PEMPAL TREASURY COMMUNITY OF PRACTICE (TCOP)

Thematic Group on Cash Management

Videoconference, February 27, 2024

Introduction

1. This virtual event was arranged to discuss the target cash buffer, and in particular its importance, calculation, and implementation. It was attended by 41 officials from 16 countries (Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Republic, Moldova, North Macedonia, Romania, Tajikistan, Türkiye, and Uzbekistan). The meeting was facilitated by the World Bank resource team: Ms. Elena Nikulina (TCOP resource team leader), Ms. Galina Kuznetsova (TCOP resource team member), Ms. Tetiana Shalkivska (PEMPAL Secretariat), and Mr. Mike Williams (TCOP thematic advisor).

2. After welcoming participants, **Ms Elena Nikulina** suggested that participants took a few moments to remember **Ms Yelena Slizhevskaya**, member of the World Bank resource team, who had passed away the previous month after supporting the TCOP for nearly 10 years. She had been a greatly valued colleague, both personally and professionally, and would be very much missed by all.

Cash Buffer

3. **Ms. Elena Nikulina** introduced the topic. She noted that the specification of the cash buffer was one of the priority issues that had been identified at the thematic group meeting in Vienna last November. It was a complex issue, reflected in the coverage of the presentation. As part of materials for the meeting, the secretariat had arranged not only translations of the presentation, but also of the "How to Note" recently published by the IMF.[1]

4. **Mr. Mike Williams** presented the topic. He drew attention to the importance of a cash buffer,[2] which had been highlighted by the experience of the global financial crisis and covid, both of which had revealed the risk that even local markets might dry up. It was, however, useful to distinguish between two types of buffers: a "transaction"

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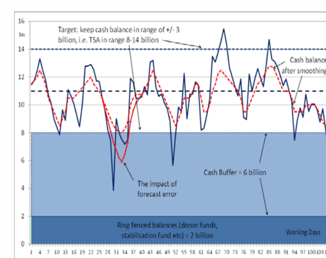
[1] Yasemin Hürcan, Fatoş Koç, and Emre Balıbek "How to Set Up a Cash Buffer: a Practical Guide to Developing and Implementing a Cash Buffer Policy" (IMF How to Note 2020) https://www.imf.org/en/Publications/Fiscal-Affairs-Department-How-To-Notes/Issues/2020/12/21/How-to-Set-Up-A-Cash-Buffer-A-Practical-Guide-to-Developing-and-Implementing-a-Cash-Buffer-49955

[2] Conventionally defined as: "The minimum level of cash balances to be sure of meeting day to day cash requirements, at all times, under all circumstances, taking into account the availability of other liquid resources."

buffer must be sufficient to meet daily treasury payments under most circumstances; and a “safety” or “precautionary” buffer on top of the transaction buffer was required to provide a reserve in the event of auction failure or other adverse market conditions that affect financing. An alternative approach was to identify a buffer for cash management and a buffer for debt management, but this was essentially the same split and the analytical building blocks were the same; either way it was important that decision making should be integrated.

5. In relation to the transactions buffer, there were several relevant variables, as summarised in the slide. Mr. Williams explained that, if the historical daily volatility were known, it would in principle be possible to calculate the relationship between the size of buffer and the chance that cash would always be enough. But such calculations tended to assume that the underlying variables or the forecast errors were normally distributed, which would not always be the case. Moreover, even if exhaustion of the buffer was statistically likely to be rare, the treasury still needed mechanisms to cope at the time.

6. Mr. Williams emphasised the importance of forecasting. With a good forecast it was possible to plan a smoothing strategy to handle cash flow peaks and troughs. That assumed of course that it was possible to respond to the forecasts, e.g. by varying the issue of Treasury bills (Tbills), and even in that case there was likely to be volatility of cash flows between issuance dates which needed to be reflected in the calculation. A problem then potentially arose if there was a cumulative error in the forecast, with the key variable being the timescale over which that divergence could be managed. The transactions buffer could therefore be calculated as the maximum cumulative forecast error over the policy reaction period. In countries issuing Tbills weekly the reaction period was probably 1-2 weeks. The concept was summarised in the slide shown. Mr. Williams further illustrated it with some country examples.



7. Continuing, Mr. Williams noted that the focus on forecast errors was backward looking. It would often be helpful to cross check with scenarios of future adverse circumstances. Examples might include Increased revenue or expenditure forecast errors, compared with historical experience, a one-off expenditure or revenue shock, or a denial of market access. Türkiye was an exemplar of this approach.

