To:

Verena Ross Chair, ESMA 201-203 Rue de Bercy 75012 Paris

Date:

20 September 2023

ESMA consultation on requirements in MiCA

Coinbase Global, Inc. and its EU subsidiary Coinbase Europe Limited. (together, Coinbase) welcome the opportunity to respond to ESMA's consultation on "Technical Standards specifying certain requirements of the Markets in Crypto Assets Regulation (MiCA)".

Coinbase started in 2012 with the idea anyone, anywhere, should be able to send and receive Bitcoin easily and securely. Today, we are publicly listed in the US and provide a trusted and easy-to-use platform relied on by millions of verified users in over 100 countries to access the broader crypto economy.

We are committed to the EU, where we have a significant presence reflecting its importance as one of our largest international markets outside of the US. Coinbase has a crypto license in Germany, EMI license in Ireland and a number of registrations in national markets across the EU. We believe we are well placed to transition to a MiCA license, and we are excited by the opportunities presented across the region. The EU has taken a leadership role globally with MiCA, introducing the most comprehensive regulatory framework in the world, and is now well positioned to capitalize on this new wave of technological innovation towards Web3, and to achieve its strategic autonomy ambitions by onshoring tech investment.

However, MiCA is not "done" and ESMA's work is critical to maintaining EU competitiveness. Countries around the world continue to watch to see if the EU achieves the right balance: of fulfilling important regulatory objectives of financial stability, market integrity and consumer protection, and creating the right conditions to spur innovation and growth. We appreciate the thoughtful approach ESMA is taking to regulating the sector, and we stand ready to support it in this important work.

Yours sincerely,

Tom Duff Gordon, Vice President, International Policy, Coinbase

Introduction

Blockchain technology is the backbone of a new financial architecture. While nascent, it is already bringing efficiency, transparency, and resiliency to the existing financial system. Blockchain applications enable people to transfer value quickly and at lower cost, particularly for cross-border transfers. Stablecoins that put fiat currencies on digital rails will drive competition in the payments space. Decentralised finance, smart contracts, and related new technologies will drive further innovation and exponentially expand opportunities for the financial system. Yet, cryptoassets are more than a financial innovation; they have the potential to transform every sector of the economy. Today's internet is dominated by a handful of companies that profit from monetizing their users' personal data. The next phase of the internet's development, Web3, will be owned by builders and users and will be driven by tokens, creating a more decentralised and community-governed version of the internet.

In the 1990s, the EU missed out to the US on the first wave of technological change towards Web2, but is now well positioned to capitalise on the next wave towards Web3. MiCA is a critical landmark in the journey in on-shoring Web3 investment and growth and achieving the region's strategic autonomy ambitions in the tech sector. It provides legal and regulatory certainty, giving firms the confidence to invest, grow and on-shore within the EU. Further, MiCA will raise standards across the industry and drive the development of a legitimate and trusted industry of Crypto Asset Service Providers (CASPs). However, MiCA is far from "done", with highly technical and detailed work still to be undertaken by ESMA as part of the level 2 rule-making process. This work by ESMA will be further critical to maintaining EU competitiveness and Coinbase stands ready to support ESMA as it develops rules on issues of great importance to the future of the industry.

Executive Summary

ESMA is consulting on the MiCA application, complaint handling process, conflicts of interest and firms' plans for applying for a MiCA licence, and we answer the specific questions in more detail below. However, would also like to take the opportunity to raise further areas where we foresee potential challenges to the EU single market for crypto asset services with regards to (1) the path to a MiCA licence, (2) issues that raise level playing field issues and (3) implementation challenges where further clarity is needed. We deal with each of these issues in turn:

(1) Path to a MiCA Licence

• **Grandfathering:** We are concerned about potential differences in timing for awarding MiCA licences across member states. MiCA allows up to 18 months

grandfathering, during which CASPs should be able to retain access via national registrations to the same national markets as before "entry into application" of MiCA. However, member states can unilaterally shorten the grandfathering period, and it remains possible that they do so in a manner that results in firms not being able to serve those markets until they have a MiCA licence. This means that there is a competitive advantage for firms that choose a member state for their MiCA entity location that moves quickly to award MiCA licences early, as this will guarantee them access to national markets across the EU; this is in contrast to firms that may apply for a MiCA licence in a country where it will take more time. We believe all firms that become MiCA compliant should be provided the same opportunities for market access, regardless of which member state they choose.

