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**EXPERT GROUP ON BANKING, PAYMENT AND INSURANCE**

**(Digital euro)**

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# Compensation model

## 1. INTRODUCTION AND PURPOSE OF THIS NOTE

This note aims at structuring the discussion with EGBPI members around a possible compensation model for the intermediaries of the digital euro, which, as cash, could be considered a public good. It complements the presentation of the ECB to the EGBPI on this topic. The compensation model is still being analysed by the Commission.

Payment markets are two-sided: sufficient network effects must exist on both sides for a payment ecosystem to be widely used[1]. Cost categories incurred by Payment Services Providers (PSPs) that provide digital euro payment services might be roughly similar to those they face today for other digital payment services. These costs would include the following elements:

- When they service consumers, PSPs in their role of distributors would incur costs for opening and managing accounts, performing Anti-Money Laundering and Counter-Terrorism Financing (AML/CFT) checks, including customer due diligence, handling fraud detection and management, executing payment transactions, using the payment scheme, etc.
- When they service retailers (e.g. merchants), PSPs in their role as acquirers would incur costs for providing and maintaining terminals, processing transactions, handling dispute resolution, fraud detection and management, using the payment scheme, etc.
- In addition to the fees acquiring PSPs would charge retailers for the services mentioned before, retailers would face costs to adjust their acceptance infrastructure (terminals) as well as their IT systems, and costs related to customer management, staff training, legal support, marketing, etc.

The actual quantification of these costs might also depend on (i) the extent to which various PSPs may reap economies of scale and (ii) how PSPs can reap synergies between the digital euro and instant payments based services at the point of interaction (PoI).

The potential digital euro compensation model could be developed based on several key considerations. First, in case the digital euro is granted legal tender status, and in order to

[1] For a means of payment to be successful (payers need to be confident that a means of payment is accepted by a sufficient number of merchants in order to use it, and merchants need to be confident that a sufficient number of payers use it in order to accept it.

support the wide access to and use of such a digital euro, it may be provided by the legislature that basic services related to it may be offered for free or at a reasonable price to end users/people[2]. Second, PSPs in [both] their roles as distributors and acquirers should receive compensation for their costs and services. Third, in view of the potential mandatory acceptance of payments in digital euro, the fees for merchants as payees should be justified and in line with the principle of proportionality, i.e. payees should not be charged unjustified or disproportionate fees by PSPs. Fourth, the digital euro compensation model should aim to preserve a level playing field with other private means of payments. Fifth, it is assumed that the Eurosystem would cover its own processing and settlement costs related to the digital euro, which means that there would be no scheme and processing fees. As is the case for cash, the Eurosystem may get seigniorage income to compensate these costs. This approach may likely make digital euro services beyond those defined as free basic use services overall less expensive for users, since PSPs (and eventually merchants and users) may not have to bear these costs, which they at least partly bear in the case of other means of payment.

*Q1: Views of EGBPI members are sought on whether the costs above are accurately described.*

*Q2: Views of EGBPI members are sought on the list of key assumptions on which the digital euro compensation model may be built.*

## II. WHICH SERVICES INCLUDED IN THE "BASIC USE"?

***Potential list of digital euro services included in the "basic use"***

If the digital euro is granted legal tender status, it would have to be accepted at face value. This would exclude any excessive fees for people that would erode the value of payments received. To be legally sound, fees should be justified and in line with the principle of proportionality.

The Eurosystem indicated in its digital euro report (2020) that "free of charge for basic use by payers" would be one of the "cash-like features" that individuals could expect from the digital euro. It kept open in this respect the possibility for acquiring PSPs to charge retailers, which is the main source of explicit payment revenues for PSPs. The provision of digital euro "basic use" services free of charge to end users residing or established in the euro area may indeed support the wide access digital euro across the euro area. It also considers how likely it is that a comparable service with existing digital means of payment would carry an explicit charge.

Providing certain digital euro basic use services for free for end-users/people or for reasonable fees is a policy choice that is further discussed below. In this context, 'free' would mean that distributing PSPs would not be allowed to apply explicit charges to end users/people for individual basic digital euro services.