8. In relation to the safety buffer there was a variety of options, for example the maximum amount of financing needed if the capital market was disrupted for [2-3] months and no or limited bond issuance could take place in that period. Some countries explicitly allowed for a failed government securities auction (although insisting that primary dealers underwrote auctions world provide a mitigant). It might also be useful to identify risky periods from the past where the market performed badly – that in turn suggested a dynamic buffer that changed over time depending on the perceived risk.

9. Safety nets, ie cash that would be available in the very short-term to alleviate a problem, were highly pertinent. Access to advances from the central bank was not available to all countries, but where it was it could allow a lower buffer. Other safety nets potentially included credit lines with commercial banks, breakable term deposits, same day access to foreign currency deposits or (arm's length) borrowing from sovereign wealth funds.

10. Turning to international experience, Mr. Williams note that most countries in the OECD had identified a required cash buffer. On average they tended to cover about one month of government expenditures, but there was very substantial variation (and the data were from 2016; buffers might have increased post-covid). Northern European countries managing cash actively had very small buffers, but there was a wide range in other counties, often defined in terms of days or weeks of expenditure or debt servicing, although Mr Williams stressed the importance of such measures having an analytical underpinning. The buffer in emerging market countries tended to cluster around 2-4 percent of GDP. In the PEMPAL 2021 TSA survey only three countries (Albania, Hungary, and Türkiye) reported a formal target for the cash buffer, although it might be that most countries operated a buffer in practice even if it was not formally defined.

11. Mr. Williams turned to some specific issues that often arose in particular contexts. He suggested that, although there might be some exceptions where cash was not fungible, there should not normally be sub-categories within the buffer linked to specific risks; that could imply unnecessarily high buffers. The normal presumption was that the buffer was held in the central bank, as part of the balance in the TSA; that avoided credit or liquidity risk. Some countries held deposits in commercial banks, but

they should be collateralised. Cash reserve funds were an intermediate option between the buffer and longer-term funds, e.g. as a cushion against a concerning future scenario (Peru's reserve fund against a possible future banking crisis was an example; Canada also held callable term deposits). The reserve fund might be held as a tranche within a sovereign wealth fund; but it was important to stress that the buffer was essentially to support short-term cash management – wealth funds should be managed separately.

12. The underlying determinants of the buffer should be periodically reviewed. Many countries increased the buffer during covid even if it had fallen back since. Mr. Williams gave some examples of countries that periodically changed the buffer, either from year to year or within the year – see slide. The structure of the buffer varied. Although most countries opted for a minimum balance, some defined a zone around a preferred balance; in the Eurozone the ECB paid a lower interest rate on balances exceeding the target. There were examples of two-tier buffers: Hungary distinguished between the minimum TSA and the optimal balance. Where there was an integrated Debt Management Office (DMO), it would normally lead on proposing the level of the buffer; where there were separate debt and cash management functions, it was important to ensure an integrated approach. In either case it was essential to inform the central bank. Mr. Williams suggested that there were positive advantages also in informing the markets and wider public, although not all countries did so. Public disclosure had a positive signalling effect on market participants, enhancing credibility of the government. In a more uncertain environment, some disclosed the information about the policy (rationale and determinants) without providing quantitative information on the target buffer.

13. Concluding, Mr. Williams emphasised the role of the buffer as one element of a "Financing Continuity Plan". There were a number of variables to consider, but it was important to avoid formulaic approaches.

Discussion

14. **Mr. Ilyas Tufan, until recently Leader of the Cash Management Thematic Group,** noted the importance of systematically reconsidering the buffer level, at least annually, against changes in the underlying parameters. These parameters included:

forecasting capabilities and the level of forecast errors; frequency of the use of short-term instruments and other cash management strategies; alternative financing sources; the prospective level of debt service; and the level of financial market development. He noted that debt service levels had increased considerably after covid, indicating the need for changes in the buffer levels compared to pre-covid period.

15. **Ms Mimoza Pilkati, Director, Treasury Operations Department, Albania** noted the importance of a buffer in reducing liquidity risk. In Albania the buffer, which reflected both transactions and safety considerations, was mentioned in the legislation applying to the execution of the budget. The buffer was being reviewed with the support of the IMF; recommendations would be made to the Cash and Debt Management Committee, and hence to the Minister. Mr. Williams agreed that it was important to institutionalise arrangements for review of the buffer.

16. **Mr Bariş Can, Ministry of Treasury and Finance, Türkiye** stressed the importance of a buffer. In Türkiye the level was reviewed annually, and considered and approved by the Debt and Risk Management Committee. Both cash and debt management considerations were relevant. As many as 18 scenarios were considered in judging the level of the buffer, with the results averaged. Separately there were buffers applying to the foreign currency and gold reserves. Mr. Can asked about the very high level of cash balances in Brazil (19 percent of GDP in one of Mr. Williams' slides).