• Simplified Procedure: We also note that divergences in the application of the "simplified procedure" across member states could further exacerbate this issue. As we understand it, the simplified regime allows national authorities to use information that has already been provided to them in the context of other national regimes, in effect speeding up the MiCA licence application process. MiCA also suggests firms that have authorisation under national regimes should be prioritised for a MiCA licence. In the absence of a national crypto asset licensing regime, we believe member states should apply the simplified regime to national crypto asset registrations, and other national financial services authorisations, such as e-money and MiFID licences. Moreover, if all member states are able to apply the simplified procedure to firms that have a national crypto asset registration and other financial services licences, we believe this will result in fewer challenges/disputes over what regimes are compliant with regards to falling in scope of the simplified procedure. ESMA should provide clarity to member states and the market on this point.

(2) Level Playing Field Risks

We note the following areas where we believe there is risk of unlevel playing field:

- MiFID vs MiCA: We see this as uncontroversial in terms of what is a financial
 instrument versus what is a crypto asset, the latter falling within MiCA. However,
 we believe it is crucial to the single market that a consistent approach is taken
 across member states and ESMA's guidelines will be critical to this.
- Custody Requirements: MiCA requires that where CASPs make use of third parties to provide custody and other administration of crypto assets, that these third parties are also licensed/authorised under MiCA. We have discussed this with a number of member state authorities and understand that this requirement does not prevent CASPs from leveraging technology and infrastructure provided by affiliates or third parties under appropriate inter-company or outsourcing arrangements, in the course of providing custody and administration services to their clients, but these arrangements should be set out as part of their MiCA



application. We believe it is important that this approach is taken consistently across EU member states.

• **Conflicts of Interest:** We support the approach set out in MiCA, and subsequently in ESMA's proposed/draft Regulatory Technical Standards, that CASPs are responsible for identifying, managing and disclosing conflicts of interest. We believe it is important that member states do not gold plate or deviate from this approach for example by introducing entity separation requirements, as this would significantly distort the EU single market.

(3) Implementation Challenges Where Further Clarity is Needed

Finally, we wish to raise two significant implementation challenges in MiCA:

- Asset Segregation: We note that MiCA requires CASPs providing custody services to "segregate holdings of crypto-assets on behalf of their clients from their own holdings" and to "ensure that, on the DLT, their clients' crypto-assets are held on separate addresses from those on which their own crypto-assets are held". This requirement could be read to prohibit CASPs from holding a de minimis buffer of firm assets in trading wallets; implementation of this requirement should provide an exception to allow CASPs to hold firm assets in omnibus client wallet addresses in circumstances where the CASP reasonably determines this is in the legitimate interests of its clients (e.g. to use firm funds to pay gas fees on behalf of the customer) and provides appropriate disclosures. We believe ESMA and/or national authorities should provide clarity on this point to the market.
- White Paper Liability: CASPs are required to publish white papers for assets they list where one does not exist. However, Annex 1 of MiCA requires a large volume of information to be included in the white paper for which it would be liable. This makes sense for a white paper that the issuer will create, but an exchange will not have access to all this information, such as the requirement to give views on the financial position of the issuer and upcoming milestones in the project. This makes it impossible for CASPs to produce these whitepapers and to accept liability for information that cannot be obtained or verified. We believe the intention of the text is for exchanges to only be required to publish white papers on the basis of reasonable efforts and publicly available information, and it is important that ESMA clarifies this for the market.

While there are many important ESMA Level 2 Regulatory Technical Standards (RTS) and guidelines mandated under MiCA, we believe the issues set out above require further clarity for the market, in order to ensure a level playing field across the EU.



Q1: Do you think that anything is missing from the draft RTS and ITS on the notification by certain financial entities to provide crypto-asset services referred to in Articles 60(13) and 60(14) of MiCA?

We agree with the information requirements set out in the draft RTS and ITS on the notification by certain financial entities to provide crypto asset services referred to in Article 60 of MiCA. Whilst it may not be necessary for these entities to go through the entire authorisation process again, we do not believe it should be assumed that these entities "are generally capable of providing crypto asset services". Crypto asset services are different in a number of respects to traditional financial services (e.g. the role of blockchain analytics in transaction monitoring, security considerations when integrating public blockchain technology into legacy infrastructure) and it is important that supervisors ensure that firms with existing financial services licences are fully compliant with MiCA for their crypto asset businesses.

Q2: Do you agree with the list of information to be provided with an application for authorisation as a crypto-asset service provider? Please also state the reasons for your answer.