It needs to be further considered and analysed whether PSPs should not face any constraints in how[3] they charge for a payment account package comprising a digital euro account and a linked payment account.

It must be noted that under the Payment Account Directive (PAD), access to a basic payment account is not necessarily free. According to the PAD, a payment account with basic features

[2] As this is the case for other means of payment, this is without prejudice to the possible cross-subsidisation of fees incurred by distributor PSPs through other retail financial services, and to the indirect costs consumers may face if merchants recover the costs of mandatory acceptance of the digital euro through retail prices

[3] PSPs may be allowed to advertise only a single package fee with or without digital euro services or two different package fees with and without digital euro services.

should be provided free of charge *or* for a reasonable fee, as defined by Member States. According to Article 18 of the PAD, Member States shall ensure that the reasonable fees are established taking into account national income levels and average fees charged by credit institutions in the Member State concerned for services provided on payment accounts.

It also needs to be considered whether only people – as suggested by the Eurosystem, or also certain businesses/merchants should benefit from free basic use of some of these services (e.g. waterfall for merchants, please see below).

Digital euro "basic use" services could include all or a selection of the following:

1. **Opening, keeping, managing and closing digital euro accounts**, **and consulting balances and past transactions**. These services may be seen as important for digital euro users to get access and manage their digital euro holdings.

2. **Funding and defunding of digital euro accounts.** Funding and defunding may be seen as a necessary service for people to pay with/be paid in digital euro. Facilitating seamless fungibility between central and commercial bank money can be seen as important from two perspectives: (1) preserving digital euro usability in a context of holding limits where such limits are set to restrain the use of the digital euro as a store of value; (2) providing for all payment solutions the possibility to draw on the user's available liquidity from digital euro or commercial bank money at the time of payment.

   2.1. **Non-automated (manual) funding and defunding** of digital euro accounts from/into private payment accounts. Manual funding/defunding would enable people to convert their commercial bank money to central bank money in electronic form (and vice versa) via for instance a mobile app or internet bank application.

   2.2. **Automated funding and defunding** of digital euro accounts from/into private payment accounts. Clients may set up an automatic conversion of their commercial bank money to digital euro e.g. a certain amount on a monthly basis and vice-versa from digital euro to commercial bank money. While this service may facilitate payments in digital euro and reduce the need for reverse waterfall funding linked to a payment, and increase convenience for users it may also be considered as convenience/additional service and not indispensable for all digital euro users

   2.3. **Conversion of digital euros from/into cash**. Consumers may be able to convert their digital euros into cash at ATMs or in branches. They may be able to convert cash to digital euro mostly in branches and in a few ATMs that can accept cash deposits.

   Today cash withdrawals are not necessarily free of charge. On the one hand, it may be seen as inappropriate to charge the conversion of the digital euro from/into cash, especially in case the digital euro, as a public form of money, is also granted the status of legal tender. Indeed, any charge on the conversion of the digital euro from/into cash may be detrimental to the objective of a wide availability of both the digital euro and cash, at a time the declining usage of cash accelerates. Yet, this option may result in additional losses of revenues for those PSPs that charge the conversion of cash from/into commercial bank money, since conversions of the digital euro from/into cash for free may be a way to circumvent such charges.

   On the other, conversion of the digital euro from/into cash could be charged at the same level as cash withdrawals from commercial bank accounts in accordance with market practices. To avoid distortions in existing conditions to withdraw/deposit cash, another option would be to establish that any possible charge to be applied for cash handling costs should not vary depending on whether the source/destiny is a private payment account or a digital euro account. Currently, there is no harmonisation across the euro area with regard to charges applied to cash withdrawals and deposits from/into commercial bank money. This reflects in particular the set-up and maintenance costs of the cash distribution infrastructure (e.g. ATMs). Consequently, users may be charged for converting cash from/into commercial bank money as well as digital euro, in order for PSPs to recover their costs for conversion services.

