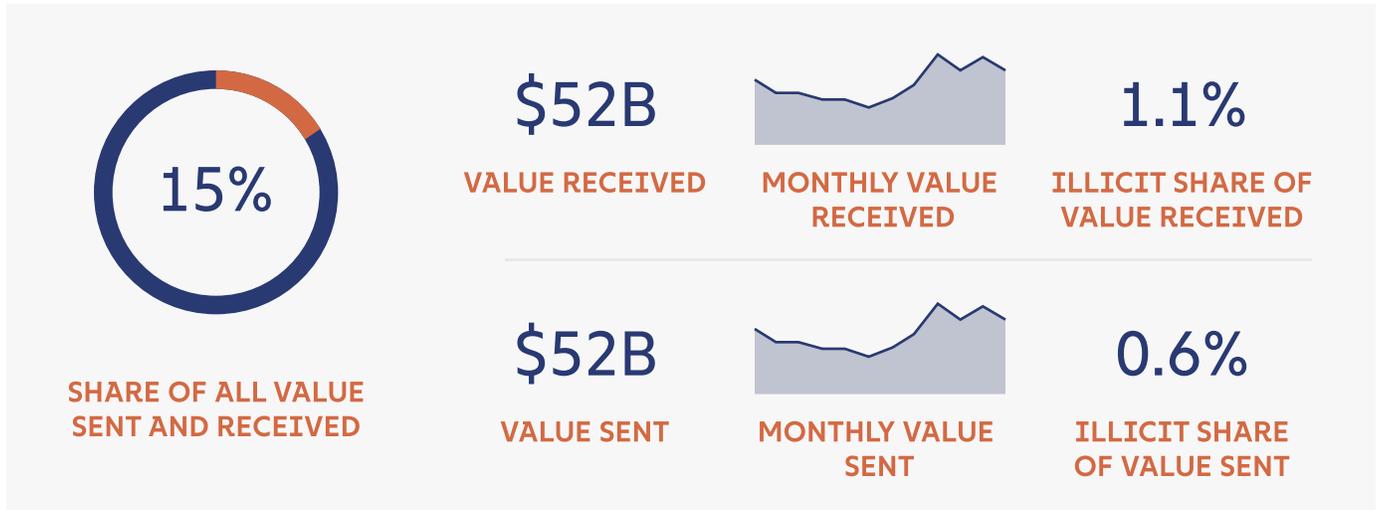


North America

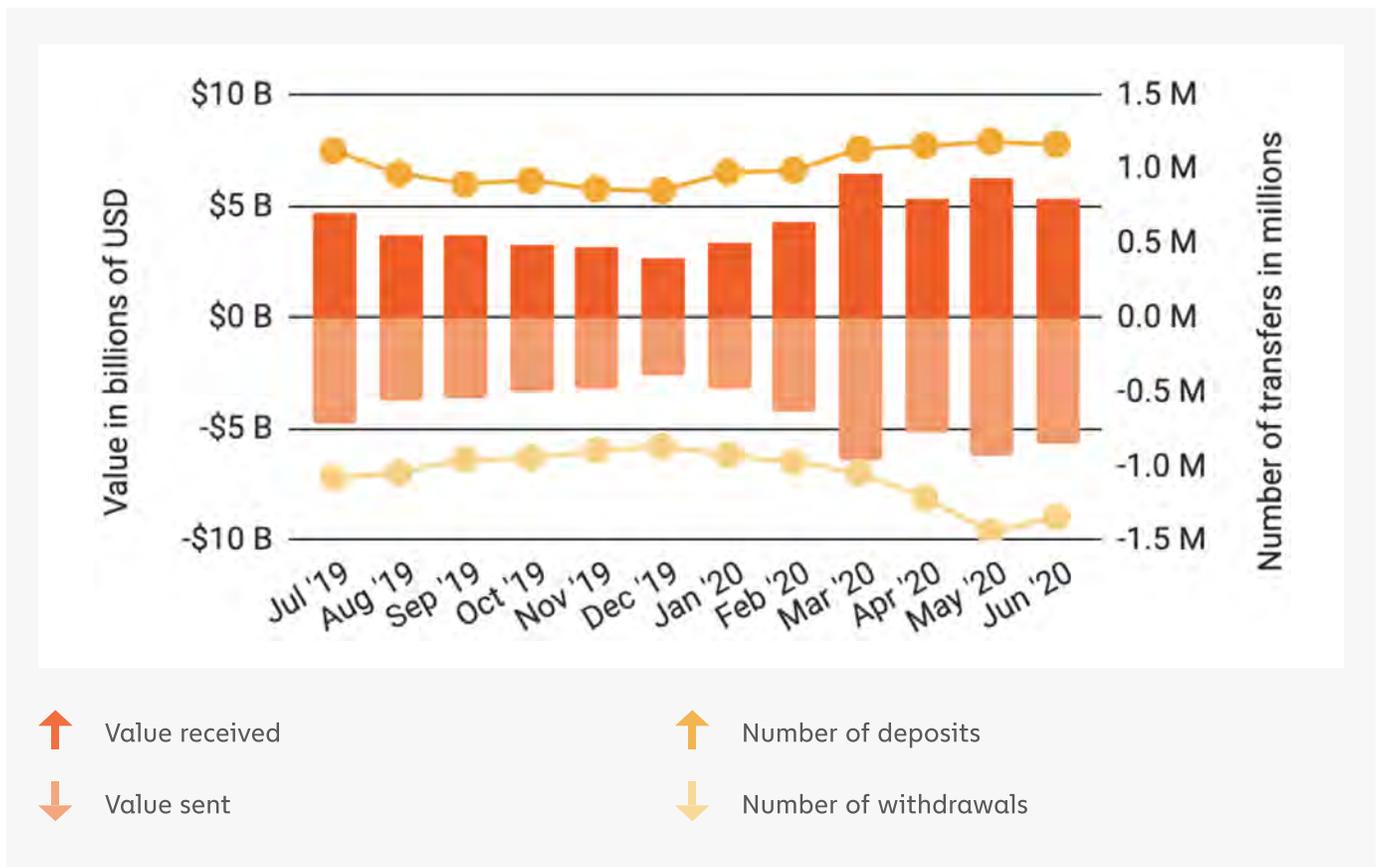
Conservative Buy-and-Hold Strategy Dominates
as Institutional Investors Move In



Summary of North America's cryptocurrency activity | Jul '19 - Jun '20



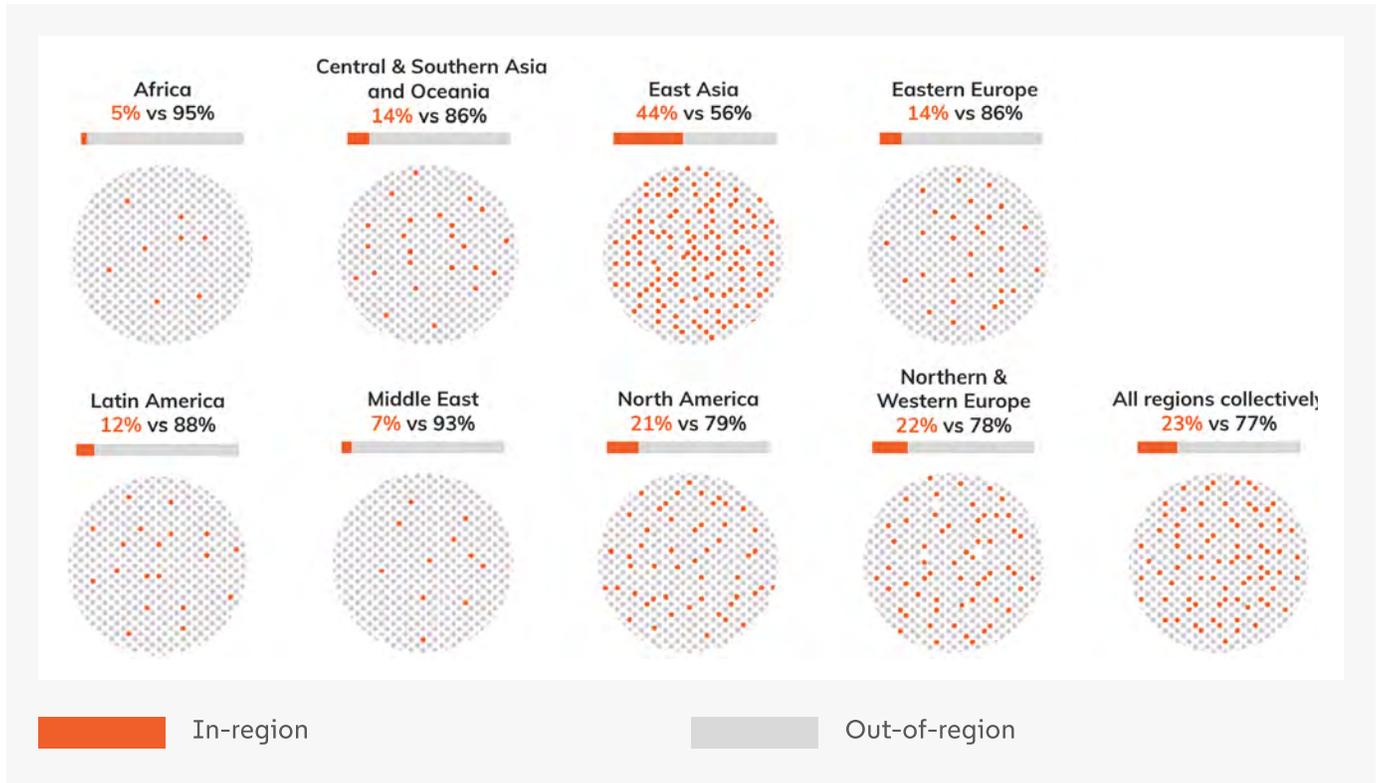
Value and transfers in and out of North America | Jul '19 to Jun '20



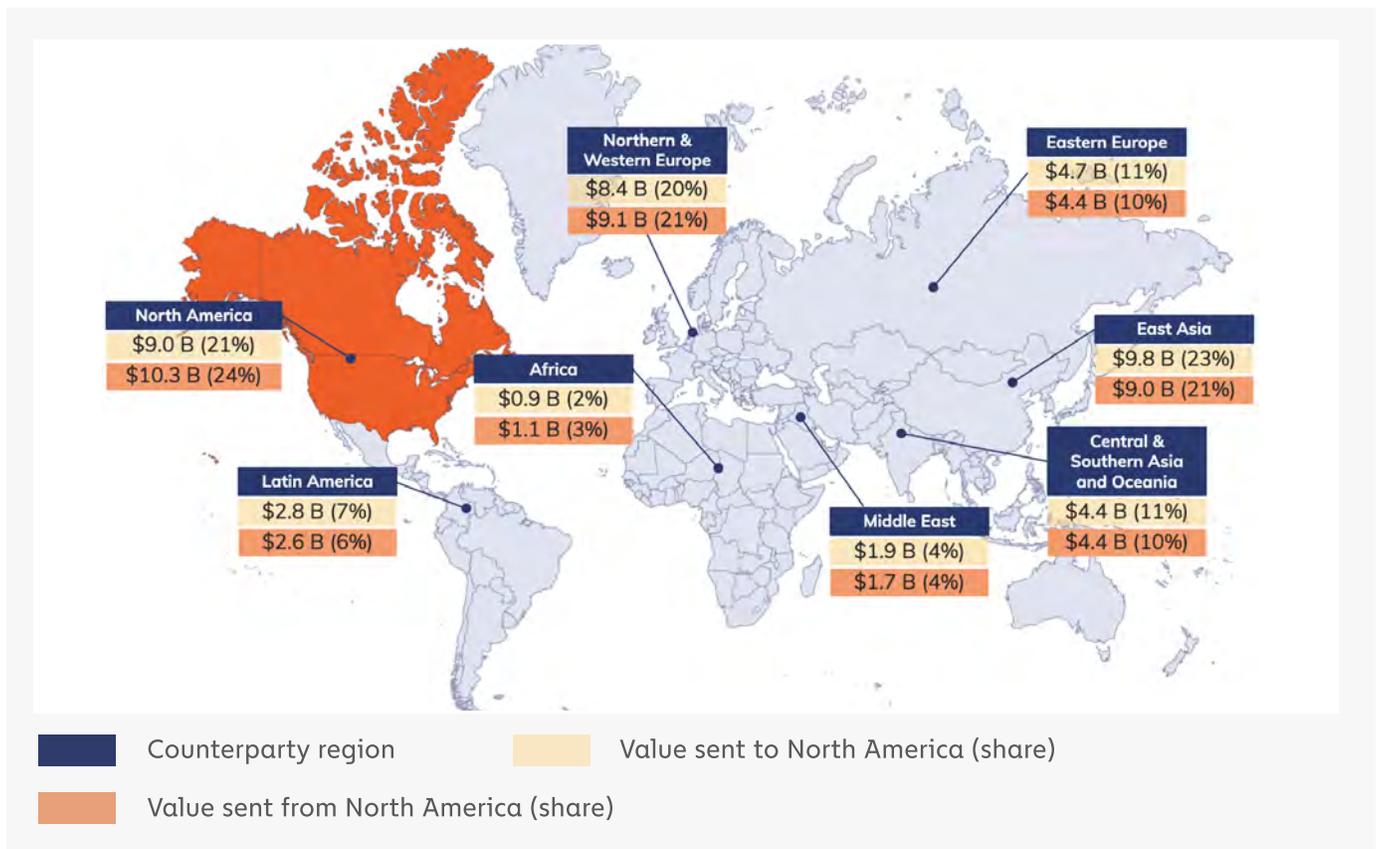
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



