00:16
Welcome to a new episode of BFRR, our Bitcoin Fiat and Rock'n'Roll podcast that explores the intersection of traditional finance, digital assets and digital money and helps you understand how digital assets and digital money will evolve in the future. I'm co-host Michael Blaschke and today I'm flying solo. No guest, no co-host, just me, a microphone

00:40
and a study that I've spent the better part of the last year researching and writing and that went live this week. The study is called Stablecoins How Tokenized Money is Changing the Global Financial Architecture. It was published by the Feri Cognitive Finance Institute co-authored with Dr. Heinz Werner Rapp, the founder and heart of Feri's Strategic Research Center.

01:08
And it's the third installment in a sequence of research that Feri and I have been building together since 2021. Starting back then with a blockchain and tokenization, continuing with a takeoff of tokenization 2024 and now arriving at the monetary layer of the token economy. So why a full study on stablecoins and why now? Let me set.

01:35
the stage over the past seven years on this podcast, almost 400 episodes, we've tracked the evolution of institutional DLT from proof of concept to production. We've covered CBDCs, tokenized deposits, digital securities, DeFi protocols and everything in between. But there's one component that keeps showing up as the connective tissue across all of these conversations. The money side of the transaction.

02:06
You can tokenize a bond, can tokenize a fun share, you can tokenize real estate. But if the payment lag still runs through a correspondent banking chain with T plus two settlement and business hours only availability, you've created an architectural mismatch, a system break. The BIS has called this one of the central hurdles of tokenization. I think they're right.

02:35
Stablecoins are the instrument that closes that gap. And the subtitle of the study, how tokenized money is changing the global financial architecture, was chosen very deliberately. Because as someone who has spent his career working on enterprise technology and IT architecture and complex system design, I see stablecoins first and foremost as an architectural question.

03:04
Who designs the monetary layer of the token economy? On which infrastructure? Under whose rules? And who merely adapts to someone else's design choices? Those are the questions this episode will walk through. Not crypto hype, not price speculation, much more architecture, geopolitics, risk and what it all means for the professionals listening to this podcast.

03:33
Let me start with the structural argument because I think it's the most underappreciated one in the stablecoin discourse. Think about what we've been building with tokenization over the past five years. This is pillar one, the asset side. The European Investment Bank issuing digital bonds on private and public ledgers, KVF placing a crypto security under the German EWPG law, Siemens

04:02
issuing a 60 million euro digital bond directly to investors without a central securities depository. Fund shares as digital tokens, Black Rocks Bidder, a tokenized money market fund that has grown past 2 billion US dollar. Franken Templeton's Benji. Institutional firms also have a say. Goldman Sachs running its GSDAP or Goldman Sachs Digital Assets.

04:29
platform for tokenized assets, HSBCs, Orion using tokenized bonds in Hong Kong and Luxembourg, Societe Generale forage structuring tokenized bonds and funds under French law. All of this is the asset lag, bonds, funds, securities, representations of claims and cash flows on-chain. But a token economy with only tokenized

04:55
Assets and no tokenized money is like building an Autobahn and then insisting that everyone still cross the last mile on a dirt road. You get atomicity on the asset lag, instantaneous programmable transfer, and then the payment lag falls back into batch processing, correspondent banking, and weekend closures.

05:21
The BIS has explicitly flagged this as one of the central hurdles of tokenization. Now this is where Pillar 2, tokenized money, comes in. And I want to be precise here because the category boundaries matter. Tokenized money is not another kind of tokenized asset. It is the settlement medium for tokenized assets. Different function, different risk profile, different regulatory treatment.

05:49
The study frames this explicitly as the two pillar model, pillar one tokenized assets, pillar two tokenized money. Both rest on a shared foundation of blockchain infrastructure, smart contracts, programmability, 24 seven availability and what the literature calls atomic settlement. The simultaneous indivisible transfer of asset and payment in a single transaction. Now stable coins are the

06:18
dominant form of Pillar 2 at least today and this is the category into which every initiative we'll discuss later belongs. Tether and Circle on the US dollar side. oh On the European side initiatives like Allunity and the Kivalis Consortium, both of which are mica regulated Euro stablecoin project. So clearly Pillar 2 instruments, not asset side tokenizations. I come back to these in detail.

