

Committee on Payments and Market Infrastructures (CPMI)
Extending and aligning payment system operating hours for cross-border payments

End of consultation period: Friday, 14th January 2022

Executive Summary

In October 2020, the G20 endorsed a roadmap to enhance cross-border payments, developed by the Financial Stability Board (FSB) in coordination with the Bank for International Settlements Committee on Payments and Market Infrastructures (CPMI) and other relevant international organisations and standard-setting bodies. The G20 cross-border payments programme aims to address long-standing challenges in the cross-border payments market, including high costs, low speed, limited access and insufficient transparency. This programme comprises the necessary elements of a globally coordinated response in the form of a set of 19 building blocks (BBs), based on a CPMI report to the G20 (CPMI (2020a) (2020b)).

This consultative report, produced by the CPMI Cross-border Payments Expansion Workstream and developed as part of BB 12 on extending and aligning operating hours of key payment systems to allow overlapping, **focuses on the operating hours of real-time gross settlement (RTGS) systems as key payment systems to enhance cross-border payments**. RTGS systems facilitate settlement typically in central bank money and, as a result, provide the foundation on which other payment systems and arrangements involved in cross-border payments rely. **An extension of RTGS operating hours across jurisdictions can therefore help to address current points of friction in cross-border payments, resulting in increased speed of cross-border payments, as well as reduced liquidity costs and settlement risk.**¹ Enhancing the speed of cross-border payments is an important ambition of the G20 cross-border payments programme, and targets have been developed by the FSB in this regard.

This consultative report aims to solicit views from payment system operators, participants and other interested parties on three potential scenarios for extending RTGS system operating hours (“end states”) and associated operational, risk and policy considerations. The three scenarios outlined here range from an incremental increase in operating hours on current operating days (eg standard working days), to an increase to include current non-operating days (eg weekends and holidays), and finally an increase to full 24-hour and seven-day-a-week (24/7) operations. The CPMI invites comments on these end states and the benefits and challenges related to them, as well as potential solutions to address potential issues. The CPMI plans to publish in 2022 a final report on action 2 of BB 12 incorporating the inputs received from this public consultation.

The analysis presented is based on a **survey of 82 jurisdictions conducted by the CPMI**, which identified 62 RTGS systems and provided information about their current operating hours. The key findings are the following:

- **Operating hours vary significantly across RTGS systems in different jurisdictions, and there**

are sizeable gaps in their daily operating hours that at least partially explain the delays in the processing of cross-border payments. When the operating hours of RTGS systems in different jurisdictions do not overlap, the processing of cross-border payments suffers delays, increasing liquidity costs and settlement risk.

- **On a daily basis, gaps in operating hours exist across nearly all jurisdictions, affecting both CPMI and non-CPMI jurisdictions, irrespective of whether they are advanced economies (AEs) or emerging market and developing economies (EMDEs)**, although gaps tend to be larger for non-CPMI jurisdictions and EMDEs. Gaps are particularly pronounced across regions, exceeding 20 hours per day for some jurisdiction pairs and sometimes approaching (or even reaching) the entire day. Daily gaps are less sizeable but still noticeable for jurisdictions within the same region due to smaller time zone differences.
- **Gaps in operating hours are even greater when considering weekly availability**, as only a limited number of RTGS systems are available on weekends.³ At present, average operating hours on a weekly basis are nearly 25% less than would result if current average weekday operating hours were to apply throughout the entire week. If the effect of public holidays were to be added, those gaps would be even bigger because few RTGS systems are open on public holidays.
- To improve the status quo and help facilitate further overlap, this report suggests **three potential end states for central banks to consider as they assess their current operating hours and plan for the future**. These end state scenarios are not intended to be prescriptive, but provide high-level approaches outlining the outcomes an individual central bank could consider.
- The report proposes the **“global settlement window” – a new concept reflecting the time period during which the largest number of RTGS systems are simultaneously operating – as a key consideration for central banks assessing potential end states for RTGS operating hours. At present, the global settlement window is best characterised as the time period from 06:00 to 11:00 Greenwich Mean Time (GMT) on working days**. This is broadly the five-hour period when, on average, the highest number of CPMI and non-CPMI systems are concurrently operating across all jurisdictions covered in this report.
- The global settlement window is not intended to be a target in and of itself, but rather a key consideration in each jurisdiction's decision-making process. **When evaluating an extension of RTGS operating hours, in addition to domestic considerations, individual jurisdictions may consider the resulting aggregate outcome in terms of the overall global overlap as reflected in the global settlement window**. While each end state represents a potential extension of an individual jurisdiction's RTGS operating hours, **a key objective for an extension of RTGS operating hours to support enhanced cross-border payments could be to consider an end state that meaningfully improves the status quo by adding to the current global settlement window in terms of the number of hours and days for that window and the number of jurisdictions with operating hours in that window**.
- **Depending on each jurisdiction's present circumstances, needs and challenges, each end state will likely require differing levels of effort and paths of implementation**. Individual jurisdictions have discretion over which precise operating hours they choose to extend, the overall extent of changes and the pace of changes, while being mindful of the impact of their actions both in support of the global settlement window and on domestic considerations. End states could be achieved incrementally over time or through a “big bang” approach in which an end state is reached in a single step. Timelines should be flexible to account for different circumstances across jurisdictions. The appropriate time frame to reach an end state will depend on individual factors such as near-term demand, industry readiness, infrastructure choices, and cost and risk management considerations, among others.