Yes, we agree with the list of information to be provided with an application for authorisation as a CASP. Furthermore, we note the following observations/concerns:

Transparency of Corporate Structure

We support the emphasis placed on transparency of group structure as part of the application process. We note that FTX had a complicated structure, which hid the links between FTX and Alameda; the failure of FTX has shown the importance of transparency of corporate structures.

Furthermore, we agree that supervisors should be informed of where applicants are based and where they are active. Understanding corporate structures, including knowing where firms are located and have specific entities, is fundamental for supervision, particularly the cooperation that is needed between home and host supervisors, as we see in traditional finance. To the extent a firm is making use of non-EU domiciled activity to support its MiCA-authorised business (e.g. market makers, liquidity provision), the application should draw out where the European business is linked to activity with regulatory permissions or statuses in other jurisdictions, as well as where the liquidity in the group sits or is sourced (if not in the EU). However, we note that the proposal requires firms to outline all unregulated (as well as regulated) services offered in third countries; given this goes beyond MiCA related activities, we believe this is unduly burdensome.

Finally, we agree there should be scrutiny of the Ultimate Beneficial Owner (UBO), regarding who is owning and controlling the MiCA applicant, ensuring they are fit/proper.

Custody Requirements

MiCA requires that CASPs that make use of third parties to provide custody and other administration of the crypto assets, that these third parties are also licensed/authorised under MiCA. This requirement should not prevent CASPs from leveraging technology/infrastructure provided by affiliates or third parties under appropriate inter-company or outsourcing arrangements, in the course of providing custody and administration services to their clients, and these arrangements should be set out as part of the application.

We note that the security of crypto-assets is best served by a global infrastructure that requires coordinated action from geographically distributed actors to operate. Current security best practices include separating and storing private key materials across different locations, time zones, and business functions. Imposing requirements that would limit the ability of a custodian to follow best practices related to the physical location of key materials would diminish rather than strengthen their resiliency and security protections. Geographic separation of human capital and security infrastructure eliminates the ability to compromise the safeguarding of assets through a single point of failure and minimises the potential damage of an isolated security breach within any single jurisdiction.

Segregation of Assets

The requirements set out the information required regarding asset segregation. We note that MiCA requires CASPs providing custody services to "segregate holdings of crypto-assets on behalf of their clients from their own holdings" and to "ensure that, on the DLT, their clients' crypto-assets are held on separate addresses from those on which their own crypto-assets are held". This requirement could be read to prohibit the CASP from holding a de minimis buffer of firm assets in trading wallets; implementation of this requirement should allow an exception to allow CASPs to hold proprietary assets in omnibus client wallet addresses in circumstances where the CASP reasonably determines this is in the legitimate interests of its clients and provides appropriate disclosures (for example, using firms funds to pay for gas fees on behalf of the customer). We note that this is not about using customer assets to the benefit of the firm, but the opposite: using proprietary assets to the benefit of customers. This is the operating model of the industry (not just for Coinbase), and is also consistent with how many regulated TradFi entities operate today. Moreover, as is already the required practice for some regulators, these assets should be treated as belonging to customers for all relevant purposes, including in the event of an insolvency, in order to avoid complications in determining that the assets in the client wallets should be distributed to customers. As part of the MiCA application process, this size of the buffer should be disclosed to the national competent authority.

Grandfathering Period

MiCA allows up to 18 months grandfathering, during which CASPs should be able to retain access via national registrations to the same national markets as pre-MiCA. However, member states can unilaterally shorten the grandfathering period, and it remains possible that they do so in a manner that results in firms not being able to serve those markets until they have a MiCA licence. This means that there is a competitive advantage for firms that choose a member state for their MiCA entity location that is willing to rush to award MiCA licences early, as this will guarantee them access to national markets across the EU. We believe that all firms should be provided the same opportunity for market access, regardless of which member state they choose.

We understand there is some debate within the EU as to whether CASPs should be provided with the full 18 month grandfathering period to become MiCA compliant. MiCA is a significant step change for the industry and for supervisors. We believe the full 18 months will be needed to provide sufficient runway for firms to become MiCA compliant, and for national competent authorities to upskill and ensure they have sufficient resources to process MiCA applications.

Application of the Simplified Procedure

As we understand it, the simplified regime allows national authorities to use information that has already been provided to them in the context of other national regimes, in effect speeding up the MiCA licence application process. MiCA also suggests firms that have authorisation under national regimes should be prioritised for a MiCA licence. In the absence of a national crypto asset licensing regime, we believe member states should apply the simplified regime to national crypto asset registrations, and other national financial services authorisations, such as e-money and MiFID licences.

