

January 14, 2022



By email to cpmi@bis.org: “Operating hours consultation”

Extending and aligning payment system operating hours for cross-border payments

The present submission is made in answer to your [consultation report](#) released on November 18, 2021.

Our answers to your consultation questions are in the Annex, and our general framing remarks are given below.

While we welcome the objectives of the G20’s cross-border payments roadmap (**Roadmap**) in increasing speed of cross-border payments, and the valuable analytical work that has been done by CPMI and its members on real-time gross settlement (**RTGS**) system operating hours, extending RTGS operating hours may come with significant additional costs and risks that may not be justified in terms of the additional payoffs from faster cross-border payments.

Indeed, many faster/real-time/instant payment (**Faster Payment**) schemes, including faster cross-border payment services, do not rely on extended RTGS operating hours, suggesting that there are other reforms that have potentially higher payoffs relative to cost, such as the activation of One-Leg-Out (**OLO**) instant payment schemes with higher payment limits, or through the promotion and furtherance of efforts by the industry to directly connect local Faster Payment schemes.

Also, while evaluating how to solve for faster cross-border payments, it could be important to focus on specific use cases in the context of all the use cases that RTGS systems support today. In that context, newer infrastructures specifically designed to solve for faster payments might be better suitable than infrastructures with broader application.

The operational complexity associated with expanding RTGS opening hours should not be underestimated and would likely result in increased operating costs for those financial institutions operating connections to the RTGS. There will also likely be new obligations generated in relation to liquidity management, human resources, and fraud risks that must be taken into account. The uplift of systems and controls required to operate during expanded hours would be required for the full scope of the RTGS, while only part of the RTGS activity may require or benefit from the change in operating hours.

We therefore believe careful country- and regional-level consideration should be given to the possible need for trade-offs between the G20 Roadmap’s cost and speed goals when it comes to the question of extending RTGS systems’ operating hours. The implications of these increased costs for the end users should be considered carefully in contrast to the increased speed and risk reduction offered by the expanded RTGS operations.

The IIF thanks the CPMI for this opportunity to provide input to the policy development process and stands ready to engage in any stakeholder engagement process or interactive implementation process that is desired.

Annex

Answers to CPMI's consultation questions

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.

The response to this question will be dependent upon the scope of the payment and local considerations. *Payment scope*

RTGS systems were designed to settle high value domestic, mostly wholesale payments, across the books of a central bank in real time, reducing credit and liquidity risk. Low value Retail payments do not incur the same levels of credit and liquidity risk and therefore payment systems which do not make use of the RTGS system to make an individual transaction may be used. For example, the UK's Faster Payments Service provides near real-time payments 24/7 with net settlement taking place three times each day in the RTGS system on a deferred net basis. Transactions through such Faster Payment systems can be expected to be lower cost than RTGS transactions.

An extension of RTGS system operating hours therefore has the potential to positively impact the speed of a cross-border payment if it is typically already routed via the RTGS system, subject to local considerations. This would be the case for certain payments made via the traditional correspondent banking (**CoBa**) model, such as certain high-value wholesale payments. However, many bank payments and most fintech payments making lower value Retail cross-border payments employ systems and processes that do not make use of the RTGS system for individual payments.

Local Considerations

Furthermore, making changes to RTGS systems has wide reaching local implications, which have the potential to negatively impact the achievement of all four targets, particularly cost and speed. Making changes to RTGS systems and extending operational coverage would incur costs and to realise the speed benefits of such a transformation would also require the additional expense of aligned domestic payment systems extending opening hours.

Potential benefits of extending operating hours therefore, need to be considered on a country and regional basis, to determine the optimum model based on the: time zones and when payments are likely to be sent and received; IT infrastructure of the individual RTGS and other payment systems; together with the current and expected cross border high and low value payment flows. Analysis will also need to include review of the volumes of lower value payments that may be directed through available Faster Payments systems, to take into account the point at which RTGS system support may be required to support liquidity.

Is an extension of RTGS systems' operating hours sufficient or necessary for achieving FSB's targets?