As a complement to this latter option, conversion of the digital euro from/into cash could be made fully free of charge only for unbanked people. Unbanked people that may open a digital euro account at a PSP, including post offices or local authority recognised as PSP under PSD2, would have no other choice than to fund and defund their digital euro from/into cash absent a commercial bank account. Any charge on the conversion of the digital euro from/into cash may therefore be highly detrimental to the objective of financial inclusion. Unbanked people still represent 4.4 million user above 15 years of age. Charging them could prevent financial inclusion.

2.4. **Waterfall and reverse waterfall services**. In case of limits on digital euro holdings for financial stability purposes, automated fund transfers from/into private payment accounts may be needed to ensure that transactions are smoothly processed on both payer’s and payee’s side. To do so from a private payment account, users need to first link their digital euro account to a private payment account. If a payee receives a digital euro payment that results in a balance above the holding limit, the excess amount may automatically be transferred to the payee’s linked private payment account (waterfall functionality). Similarly, if a payer initiates a payment for an amount of digital euro higher than the actual digital euro balance of the user, the missing amount may automatically be transferred from the payee’s linked private payment account into the digital euro account, in order to allow the payment for the full amount in digital euro to be sent (reverse waterfall functionality).[4]

Waterfall and reverse waterfall may be considered as core services provided by PSPs but, it could also be argued that these functionalities may be additional/convenience services, and similarly to some private instant payment credit transfers may be subject to fees. On the other hand, unlike other private means of payment, the digital euro would be subject to holding limits. Reverse waterfall and waterfall mechanisms may be seen as a way to keep holding limits low (which may be necessary for financial stability purposes) while allowing the digital euro to be used as a means of payment.

Concerning the waterfall, should a majority of users choose not to activate the waterfall functionality if they are charged for this service, this may lead to a potentially high number of refused digital euro transactions. In addition, it may be disproportionate to charge merchants for automatically converting their inflow of digital euro to commercial bank money as they have to accept these payments but cannot hold digital euros above a certain limit (which may be zero).

[4] Another type of reverse waterfall functionality could also be designed where digital euro is automatically converted to commercial bank money and transferred to the user’s payment account at a time of a POI payment transaction if the user does not have sufficient amount on its payment account but it has available and sufficient digital euro holdings.

Concerning the reverse waterfall, subjecting it to fees may result in inconsistencies in the convertibility between central bank money and commercial bank money, if e.g. a move of liquidity on the opposite direction from digital euro to commercial bank money for a payment in commercial bank money is not subject to fees.[5]

At the same time, both the waterfall and the reverse waterfall for free may have the consequence that users may rather use digital euro transfers instead of regular or instant credit transfers , which may be subject to fees.

3. **Initiation and reception of payment transactions by natural persons** in digital euro by means of a digital payment instrument, in the following situations:
   - person-to-person (P2P) payment transactions; These transactions would be similar to cash P2P transactions. Providing them free would mirror the user experience with cash.
   - point-of-interaction (POI) payment transactions, including point-of-sale (POS) and e-commerce. PSPs currently do not charge payers for such individual transactions.
   - government-to-person/person-to-government (G2P/P2G) payment transactions.
4. **Programmable/conditional payment transactions**. While this service is not indispensable for all digital euro uses, such payments can include services similar to existing, widely used services such as standing orders between two digital euro accounts and direct debits. Simple conditional payments may be provided for free for people. Other "innovative payments" would not be deemed as basic use service and bear a potential fee based on commercial decisions of the PSPs. In Industry 4.0, more complex and innovative conditionality of payments could be developed by PSPs and the industry e.g. payment by delivery. However, the range of simple conditional payments offered for free to users may evolve in the future so that it may be complex to define an exhaustive list that would still be valid across time.
5. **Provision of at least one digital payment instrument to natural persons for the execution** of payment transactions in digital euros. Given the very different marginal costs of providing physical instruments (e.g. cards) compared to a virtual instrument such as a mobile app/wallet, it is most likely that virtual instruments would be provided free-of-charge within the basic use. This does not mean that some PSPs cannot decide to offer physical cards free-of-charge.

