CPMI Secretariat
Bank for International Settlements Centralbahnplatz 2
4002 Basel, Switzerland

Dated: 29 September 2022

Attention: Committee for Payments and Market Infrastructure
Filed Electronically to: cpmi@bis.org

Re: *Questions for Consultation: Consultative Report, Facilitating increased adoption of PvP, July 2022*

Dear CPMI and BIS Teams,

Baton Systems is deeply appreciative to the CPMI and BIS for its inclusion in this ongoing and important work in respect of expanding the reach and adoption of payment vs payment.

We are pleased to provide here our responses to the questions for consultation raised in the Consultative Report published in July 2022. Our comments in this response are based on our ongoing experience as the sole provider of PvP settlement outside of the CLS framework.

We look forward to continuing to participate in these discussions with the CPMI and all stakeholders.

Thank you,

Arjun Jayaram, CEO and Founder arjun@batonsystems.com

Jerome Kemp, President jerome.kemp@batonsystems.com

1. ***Do you agree with the analysis of the causes of non-PvP settlement?***

Baton Systems generally agrees with the analysis of the causes of non-PvP settlement as presented in section 2 of the Consultative Report. Let us consider each one of these causes individually:

i. **Availability:** Lack of available PvP arrangements is one of the driving causes of non-PvP settlement. And even where PvP arrangements may be available, if they are inaccessible to market participants then these solutions cannot be considered as serving the greater objective of extending the reach of PvP. Ideally, access to PvP should be available and accessible to all market participants on a direct basis in an ecosystem where the barrier to entry is low in terms of technology and associated costs.

ii. **Fit for Purpose:** Baton Systems believes that the characterisation of a "fit for purpose" PvP arrangement needs to encompass objectives for settlement participants that go far beyond the basic settlement workflow. Today's solutions are fit for purpose only for the largest institutions who have the resources to tailor solutions to their specific needs. A broader range of participants will require a fundamentally different approach to overcome barriers of cost and complexity. Ultimately, the extension of the reach of PvP beyond the largest institutions will require a significant reduction in the complexity of adoption. We believe that this is facilitated by the acknowledgement and incorporation into the solution's design of the interconnectedness of the critical steps required to culminate in a PvP settlement.
Trade capture, netting, and the PvP settlement process itself constitute the fundamental workflow segments that ultimately empower a market participant to take control of its settlement risk, its intra-day liquidity profile across a diverse range of currencies, and the costs associated with the funding of these flows. Distributed Ledger Technology (DLT) is the technological context that allows these elements to come together in a way such that all information exchanged between settlement counterparties is shared fully (to the appropriate counterparties). The information is shared in real-time, acknowledged, and memorialised as undisputed facts – and as importantly gives rise to the possibility of operationalising this data into on-demand, user driven, shared workflows. This radical change in approach and perspective significantly moves the efficient frontier from the liquidity intensive approach to PvP in place today, effectively redefining the drivers of "fit for purpose" relative to PvP settlement.

iii. **Efficiency:** Aligned with the discussion of "fit for purpose" above, Baton agrees that a misalignment between the costs of achieving a new equilibrium across settlement risk, liquidity, and funding and the costs associated with accessing and leveraging new PvP mechanisms will deter adoption. Baton strongly believes that interoperability with existing market infrastructures is a critical consideration to ensure that, in the balance, the evolution of the market to a much more inclusive paradigm provides benefits that outweigh costs.

2. ***Do you find that, for your market segments, some causes are more important than others? Please explain.***

   Among the causes highlighted in the Consultative Report, Baton believes that availability and accessibility are the most important barriers to be considered. Any new PvP settlement ecosystem must operate at price and technology thresholds that are accessible to a broad cross section of market participants. The only PvP solution with a global footprint available today is CLS, but accessibility to CLS is limited to a very small proportion of the broader FX market. The settlement risk that CLS sought to address at its inception at the outset of the 21st century, that of settlement failure in one of the advanced economies' currencies amongst large, global money centre banks has migrated well beyond this initial perimeter to encompass a large universe of 2nd and 3rd tier banking institutions, non-bank financial actors such as investment funds, and corporates, trading in emerging market currencies. Against the massive growth in trade volumes in EM currencies and market participants, and as well documented in the Consultative Report, the absolute quantum of risk being settled on a daily basis has ballooned, resulting in a settlement context which is no longer fit for purpose, leaving the entire global financial system exposed to a substantial downside that could conceivably turn into a procyclical, black swan market event.