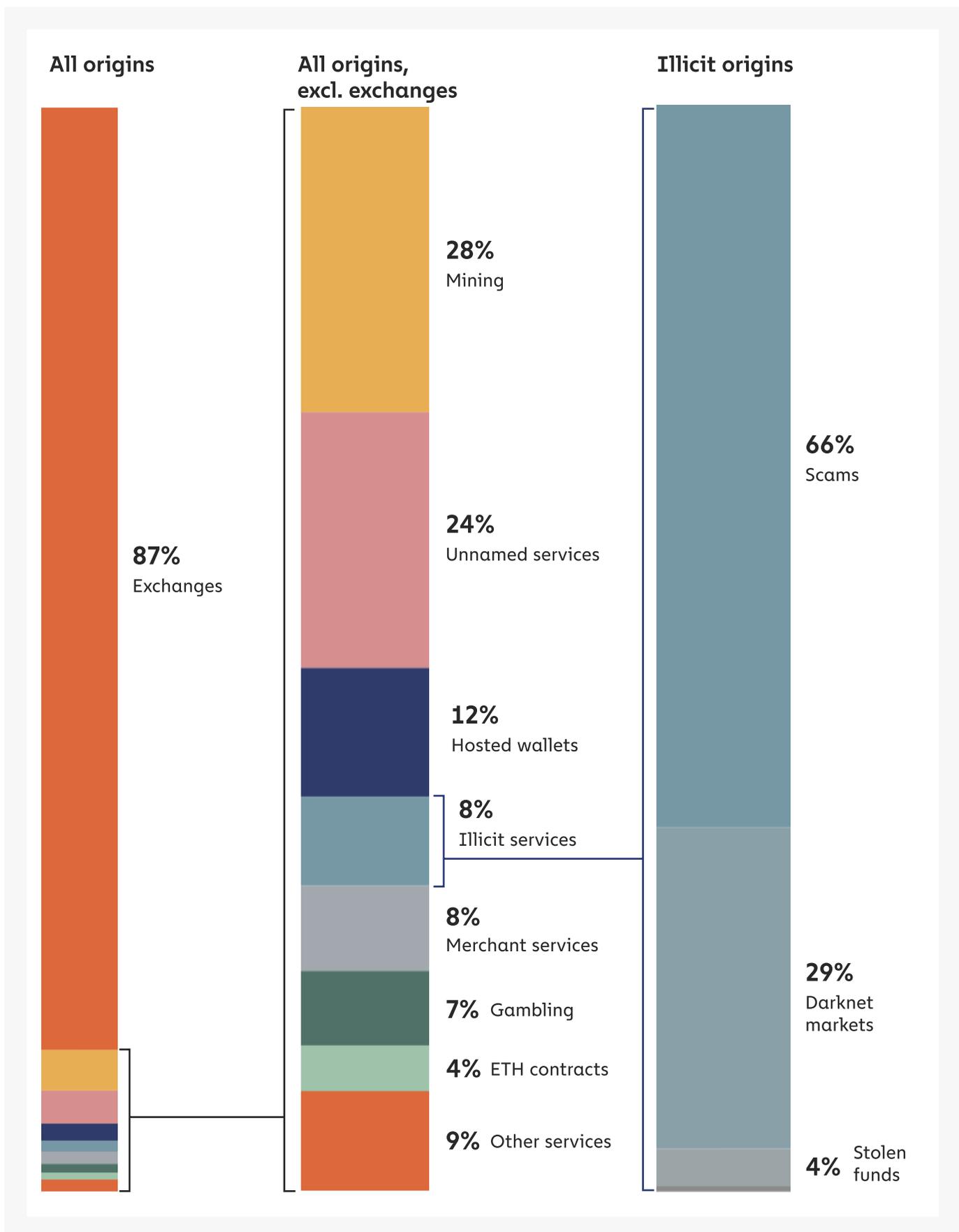
North America's regional counterparties by volume | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



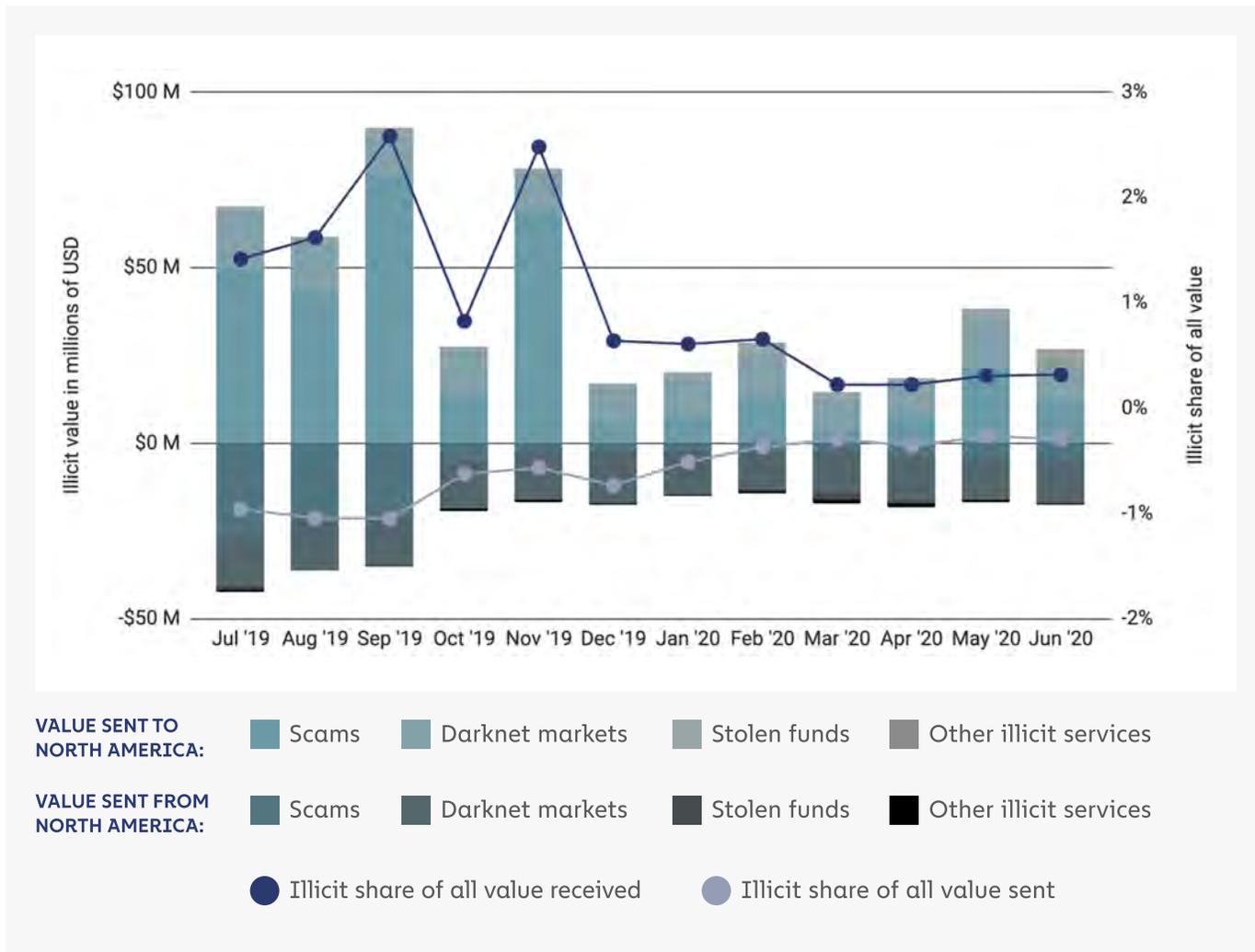
Origin of value sent to North America | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in North America | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

North America is the third-most active region by cryptocurrency volume moved on-chain, just behind Northern & Western Europe (NWE) and well behind East Asia. Overall, North America-based addresses accounted for an estimated 14.8% of all cryptocurrency activity over the time period studied. Like East Asia, North America has an extremely active professional market, though its strategies for cryptocurrency investment appear to be much different from its East Asian counterpart, as we'll explore later.

North America also hosts a growing class of institutional investors conducting even larger transfers of cryptocurrency than what we typically refer to as professionals. The institutional share of the market has grown over the past few years, which can be seen by many to legitimize cryptocurrency as an asset class. In addition, we'll also explore North America's relationship with other regions, in particular East Asia and NWE, which represent the region's two largest trading partners.

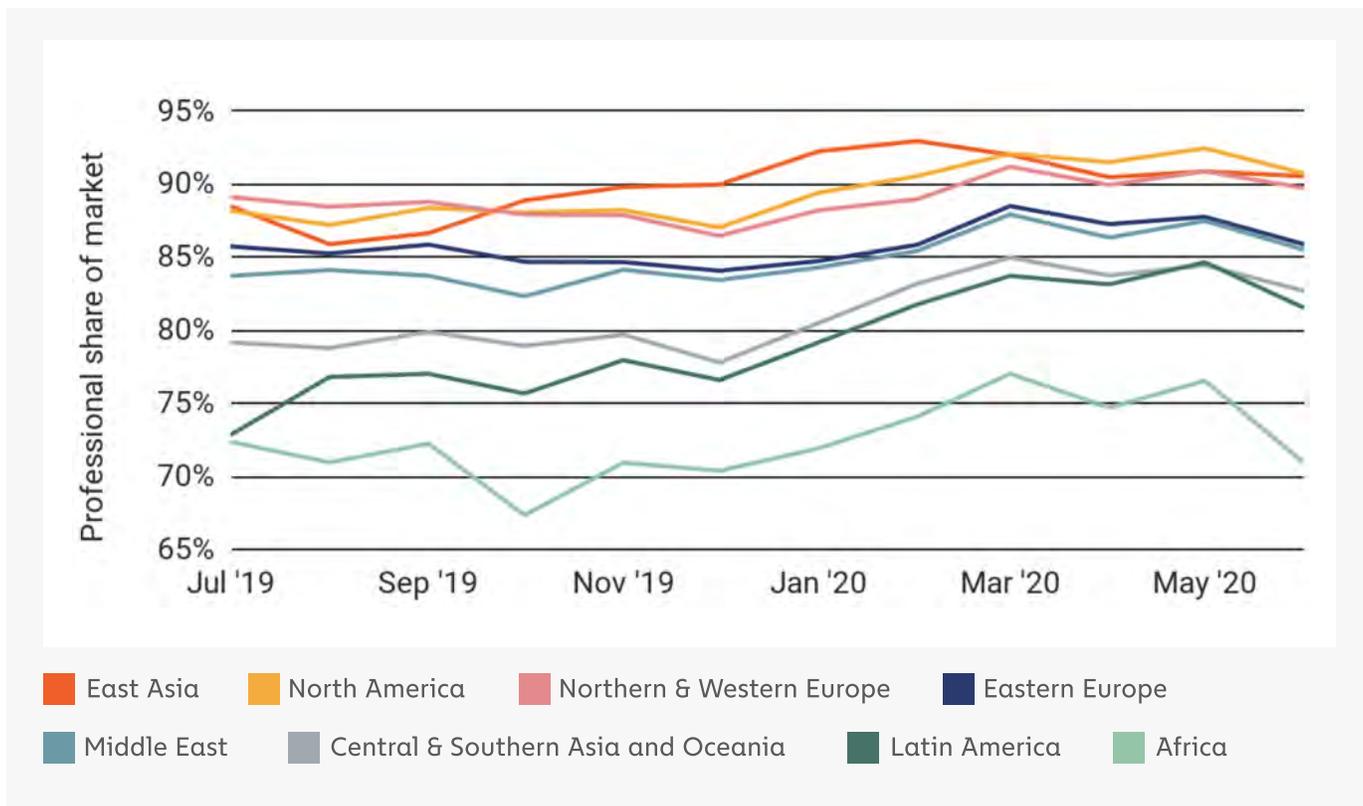


From professional to institutional

In March 2020, North America surpassed East Asia as the region where professional investors dominate most.

Professional share of cryptocurrency volume received by region

| Jul '19 - Jun '20



Currencies included: BTC

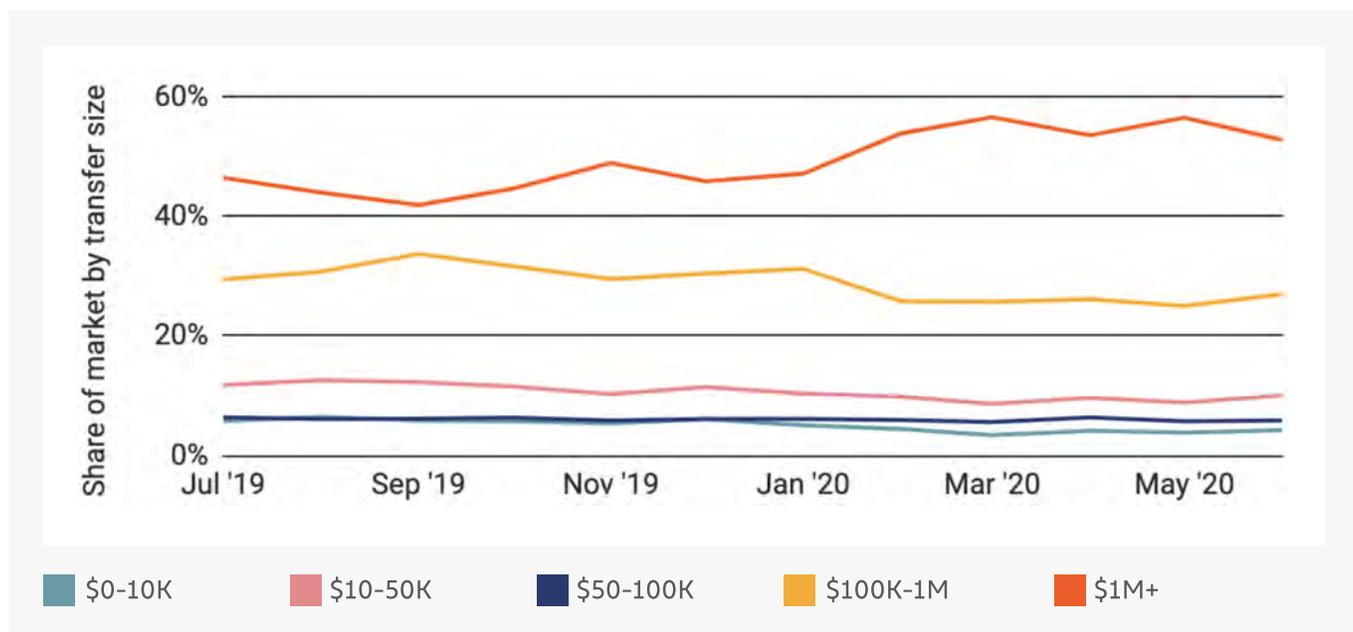
As of June, over 90% of cryptocurrency transfer volume came from professional-sized transfers above \$10,000 worth of cryptocurrency.

However, over the last two years in North America, we're seeing the impact of a growing class of institutional investors whose transfers account for the growing dominance of professionals in the North American market since December 2019. Below, we show North America's cryptocurrency value transacted by transfer size, with professional-sized transfers broken out into more granular size buckets.