Moreover, an extension of RTGS systems' operating hours alone is not a sufficient condition for meeting the speed targets proposed by the FSB for the Roadmap, since in many geographies the majority of payments are not made available within one hour, even when RTGS systems are open.

The fact that many Faster Payment systems are able to offer 24/7 fast exchange and settlement of payments without having 24/7 RTGS systems available shows that an extension of RTGS systems' operating hours may not be necessary to achieve the FSB's speed targets either. This

is subject to the qualification that, depending on the extent of payment transactions handled by the Faster Payments system, RTGS system operation may be needed to support liquidity.

Alternatives to RTGS systems' operating hours extension

Another change not involving RTGS systems' operating hours extension that would contribute to speed of delivery for both Retail and Remittance payments (both bank and fintech enabled) would be the activation of One Leg Out (**OLO**) Faster Payment schemes, allowing the use of local Faster Payments also for the initial and final leg of cross-border payments. In fact, benefits from OLO Faster Payments may be realised in a shorter time frame when investing in the re-use for cross-border payments of existing 24/7 Faster Payment settlement cycles, rather than in upgrading RTGS systems, which would not eliminate delays in reaching beneficiary banks not connected to RTGS.

In this specific context, we would also re-emphasize that the existing SWIFT gpi initiative of the payment industry has already achieved significant improvements of speed, transparency and reduced frictions. Another effort by the industry to directly connect Faster Payment schemes is the IXB initiative. This should be considered in particular when assessing the benefits vs. the efforts needed for achieving end state 2 and 3 in the long term. We also note the many initiatives to bilaterally connect Faster Payment schemes such as the PayNowPromptPay initiative between Singapore and Thailand, and the work the BIS Innovation Hub is doing (such as in Project Nexus) on multilateral Faster Payments scheme linkages.

Market definition

In general, and as mentioned in our response the FSB consultation on the quantitative targets, we believe that the market segment of Retail payments is defined too broadly and could be subdivided further into meaningful categories (i.e., use cases) that have different customer needs and preferences. Payment use cases and demands around speed for cross-border payments significantly differ between consumers, retailers and large corporates. At the same time, extending RTGS system operating hours will only immediately benefit a subset of crossborder payments, i.e. interbank payments and urgent / high priority payments of corporates. The ambition and effort required for achieving certain end states needs to be well balanced with the complexity and resources required to transform the overall cross-border payment landscape where the key focus is on enhancing cross-border payments for consumers. This can primarily be achieved by making domestic Faster Payments systems interoperable.

Other Barriers

Addressing other barriers outlined in the roadmap, such as: Service Levels (Building Block 3); AML / CFT Rules (Building Block 5); Data Frameworks (Building Block 6); and ISO20022 (Building Block 14) would all make incremental progress to achieving the G20 targets. Without these changes the benefits of extending the opening hours would not be realised.

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?

Apart from actions for CPMI, the actions in the G20 roadmap under this Building Block are described generically as "Central banks and payment system operator wishing to align/extend operating hours to work with their direct participants and other domestic stakeholders to consider each of the potential end states, along with the associated challenges, risks, and

potential solutions that have been identified, with the goal of seeking consensus on if and how best to move forward. June 2022–May 2023.”

We would suggest that, given the dependencies and impact on numerous processes connected to these operating hours and the CoBa model, financial institutions (FIs) and central banks, as well as the current significant changes already underway across RTGS with the ISO 20022 rollout, there is a need to gradually transition this ecosystem. We therefore suggest choosing a staggered approach, meeting the needs of individual countries and regions, when extending operating hours of payment systems, based on market potential and prioritizing areas of greatest opportunity, as well as ease of adjusting the RTGS infrastructure. The focus should be on end state 1 as a first iteration to learn lessons and adjust infrastructures and standards accordingly, and leaving the option to adjust the objectives of the other two end states based on this and market needs.

Further thought could therefore be put into timelines and structure to maintain an appropriate level of commitment and coordination. The process around LIBOR transition, organized at the global standard-setter level and also at local levels through public–private transition committees typically convened by the central bank, may be an appropriate model.

