ASSESSMENT OF AUCTION MECHANISM

A. Introduction

1. The original project introduced an auction to allocate the funds among the participating banks. The auctions created a framework where banks made a disbursement commitment and incurred a financial penalty if that disbursement was not achieved.

2. The project conducted two auctions. In the first, National Development Bank (NDB) won the entire $12.5 million available. In the second, the funds were evenly divided among three institutions.

3. The project had planned to review the auction mechanism after the second auction, at which time Asian Development Bank (ADB) and the government would decide whether to continue with the auction or to introduce a more conventional allocation system. Following this review, the government requested the latter so that more banks could participate.

4. Although appreciating the government's reasons for requesting the cancellation, the project team was overall pleased with the auction's performance, and the objective of this appendix is to capture any lessons that could be applied to future auction systems.

B. Lessons

1. Dominance by a Subset of Banks

5. The government was correct that the auction limited participation. After NDB won all the funds during the first auction, ADB and the government agreed to cap the amount any bank could win to a third of available funds.

6. Despite these changes, the bidding pattern of the first two auctions suggested that a subset of banks would dominate the auctions. Indeed, the same four banks finished in the top five of both rounds (Table 1).

Table 1: Auction Results, April and September 2016

Rank	First Auction	Bid (%)	Second Auction	Bid (%)
1	National Development Bank	6.01	DFCC Bank	11.01
2	Sampath Bank	5.03	Hatton National Bank	8.60
3	Commercial Bank	5.01	Sampath Bank	8.25
4	Nations Trust Bank	4.90	National Development Bank	8.11
5	DFCC Bank	4.50	Nation's Trust Bank	8.10
6	Peoples Bank	4.01	Seylan Bank	8.00
7	Hatton National Bank	4.00	Commercial Bank	7.35
8	Seylan Bank	3.80	Regional Development Bank	7.19
9	Bank of Ceylon	2.51	Peoples Bank	7.00
10			Bank of Ceylon	2.85

Note: Only nine banks participated in the first auction.
Source: Asian Development Bank.

7. If the auction is dominated by the same banks, some areas of the country will inevitably be overrepresented and others underrepresented depending on where those winning banks'

operations cluster. Indeed, the early results did indicate that the banks tended to have footprints (Table 2). For example:

(i) NDB made nine loans in the neighboring northern districts of Anuradhapura and Vavuniya whereas the other three banks did not approve any.

(ii) DFCC Bank made a quarter of its loans in Kurunegala whereas the other banks made no more than 5%.

(iii) Hatton National Bank made more than twice as many loans in Baticaloa than the other banks combined.

Table 2: SME Loans by District, April and September 2016

District	National Development Bank	Hatton National Bank	Sampath Bank	DFCC Bank
Ampara	5	-	2	1
Anuradhapura	7	-	-	-
Badulla	4	1	2	4
Baticaloa	2	6	1	-
Colombo	38	6	6	4
Galle	12	6	1	2
Gampaha	27	6	6	4
Hambanthota	5	4	-	-
Jaffna	3	1	-	-
Kalutara	8	-	1	4
Kandy	4	4	2	1
Kegalle	6	-	3	-
Kilinochchi	-	-	1	-
Kurunegala	8	2	1	12
Mannar	-	-	-	-
Matale	3	-	1	2
Matara	3	-	-	3
Monaragala	3	1	-	4
Mulativ	-	-	-	-
Nuwara eliya	2	1	-	-
Polonnaruwa	4	-	3	1
Puttalam	5	4	1	2
Rathnapura	7	1	1	4
Trincomalee	2	2	-	-
Vavuniya	2	-	-	-
Total number of loans	**160**	**45**	**32**	**48**

Source: Asian Development Bank.

2. Efficiency

8. If the disadvantage of limited participation is incongruous lending footprints, the advantage is efficiency. For NDB to minimize the interest penalty during the first round when they had secured the entire $12.5 million available, the bank had to launch a concentrated effort to attract customers. This not only increased competition within Sri Lanka's banking sector but also drove NDB's performance. Indeed, NDB tells anecdotes of branch staff working overtime and lawyers being asked to come to the office on weekends to avoid the penalties from slow disbursement. This extra emphasis is reflected in NDB's 2016 portfolio performance. Although NDB had the slowest total loan growth among the 10 participating banks in 2016, its SME growth was 18% above average.