3. ***In which currency pairs or products do you find that non-PvP settlement is increasing?***

   As presented in the 2019 Triennial Survey and in numerous research articles (see e.g. Schrimpf and Sushko, *FX trade execution: complex and highly fragmented*, BIS Quarterly Report, December, 2019, found at https://www.bis.org/publ/qtrpdf/r_qt1912g.pdf) it is clear that PvP settlement is decreasing and hence the corollary, that non-PvP settlement is on the increase, is true. This statement would apply to both advanced economy currencies as well as those of emerging markets.

   Relative to the former, there are two possible explanations. One is simply arithmetic, in that the most dynamic growth in FX trading, hence settlements, is occurring in emerging market currencies, all of which are ineligible for PvP settlement within CLS, resulting in overall lower numbers for PvP settlement. The second possible explanation is more concerning in that increased market volatility and an enhanced focus by banks on settlement risk and intra-day liquidity and funding management is driving a higher degree of bilateral settlement in G10 currencies as a means of better managing these critical parameters.

Relative to the latter, it is clear from the available data (see BIS Triennial Survey, http://stats.bis.org:8089/statx/srs/table/d11.3?f=xlsx) how the impact of the inexorable increase in emerging market currency trading is impacting the overall decrease in PvP coverage. As an example, from 2016 to 2019 daily average volume for CNY grew by 41% to $285 bn, INR by 96% to $114 bn, and RUB by 24% to $72 bn, with trading in other key emerging market currencies such as TRY showing similar robust growth.

In respect of products, Baton is focused on the significant growth in short dated swaps trading, as evidenced in the Triennial Survey and accompanying research (see Schrimpf and Sushko, *Sizing Up Global Foreign Exchange Markets*, BIS Quarterly Review, December 2019, https://www.bis.org/publ/qtrpdf/r_qt1912f.pdf). While the research is limited to swap tenors of less than 7 days, we believe that recourse to same day swaps for funding purposes has increased significantly and is therefore an increasingly important factor relative to the expansion of PvP expansion.

4. Do you agree with how the proposals for new solutions could increase the adoption of PvP?

Baton believes that the proposals for new solutions could increase the adoption of PvP, but would qualify our response with a number of provisos:

1. The two types of models proposed, centralised and decentralised, can and should coexist.
2. Of the surveyed solutions, it is telling that only one (Baton Systems) is live and in production today. The differentiating factors for Baton are in the scope of its functionality (trade capture, netting, settlement) and in its use of Commercial Bank rather than Central Bank funds.
3. As highlighted in our response to Question 1, we believe that in order to extend the accessibility to PvP beyond the small group of market participants who are eligible today, the overall adoption process must be simplified and the scope of functionality expanded in order to significantly reach beyond the approximately 75 banks who directly benefit from PvP today. It appears, however, that many of the surveyed solutions in the Consultative Paper still remain Central Bank centric and therefore retain much of the complexity that has limited access to PvP to date.
4. Baton recognises the ongoing importance of Central Banks to the extension of PvP, but believes that Central Bank centric solutions will continue to pose challenges in terms of complexity and hence timeliness of a solution relative to the urgency of the objective to reduce settlement risk to a broader cross section of the market.
5. To be clear, Baton is not suggesting that expedience should take precedence over safeguarding the market from disruptive solutions. Rather, we maintain

that viable, robust solutions such as Baton Systems exist outside of the Central Bank halo, and that broader adoption of PvP is dependent upon both Central Bank centric and Commercial Bank centric solutions.

5. ***Do you find that these new solutions, together, if launched successfully, can mitigate FX settlement risk? Please explain.***

   Yes.

   Baton believes however that only a handful of new systems will have the scale and efficiency to effectively address the challenge of extending the reach of PvP on a global scale.