06:48
The numbers on Pillar 2, over $300 billion in market capitalization, adjusted monthly transaction volumes and I stress adjusted, meaning after you strip out bot activity and high frequency trading, running at $1.8 trillion cumulatively with nearly 200 million individual transactions.

07:15
These are Visa's numbers using a method that labels over 3 million blockchain addresses to separate organic human activity from automated systems. But here is what makes the two-pillar model more than just a conceptual framework. Brunner-Meyer and Niepelt showed in an influential 2019 paper that private and public money can be economically equivalent.

07:44
They can be, but only under specific conditions. That equivalence breaks down when trust in the private issuer ebroads. And that's exactly what happened with a Terra USD in 2022. 18 billion euros in market capitalization evaporated within days. Now the architectural lesson in all of this, the monetary layer of a token economy carries a different risk.

08:12
profile than the asset layer. A tokenized bond does not lose its pack. It is what it is. A stablecoin can. That's why separating the two pillars cleanly, conceptually, operationally and in governance is a prerequisite, in my opinion, for building systems that actually work under stress for the decades to come. All right. For our listeners who live

08:40
and brief this space, bear with me for two minutes while I lay out the definitional groundwork because precision matters and the study is very deliberate about it. A fiat-backed stablecoin is a private blockchain-based unit of value that aims to maintain a stable pack to a reference currency, typically the US dollar, by holding reserves in short-dated government securities, repurchase agreements,

09:09
and bank deposits. The promise? One token equals one dollar, redeemable at face value. The reality is considerably more nuanced. The pack is maintained through a primary market mechanism. You send dollars to the issuer. The issuer mince tokens and invests the dollars into reserves. Upon redemption, tokens are burned and you get your dollars back. And a secondary market mechanism were arbitra-shares

09:39
keep the price in line on exchanges. Lyon and Visvanath Natraj analyzed this in 2020 and compared the arbitrageurs to authorized participants in the ETF market. The PEC then is a market infrastructure achievement. It's not a balance sheet guarantee. That's really important for Stablecoins. Now our study at hand

10:06
distinguishes four types of stablecoins fiat-backed, crypto-backed like DAI, commodity-backed like PEX Gold and algorithmic. Fiat-backed dominate with roughly 90 % of the market. Under MICA, fiat-backed stablecoins packed to a single currency are classified as e-money tokens, EMTs, while those referencing a

10:36
basket are asset-referenced tokens, uh ARTs. Algorithmic stablecoins after the TerraUSD collapse are effectively not licensable under MICA. But within the fiat-backed category, the study introduces a distinction that I think deserves much wider attention in institutional conversations. Bond-based versus bank-based stablecoins.

11:02
Bond based is what we have today. Tether Circle, technology companies without banking licensees holding reserves primarily in treasury bills and repos. The token holder has a contractual redemption claim against the issuer. No deposit insurance, no central bank access. Gordon and Zung at Yale compared this to the Wildcat banks.

11:31
of 19th century America. Private money issuers backed by reserves with mixed results historically really. Bank based models are what's coming. Bank based stable coins, deposit tokens, so tokenized bank deposits issued by regulated banks carrying the full weight of existing banking regulation, capital requirements, deposit insurance, central bank access.

12:01
JP Morgan's Kinexis platform and the Kivales stablecoin consortium represent this trajectory. The architectural difference is profound. Bond-based stablecoins create a direct payment system. Value moves peer-to-peer like cash. Bank-based models reproduce an indirect system. Value exists as a claim on a bank.