*Q3: Views of EGBPI members are sought on (i) the list of services that could fall within the scope of "basic use" services and (ii) whether and which services should be provided free of charge and (iii) for which categories of users.*

## III. THE CASE FOR INTER-PSPS FEES?

The scope of basic use services and whether they would be potentially free of charge create trade-off with the remuneration model of the distributing PSPs. The wider the scope of free

[5] It may also be disproportionate to charge merchants for automatically converting their inflow of commercial money into digital euro as they have to send these payments (e.g. to refund a client), but cannot hold digital euros above a certain limit (which may be zero).

basic use services the higher the need for compensating distributing PSPs from other sources. . Options for covering distributor PSPs' costs may be the following:

- **Option 1: Inter PSP fee.** Under this option, distributor PSPs cannot charge directly at all for the individual basic use services (– see section II above) an indirect compensation would be introduced by allowing distributor PSPs to receive part of the merchant service charges (MSC charged by acquirer PSPs to merchants). MSC thus may have two main components: 1) part of the fee would be transferred to the distributor PSPs, similarly to the interchange fee in card payments. This could be called an inter PSP fee. 2) The rest of the fee would be retained by the acquiring PSPs. Such an inter PSP fee may sufficiently compensate distributing PSPs to ensure wide access to and use of the digital euro. This inter PSP fees should also be proportionate, which is discussed in the next section.

  At the same time, due to the two-sided nature of payment markets, incentivising distributors via inter PSP fees will also have impacts on merchants (the inter PSP fees act as a floor for the overall MSC) and ultimately consumers through retail prices. The absence of a scheme fee would mitigate this impact. Finally, inter PSP fees, like interchange fees for card payments may raise anti-trust concerns (please see in Section IV).

- **Option 2**: **No inter PSP fee.** Since payment systems may work without interchange fee, the option of no inter PSP fees could also be considered for the digital euro. This option would be especially relevant if distributing PSPs may be allowed to charge reasonable fees for basic use services (see section II above). However, if PSP may not be allowed to charge for basic use services and they could not receive inter PSP fees, distributor PSPs would likely seek compensation from other sources especially extra charge on non-digital euro products /services (cross-subsidisation).[6] This would be unlikely to cover their costs, and hence carries the risk PSPs would not be incentivised to distribute the digital euro and could distort competition.

Under both options, distributing PSPs could also get compensation from additional value-added services built on the digital euro. Additional value added services could include delivery versus payment, conditional payments per type of payer and/or underlying goods/services, BNPL (buy now pay later), split payments (multiple payers), pay & split (multiple payees). These revenues however may not be enough to also cover the cost of the basic use services, especially in the first period after the introduction of a digital euro.

*Q4: Do EGBPI members consider that there should be an inter PSP fee (option 1) or not (option 2)?*

## IV. WAYS TO FRAME OR REGULATE MERCHANT FEES

Granting the digital euro legal tender status, with the corollary of mandatory acceptance,[7] carries the risk that PSPs in their role of acquirers overcharge retailers for digital euro acquiring services if the pricing is left to the market, given that retailers would have no other choice than to accept digital euro payments from payers. This mainly would depend on how competitive/concentrated the supply of digital euro acquiring services would be. In addition,

[6] Cross subsidisation is widespread in retail financial services, and even the existence of interchange fees does not preclude this to happen. The level of cross-subsidisation would nevertheless depend on the PSP's business model.

[7] Subject to any potential exemptions to mandatory acceptance discussed in the September 21 EGBI note..

excessive charges on merchants could marginalise the use of the digital euro and would not allow users and the economy at large to benefit from its possible advantages.

Furthermore, additional competition concerns may arise as regards any fees to be transferred between PSPs following a similar model as interchange fees for card payments, as merchants cannot negotiate these fees, which constitute a floor on merchant service charges (MSC).[8] The risk of overcharging merchants with such inter PSP fees (e.g. fees transferred by the acquirer PSPs to the distributor PSPs in case of POI transactions) can also be considerable looking at the experiences with the interchange fees on card payments in the past before regulatory intervention. Specifically, merchants, in particular small ones, have a weak countervailing market power as opposed to their acquirers, especially in the context of mandatory acceptance compounded by the inability of merchants whatever their size to negotiate merchant service charges below the level of inter-PSP fees (floor effect). In addition, inter-PSP (interchange) fees are prone to reverse competition[9], where issuers (the recipients of such fees) favour the issuance of payment instruments with the higher interchange fee levels leading thus to the crowding out of lower interchange fee based payment means (e.g. domestic card schemes or SCT Inst-based payment solutions).