Cryptocurrency value transacted by transfer size in North America

| Jul '19 to Jun '20



Currencies included: BTC

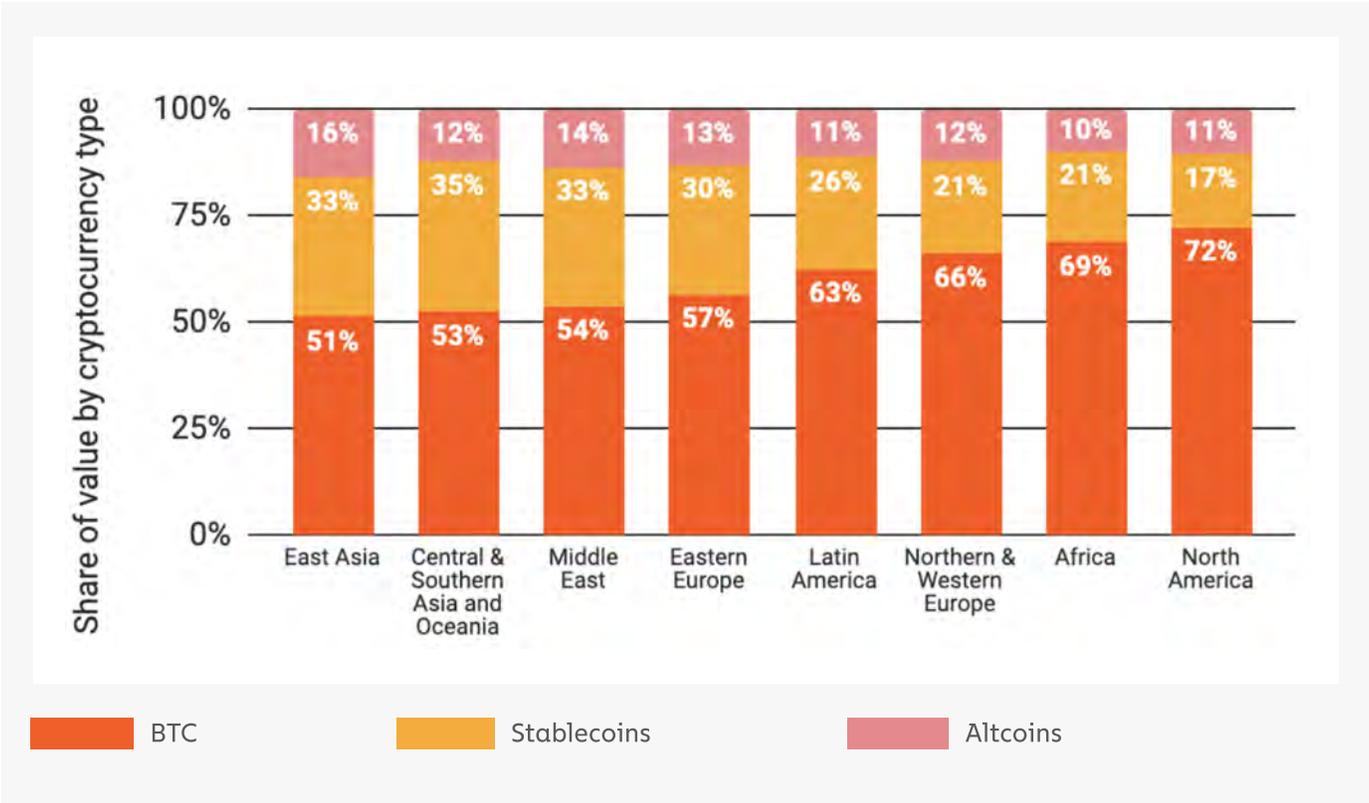
Starting around December 2019, the share of North America's total value transacted made up of transfers above \$1 million rises from 46% to a high of 57% in May 2020. That corresponds with the jump in the overall professional market share of North America activity rising from 87% in December 2019 to a high of 92% in May 2020. In other words, the increasing dominance of North America's professional market since December 2019 appears to be almost entirely driven by transfers of \$1 million or more worth of cryptocurrency, many of which we believe are coming from institutional investors.

Institutional investors' interest in cryptocurrency appears to be growing based on recent reports. In Fidelity Investments' [June 2020 survey](#) of nearly 800 institutional investors across the U.S. and Europe, 36% said they're currently invested in digital assets, while 60% said they believe digital assets have a place in their portfolio. Fidelity itself is helping to meet that demand with its [Fidelity Digital Assets platform](#), which offers crypto custody for institutional investors. In the crypto world, Coinbase has launched a similar initiative with [Coinbase Custody](#), which is also geared towards institutional investors. As institutional involvement in cryptocurrency continues to grow, it'll be interesting to see whether the preferred custody options for those investors come from a mainstream financial services company or a crypto-native company.

What's the strategy for professional and institutional investors in North America when it comes to cryptocurrency? The first thing we see from the data is that these investors disproportionately favor Bitcoin.



Share of regional activity by cryptocurrency type | Jul '19 - Jun '20



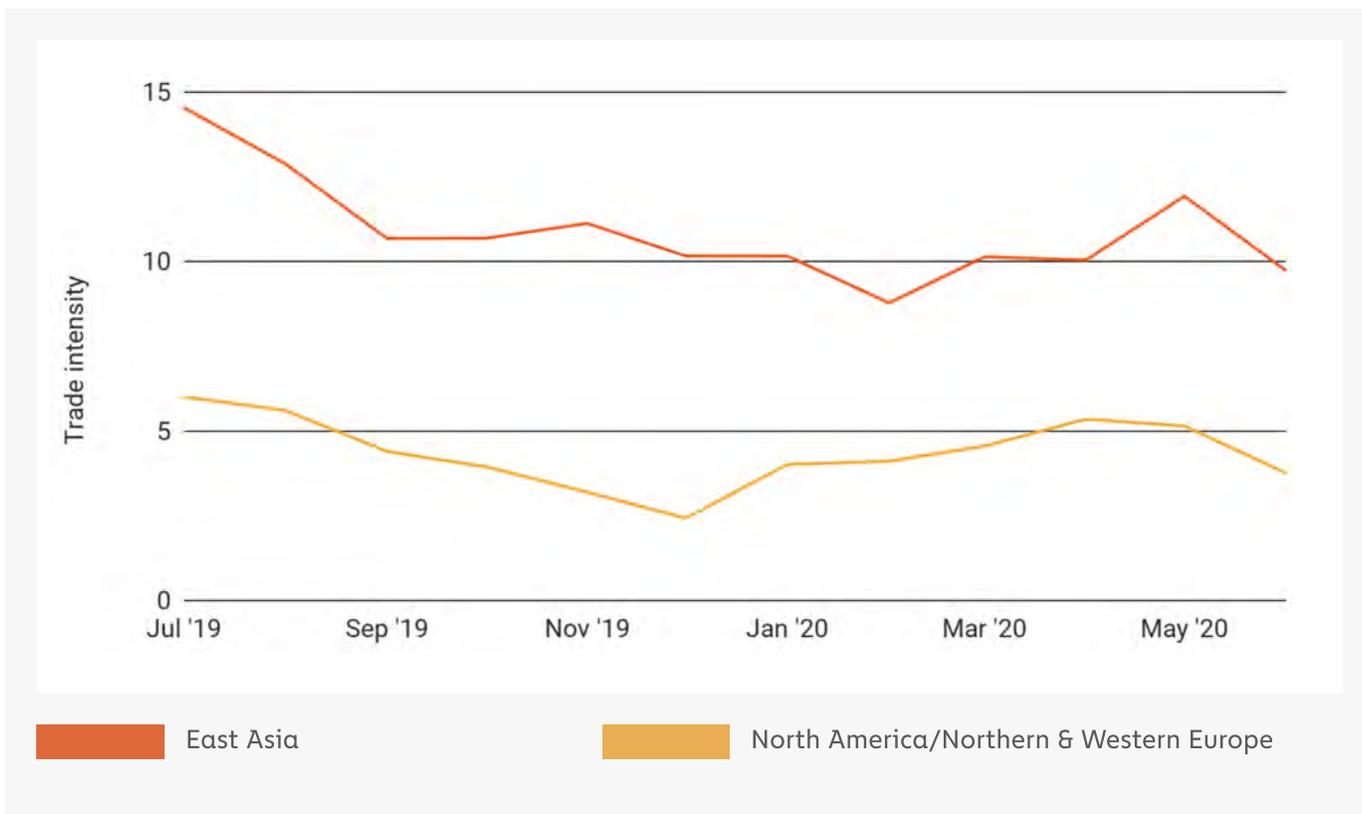
Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

While Bitcoin is the most popular cryptocurrency in every region by transaction volume, it makes up the biggest overall share of North American cryptocurrency activity, accounting for 72% of all transaction volume. Altcoins make up a notably low percentage of activity in North America, with their share just over half of that represented by altcoins in East Asia.

The data also suggests that North America-based professional and institutional investors tend to buy and hold cryptocurrency more so than those based in East Asia, who tend to trade at a higher frequency. We see this in the below chart that compares the trade intensity over time of six exchanges with predominantly Europe and North America-based users to that of six with predominantly East Asia-based users. Trade intensity measures the number of times each Bitcoin deposited on an exchange is traded within that exchange before moving off the platform.



Trade intensity in East Asia versus North America and Northern & Western Europe | Jul '19 to Jun '20



Currencies included: BTC

Trade intensity compares the value of order book trades to exchange inflows. An increase in trade intensity suggests more market participants want to buy than to sell.

Note: The East Asia-based exchanges included above are Bitflyer, Bitbank.cc, Bithumb, Huobi and OKEX The North America/Europe-based exchanges are Bitfinex, Coinbase, Gemini, Kraken, and Bitstamp.

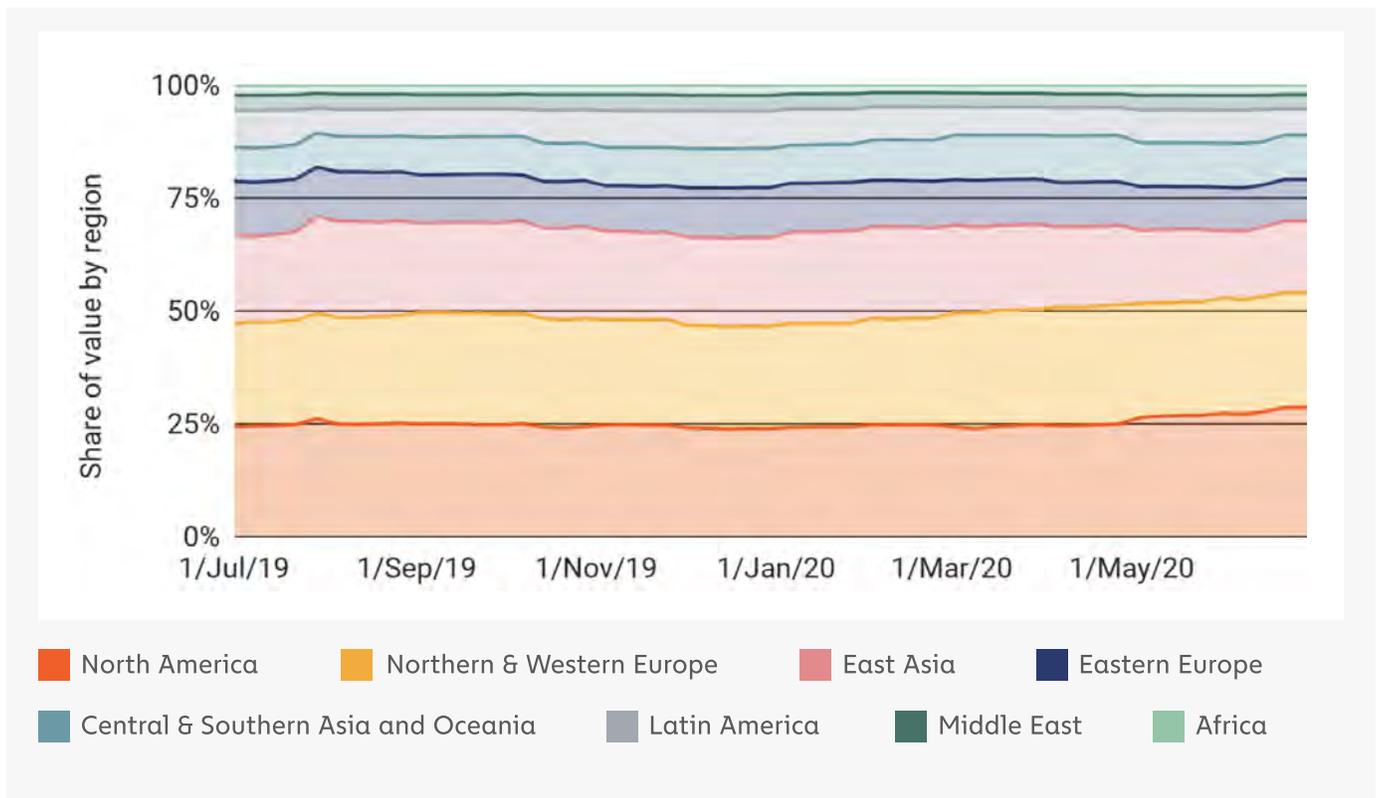
Source: Kaiiko

In most months, the East Asia-based exchanges have a trade intensity close to double that of the North America and NWE-based exchanges, save for the period of November and December 2019 when the East Asia exchanges' trade intensity shoots up to more than 3x that of the North America and NWE-based exchanges (it's unclear why the figure jumps so much during this time). These figures suggest that users of the exchanges catering more to North American and European users trade the cryptocurrency they deposit there less frequently than those catering to users in East Asia, instead opting to hold.

Our data on the balances of addresses broken down by region further suggests that North American users are more likely to buy and hold than those based in East Asia.



Weekly Bitcoin balance at service-hosted addresses | Jul '19 - Jun '20



Currencies included: BTC

Despite North America-based addresses making up roughly 15% of all cryptocurrency activity globally as of June 2020, behind NWE at 17% and East Asia at 31%, North American addresses lead the way in cryptocurrency balances. North American addresses currently hold 25% of all cryptocurrency currently parked at service-hosted addresses, compared to 19% for East Asia-based addresses. Those figures would suggest that North America-based users tend to let the cryptocurrency they acquire sit in their wallets and accumulate, while East Asia-based users tend to trade it more frequently.

What makes cryptocurrency attractive to professional and institutional investors in North America? We asked Philip Bonello, Director of Research at [Grayscale Investments](#), to give his opinion. Grayscale offers cryptocurrency-based investment products that allow customers to take positions on different types of cryptocurrency without directly buying them, and is helping many institutional investors take their first steps into digital assets. Bonello told us that many of these investors look at cryptocurrency the same way some do gold. "People see the Fed printing more money and putting more money into quantitative easing, and they want scarcer, uncorrelated assets," Bonello said. "Gold has typically filled this role, and now the same conditions are pushing investors to digital gold."