17. Mr. Williams explained that, in Brazil, almost every source of revenue was hypothecated to a specific expenditure stream. If budget execution fell short of the resources available to that sector, the cash balance still had to be retained.[3] The cash managers were well aware of the inefficiency of this (legislated) requirement. Although there was no formal cash buffer, they did publish a liquidity indicator which was essentially the balance in the debt sub-account plus any resources that could also be used for debt repayment (notably the transfer of dividend from the central bank).

18. **Ms. Aliya Baigenzhina**, **Kazakhstan**, asked whether one month of expenditure could be taken as the optimal size of the buffer. The government of Kazakhstan did have access to the national fund if it was short of liquidity. Ms. Aliya also asked how in practice cash buffers were replenished, since after COVID the excess funds that had been used previously for such buffers had declined. Mr. Williams emphasised the importance of analysis to underpin the choice of the size of the buffer. It was the case

[3] The cash balance must be in place at the end of the financial year; during the year there was some scope to make more efficient use of the cash. The high level of the balance was not very costly to the ministry since it was remunerated by the rate of interest earned by the central bank on its holdings of government debt – which would be close to the average rate paid by the ministry on debt issued.

that access to central bank advances would justify a lower than otherwise buffer, but one month of expenditure might prove to be too little – this would, however, depend on future analysis. The most common technique for building up the buffer was to over-borrow (ie exceed the planned gross financing requirement) during the year. It was possible to sequester over-performance of revenue or under-execution of expenditure, but this was more difficult to plan.

19. In response to a question from **Ms. Anxhela Kasapi, Treasury Operations Department, Albania,** on whether, when dealing with the cumulative forecast errors, they needed to calculate them only for the stress periods or for the whole considered period, Mr. Williams explained the importance of looking at cumulative forecast errors over the whole considered period. Daily variation was to be expected; the problem arose when the daily error accumulated, and this could be significant other than in periods of particular stress.

20. **Ms. Jandranka Groksa Kardum, Croatia**, enquired about the legislative vehicle typically used to promulgate the buffer. Mr. Williams noted that it varied; the primary legislation might be the Budget or Debt Management Law, although in many countries the buffer was specified in regulations not primary legislation. It could sometimes be helpful for the legislation to require only that there should be a buffer, which would give the authorities more flexibility. **Mr. András Réz, Deputy CEO of the DMO (ÁKK), Hungary** noted that the minister of finance had authority to issue securities to build up the TSA and to approve the financing plan which provided for the cash buffer. As part of its annual financing plan, the ÁKK submitted a proposal on the size of the buffer to the minister of finance, who had the authority to define the cash buffer. The cash buffer could be revised every year, so the methodology could change. In response to the same question, **Mr Bariş Can** clarified that in Türkiye, the Public Debt Management Law authorised the Debt and Risk Management Committee to determine the cash buffer every year.

21. **Mr Talant Keldibekov, Deputy Treasurer, Kyrgyz Republic** explained that for them, liquidity management was about managing the balances on the TSA as stipulated by a by-law approved by the government. If the overall balance on the TSA exceeded the monthly needs of budgets at all levels (local budgets, republican budget, social fund budget), then it was possible for some budgets to run a deficit which would be balanced by notional transactions between different budgets. But when the TSA balance was less than the monthly expenditures, they prohibited movements between different budgets. In addition, there was another regulation which stipulated that, when there were not enough funds for the protected lines (e.g. salaries), other expenditures were delayed until the protected expenditures were covered. The

ministry did not borrow from national funds or the national bank, so the financing came from state securities. **Elena Nikulina** commented that this approach was well understood, but the mechanism discussed during today's VC could be considered by the country to avoid delaying expenditures when there were not enough funds in the TSA.

Concluding Remarks

22. Ms Nikulina stressed the importance of the buffer in protecting budget execution. As previously noted, in practice it tended to be built by additional financing. She asked participants for ideas about how the work on the buffers might best be taken forward by the Cash Management group.

23. Mr Williams wondered whether it might be useful to gather some practical experience from member countries, which might in turn generate some thinking about analytical techniques and governance arrangements. Continuing, Mr Williams thanked all participants for their contribution, and for the flow of ideas that he would want to build into future thinking on the subject.

24. Ms Nikulina also thanked all participants, and also the interpreters. She indicated that the resource team and the TCOP Executive Committee would continue to deliberate how best to take this work forward; and would also explore options for other remote meetings before the next full meeting of the thematic group that is likely to take place next fall.