- **Transitioning into a new reality of RTGS operating hours implies a number of considerations and changes, which include operational adjustments by both payment system operators and participants, as well as the adaptation of certain market practices and conventions.** As regards the former, an extension of RTGS operating hours is likely to require technical changes to existing systems, platforms and infrastructures that will need to be carefully planned and deployed. Staffing needs could also increase in order to cover extended operating hours, and many of the associated costs may persist over time. Other issues with operational implications may also arise. In particular, market conventions and practices may need to be reviewed in order to accommodate the new operating hours.
- **The extension of operating hours will generally not introduce new risks but will extend the times during which certain risks can materialise.** As such, parties involved in RTGS systems may need to review and/or enhance existing operational procedures, risk monitoring tools and mitigation measures to accommodate longer operating hours. In particular, operators need to ensure that the extended hours do not jeopardise current levels of operational resilience and risk management, including against cyber attacks and payment fraud. Furthermore, participants need to ensure that they have sufficient liquidity to support their activities at all times, which will partially depend on the availability of current sources of liquidity during the extended hours.
- **The extent of these adjustments will be contingent on the end state that is pursued and necessarily involve costs which must be evaluated and managed by the parties that would incur them.** Central banks, payment system participants and other industry stakeholders would need to assess the nature and magnitude of such operational costs when assessing the different end states and the potential impact on end users. In doing so, **it is important for these operational changes and associated costs to be viewed by all affected parties in a strategic light since resulting benefits could be far-reaching and long-standing, notwithstanding the immediate cost burden.**
- Finally, **an extension of RTGS operating hours also raises certain policy considerations relevant for central banks and/or other authorities, such as issues related to monetary policy, financial stability and resolution policy for troubled institutions.** The relevance and impact of these issues will depend on the degree of the change and, to some extent, on the actual usage of the extended operating hours as it materialises over time. In view of this, changes may be required on the side of central banks and/or other authorities.

Questions for consultation

The CPMI is inviting comments on this consultative report and the questions set out below.

Comments should be sent to the CPMI secretariat (cpmi@bis.org) by 14 January 2022. All responses will be published on the website of the CPMI. Commercial or other sensitive information should not be included in the submissions, or may be included, with redactions for publication clearly noted.

- 1) Can the extension of real-time gross settlement (RTGS) systems' operating hours materially contribute to achieving the [cross-border payments targets](#) endorsed by the G20, especially in terms of speed?
Please explain.

Yes. An extension of the opening hours should make it possible to process more transactions, especially those processed as part of the Banking Correspondent activity and received after the closing of the domestic RTGS.

We believe that an extension of the opening hours could help to make cross border payments more efficient. Private individuals and customers are interested in larger weekly (Monday-Friday) settlement possibilities.

However, this extension must be consistent with the activity of financial institutions. Opening RTGS systems 24/24 7/7 does not seem appropriate for operational and business reasons as many institutions and corporates are not open on weekends. Opening 24/24 7/7 seems therefore premature to us.