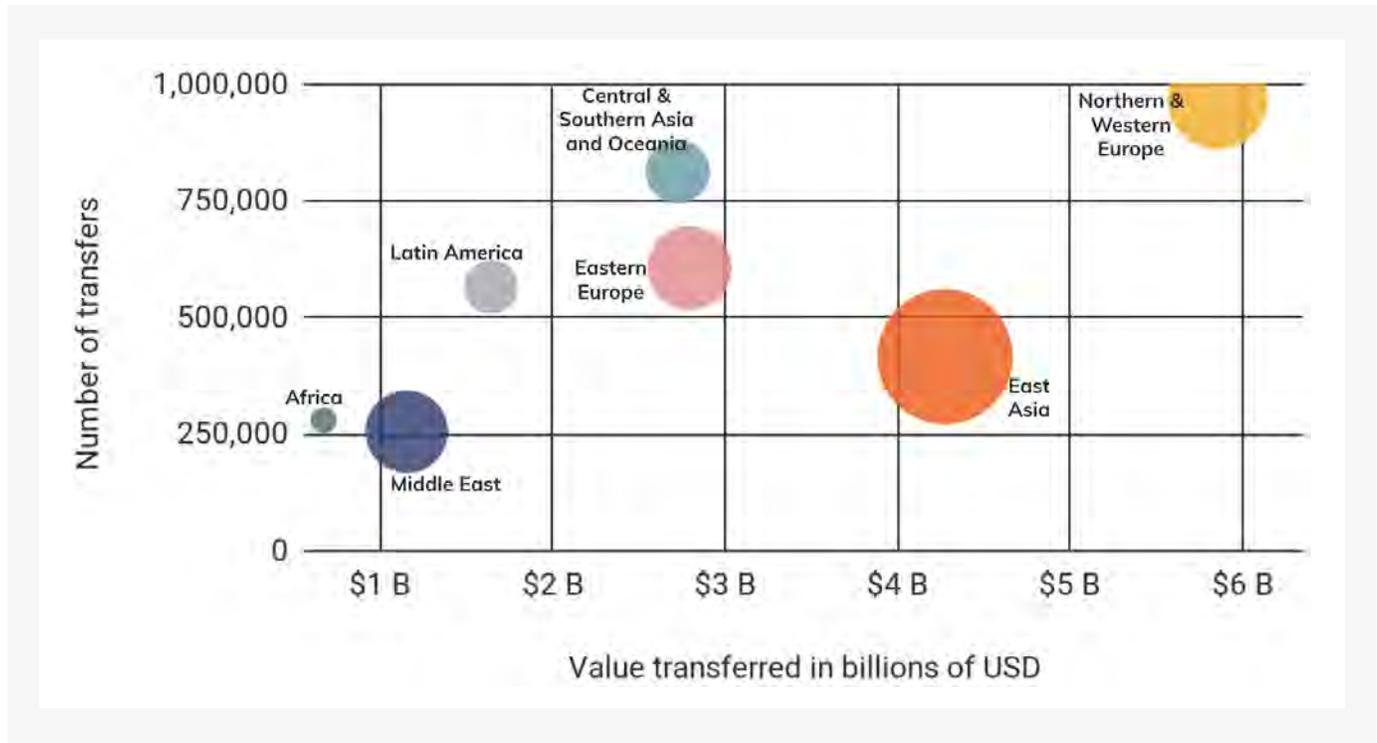
Bonello and his team made this case in a recent [research report](#) released by Grayscale, showing that Bitcoin's price correlates more with that of gold during periods of economic uncertainty and instability than it does with equities. However, we found that these correlations weaken if we look back over longer time periods, including during other times of economic uncertainty. This may mean that the view of Bitcoin and other cryptocurrencies as safe haven assets is one that has only recently begun to take hold, or that there's more nuance to the sentiment — perhaps investors view cryptocurrencies as a safe haven only in certain instances. Regardless, that sentiment is frequently noted as driving significant professional and institutional interest in cryptocurrency as an asset class.

It's also worth noting that North Americans use stablecoins the least compared to cryptocurrency users in all other regions aside from Africa, as they make up only 17% of total transaction volume over the last year. This is unsurprising when you consider that the most-used stablecoins are those pegged to the U.S. dollar. Users based in the United States, who make up the majority of North American users, can already get U.S. dollars easily, so those stablecoins serve much less purpose to them. However, that could change as more uses for stablecoins are developed. Some predict, for instance, that stablecoins could facilitate easier cross-border business-to-business payments. Deloitte wrote in a [recent report](#) that B2B payments services globally, particularly for middle market firms, present issues such as high fees, fraud risk, and payment delays that could be solved by cryptocurrency-based solutions. Startups like [Gilded](#) are already trying to address this issue by building crypto-based B2B payment systems.



Regional trading partners: North America and Northern & Western Europe form quasi-common market, plus heavy trade with East Asia

North America's total value, number of transfers, and average transfer size sent and received by counterparty region | Jul '19 to Jun '20



Currencies included: BTC

Bubble size denotes average transfer size

NWE is North America's largest direct regional trading partner, with approximately \$6 billion worth of cryptocurrency traded between the two regions over the time period studied. East Asia is just after NWE at \$4.3 billion. Interestingly though, the average transfer between East Asia and North America-based addresses is much larger at \$10,300 worth of cryptocurrency (as denoted by bubble size on the chart), while those between North America and NWE are just over half that amount at ~\$6,000. This suggests that transactions between North America and East Asia skew more toward professional and institutional investors, while those between North America and NWE skew more toward retail.

However, we believe this is also indicative of the fact that the North American and NWE cryptocurrency markets are intertwined, nearly to the point of behaving as one big market.



We would expect to see retail transfers make up more of the volume moving between the two regions if this is the case, as small-scale, often novice investors trading those small amounts tend to use the exchanges that are most popular in their region. An analysis of the top services in each region shows that this is indeed the case.

Top cryptocurrency services by cryptocurrency received on-chain, North America vs. Northern & Western Europe | Jul '19 to Jun '20

Service	North America	Northern & Western Europe
Coinbase	1	1
Gemini	2	>10
CumberlandMining	3	>10
Binance	4	3
Huobi	5	6
Kraken	6	2
Bitstamp	7	4
Paxful	8	>10
BitMEX	9	5
Bitfinex	10	7

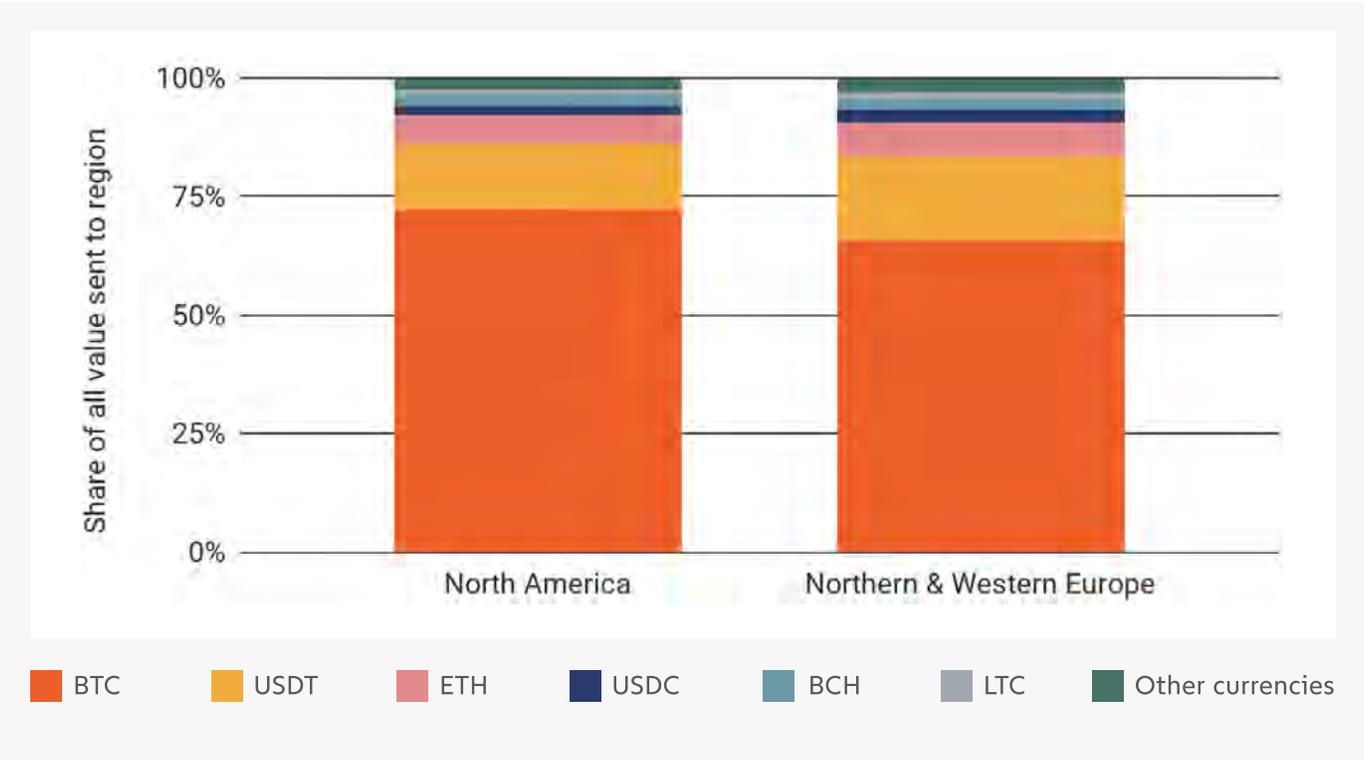
Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

How to read this table: The list comprises the top ten businesses receiving funds in North America. The second column pertaining to Northern & Western Europe shows where those top ten services rank in terms of NWE activity. Coinbase, for example, is the top service in both regions (colored orange). Gemini, however, is number two in North America and greater than number 10 in Northern & Western Europe.



North America and NWE also have a very similar breakdown of the types of cryptocurrencies used.

Share of regional activity by cryptocurrency type | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

Both regions focus primarily on Bitcoin, but also see substantial, similar levels of usage for Ethereum, USD Coin, Bitcoin Cash, and Litecoin. The biggest difference between the two is that NWE uses more Tether. But as we explored above, this is to be expected given that U.S.-based users have much less use for Tether.

East Asia is North America's second-largest cryptocurrency trading partner, with more of the volume moving between the two regions made up of professional-sized transfers. However, what stands out most is the enormous \$2 billion worth of cryptocurrency North America has received from East Asia on net during the time period studied. Though North America is a net receiver from nearly every region, this figure is more than double the net amount North America receives from any other. As we explore in greater detail in the East Asia section of this report, we believe that some of this represents capital flight from East Asian countries, in particular from China.



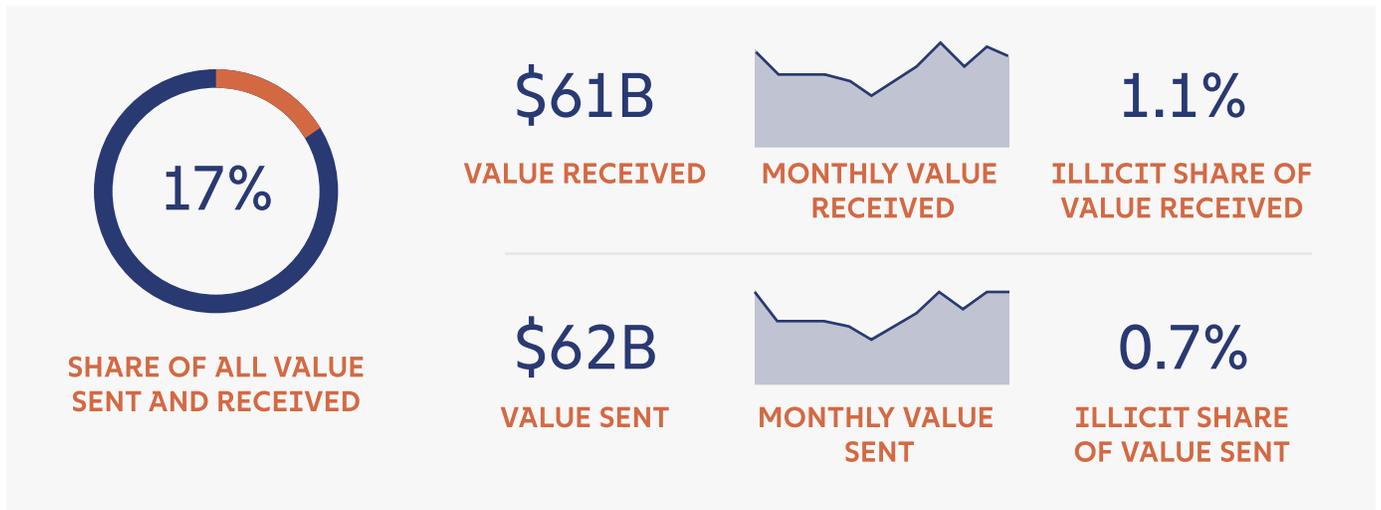
Northern & Western Europe

Strong Professional Market, But Surprising Findings in Illicit Activity



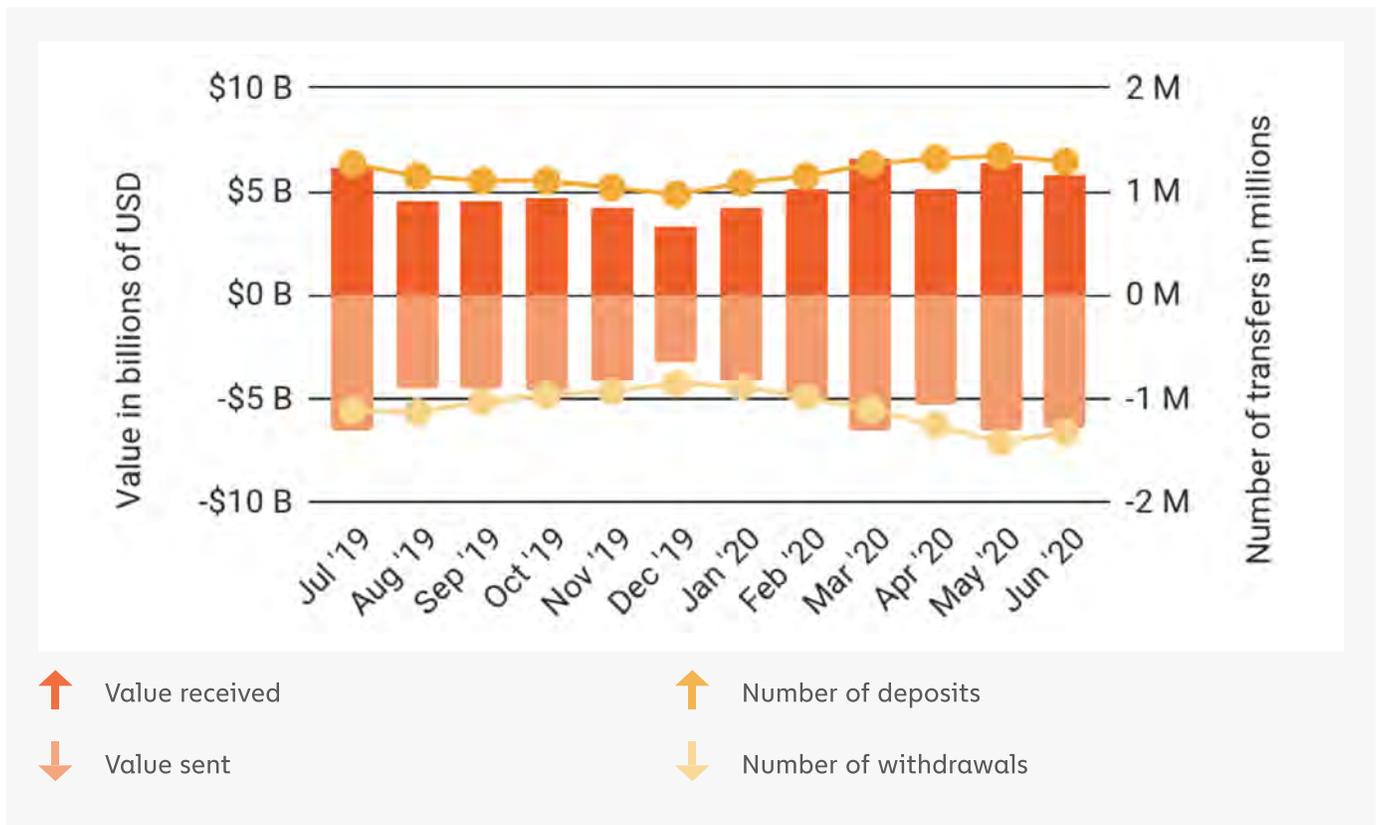
Summary of Northern & Western Europe's cryptocurrency activity