   The mitigation of FX settlement risk and the extension of PvP to the broader market is a function of a number of factors that any solution should address:

   - Market Structure
   - Interoperability
   - Settlement Finality
   - Incentivisation

   The proposed solutions would appear to address some or all of these areas, but we would require much greater insight in order to provide a better informed response. That said, please refer to our response to Question 4 and our comments relative to how the proposals could help to extend the reach of PvP.

6. ***Do you agree with the analysis of the barriers to increased adoption of PvP?***

   Yes.

7. ***Which barriers do you find most significant, and do you observe any additional barriers that are not identified in the report? Please explain with specific reference to individual barriers.***

   The most significant barrier to facilitating the adoption of PvP resides in more of a conceptual realm. The generally accepted view on PvP, and the emphasis of the approach adopted in the Report, resides on the assumption that progressing the reach of riskless settlement will be achieved primarily by attempting to advance the role of Central Banks and the use of Central Bank funds. While Baton strongly believes the PvP settlement in Central Bank funds is and will remain part of the bedrock of riskless settlement, Baton maintains and has clearly demonstrated, as recognised in the current Consultative Report, that advances in the development of distributed ledger technology and cloud computing have enabled the realisation of PvP settlement with settlement finality in commercial bank money. In its current draft the report falls far short of recognising the importance of this option for market participants. While emphasis is rightly placed on the enhancement of access to Central Bank accounts by non-banks, the extension and coordination of operating hours of RTGS and nostro platforms, and greater regulatory scrutiny, the report should emphasise, short of endorsing any one actor, the emergence for the first time in history of non-Central Bank centric approaches to the enhancement of PvP adoption.

8. ***Do you agree with the possible roles for private and public sector stakeholders in addressing the barriers?***

   Yes.

   Baton believes that the Report adequately covers the possible roles for private and public sector stakeholders in addressing identified barriers relative to the existing ecosystem in place today. Baton is supportive of all the proposed initiatives for both the public and private sectors outlined in section 4 of the report but would like to see a more emphatic recognition of the role that new technologies could have on the broader goal of facilitating increased adoption of PvP. With this in place, critical consideration and focus can be given to devising standards by which private sector solutions may be measured. At present there is no yardstick available from a regulatory perspective to determine and ensure that new PvP arrangements are safe, secure, and reliable and do not act as vectors for potential market instability and disruption.

9. ***Do you find that the private sector could take on other roles in facilitating increased adoption of PvP? Please explain.***

   Baton Systems is very appreciative of the opportunities afforded to it by a number of regulatory bodies around the world to voice its opinion on potential ways forward for facilitating the increased adoption of PvP. Our various interactions have been fruitful in terms of advancing the view that both the public and private sectors have a role to play in defining and shaping the evolutionary path for payments and settlements.

   As Baton has maintained in numerous fora, developments emerging from the private sector occur in a regulatory vacuum. As the Consultative Report points out "regulations and oversight aim to ensure that PvP arrangements are safe, secure and reliable, such that they support market confidence and do not act as a conduit for systemic disruption." *(https://www.bis.org/cpmi/publ/d207.pdf section 4.2.1)* Whereas the regulatory framework for large FMIs is well established and defined, the contrary may be said for the generation of fintech actors such as Baton whose solutions are redefining post-trade ecosystems.

   Rather than attempting to retrofit existing regulatory frameworks to this rapidly developing segment of post-trade functionality, Baton believes that the time has come to engage a discussion around the guidelines, principles and standards to which new actors such as Baton should be held.

Baton believes therefore that there is an excellent opportunity for the private sector to engage with the public side in advancing the framework for a "FinTech PFMI", adapted to the realities of the smaller players of today such as Baton, who generally speaking play an orchestration rather than counterparty role to FX trading and settlement, but may indeed become the systemically important providers of settlement infrastructure of tomorrow.

10. ***How could the public and private sectors work together to take this forward? Please explain and suggest any practical actions that could be taken by existing industry bodies.***

Acting under the auspices of the CPMI, Baton would welcome the opportunity to collaborate with its peers and the regulatory instances who are contributing to the broader articulation of the roadmap endorsed by the G2O, of which Building Block 9 (Cross Border Payments Foreign Exchange Workstream) is a part, as a means of exploring how best to articulate an approach to a framework for the guidelines, principles and standards for the FinTech sector.