In addition, the actions defined under focus area A (“Public and private sector commitment”), e.g. defining common features of cross-border payment service levels, as well as focus area B (“Regulatory, supervisory and oversight frameworks”), e.g. aligning regulatory and supervisory frameworks and applying AML/CFT rules consistently, are essential prerequisites to allow FIs and end users to benefit from extended operating hours.

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 extension of RTGS system operating hours may lead to a reduction of settlement risks, since fewer payments would be exchanged out of the operating hours of the RTGS system and therefore the average settlement time of a payment would be reduced. (Conversely, liquidity risks could be increased as participants will need to monitor and ensure liquidity for longer. The extension of RTGS system hours to 24/7 may also increase systemic risk, as it would allow large movement of funds at times when the effectiveness of human oversight systems may be diminished.¹)

Extending RTGS operating hours would also provide greater opportunities for innovation in the market place, as fintech and bank payment systems could leverage the longer settlement windows. This would include for Payments vs Payment (PvP) settlement (Building Block 9), which could contribute to the targets endorsed by the G20 and the reduction of principal settlement risk for wholesale FX transactions. Additionally, should any Faster Payment systems be updated, extending access to the RTGS may be required in order to align them.

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?

¹ The use of already existing 24/7 instant payment settlement systems instead would not have a major impact on systemic risk, due to their amount caps.

It would be useful to identify an end state being to “level up” those RTGS systems that operate for only a small window a day, to operate for (say) 8 hours a day as a minimum. This can be expected to reap significant benefits, particularly around cementing the regional settlement windows. More work could be done to identify the drivers of the wide disparity of operating hours at present as part of the country and regional assessment.

Additional consideration may also be given, based on country and regional demand to meet potential market needs, to a hybrid model of end state 1 (extended hours on current operating days) and 2 (expanded hours into current non-operating days), whereby as well as or extending hours on current operating days, hours are extended on non-operating days.

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 crossborder payments and managing the associated challenges?

The cost:benefit analysis for movements from the status quo to the different end states may be different for different economies and the different market niches served by each participant.

Whether the move from the status quo to any particular end state can be justified in terms of costs and benefits for a particular economy may depend on the proportion of payments that are cross-border as well as on other local factors including the level of automation, cultural willingness to work out of hours, and availability of skills staff, to name a few.

An RTGS extension would have IT, human and financial resources and also risk impacts on oversight authorities, RTGS and FX market infrastructures, banks and fintechs, PSPs and corporates. The impacts may affect Payment processing, Treasury, FX Dealing, Payments, FX and Nostro Replenishment Operations, Customer support and Anti-fraud, AML, and payment supervision.

Intuitively, end state 1 (extended hours on current operating days) has relatively low costs and a relatively high payoff for cross-border payments, but confirmation is required by further country and regional analysis.

End state 2 (expanded hours into current non-operating days) may have relatively higher costs given that weekend work will attract penal salary rates in many jurisdictions, and liquidity provision and risk management may be more expensive if other relevant markets are closed.

End state 3 (24/7 operations) may have both the highest payoff and also the highest costs, for the reasons already mentioned.

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?

Not applicable given IIF is a global organization. Any answer would depend on regional/country capabilities and central bank agendas.

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 assume the question is driving at whether there would be domestic demand for 24/7 operation of RTGS systems if they were open. We would expect this to be the case, firstly driven by demand from Faster Payment service providers (in instances where the settlement of Faster Payments is reliant on real time access to an RTGS), and over a period of time (say 3 – 5 years) by other use cases. These use cases include Treasury and risk management operations, as well

as emerging innovation required to support 24/7 operations, should financial markets similarly extend operating hours.

However, as pointed out, the demand for 24/7 Faster Payments has been met without having a RTGS system available 24/7 in many countries. Therefore, it is not clear whether the general adoption of Faster Payments would require an enhancement of RTGS systems to operate 24/7 in the future.

Moreover, the level of demand is hard to predict, given the potential costs to FIs from opening desks to support such operations.

In any case, the extension of RTGS operating hours should be driven by market demand and not be artificially imposed.

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

Of course, not all organizations are equal nor serve the same market niche.