| Jul '19 - Jun '20



Value and transfers in and out of Northern & Western Europe

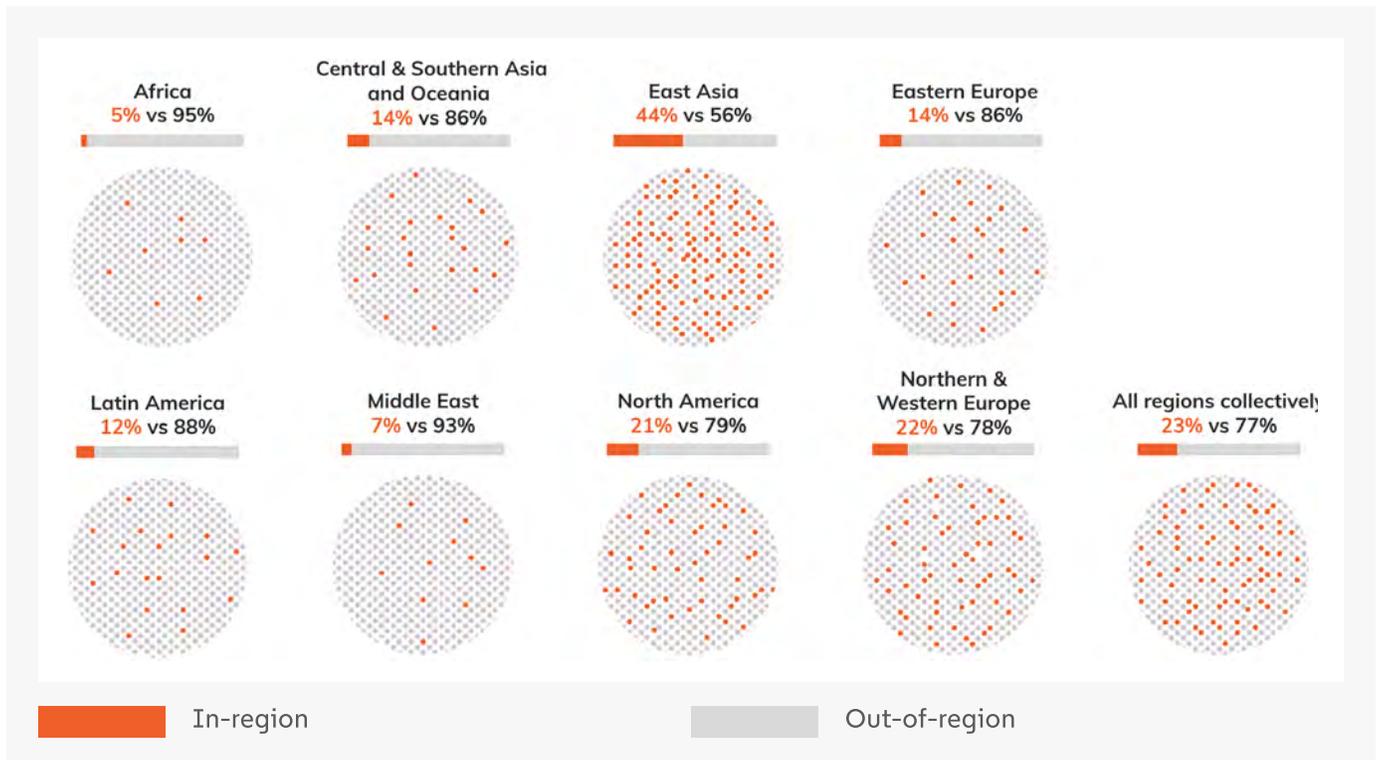
| Jul '19 to Jun '20



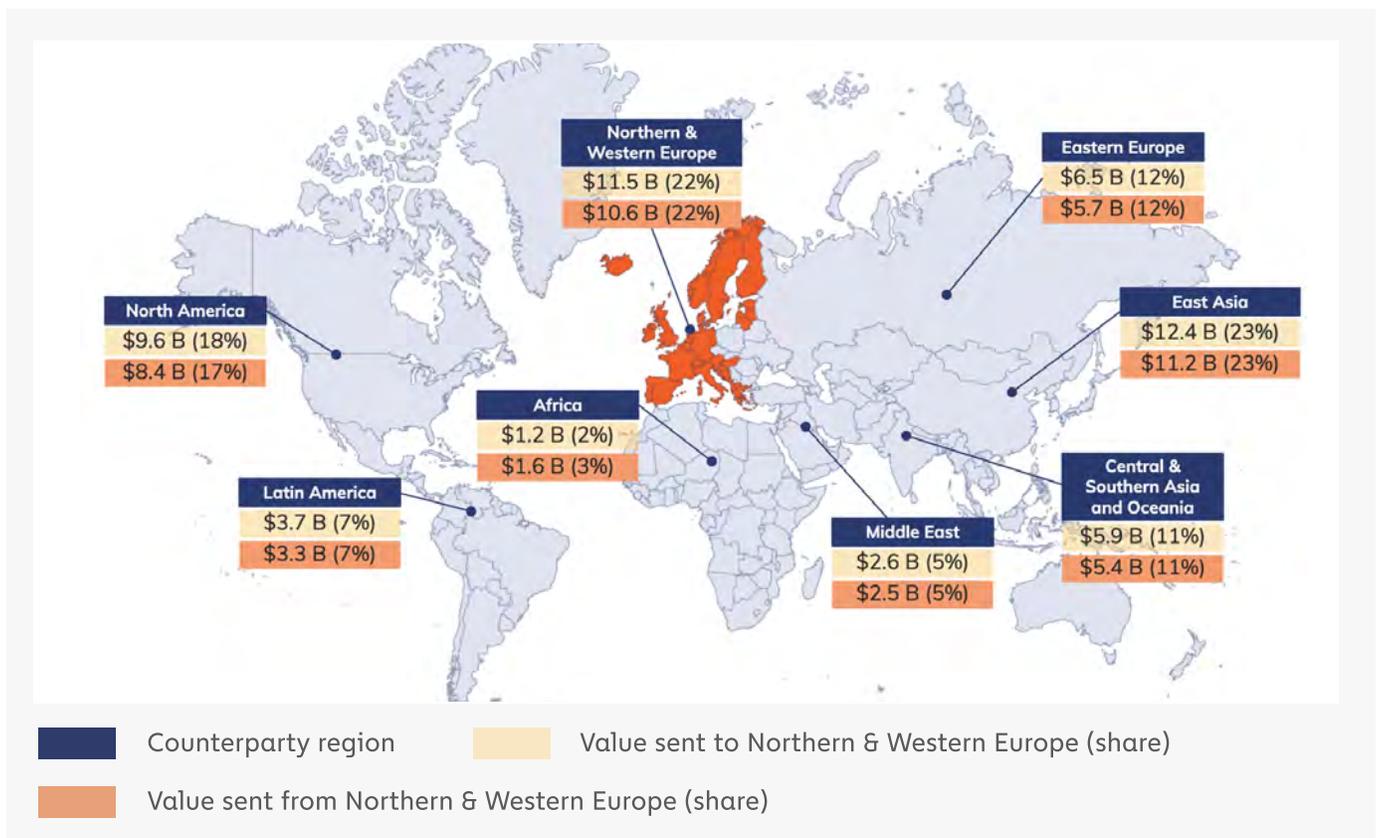
Currencies included for above charts: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Value received by origin: In-region vs out-of-region | Jul '19 to Jun '20



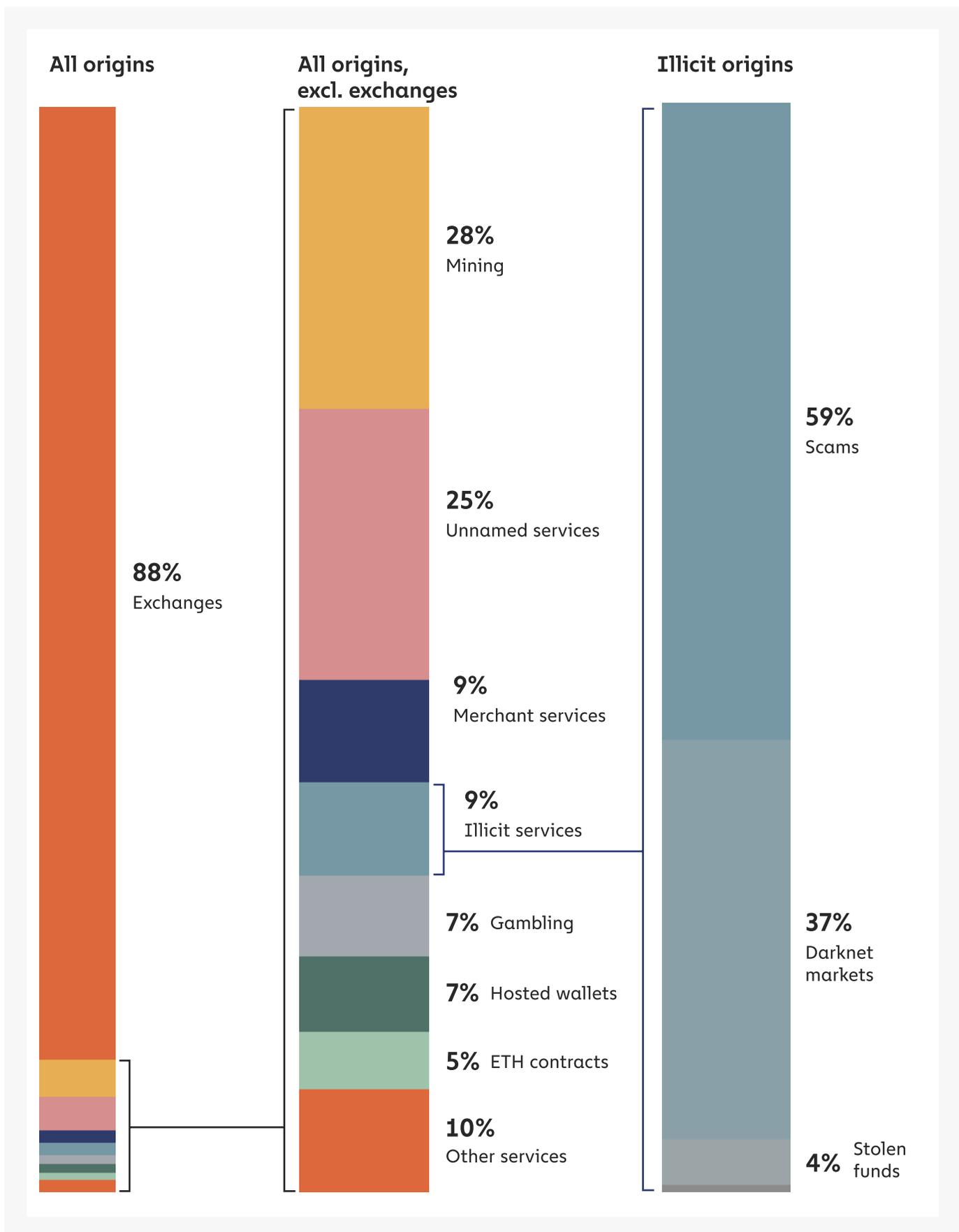
Northern & Western Europe's regional counterparties by volume | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



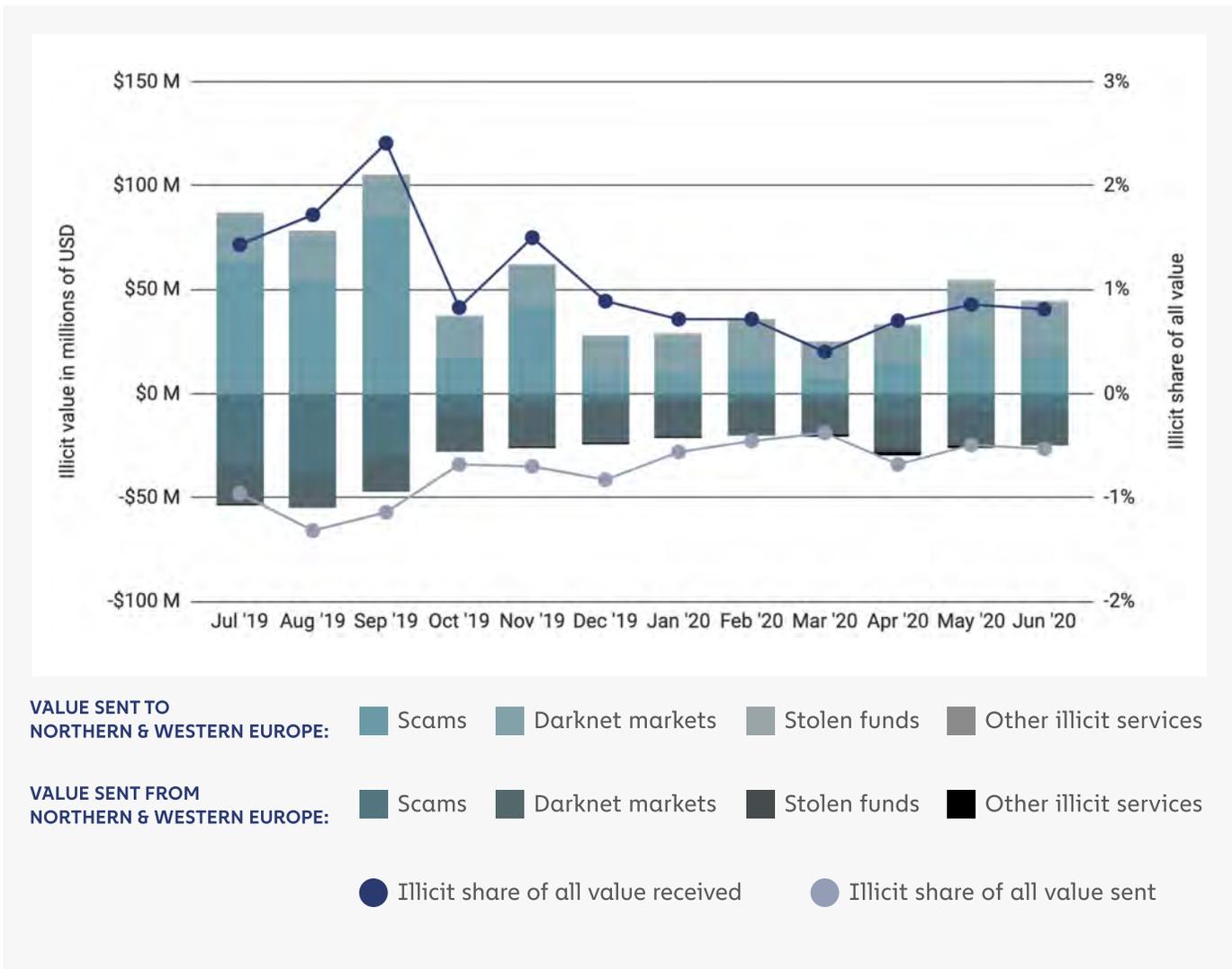
Origin of value sent to Northern & Western Europe | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT



Illicit activity in Northern & Western Europe | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Region overview

Northern & Western Europe (NWE) has the second-largest cryptocurrency market in the world behind East Asia, accounting for roughly 17% of all cryptocurrency value sent and received globally. Like East Asia, North America, and other highly-developed cryptocurrency markets, professional traders account for the vast majority of value transacted. NWE's professional market exhibits a conservative, Bitcoin-focused strategy similar to that of North America, with one key difference being that NWE sends more funds to other regions. Illicit activity is also slightly higher in NWE as a share of all cryptocurrency activity, largely driven by ransomware and darknet markets.