12:28
The strategic tension between these two architectures will shape the monetary layer of the token economy for the next decades. And it's a tension that both the Genius Act in the US and MyKindEurope are trying to resolve from very different starting points and with very different strategic objectives. Now let's talk numbers about scale because the quantitative dimension is where stablecoins cross the threshold from

12:57
interesting technology to by now systemic relevance. The BIS published a working paper earlier this year, Ahmed and Aldasoro on stablecoins and safe asset prices. And this paper contains what I consider one of the more consequential empirical findings in digital finance in recent years. They showed that stablecoin inflows depress three month

13:26
US Treasury bill yields by 2.5 to 3.5 basis points during periods of tight supply, debt ceiling standoffs, quantitative tightening phases. The effect even amplifies to five to eight basis points. Let that sink in. Private, blockchain-based money instruments issued by companies most people outside our field have never heard of are measurably affecting the price

13:55
of the safest asset in the world. Stablecoins have entered the monetary policy transmission mechanism. And the BIS documented this, not some crypto native research shop. In 2024 alone, stablecoin issues acquired roughly $40 billion in US treasury bills. That's comparable to the largest US money market fund and more than most foreign sovereign investors.

14:24
If the stablecoin industry were a country, would rank among the top 20 holders of US government debt. The overall market capitalization crossed $300 billion, according to DeFi Llama. Visa's adjusted data, again, after filtering out bots, as good as you can do that, shows 1.8 trillion in cumulative transaction volume. And 71 % of all adjusted stablecoin transactions by count

14:54
fall below $250, which is a clear indicator that usage is expanding well beyond crypto trading into the retail and small payment segment. Weekend activity remains substantial, $435 billion on weekends versus $1.3 trillion on weekdays in the observed period, underscoring the 24-7 character that traditional interbank

15:22
settlement simply cannot match. The economics for issuers, by the way, are extraordinary. Over 200 billion inflow, earning roughly 4 % on reserves, and the holders receive zero interest. The yield stays with the issuer. Tether reported a net profit of $6.2 billion in 2023, for example. That's the economic logic of stablecoins in one sentence.

15:51
collect global deposits, invest in treasuries, pay nothing to depositors, keep everything. From an architecture standpoint, these numbers tell us that stablecoins have moved from the application layer into the infrastructure layer. There's no longer just payment instruments. They are really structural participants in US money markets.

16:17
All right, let's move on to the geopolitical dimension of stablecoins, in particular dollar dominance by design. So all of what we just explained brings me to what I believe is the most consequential dimension of the entire stablecoin phenomenon. And it's the one that Europe frankly has been slowest to internalize.

16:44
97 % of all stablecoins are denominated in US dollars. Not 80%, not 90, 97. The dollar's share of global GDP is about 25%. Its share in foreign exchange trading already outsized is 44%. In the stablecoin market, dollar dominance is nearly four times its real economy weight. 97.

17:13
Our study at hand maps three reinforcing mechanisms. First, a treasury soak, a structural pull, where stablecoin reserves create persistent demand for US government debt, funded

by global users who have no democratic say in this dynamic. Second, payment standard defects.

17:39
As more participants use dollar stablecoins for cross border settlement, dollar denominated protocols become embedded in regions that have no traditional dollar banking infrastructure. This is already visible across sub-Saharan Africa, Southeast Asia and Latin America, where chain analysis data shows stablecoin based cross border flows have surpassed those of unbacked crypto assets since 2022. Third,

18:10
Network effects compound the first two. Liquidity just breeds liquidity and displacing an entrenched standard becomes structurally harder over time. The Trump administration has understood this and acted on it. The Genius Act, the Guiding and Establishing National Innovation for US Stablecoins Act was signed into law in 2025.

18:36
It creates a federal licensing framework for private stablecoin issuers, ends the regulatory fragmentation across individual states, and explicitly positions dollar stablecoins as instruments for preserving global dollar hegemony in the digital economy. Let me read you a quote from ECB's Jürgen Schaaf, who advises on market infrastructure and payments. Quote.

19:01
Stablecoins are reshaping global finance with the US dollar at the helm. Without a strategic response, European monetary sovereignty and financial stability could erode." And here's Michael Theurer, board member of the Deutsche Bundesbank in 2026.

19:25
To safeguard Europe's financial sovereignty, we need competitive European and Euro-denominated stablecoins." So, both of these quotes are featured in the study and they reflect a growing alarm in European institutional circles that I share. My car is the most comprehensive stablecoin regulatory framework in the world. It sets clear rules on reserves, governance, redemption rights.

19:54
and significance thresholds. But regulatory rigour by itself does not generate network effects. And network effects are what determine which monetary layer becomes the global default. Europe does have initiatives in motion. Key values for a regulated Euro E-Money token or unity for both frank and Euro denominated stablecoins.