Moreover, we have to take into account specifically liquidity management issues. In a context of abundant liquidity, as is the situation now, an extension of the opening periods is a good opportunity. However, if the economic situation were to change, the opening extensions would be less useful.

Furthermore, extending RTGS opening hours requires a substantial level of investment for the whole ecosystem. Social costs could be high as in many countries such as France it is sometimes forbidden to work on certain public holidays (for example: May 1st).

Thus, we believe that a gradual extension of RTGS opening hours seems more appropriate. We are in favour of a scenario of extending the opening periods, but gradually and depending on customer demand.

- 2) What additional actions would be needed by the public sector and/or private sector entities, beyond those described in the G20 roadmap (see Annex 3 of the current report), to facilitate the extension of RTGS operating hours and realise the benefits that could result from extended RTGS operating hours?

First of all, the frictions and rejections due to sanctions and embargo screening must be resolved and require action on the part of the authorities. Cross border transactions are particularly affected by these rejections. FSB/CPMI targets relating to speed cannot be met if these issues are not addressed.

Central bank liquidity bridges are also needed to mutualize liquidity between jurisdictions. They would definitely help to make it easier to manage a larger global settlement window.

Then, all RTGS which would be open for a longer time should ensure that they have an adequate maintenance process: the maintenance windows will have to be shorter to let financial exchanges flow during a longer opening period.

Finally, all other private payment systems linked to RTGS platforms will also have to adopt larger opening hours to make the market more competitive and efficient.

- 3) What benefits for cross-border payments other than speed do you perceive would accrue from an extension of RTGS operating hours? What additional domestic benefits for a jurisdiction do you perceive?

The benefits will mainly be for customers, who will be able to do more transactions and will have a wider access to the foreign exchange markets.

However, we think this is particularly true for retail customers. Corporates will have to invest to adapt to faster flows.

Moreover, it will be possible to fund securities operations on longer time slots.

Finally, seizing the opportunity of having longer RTGS operating time periods, some banks could decide to directly participate to RTGS; thus avoiding alternative payment routes.

- 4) How well do the three identified end states capture key scenarios that individual central banks/RTGS system operators should consider as they assess current RTGS operating hours and plan for the future? What additional end states or refinements to the end states would you suggest?

We believe that the 3 scenarios cover all the potential needs of central banks and RTGS operators.

We do not see any additional scenarios. We are in favour of end state 1, with gradual implementation according to market demand.

- 5) Which end state, out of the three identified or another one you may want to consider, do you believe strikes the best balance between improving cross-border payments and managing the associated challenges?

We believe that End State 1 is most appropriate and balanced scenario.

- 6) If the RTGS system in your jurisdiction has not yet reached the end state signalled in the previous question, what time horizon (number of years from now) would you envision for reaching it?

In our European home market jurisdiction, End State 1, with larger global settlement window, will be reached in November 2022 thanks to TARGET2 opening hours extension.

- 7) As a result of end state 3, which involves 24/7 RTGS operating hours, do you anticipate demand for 24/7 operations of RTGS systems in the future? If so, what do you expect to be the main drivers and over what time horizon do you expect this to happen?

We believe that the market trend and customer demand will be the main drivers (Financial institutions' customers could expand their business on days non currently covered by the RTGS systems opening periods). At the same time, all the systems connected and interacting with existing RTGS systems will also have to adapt their period of activity (settlement and delivery cycles during public holidays, Saturday and Sunday).

- 8) Would your organisation make use of and/or benefit from extended RTGS operating hours?

In our opinion, if the opening hours are extended, they must be wisely used. We think that the RTGS schedule should be studied from a global point of view (opening slots according to different time zones).

We indeed think, it will be more efficient to use at the best our liquidity on a reduced time period rather than having liquidity dispersion all day long.

- 9) How useful do you view the global settlement window as a concept for considering the aggregate implications of extensions to RTGS operating hours in individual jurisdictions? What alternatives or refinements, if any, would you propose in order to consider the aggregate implications of extensions to RTGS operating hours in individual jurisdictions?

We find this concept of "global settlement window" with open periods common to several RTGSs useful because it allows to process a maximum of cross-RTGS transactions. In addition, to be as efficient as possible, the extension of the opening period:

- should be coordinated and shared by as many RTGS systems as possible so as not to disperse the available liquidity for banks and their customers.