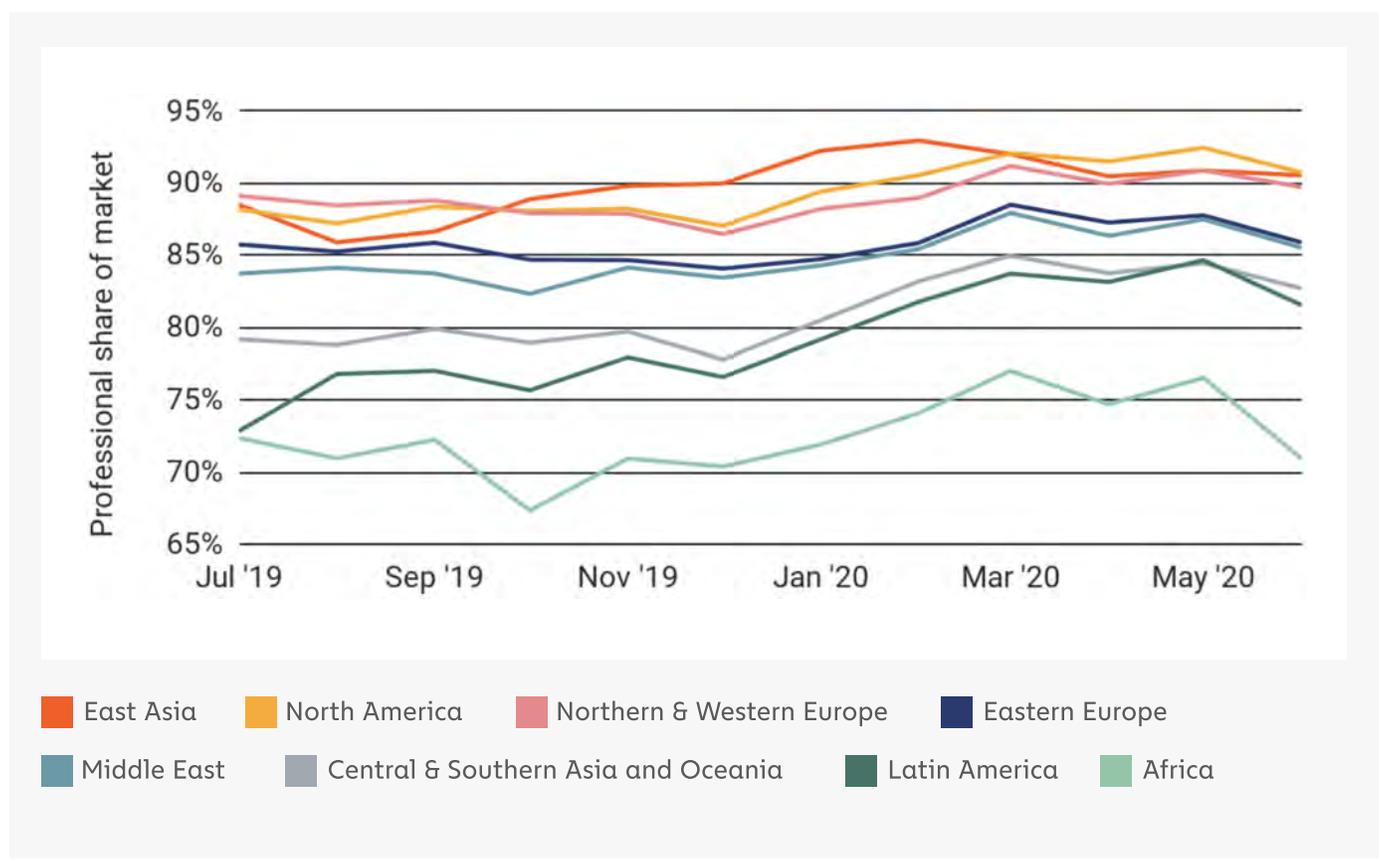


Professional traders in Northern & Western Europe favor Bitcoin and tend to hold

Like East Asia and North America, professional activity dominates NWE's cryptocurrency market, with transfers above \$10,000 worth of cryptocurrency accounting for nearly 90% of all volume received by addresses in the region.

Professional share of cryptocurrency volume received by region

| Jul '19 - Jun '20

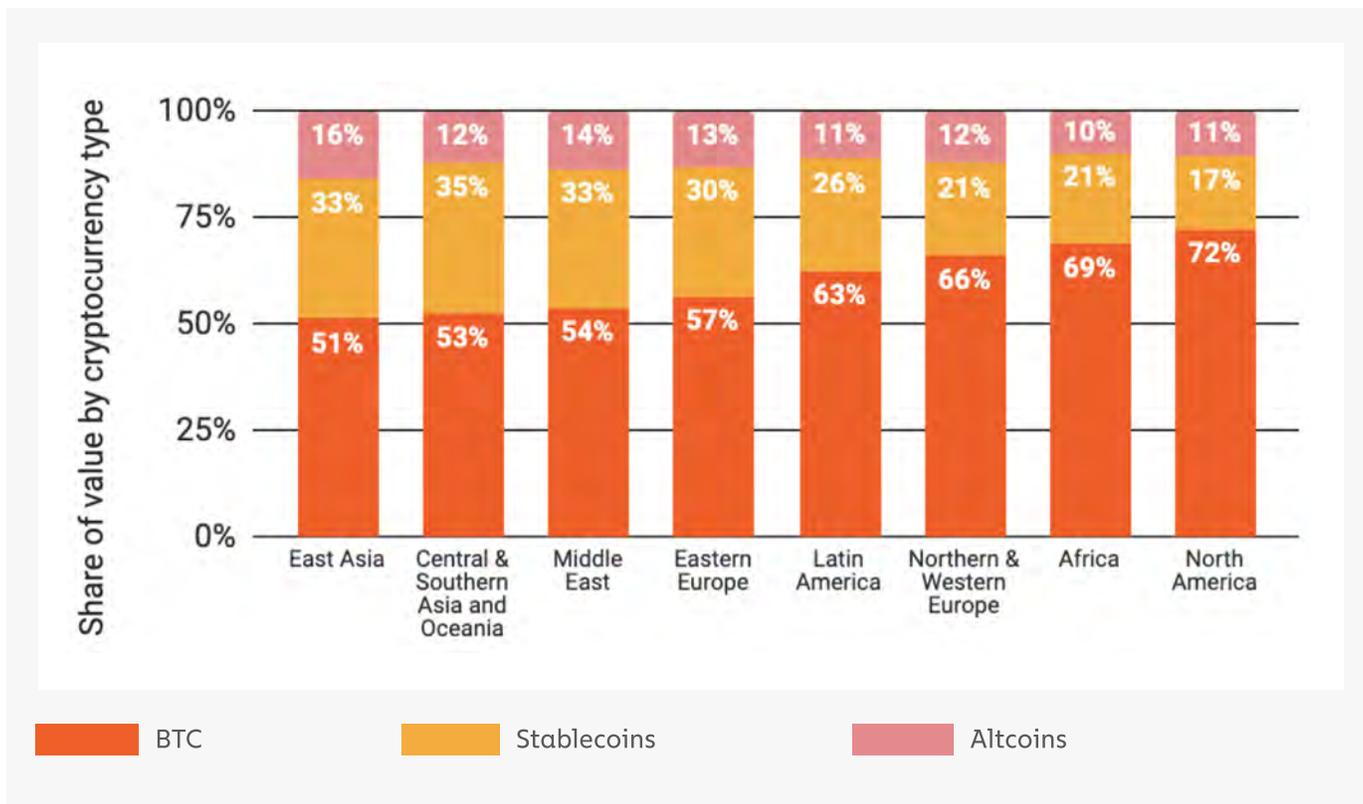


Currencies included: BTC

However, while East Asia's professional traders tend to trade a wider variety of cryptocurrencies at a higher frequency, traders in NWE more closely resemble those in North America, in that they transact more with Bitcoin and trade less frequently.



Share of regional activity by cryptocurrency type | Jul '19 - Jun '20



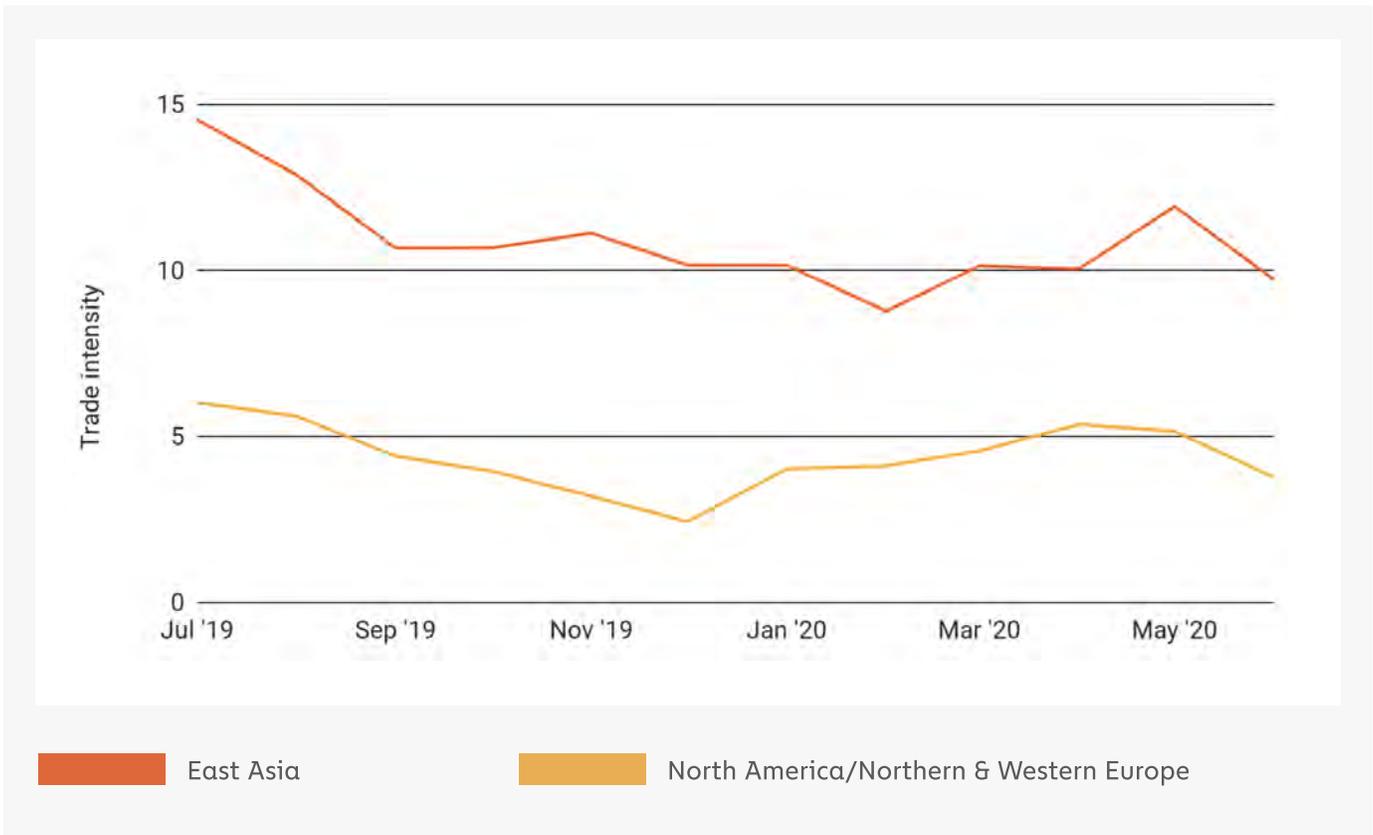
Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX

In the graph above showing each region's transaction volume by type of coin, we see that NWE's breakdown is nearly identical to that of North America. The only difference is that NWE has slightly less of its volume devoted to Bitcoin, with that difference largely going to stablecoins. That's unsurprising given that the stablecoins accounting for most of the value on the chart above are pegged to the U.S. dollar. Most North American traders are based in the United States, and therefore have far less need for cryptocurrencies that provide exposure to the dollar.

Like North America, NWE traders also tend to buy and hold cryptocurrency for longer. We can see this reflected in the trade intensity metric. Trade intensity measures the number of times each Bitcoin deposited on an exchange is traded within that exchange before moving off the platform. Below, we compare trade intensity for a sample of five exchanges with predominantly NWE and North American user bases, to a sample of exchanges primarily serving East Asia.



Trade intensity in East Asia versus North America and Northern & Western Europe | Jul '19 to Jun '20



Currencies included: BTC

Trade intensity compares the value of order book trades to exchange inflows. An increase in trade intensity suggests more market participants are more likely to trade than hold.