We do not believe that the simplified procedure should be an "easy" route to a MiCA licence. There is a risk that some member states with "light touch" licensing regimes may seek to attract firms by offering a "fast track" to a MiCA licence and single market access, where the firm may not be fully MiCA compliant. We note that there are few (if any) national crypto asset licensing regimes within the EU that are close to MiCA, and therefore it is important that all firms are required to adhere to the same standards. Even where information has been gathered in the context of a crypto asset licensing regime, it is important to ensure all the requirements set out under MiCA have been fulfilled before a MiCA licence is awarded.

If there is a narrow scope to which national regimes the simplified procedure can be applied (i.e. only crypto licensing regimes), this could make the path to a MiCA licence a competitiveness issue, introducing level playing field challenges; firms that choose

member states without a national crypto asset licensing regime should not be disadvantaged. Alternatively, if all member states are able to apply the simplified procedure to firms that have a national crypto asset registration and other financial services licences, we believe this will promote a level playing field and result in fewer challenges/disputes over what regimes are compliant with regards to falling in scope of the simplified procedure. ESMA should provide clarity to member states and the market on this point.

Q3: Do you agree with ESMA's proposals on standard forms, templates and procedures for the information to be included in the application for authorisation as a crypto-asset service provider? Please also state the reasons for your answer.

Yes, we agree.

Q4: Do you agree with ESMA's proposals to specify the requirements, templates and procedures for the handling of client complaints by crypto-asset service providers? Please also state the reasons for your answer.

Yes, in general we agree with the proposed requirements, templates and procedures set out for handling complaints. Specifically we note that ESMA proposes that the procedures and template for complaints submission must be made available "in at least one of the official languages of the home Member State and each Member State". We believe this is disproportionate, and instead, the requirement should be to provide templates and procedures to be made available in the language of the home member state and the languages in which the CASP markets its services. If the CASP only produces marketing in the English language for example, it should only be required to produce its complaints procedures in English.

Q5: Do you think that it is useful to keep the possibility for clients of CASPs to file their complaints by post, in addition to electronic means?

No. We believe that customers that are participating in crypto assets markets have access to and are sufficiently capable of submitting complaints through electronic means. This will allow for better tracking and addressing of customer complaints.

Q6: Do you think that other types of specific circumstances, relationships or affiliations should be covered by Articles 1 and 2 of the draft RTS on the identification, prevention, management and disclosure of conflicts of interest by crypto-asset service providers?

It is important to recognize that multi-function intermediaries are common in the TradFi system; the potential conflicts of interest regarding multi-function CASPs are also concerns for multi-function TradFi intermediaries. Within TradFi conglomerates, conflicts of interest are pervasive. They are nonetheless permitted to operate with multiple functions because the efficiencies and customer benefits of doing so are deemed to outweigh the risks, provided that appropriate safeguards are in place.

Similarly, in crypto-asset markets, there are benefits to combining certain functions within the same service provider, which is a natural consequence of blockchain technology. Notably, embedding real-time settlement into transactions eliminates the need for the classical TradFi clearing and settlement intermediaries. This offers tremendous capital use efficiencies and highlights the incongruency of calls to separate custody, clearing, and trading activities like with TradFi intermediaries.

A good example is clearing and settlement. In TradFi markets there are separate, specialised entities to perform these tasks, and it can take up to two days to clear and settle securities transactions. This is because TradFi evolved over decades out of a paper-based system, where the lack of an automatic, efficient, and trusted infrastructure that verified and transferred assets led to the need of separate intermediaries, such as brokers, custodians, exchanges, market makers, and settlement and clearing agencies, often with conflicting interests and incentives. In the era before computers, trust was created by requiring intermediaries for each of these roles and then regulating them.

In contrast, settlement in crypto-asset markets is already performed on chain and in real time, obviating the need for separate entities to perform these tasks. Blockchain technology makes this possible by providing a single source of truth, a distributed ledger, that all market participants can access simultaneously, instead of maintaining separate ledgers that need to be reconciled at regular intervals. This technology also enables advances like atomic settlement, in which interconnected legs of a transaction, such as the transfer of an asset from one party in exchange for the transfer of funds from its counterparty, are both completed in the same instant or else not at all. Atomic settlement could eliminate significant costs and inefficiencies caused by settlement failures in our current delivery versus payment (DvP) transaction system.