20:22
circle pursuing European licensees, but the window is narrowing. The global stablecoin architecture of 2030 is being shaped in the next two to three years. If US dollar stablecoins consolidate as the dominant settlement medium in tokenized markets before euro alternatives reach critical mass, the self-reinforcing dynamic I described becomes very difficult to reverse. So our study at hand puts the strategic question

20:52
plainly. The issue for Europe is sovereignty. Who controls the standards, the compliance mechanisms and the crisis instruments of tokenized money? Now let's move on to the risk architecture. Let's talk DPEGs, stablecoin runs and reserve quality. So we shift from geopolitics to risk because this study is deliberately balanced. Yes,

21:19
stablecoins offer real architectural advantages, but they also carry risks that are empirically documented, not just hypothetical. In fact, the study identifies and presents four stress

categories that any institutional holder should model. First, DPEG shocks. So in March, 2023, USDC lost roughly 12

21:46
percent of its pack went circle disclosed exposure to the collapsing Silicon Valley Bank. The ECB documented how Tether in May 2020 to briefly lost its pack during the terror USD unwind and saw outflows of over 8 billion euros, about 10 % of its market capitalization at the time. These episodes show that the pack is a

22:15
Confidence dependent market achievement not a mechanistic guarantee again because this is a key learning The episodes I just outlined show that the pack is a confidence dependent market achievement not a mechanistic guarantee second There are reserve shocks circle holds roughly 82 % of its reserves in Treasury

22:43
and overnight repos with a weighted average maturity of about 14 days according to the BAS. Tether reports around 75 % in Treasuries and repos but also holds Bitcoin and Gold positions. And the ECB has repeatedly criticized the granularity and transparency of Tether's disclosures. Tether still provides only quarterly attestations, not full audits. The difference matters here. An attestation

23:12
confirms that certain figures appear plausible at a point in time, while an audit examines business operations, control and accounting practices comprehensively over a period of time. Then another stress category is intermediary shocks. Most stablecoin trading happens on centralized exchanges, not on chain.

23:41
So in a stress event, exchange liquidity can dry up even when the issuers reserves are solid. So Kaiko documented this empirically after the Tether Deepak episode in June 2023. Fourth, and ultimately there are regulatory shocks, sanctions, distribution bans or jurisdictional conflicts can restrict the usability of a stablecoin in specific markets overnight.

24:11
The US Treasury sanctioning of tornado cash in 2022, putting a smart contract itself on the sanctions list, set a precedent that still reverberates. From an architectural perspective, the critical insight is that these risks don't exist in isolation. They interact. A DPEC can trigger a run. A run forces fire sales of reserve assets.

24:38
FIRE says in terms of $90-plus billion in Treasuries, is what Tether's reserves reportedly contains, could widen bid-ask spreads across the entire money market and put pressure on money market funds holding the same instruments. The FSB mapped these contagion channels systematically in their 2022 and 2023 reports and issued 10 high-level recommendations for global

25:08
stablecoin arrangements. Now going a bit further back in history, Diamond and Diebweg showed in 1983 that coordinated withdrawals from banks can be individual rational even when the institution is fundamentally solvent. That model translates directly to stablecoins with the additional complication that

25:37
stablecoin runs can happen 24-7 without the natural circuit breaker of bank closing hours. So when you hear the Wharton Professor Yao Zheng Ze, and this is a quote that is also in the study, beginning of quote, stablecoins may function well in good times, but they can falter under stress, end of quote, then

26:05
Yao Zheng is capturing a structural truth. The architecture of stablecoin stability relies on market confidence, reserve quality and intermediary resilience in combination. Weaken anyone lack of these and entire structure becomes at least vulnerable. Then in our study at hand, there is also

26:34
a section on the agentic AI intersection. And let me now address this very dimension that I expect will generate more, if not most discussion in the coming month, the intersection of agentic AI and stable coins. The headline number here really is, VISA's data shows that roughly 79 % of gross stable coin transaction volume comes from automated systems.