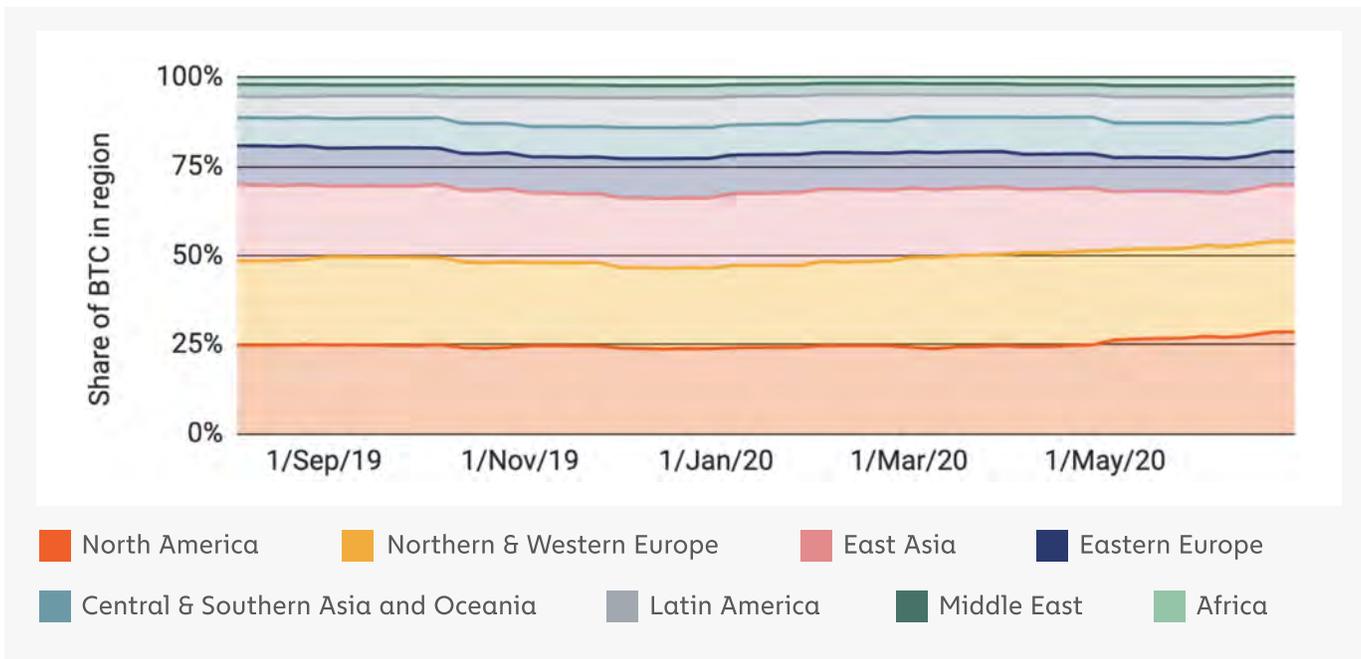
Note: The East Asia-based exchanges included above are Bitflyer, Bitbank.cc, Bithumb, Huobi and OKEX The North America/Europe-based exchanges are Bitfinex, Coinbase, Gemini, Kraken, and Bitstamp.

Source: Kaiko

Trade intensity is nearly twice as high for the East Asia-focused exchanges during the 12-month period studied, and in some months is even 3x higher. As a consequence of this, NWE-based addresses have a much larger collective balance than East Asia-based addresses.



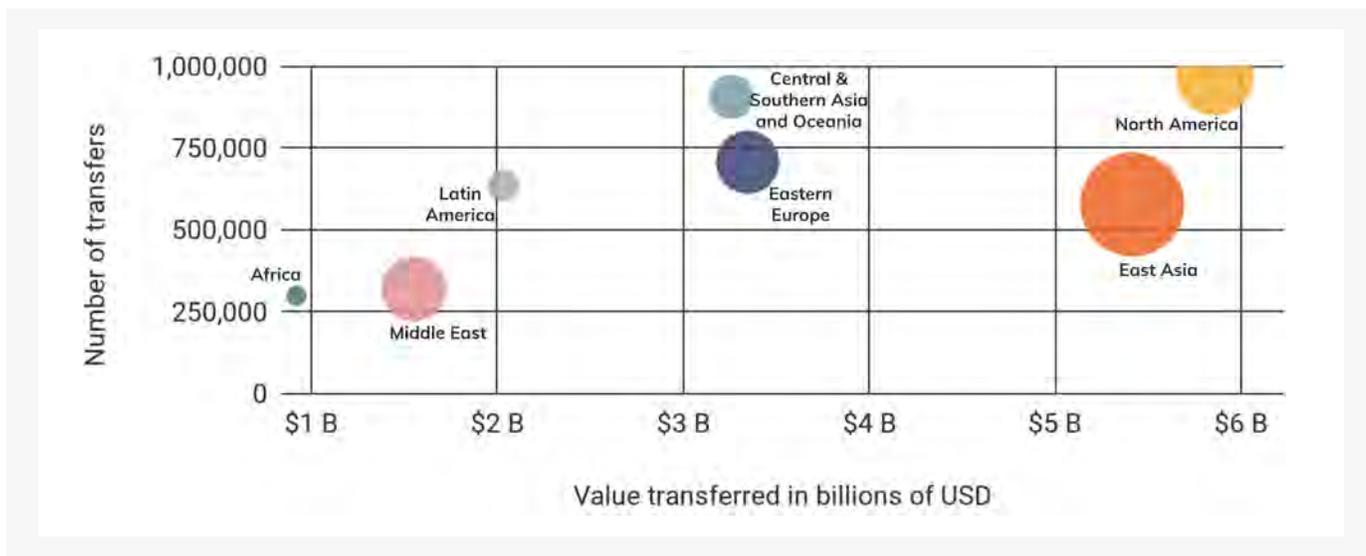
Weekly Bitcoin balance at service-hosted addresses | Jul '19 to Jun '20



Currencies included: BTC

NWE accounts for just over 25% of all Bitcoin held at service-based addresses, compared to just under 16% for East Asia, despite the fact that the overall East Asia cryptocurrency market is much larger, having received \$107 billion in transaction volume during the period studied, versus just \$61 billion for NWE.

Northern & Western Europe's total value, number of transfers, and average transfer size received by counterparty region | Jul '19 - Jun '20



Currencies included: BTC

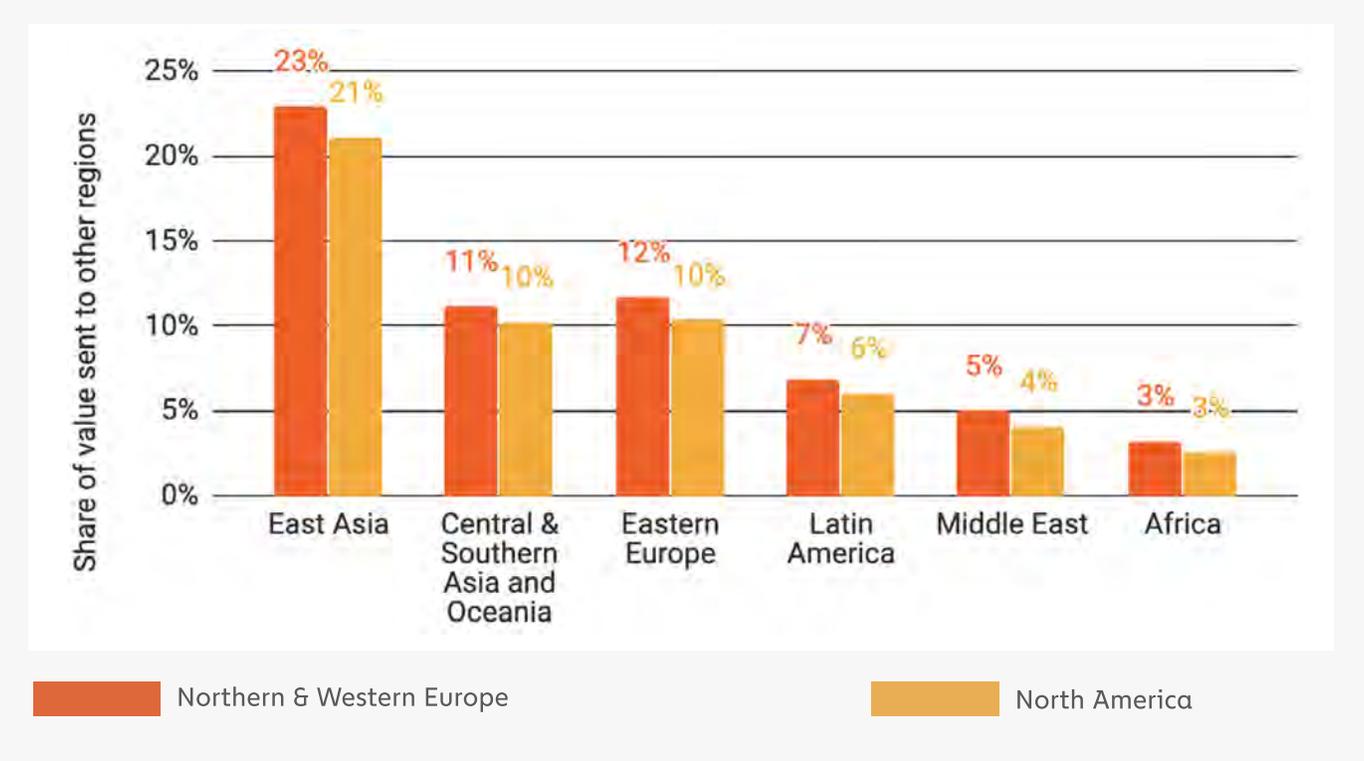
Bubble size denotes average transfer size



In addition to its similar trading strategy, North America is also NWE's largest cryptocurrency trading partner, with East Asia a close second. However, NWE's average transfer size in transactions with East Asia is larger than with North America, at \$9,365 versus \$6,035 worth of cryptocurrency. This indicates that a much larger share of North America-NWE volume is made up of retail transfers, which is what we'd expect to see given that there's heavy overlap in the services most popular in each region – seven of the top ten in each region overlap – which is where small-scale users tend to make most of their trades.

One area where NWE differs from North America, however, is that a higher share of its cryptocurrency volume sent goes to other regions. While the total difference is small, it's consistent across all counterparty regions.

Share of Northern & Western Europe and North America's value sent to other regions | Jul '19 - Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

While we don't have a definitive answer on why this is, one possibility is the remittances market. NWE sends much more fiat currency to other parts of the world in remittances than North America does at \$144.2 billion per year (0.79% of the region's total GDP) versus \$75.1 billion (0.34% of total GDP) according to the [World Bank](#), likely because the region is **home to more economic migrants**. If NWE is also a larger sender of cryptocurrency remittances, it could account for some of the differences we see on the chart above.

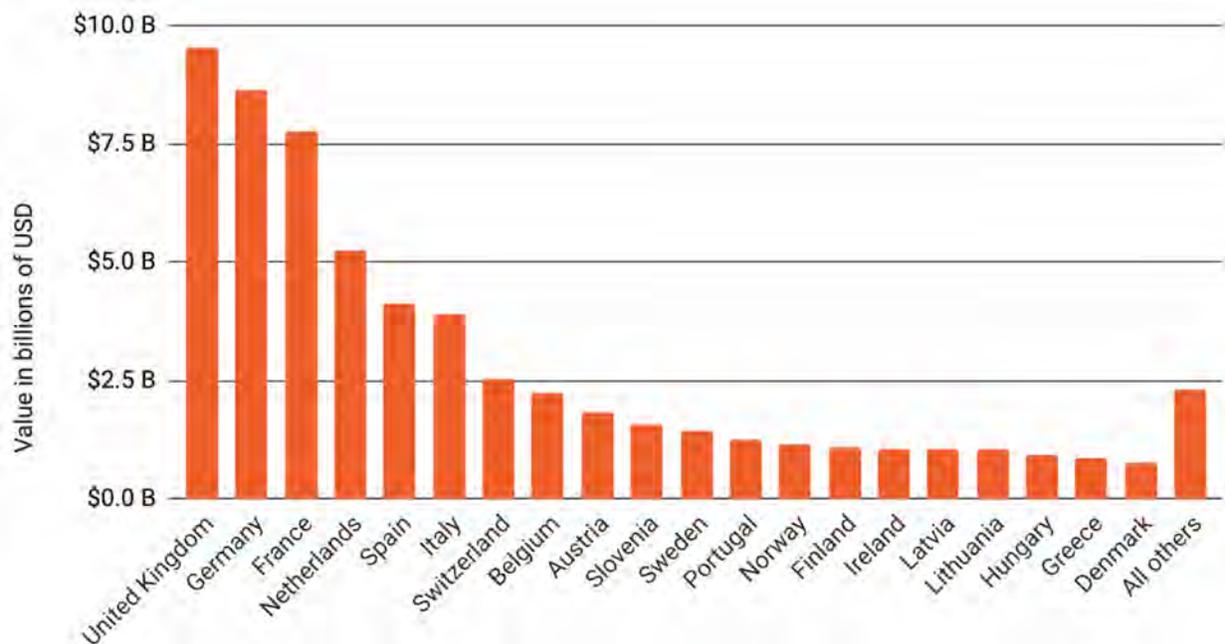


Northern & Western Europe faces some uncertainty over regulation

Institutional investors in both North America and NWE are becoming increasingly interested in cryptocurrency as an asset class. In one [Fidelity Investments survey](#) of over 800 institutional investors in both regions, 36% said they're currently invested in digital assets, while 60% said they believe digital assets have a place in their portfolio. But one interesting difference emerges when we look at why these investors are flocking to cryptocurrency: 25% of European investors surveyed cited lack of government intervention as an appealing aspect of cryptocurrency as an asset class, versus just 10% for U.S. investors.

Why the difference? One reason could be the difficulty thus far of passing cohesive cryptocurrency regulations across NWE.

Northern & Western European countries' value received on-chain | Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, BUSD, CRO, CRPT, DAI, ETH, GNO, GUSD, HT, HUSD, ICN, LEO, LINK, LTC, MCO, MKR, MLN, OMG, PAX, PAXG, TGBP, TUSD, USDC, USDT, WETH, ZIL, ZRX



Several different countries, most of whom are EU member states, contribute significant cryptocurrency activity to NWE's regional total, with the UK, Germany, and France leading the way. Many of them have passed their own unique cryptocurrency regulations, which makes it hard for cryptocurrency businesses to treat the EU as one, integrated market. Nathan Catania, a former regulator with the Gibraltar Financial Services Commission and now partner at consulting firm **XReg**, told us more about the difficulties of uneven regulation. "The lack of cohesion across jurisdictions makes it hard for cryptocurrency companies to be comfortable with what they're doing," he said. "We saw this in Germany after they passed stricter requirements for crypto businesses – some stopped doing business there." Of course, as Catania went on to point out, many cryptocurrency businesses choose to continue operating in jurisdictions that enact stricter, bespoke regulations.