This has led to the efficient combination of crypto-asset activities like order matching and custody. Without the need for clearing and settlement intermediaries to complete transactions, and given the ability for market participants to easily self-host their assets (e.g. for consumption purposes), there is no economic or technological necessity for a centralized custodian as in TradFi. For example, Coinbase customers can onboard assets, exchange them, and off-board all within minutes. Inserting a centralized or separate custodian would increase both cost and inconvenience to customers.

Combining order matching and custody also makes markets safer and more efficient. The combination allows transactions to settle in real time, removing counterparty credit risk and the need to pledge collateral during the settlement period to protect against

settlement failure, as well as the cost of the intermediary that would otherwise serve to protect against failure. This offers an improvement to the current system, and a potentially significant reduction in inefficiencies and potential harm that consumers could face as a result of delayed settlement, especially during periods of high volatility.

More generally, and consistent with practices in TradFi, combining business activities can improve operational efficiencies, create better customer experiences, improve regulatory oversight, and lower overall costs to consumers. For example:

- Combining functions into a single technology stack offers economies of scope, reducing the number of rent-seeking intermediaries that can charge a fee for a transaction and thereby making access to markets more affordable for retail users.
- An integrated tech stack also results in more streamlined operational processes, including smoother interfaces between functions, thus reducing frictions and enhancing the overall effectiveness of compliance and risk management systems.
- Combining functions can also improve the overall user experience, enabling a wide range of services from a single platform with one overarching set of rights and risks to understand.
- Importantly for regulators, combining functions makes it easier for them to obtain a holistic view of the market by reducing the need to piece together activity from a large number of layered intermediaries, which often leads to gaps in regulation.

We note that there are different combinations of activities in crypto asset markets, which carry different degrees of risk with regards to conflicts of interest. The consultation rightly identifies combinations whereby conflicts of interest may arise including: (1) exchange and broker services, whereby a broker may be incentivised to route customer orders through an affiliated exchange, irrespective of the customer's best interest; and (2) exchange and market making services, which create unfair advantages if the market maker has privileged access to information such as counterparty positions and orders. The risks of each should be disclosed, and subject to appropriate levels of control and oversight. An exchange's issuance of a token that is linked to its own future trading volumes or revenues also raises significant concerns and should be the subject of further work.

ESMA's draft RTS rightly recognises that mitigating conflicts of interest does not necessarily mean forcing CASPs into the same market structure as TradFi, or disaggregating CASP functions. We also believe it is critical that there is a level playing field across the EU; one of the most important mechanisms for maintaining and incentivizing compliance with these provisions will be market discipline, which could be undermined if member states take divergent approaches to oversight and enforcement.

Q7: Do you think that other types of specific prevention or mitigation measures should be highlighted in the minimum requirements of Article 3 of the draft RTS on the identification, prevention, management and disclosure of conflicts of interest by crypto-asset service providers?

Where there are conflicts of interest with multi-function CASPs, we strongly agree that they should be mitigated through policies and procedures designed to preserve the integrity of crypto-asset markets. In this regard, we support the approach that ESMA is taking in the proposed RTS, which appropriately puts the burden on CASPs to identify, manage and disclose conflicts, subject to supervisory oversight. This approach recognizes that conflicts of interest can be very fact-specific, which makes it difficult to provide an ex ante definition that is both precise and comprehensive, but much easier to recognize in the context of a concrete fact pattern. We do not believe there are other specific prevention or mitigation measures that should be highlighted.

Q12: In which EU jurisdiction(s) do you plan to be authorised to provide CASP services? In which EU jurisdiction(s) do you plan to provide CASP services under cross-border provision of crypto-asset services as specified in Article 65 of Regulation (EU) 2023/1114?

As a firm, we are considering our EU strategy in terms of where we will establish our MiCA entity. We are assessing countries against a range of criteria and we have identified a handful of member states that we are currently considering. We currently have a crypto license in Germany, EMI license in Ireland and a number of national registrations in other member states. We plan to make a decision in the coming months. All of the member states we are looking at have significant experience and expertise in regulating financial services. We are also looking for a location that recognises and supports the potential of this technology, recognises the benefits of a globally integrated business model, with a flexible labour market and access to talent.

As noted above, we are concerned that there may be an unlevel playing field for firms if some member states rush to award MiCA licenses and others take more time. This plays out particularly starkly if some member states reduce the grandfathering period (whereby national registration regimes fall away). For firms that have not yet received their licenses, because they are located in member states that are slower to award licenses, this may impact market access (where other firms located in a member state that have awarded MiCA licenses early have a competitive advantage).