Assuming that an inter-PSP fee is part of the compensation model (as discussed under Part III), the options for framing the fees by the legislature may be the following:[10]

- **Option 1: pricing for merchant services charges, including acquiring and inter PSP fees left to the market.** PSPs in their role of acquirers may be free to set merchant services charges on retailers as they see fit. PSPs collectively agreeing on inter PSP fees may however raise antitrust concerns. It may also be difficult for the numerous PSPs involved to agree on an inter-PSP fee without a central coordinating party (like a scheme owner).[11] This option assumes that competition between the different PSPs providing digital euro payment services, is effective to minimise fees and, at least, constrain PSPs' ability to set merchant services charges on retailers and inter PSP fees at excessive levels. PSPs participating in the Commission's targeted public consultation generally advocated for pricing left to the market.

  At the same time, merchants will be forced to accept the digital euro from consumers originating in any distributor PSP. Consequently, distributor PSPs may manage to charge inter PSP fees at the level closer to their choice, and merchants will only be able to negotiate the (probably much smaller) acquiring fees with their acquiring PSPs[12]. This could result in overall merchant service charges higher than those of consumer card payments for instance (being capped under the Interchange Fees Regulation), even if the ECB does not charge scheme fees and settlement fees for the digital euro. Such higher fees bearing on merchants would impact negatively consumers' welfare as merchants pass on the extra costs from compulsory acceptance of the digital euro through relatively higher retail prices.

- **Option 2: Setting price expectations**

[8] In the digital euro's case the MSC would be composed of the inter PSP fee and the acquiring margin/fee and without scheme and settlement fees. See footnote 3.
[9] It is reverse in a sense that competition leads to higher prices.
[10] This is without prejudice to further legal analysis of the different options.
[11] In the euro area there are thousands of PSPs that can distribute the digital euro and only 300-400 acquiring PSPs. They also have opposing interest on the level of inter PSP fees: higher fees benefit distribution, but lower fees help acquirers recruit merchants. However acquirers can also be issuers/distributors with conflicting interest, while mandatory acceptance in general reduces the acquirers incentives to limit their merchant service charges.
[12] Merchants do not have a direct contractual relationship with distributor PSPs.

- **Option 2a: Setting price expectation on both acquiring and inter PSP fees** to avoid overcharging retailers. The expectations could achieve that (i) acquiring and inter PSP fees are not higher than for comparable private means of payments at the POI, e.g. domestic debit card payments or instant payment based solutions; and/or (ii) retailers are indifferent in accepting digital euro or private means of payment. However, it is unclear how price expectations alone would help overcoming the practical difficulties related to the agreements on inter PSP fees. This option may be coupled with a review clause to regulate the fees, where appropriate at a later stage (see Option 3), in view of dynamics in the market, in case fees turn out not to be sufficiently competitive.

- **Option 2b: Setting price expectation only for inter PSP fees.** Issuing pricing expectations only for the intra PSP fees, would help in avoiding excessive fees, with the caveats regarding the agreements between the two types of PSPs. This option assumes that the acquiring market is competitive enough hence no further guidance on acquiring fees is needed.

- **Option 2c: Setting price expectation only for acquiring margins/fees.** In case the acquiring market is not considered competitive enough, guidance on the acquiring fee may be sufficient to avoid that PSPs overcharge merchants, but is likely to only address the smaller part of the MSC (concerns about inter PSP fee would remain). The guidance on acquiring margins/fees may refer to costs, or fees of similar payment services. Where price expectations refer to costs, it may be hard to establish precisely the amount of these costs, however.