However, the situation could be improving soon, as EU regulators have recently **voiced their intention** to bring more consistency to the trading bloc's cryptocurrency laws. "Lack of legal certainty is often cited as the main barrier to developing a sound crypto-asset market in the EU," said Valdis Dombrovskis, the EU's lead economic minister in a speech promising to consolidate and standardize cryptocurrency regulations. "This is a good chance for Europe to strengthen its international standing and to become a global standard-setter, with European companies leading new technologies for digital finance," he continued. If the EU can meet that goal, Western Europe's cryptocurrency market may be able to further ramp up growth.

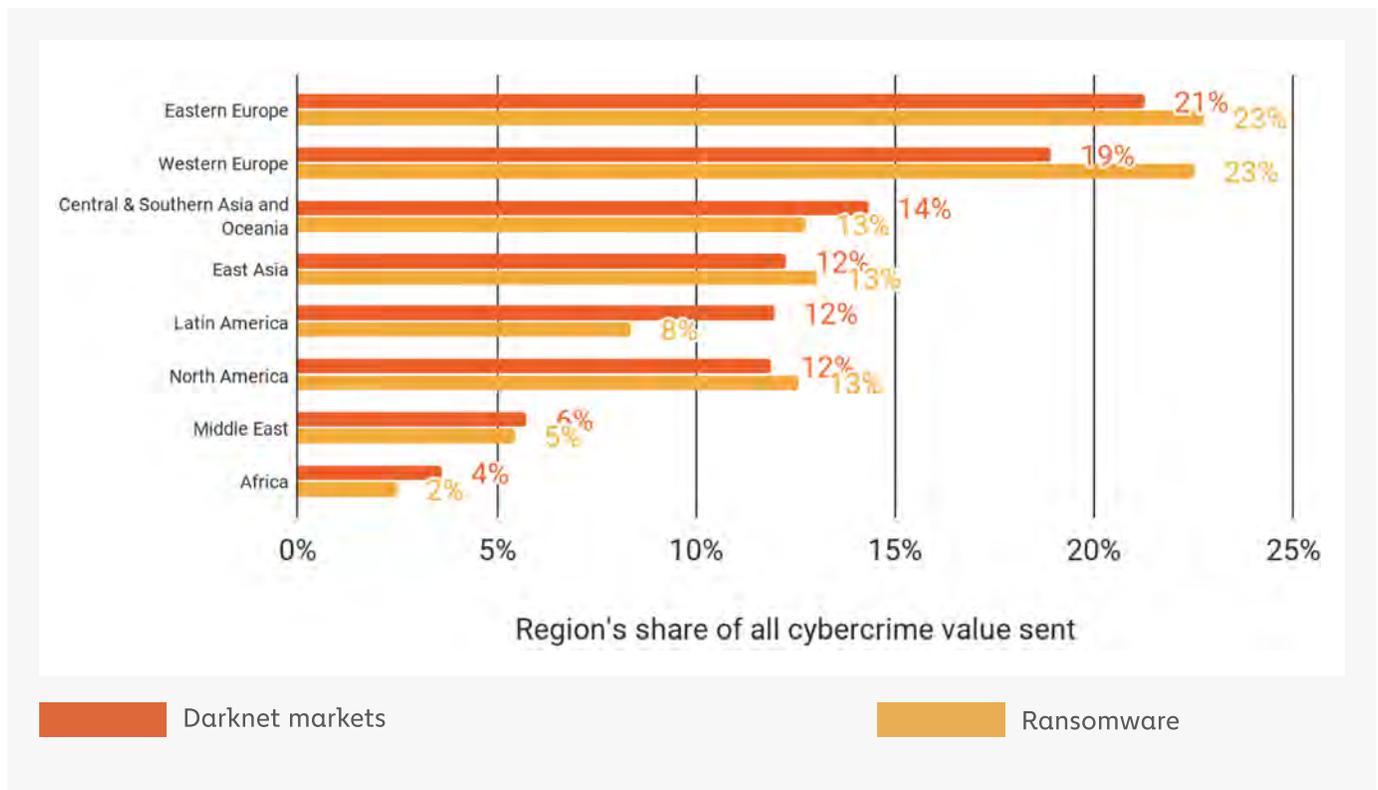


Illicit cryptocurrency activity in Northern & Western Europe

As we discuss elsewhere in the report, Eastern Europe drives unique and substantial illicit cryptocurrency activity, particularly in ransomware and darknet markets. This finding wasn't necessarily surprising, as the media has frequently covered the **prevalence of skilled hackers** in Eastern Europe, particularly **in Russia**. Somewhat surprisingly though, NWE has an extremely similar cryptocurrency-related crime profile, based on funds received by addresses in the region from different types of criminal entities.

Share of darknet market and ransomware value sent to region

| Jul '19 to Jun '20



Currencies included: BAT, BCH, BNB, BTC, ETH, GUSD, LTC, MKR, OMG, PAX, TUSD, USDC, USDT

Both regions receive similar, high shares of all funds sent from addresses associated with darknet markets and ransomware attacks. Even more interestingly, the two regions are largely receiving these funds from the same specific criminal entities. Below, we compare the top ten ransomware strains sending funds to both NWE and Eastern Europe.



Top ten ransomware strains sending funds to Eastern Europe vs. Northern & Western Europe | Jul '19 to Jun '20

Top ransomware strains in Eastern Europe	Share of all ransomware value sent to Eastern Europe	Top ransomware strains in Northern & Western Europe	Share of all ransomware value sent to Northern & Western Europe
Phobos	24%	Doppelpaymer	21%
Doppelpaymer	12%	Snatch	10%
Dharma	9%	Phobos	7%
Locky	8%	Locky	7%
Globelmposter	7%	Sodinokibi	6%
Snatch	6%	Cerber	5%
Bitpaymer	5%	Bitpaymer	5%
Sodinokibi	5%	Mamba, strain 1	4%
Cerber	3%	Globelmposter	4%
SamSam	2%	Mamba, strain 2	4%

Currencies included: BCH, BTC

Strains in common are in orange

Eight of the top ten ransomware strains in each region overlap, though the percentages differ in many cases.

One possible explanation is that Eastern European cybercriminals are using VPNs that make their web activity appear to originate from NWE while transacting with illicit funds, though it's unclear how much activity this could account for. It's also possible that NWE is simply home to more ransomware and darknet market operators than previously thought. These surprising findings make NWE's cryptocurrency crime a worthwhile area for further study in the future.



The 2020 Global Crypto Adoption Index: The full list

The table below displays the data underlying the [interactive visualization](#) of our Crypto Adoption Index. (If the link doesn't work, try typing <https://markets.chainalysis.com/#geography> directly into your browser.)



Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Ukraine	1	1	4	4	7	11
Russia	0.931	2	7	8	5	9
Venezuela	0.799	3	19	14	15	2
China	0.672	4	1	1	95	53
Kenya	0.645	5	37	11	57	1
United States of America	0.627	6	5	6	39	16
South Africa	0.526	7	12	9	41	10
Nigeria	0.459	8	14	7	112	3
Colombia	0.444	9	25	18	61	4
Vietnam	0.443	10	2	2	44	81
India	0.395	11	3	3	129	32
Thailand	0.365	12	17	15	21	33
Brazil	0.338	13	6	5	66	68
United Kingdom	0.333	14	15	19	42	17
Pakistan	0.272	15	13	16	96	26
Philippines	0.262	16	9	13	91	44
South Korea	0.246	17	8	10	24	97
Peru	0.242	18	43	30	76	7
Belarus	0.241	19	42	44	25	12
Australia	0.21	20	36	34	34	27
France	0.208	21	18	25	49	55
Latvia	0.204	22	56	61	1	22
Hong Kong * **	0.202	23	39	62	10	23
Canada	0.196	24	28	31	45	37
Malaysia	0.192	25	38	27	47	36
Netherlands	0.183	26	32	38	19	59
Ghana	0.18	27	44	23	87	19
Argentina	0.174	28	27	29	73	42
Turkey	0.174	29	10	17	50	93
Georgia	0.17	30	50	58	18	21
Ecuador	0.157	31	67	53	92	5
Indonesia	0.151	32	11	12	75	103
Germany	0.147	33	21	24	63	79
Chile	0.147	34	45	47	64	29
Lithuania	0.144	35	64	78	9	25
Slovakia	0.143	36	47	56	14	51
Spain	0.138	37	29	33	56	66
Poland	0.137	38	23	26	46	86
Mexico	0.135	39	26	22	101	65
Slovenia	0.133	40	53	79	4	46
Estonia	0.13	41	94	92	2	20
Morocco	0.127	42	35	35	108	39
Portugal	0.126	43	54	59	35	34
Belgium	0.125	44	51	55	30	47
Bangladesh	0.118	45	24	21	104	80
Sweden	0.117	46	70	67	40	28
Czech Republic	0.114	47	30	40	12	96
Romania	0.112	48	48	49	59	56



Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Italy	0.109	49	31	36	71	78
Singapore	0.102	50	73	94	8	54
Panama	0.094	51	117	118	36	8
Iran	0.092	52	20	28	102	92
El Salvador	0.09	53	107	105	86	6
Austria	0.087	54	58	72	29	67
Cameroon	0.085	55	76	39	106	45
Finland	0.085	56	78	88	26	57
Greece	0.084	57	65	68	48	62
Dominican Republic	0.083	58	88	73	82	30
Bolivia	0.082	59	69	65	89	38
United Republic of Tanzania	0.081	60	86	42	134	13
Switzerland	0.08	61	55	69	20	85
Uganda	0.079	62	57	48	139	14
New Zealand	0.075	63	103	104	60	18
Egypt	0.074	64	40	37	116	83
Bulgaria	0.073	65	33	45	11	118
Republic of Serbia	0.073	66	52	57	38	90
Kazakhstan	0.072	67	61	74	84	60
Norway	0.072	68	90	99	27	63
Ireland	0.071	69	101	108	23	48
Cyprus	0.067	70	108	122	16	40
Japan	0.065	71	16	32	122	106
Mozambique	0.061	72	83	60	128	35
Togo	0.06	73	105	63	90	52
Montenegro	0.06	74	131	127	17	15
Mauritius	0.059	75	106	115	6	71
United Arab Emirates	0.056	76	95	101	65	61
Croatia	0.054	77	72	80	28	94
Sri Lanka	0.053	78	75	77	97	70
Costa Rica	0.052	79	113	100	74	49
Zambia	0.051	80	115	89	113	24
Rwanda	0.049	81	93	86	132	31
Nepal	0.049	82	41	43	115	108
Malta	0.048	83	129	131	3	50
Uruguay	0.048	84	104	113	70	64
Denmark	0.042	85	96	98	37	91
Bosnia and Herzegovina	0.042	86	99	95	55	87
Hungary	0.041	87	62	75	51	113
Moldova	0.04	88	68	70	22	120
Cambodia	0.04	89	49	51	111	111
Benin	0.039	90	81	66	109	88
Guatemala	0.039	91	74	81	131	72
Jamaica	0.038	92	114	96	68	84
Saudi Arabia	0.036	93	89	97	118	73
Ivory Coast	0.036	94	79	52	123	95
Jordan	0.033	95	87	90	114	89
Israel	0.033	96	80	85	52	116



Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Puerto Rico	0.032	97	126	130	78	43
Senegal	0.029	98	100	87	135	77
Luxembourg	0.025	99	139	139	13	58
Trinidad and Tobago	0.025	100	132	128	58	74
Mali	0.023	101	112	114	137	69
Macedonia	0.022	102	91	103	43	124
Kuwait	0.021	103	122	129	94	76
Namibia	0.021	104	128	111	79	99
Armenia	0.021	105	110	110	54	117
Democratic Republic of the Congo	0.02	106	46	50	140	123
Nicaragua	0.02	107	111	107	103	112
Madagascar	0.018	108	84	76	126	122
Angola	0.016	109	119	102	124	109
Botswana	0.016	110	135	134	100	75
Barbados	0.015	111	133	136	33	102
Paraguay	0.015	112	121	124	121	98
Tunisia	0.014	113	59	54	80	139
Lebanon	0.013	114	118	119	120	115
Uzbekistan	0.013	115	85	83	136	127
Honduras	0.013	116	125	123	130	100
Syria	0.012	117	77	71	125	132
Albania	0.01	118	120	121	88	128
Qatar	0.01	119	137	137	93	101
Iceland	0.01	120	140	141	32	110
Bahrain	0.009	121	138	138	77	107
Ethiopia	0.009	122	63	64	150	131
Kyrgyzstan	0.008	123	71	84	85	141
Oman	0.008	124	136	135	127	104
Azerbaijan	0.008	125	102	116	119	136
Burkina Faso	0.006	126	124	126	149	114
Maldives	0.006	127	147	145	110	82
Haiti	0.006	128	130	125	148	121
Yemen	0.005	129	109	106	142	137
Suriname	0.005	130	141	140	72	125
Iraq	0.005	131	92	117	144	138
Malawi	0.004	132	142	142	153	41
The Bahamas	0.003	133	143	143	69	133
Sudan	0.003	134	123	120	145	140
Brunei	0.003	135	146	146	81	126
Myanmar	0.003	136	66	93	143	142
Gabon	0.003	137	144	144	138	119
Belize	0.002	138	145	147	117	130
Macao * **	0.002	139	148	150	83	129
Papua New Guinea	0.001	140	149	148	151	105
Guyana	0	141	153	152	152	134
Bermuda *	0	142	152	154	99	135
Afghanistan	0	Among lowest	60	46	105	Among lowest
Algeria	0	Among lowest	34	41	98	Among lowest



Country	Score	Rank	Rank of individual weighted metrics feeding into index			
			On-chain value received	On-chain retail value received	Number of on-chain deposits	P2P exchange trade volume
Cape Verde	0	Among lowest	151	149	147	Among lowest
Chad	0	Among lowest	154	153	154	Among lowest
Fiji	0	Among lowest	150	151	146	Among lowest
Laos	0	Among lowest	97	82	67	Among lowest
Libya	0	Among lowest	127	132	107	Among lowest
Mongolia	0	Among lowest	98	109	62	Among lowest
Tajikistan	0	Among lowest	134	133	141	Among lowest
Turkmenistan	0	Among lowest	82	112	31	Among lowest
West Bank and Gaza *	0	Among lowest	22	20	53	Among lowest
Zimbabwe	0	Among lowest	116	91	133	Among lowest

Please note: We round every Index Score to the third decimal place. If you notice two countries that appear to have the same Score but different Ranks, it's because the higher-ranked country has a higher unrounded Score.

* Not featured in visualization, as map does not allow display of the level of granularity for smaller states.

** Hong Kong and Macao are Special Administrative Regions of China.

ABOUT CHAINALYSIS

Chainalysis is the blockchain analysis company providing data and analysis to government agencies, exchanges, and financial institutions across 40 countries. Our investigation and compliance tools, education, and support create transparency across blockchains so our customers can engage confidently with cryptocurrency. Backed by Accel, Benchmark, and other leading names in venture capital, Chainalysis builds trust in blockchains. For more information, visit www.chainalysis.com.

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