27:03
So I'm really thinking here of bots, high frequency algorithms, intra exchange transfers, internal smart contract operations. Only about 20 % after cleaning represent organic human activity. The stable coin market is already overwhelmingly machine driven. Now, not all of this of course is a Chantik AI in the strict sense.

27:32
A simple arbitrage board following if-then rules is different from an adaptive AI agent that plans dynamically, shifts strategies and coordinates across multiple platforms autonomously. But the trajectory is clear. As agentic AI systems proliferate, treasury optimization agents, supply chain payment agents, cross-border settlement agents, they need programmable

28:01
24-7 available machine-readable money. Traditional bank transfers don't work for an agent operating at free in the morning on a Saturday. Stablecoins on public blockchains do. Our study outlines three concrete use cases where this convergence is already visible or imminent. One, dynamic treasury optimization across multiple stablecoins

28:31
tokenized money market funds and bank deposits. An AI agent monitoring overnight yields and automatically rebalancing positions in real time. The second use case would be supply chain payments triggered by verifiable on-chain events. An IoT sensor confirms goods arrival, a GPS signal documents a border crossing, and a smart contract releases the stablecoin payment all without manual approval. And three,

29:02
early warning systems that monitor pack deviations, outflow patterns and reserve concentration shifts in real time, automatically triggering rebalancing when a threshold is breached. But, and this is where the architectures perspective becomes critical. Each of these use cases also introduces new risk channels. If many agents

29:30
process similar signals and execute similar strategies simultaneously, you get pro-cyclical feedback loops. An early warning agent that detects a pack deviation and triggers a large rebalancing can itself amplify the very pack pressure it was designed to mitigate. That's a classic run dynamic, but at machine speed.

29:59
The governance implications are serious. The study proposes four elements for any institution deploying a gemtick systems in stable coin processes. Limit frameworks that cap exposure per algorithm. Second, kill switches that allow human override at any time. Third, immutable audit trails that lock every decision with timestamps and parameters. And a fourth,

30:28
Clear accountability chains that assign liability to a named individual at board level. This belongs on the agenda of the C-suite, not the IT department. All right, enough about agentic systems and back to the geopolitical dimension, more so the European playbook. So what does all of this mean for Europe specifically now? And I'm asking this question because

30:58
It is our podcast BFRR mission to bring Europe's perspective to the world. And I want to address this head on because bringing Europe's perspective to the world is simply what this podcast exists to do. Europe has done something remarkable with Mycar. It created the world's most comprehensive regulatory framework for stable coins, clear categories, reserve requirements.

31:27
governance obligations, redemption rights, significance thresholds with escalation to the European Banking Authority. the significance thresholds are still majorly under debate. No other jurisdiction has gone this far. But there is a tension the study highlights. My car was designed primarily for consumer protection and financial stability. The genius act in turn

31:56
was designed for those things too, but also explicitly for strategic promotion of dollar dominance. Europe regulates, America promotes. Again, Europe regulates, America promotes. And both are valid policy choices, but they produce very different market dynamics. The all unity case study in our study here at hand,

32:25
illustrates a fascinating wrinkle. When the Swiss financial regulator FINMA introduced surprisingly strict AML requirements for stablecoins in 2024, it created a market gap for a Swiss franc stablecoin issued from outside Switzerland. All unity operating under BaFin supervision and EU law filled that gap. Regulatory asymmetry in this case worked in Europe's favor. A German licensed consortium

32:55
tokenize the Swiss franc from the EU. That's a powerful proof point for what MyCar can enable. Kiwalis represents the next frontier, consortium of major European banks issuing a MyCar regulated Euro E-money token. If that succeeds at scale, it could be the nucleus of a European stablecoin ecosystem with real institutional depth. But, and I want to be candid here, time

33:24
is the one critical variable. Our assessment is clear. The global stablecoin architecture of 2030, as I said, will be shaped. Now, in the next two to three years, it's happening now. Whether Euro denominated stablecoins can build sufficient network effects to represent a genuine alternative to dollar dominance depends on two factors. The speed of mica implementation

33:53
and the willingness of European banks and financial intermediaries to actually deploy tokenized Euro payment instruments at scale. The Genius Act has put Europe under pressure. The response needs to be strategic and coordinated and it needs to happen now. All right, let's now move on to the very practitioners and their framework. Let me close the substantive

34:23
part of this recording with something concrete. A framework for any professional in the institutional DLT industry listening who needs to figure out what stablecoins mean for their

organization. In our study, we identify three dimensions of relevance for institutional market participants. Stablecoins as infrastructure component. Atomic settlement 24.