Therefore, only those involved in businesses that could benefit from the extension of the RTGS operating hours would benefit from such extension.

One member established in a jurisdiction with close to 24/7 RTGS availability states that it is questionable if the size of its organization and the number of cross-border payments processed justifies the potential costs of extended RTGS operating hours.

Payment Service Providers would need to undertake cost:benefit assessments in each of the geographies they operate in to provide a firm conclusion.

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?

The global settlement window is a useful concept, as is the connected concept of the regional settlement window. Moreover, it could have positive implications on PvP settlement as well as on the provision of fast exchange of payments. However, this concept will need to be examined at a local market level based on local cross-border payment requirements.

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?

Additional staff costs are likely to differ according to whether it is late work on a weekday or weekend work, and heightened salary costs may differ between Saturday work and Sunday work in some jurisdictions.

Additional IT and governance resources may be required to build, maintain and oversee what may be largely automated operations. Additional business continuity planning costs may arise.

The experience of 24/7 Faster Payments can give some insights: If a market infrastructure has a 24/7 cycle, all participating members must be monitored to ensure full 24/7 availability. 24/7 operation for a payment system with amount caps has smaller implications than 24/7 operation for an RTGS system, in terms of treasury, FX, operations, customer support, credit management, business continuity, operational risk, and systemic risk. Furthermore, as crossborder payments are subject to regulations in different jurisdictions and require

additional screening, there is a greater potential for manual intervention necessitating ‘on the ground’ support.

Of particular note are the impacts to liquidity risk, which would need to be managed across the industry and central banks. Industry participants would need to update their risk management methodologies and management information systems to enable them to manage their intraday liquidity profiles. The extension of RTGS system operating hours would also require central banks to extend intraday credit even if secured, and confirm how this relates to overnight credit or discount window facilities. In addition, to foster the smooth operation of the payment system, ‘business day’ definitions and ‘value date’ conventions would need to be reviewed, to enable alignment with other payment systems and wherever possible avoid the replacement of daily peaks for previous cut-off times with a new set of bottlenecks.

Another relevant consideration is the existence of foreign exchange controls and governmental restrictions for certain national currencies. Extending opening hours for RTGS systems may increase the expectations for Faster Payments, whereas the processes and measures connected to national currency restrictions work against the speed targets for cross-border payments as well as the access targets.

That said, it may also be beneficial to define the scope of the currencies that should be covered by each end state and thereby focus on those most relevant in the context of cross-border payments.

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

Not applicable, as no single end state is identified as preferred, and the decision should remain local. However, in general the following are the key considerations for any decision around RTGS extension: Operational infrastructure, Service support model, Liquidity, FX market settlement and Risk.

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

Not applicable.

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

Not applicable.

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)?

Coordination would be very useful.

As stated above, the process around LIBOR transition, organized at a high level by the FSB as the global standard-setting body (SSB) but at local levels through public–private transition committees typically convened by the central bank, may be an appropriate model.

To fully realize the benefits of these proposals, the need for manual intervention in payment transactions would need to be minimized. To this end, regulators and SSBs should work in unison to drive clarity on the requirements to achieve standardization and conformity of processes and payment message contents.

For implementation of OLO Faster Payment Schemes, global coordination would also be very useful, for example to define a common data set, to address local clearing codes, local address formatting rules, local payment purpose codes, etc. as well as to harmonise on FX conversion, etc.

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?

Any extension to RTGS system operating hours will be highly complex and wide reaching. For many PSPs this will involve updates to multiple channels and systems in each country where payments are sent to the RTGS.

From a euro perspective, TARGET2 and EBA EURO1, two main EUR clearing systems for High-Value payments, are going to extend their clearing opening hours for commercial and interbank payments with the migration to ISO 20022 in November 2022 to a much earlier opening time. As this is on-going, lessons learned are necessarily preliminary. Even if the majority of payments is processed STP, extended opening hours have impact on many “sideprocesses” which may not be automated or available outside of existing internal business hours. Banks need to carefully review and consider the impact, e.g. for exception handling like cancellations or compliance related activities like handling of filtering hits.