We strongly believe that supervisory convergence is necessary for ensuring that consistently high standards are applied by all national authorities in the supervision of MiCA licensed entities. An entity licensed in one member state should be subject to the same supervisory scrutiny as an entity licensed in another. ESMA has a critical role to play to promote convergence and we welcome the powers provided to ESMA to intervene with



non-compliant CASPs, where the home state fails to do so, including the ability to withdraw licenses, suspend or prohibit services.

Q13: What crypto asset services as listed in point 16 of Article 3(1) of Regulation (EU) 2023/1114 do you plan to offer (e.g. reception/transmission of orders; execution of orders on behalf of clients; operation of a trading platform etc.)? In addition, please provide some high-level explanation of the business model, including, what type of trading systems do you plan to use.

Coinbase has not taken a final decision on the MiCA licence/permissions it plans to apply for. However, we note that there are two key pillars to our business: exchange and custody. On the former, Coinbase Europe routes customer orders back to the exchange operated in the US. On this basis, Coinbase is likely to apply for a MiCA license with permissions for reception and transmission of orders, alongside some other ancillary permissions such as custody. In relation to our custody business, we plan to offer the services of custody and administration of crypto-assets and transfer services for crypto-assets.

Q16: If you are planning to receive and transmit orders:

(a) How many white papers do you estimate to offer to your clients for order transmission?

Firms with a MiCA license and permission to offer reception and transmission of orders (i.e. not a trading platform) are not required under MiCA to issue white papers. However, disclosure to the market is a critical part of investor protection and issuers and trading platforms should make appropriate whitepaper disclosures to the market.

Coinbase has a rigorous asset listing process and makes listing decisions through a formal process run by a dedicated team called the Digital Asset Support Group, which follows regular procedures, which are documented in formal policies. The Digital Asset Support Group votes on what assets can be listed, informed by an initial and ongoing rigorous vetting and review process that evaluates assets for compliance, legal, and information security concerns. For every asset that is listed, Coinbase publishes the project team's own white paper (where available), information on the asset, the tokenomics and the background to the project as well as the latest industry updates regarding the asset (e.g. general news or technical updates), market data (e.g. liquidity, market depth, circulating supply), and any relevant additional information.

We note that, under MiCA, CASPs which operate a trading venue are required to publish white papers for assets they list where one does not exist. However, Annex 1 of MiCA requires a large volume of information to be included in the white paper for which it would

be liable. This makes sense for a white paper that the issuer will create, but a trading platform will not have access to all this information, such as the requirement to give views on the financial position of the issuer and upcoming milestones in the project. This makes it impossible for CASPs to produce these whitepapers and to accept liability for information that cannot be obtained or verified. We believe the intention of the text is for exchanges to only be required to publish white papers on the basis of reasonable efforts and publicly available information, and it is important that ESMA clarifies this for the market.

(c) Which are the main platforms/brokers you are intending to transmit orders to?

Coinbase Europe currently routes all orders back to the Coinbase exchange operated by Coinbase, Inc. in the US. Coinbase Europe does not use external third party platforms or brokers.

(d) In which jurisdictions are these platforms/brokers based?

See answer 13 and 16(c) above.

(e) How do you plan to keep track of the transmitted orders? Do you undertake transactions on the basis of an on-chain ledger or an off-chain one? In case of the former, is transaction data stored on-chain or off-chain or a mixed of the two? If the latter, how do you link on-chain and off-chain transaction data?

Coinbase has long advocated for regulatory oversight of centralized finance (CeFi) activity, and in particular, when a CeFi entity takes custody of crypto-assets on behalf of its customers. Financial services that rely on performing custodial services – including order matching activities such as Coinbase offers – should have appropriate regulatory oversight.

All on-chain data exists on a network's public ledger and can be queried and verified by the public at any time; this is its primary benefit. Coinbase does not generally store on-chain transaction data. For on-chain activity that corresponds to a Coinbase wallet address, we maintain an internal ledger that is stored within our databases. If transactions take place between two Coinbase addresses (sends and receives), the transaction is tracked off-chain, on our internal ledger. The benefit of this is near real time settlement without the need for customers to pay gas fees. As part of our regular business processes, we reconcile on-chain inflows and outflows from Coinbase addresses against our internal ledger to ensure our records and balances match those that are publicly visible on the network ledger.