34:51
7 Treasury Management, the operational backbone of tokenized markets, stablecoins as risk object, money market, risk, counterpart risk, legal risk, operational risk, and stablecoins as compliance topic, AML, sanctions, custody and reporting. From those three dimensions, the study then derives

35:18
governance requirements at three levels at the policy level decision on permissibility exposure limits approved token lists counterparty lists and position gaps then at the process level onboarding custody transaction approvals reconciliation reporting and incident management and ultimately at the risk level stress tests scenario analyses recovery and exit plans and continuous

35:47
monitoring. The study includes a due diligence checklist that I'd recommend any treasury, risk management or compliance team put on their desk. It covers legal redemption claims and conditions, reserve quality and composition, audit versus attestation frequency, custody and wallet models, intermediary risk, regulatory

36:10
classification under MICA and stress test scenarios across those four shock categories I described earlier. The overarching message. Passive observation of stable coins has stopped being a viable institutional strategy. Again, it's important. Our overarching message. Passive observation of stable coins has stopped being a viable institutional strategy. The question

36:41
is not whether stable coins partly or completely reshape the financial system. The question is under which conditions and whether your organization is at the table where those conditions are defined or sitting in the waiting room. All right, let me pull the threads together. Let me summarize. The study makes five core arguments and I want to leave you with each of them clearly. One.

37:09
Token economy requires two pillars, tokenized assets and tokenized money. Stablecoins at the moment fill the monetary pillar. Without them, efficient promises or the efficiency promises rather of tokenized markets remain architecturally incomplete. Two, the quantitative scale has crossed the threshold of systemic relevance.

37:37
Over 300 billion in market capitalization, trillions in transaction volume, and empirically measurable effects on US treasury yields. The BIS, the ECB, the IMF, and the FSB all treat stablecoins as a first order policy issue now. Three, the geopolitical dimension may be the most consequential. 97 % dollar denomination.

38:05
Structural treasury demand, self-reinforcing network effects. The United States is actively leveraging stablecoins as instruments to continued dollar hegemony. Europe has the strongest regulatory framework, but lacks the network effects and speed to match. Four, the risk architecture is real and documented. Deep act events, run dynamics, reserve fire sales, intermediary failures.

38:35

These are empirical facts from Terra USD, USDC during Silicon Valley Bank and Tether's repeated PEC episodes. A stablecoin is only as stable as the trust in its issuer and the quality of its reserves. Five, the convergence of agentic AI and stablecoins

39:01
will accelerate the entire dynamic. Machine-driven transaction volumes already dominate. As AI agents increasingly trigger payments, the demand for programmable, always-on digital money will grow structurally, along with the governance challenges that come with autonomous systems operating at machine speed in 24-7 markets. The study's final line

39:26
which I wrote together with my esteemed co-author Dr. Heinz Werner Rapp, captures the strategic imperative. The first step is not a decision for or against stablecoins. The first step is a structured understanding of what they are, what they enable and what they demand. The full study is available through the Feri Cognitive Finance Institute. The short version is for free.

39:55
For the complete analysis, reach out to info at feri-institute.de. The link is in the show notes. Thanks for listening to Bitcoin Fiat and Rock'n'Roll today and for making it until the end of this demanding episode. Thanks for the co-hosts throughout the year and all the excellent guests for their takes and insights in all of our episodes. If you enjoy the podcast,

40:24
Please recommend and rate us, that helps us the most. Connect with us on YouTube, LinkedIn and our expert community on Telegram, both in German and English, for details, consult the show notes. And do visit our website for detailed analysis and detailed show notes. Now, make sure to subscribe to Bitcoin, Fiat and Rock'n'Roll wherever you get your podcasts and join us next week when we'll be exploring another critical development in the evolution of digital finance. Until then!

40:54
And this is Bitcoin Theatred and Rock and Roller bringing Europe's perspective on institutional DIT to the world.