- **Option 3**: **Capping fees**

  - **Option 3a: mandatory caps for both acquiring fees and inter-PSP fees.** Mandatory caps on both fees may be set from the first issuance of the digital euro. Price competition would be possible below the cap if there is transparency on prices and fees. Two different methodologies could be used:

    - **Option 3a1**: setting the maximum acquiring and inter-PSP fees based on the objectives defined in Option 2, i.e. (1) not higher than fees for comparable private means of payments at the POI, e.g. domestic debit card payment or instant payment based solutions and/or (2) fulfilling a so called ‘merchant indifference test’ whereby the merchants would be neutral about what payment means they accept e.g. digital euro, instant payment based services, international and domestic card schemes[13]. These benchmarks may however prove challenging given discrepancies across euro area Member States..

    - **Option 3a2**: setting maximum acquiring and inter-PSP fees oriented to the level of PSPs’ costs[14], to be estimated and revised periodically. Under this option, PSPs may be mandated to regularly report the costs of providing digital euro acquiring services and the relevant authority would need to build up analytical and auditing capacity. To fulfil this objective, PSPs and authorities may face

[13] Interchange fees have been subject to antitrust scrutiny by the European Commission and several national competition authorities in the past decades. Lately the European Commission applied the Merchant Indifference Test (MIT) as a benchmark for assessing efficiency justifications of MIFs brought forward by payment card schemes. MIT is a test that was developed in the academic literature and aims at identifying an interchange level which ensures that merchants are on average indifferent whether customers use payment cards or cash to make their purchases. An interchange set at this level would make the payer internalise the potential transactional efficiencies on the payee side, therefore enabling them to make a socially optimal choice when selecting the payment means in a given payment situation.

[14] Acquiring fees oriented towards acquirer costs, inter PSP fees oriented towards distributor costs.

significant practical difficulties[15] and administrative costs. In the Commission's targeted public consultation, option 3a2 was supported by business associations, merchants, and consumer associations to avoid any over-charging. It is to be noted that in any event the initial cap, in the absence of data about the actual costs of providing digital euro distribution and acquiring services to consumers and retailers at the time of the first issuance of the digital euro, would have to be set on the basis of other relevant criteria (for instance those defined in option 3a1).

- **Option 3b**: **mandatory cap only for inter-PSP fees.** A capped inter-PSP fee may better ensure that fees remain reasonable, and reduce competition concerns and may help PSPs agreeing on inter-PSP fees but an EU-wide agreement can still not be guaranteed. The risk of acquirer PSPs overcharging merchants with acquiring fees may still be present.

- **Option 3c**: **mandatory cap only for acquiring fees.** If the risk of overcharging merchants is considered significant, or there is evidence of widespread abuse of negotiating positions power by acquiring PSPs towards (smaller) merchants (after the introduction of a digital euro), a mandatory cap may be effective in ending such undesired practices but it may only address the smaller component of the MSCs. The issues of inter PSP fees would however remain unsolved.

- **Option 4**:[16] **Setting the inter PSP fees at a fixed level.** Setting the inter PSP fee between acquirer and issuer PSPs at a fixed level under the methodologies set out above (option 3a1 and option 3b2) would avoid competition concerns about collusions and enable the system to start operating without waiting for voluntary (multilateral) agreements among thousands of PSPs all over the euro area. The setting of fee levels would face the same difficulty as above and especially because of the heterogeneity of Member States' payment markets, which operate with various interchange fee levels.

*Q5: Views of EGBPI members are sought on which of the options outlined above is preferred to frame transaction fees on retailers and intra PSP fees, where appropriate.*

[15] Practical difficulties include: allocation methods for common costs in general; common costs exist not only across different payment means, but also different products, overhead, office, etc.; since the cap has to be an average across PSPs, how to aggregate the costs of various PSP (some will be above, some below that benchmark); country differences vs single market objective for payments, accounting principles agreed, e.g. amortization.

[16] A fixed level of acquiring fee cannot be an option as the level of fees are dependent on the scope of services PSPs provide to merchants, as well as local market conditions (PSP costs), and scale effects (merchant size and number of transactions).