- should be done on a period that will allow banks and corporates to have more opportunities to use the most used currencies in their activities, such as USD and EUR. As said previously, we are in favour of the Scenario 1 (End state 1). Thus, in our European home market, from November 2022, the opening period of Target2 will be extended (for existing business days), allowing banks and corporates to have more business opportunities with counterparties from Asia and America.

- 10) To what extent have the operational and risk considerations related to an extension of RTGS operating hours been adequately identified? What additional considerations would you consider relevant?

We agree with the statement of this consultation relating to risk mitigation assuming that an extension of the opening periods does not create new risks, as long as the current players are the same to operate for longer periods.

Of course, RTGS hours of extension may result in a higher probability of occurrence of technical, operational, and financial risks.

In addition, we would like to point out another form of risk, if a future regulation would allow new players to access Central Bank money through a connection to RTGS systems. We believe that opening RTGS systems to new categories of participants can potentially increase operational, financial, and technical risks. It is therefore key to apply the principles of "same activity, same risk, same rules, same supervision". We believe that the same regulatory conditions and supervision should apply to all participants (the new ones and the existing players). This is essential in order to ensure customers' protection, to maintain market integrity and to build continued trust throughout the whole payment ecosystem.

- 11) What would you identify as the top five considerations related to an extension of RTGS operating hours in your preferred scenario (Q5)?

From our point of view, the 5 aspects below must be assessed:

- o adaptation of business organisations that may require deep changes (open offices at unusual hours, staff available to provide customer support, back-office services and technical assistance);*

- *an optimisation of the treasury management at the banking level, which may lead to new rules or usages.*
- *an analysis to be conducted on all types of risks (technical, operational, fraud, money laundering, etc.) to better manage them and adapt if needed current mitigation tools*
- *technical consideration, in particular the optimization of maintenance windows for RTGS systems to secure the software version deliveries and the installation of new versions. The extension of the periods of activity will lead to less flexibility to conduct unplanned interventions.*
- *it will also be necessary to ensure that these extensions of opening hours will really bring more business and a better response to customers' requirements.*

12) To what extent do the relevant considerations differ substantially depending on the end state being considered?

The longer the extension periods are (i.e. progressively from end-state 1 to end-state 3), the more critical the above considerations become and therefore, the higher the associated risks. This is the reason why scenario 1 (end state 1) seems the most suitable to us.

13) For the top five considerations that you identified in Q11, what mitigation measures could be taken to address them?

We believe that regulated institutions which are used to being connected to RTGS systems will be able to identify the risks linked to the above five considerations and identify the mitigation measures to be put in place (banks, CSM, ...). As mentioned previously in question 10, the main issue is not the raise of new categories of risks, but the increase in the probability of occurrence, due to the increase in the opening period. In this context, a harmonization of the supervision rules within the various jurisdictions is necessary and specially if new players are part of the activity. The principles of "same activity, same risk, same rules, same regulation" is key. The technical and financial requirements must be very strict in order to secure the whole system and to maintain trust, which is the main basis of the payment and transaction activity.

14) In your view, to what extent will the above measures require coordinated action by industry participants and/or support/guidance from authorities, such as central banks, standard-setting bodies and supervisors (as opposed to actions by individual stakeholders)?

First, the required actions of the different RTGS systems must be coordinated and consistent with each other. Please see above our comment on the need of a harmonisation of the regulation rules across the different jurisdictions. Each jurisdiction and RTGS system must commit to doing its part of the action, but also ensure that the other stakeholders in the system are in line with the changes required for the extension.

15) If you are a stakeholder of an RTGS system that has extended its operating hours in the recent past, what were the key lessons learnt?

In the past year, we evolve our structure to adapt CHAPS and Fedwire longer opening hours. The major impact was not technical but social/human. Longer opening hours brings strong impact on personal/professional people's life. It goes way beyond the teams managing the payment flows, it has impact on middle/back-office personal who

operates wide range of activity around payment (e.g. authorisations delivering, risk management, ...)

We also believe Central Bank support during the full opening period is critical.

Longer payment systems opening hours also mean organisational and human adaptation at corporate clients' level. Therefore, their effects expand way beyond the sole payment and banking industry.