Table 3: SME Portfolio Loan Growth

	Weighted Average Loan Growth	Weighted Average SME Loan Growth
National Development Bank	8.0%	32.0%
Other participating banks	18.3%	27.3%

SME = small and medium-sized enterprise.
Source: Asian Development Bank.

3. Exogenous Bidding Factors

9. Sri Lankan banks' poor performance in disbursing small and medium-sized enterprise (SME) credit lines on time was the original rationale for the auction. ADB's *Small and Medium Enterprise Regional Development Project* (2008–2012)[1] and the World Bank's *Small and Medium Enterprise Development Facility Project* (2011–2015)[2] both had to be extended because of the participating banks' slow onlending.

10. The participating banks cited these credit lines' market-based interest rates for the slow disbursements. SME loans are more expensive. Risks are higher because of insufficient collateral, shorter operating histories, and informal recordkeeping. These higher risks can result in higher credit losses. Operating expenses are also higher because some of the costs of originating and administrating a loan are fixed regardless of the loan size. Banks cannot always recover these costs through higher pricing. Therefore, wholesale funds priced at the market rate may not be attractive for SME onlending.

11. To address this constraint, the auction established a market price for wholesale funding that had to be used for SME lending, including minimum lending to new SME borrowers, women-led SMEs, and other targeted groups. Given the extra costs of not only lending to SMEs but also of complying with ADB's requirements, ADB expected the banks to bid at below the market rate. Generally, this was the case. Yet, in the second auction, DFCC placed a bid that was above market (Table 4). DFCC's bid may have been an attempt to anticipate where interest rates would stand 3 months later at the time of disbursement or an operational error. In any case, it highlights the risk of exogenous bidding factors.

Table 4: Bid versus Market Rates

Auction	Bank	Winning Bid (%)	Average Weighted Fixed Deposit Rate at Bidding (%)
1st	National Development Bank	6.01	8.18
2nd	DFCC Bank	11.01	9.67
	Hatton National Bank	8.60	
	Sampath Bank	8.25	

Source: Asian Development Bank.

4. Natural Onlending Ceilings

12. The project had anticipated the risk that an auction could drive banks to bid high, but competition among the banks was expected to cap the extent to which a bank could pass high borrowing costs on to SMEs. Such a ceiling did emerge. DFCC, the one bank to have bid above the market benchmark, lent to its clients on average at 14.3%. Although this rate was higher than

[1] ADB. 2014. *Validation Report: Small and Medium Enterprise Regional Development Project in Sri Lanka.* Manila.
[2] World Bank. 2016. *Implementation Completion Report Review: Small and Medium Enterprise Development Facility in Sri Lanka.* Washington, D.C.

the other banks, DFCC's lending margin was 26% lower and upfront fees 22% lower (Table 5). Moreover, DFCC's loans had longer tenors and lower equity contributions suggesting higher credit risk, and therefore, its margins were likely lower still on a risk-adjusted basis.

Table 5: Evidence of Onlending Ceiling

	Interest Rate	Lending Margin	Upfront Fee	Tenor	Equity
DFCC Bank	14.34%	3.32%	0.54%	63 months	33.13%
All others [a]	11.77% [b]	4.50%	0.69%	61 months	36.53%

[a] Includes National Development Bank, Hatton National Bank, and Sampath Bank.
[b] Only includes Hatton National Bank and Sampath Bank, which were the other two banks that received money during the second auction.
Source: Asian Development Bank.

5. Penalty Clause

13. The auction included a de facto penalty for any bank that did not disburse on time. Following the auction, the winning bank had 3 months to submit qualifying loans. After 3 months, ADB disbursed to a Ministry of Finance and Mass Media (MOF) imprest account. At that point, the bank assumed interest payments for the funds, whether disbursed or not. In other words, banks had to pay loan interest on funds on which the MOF was earning the deposit interest (Table 6).

Table 6: Illustration of Penalty, Assuming $5 Million Undisbursed for 1 Month

	Illustrative Rate	MOF	Participating Bank
Bid	9% (0.75% monthly)	$37,500	($37,500)
Bank deposit	6% (0.5% monthly)	$25,000	$0
ADB loan	3% (0.25% monthly)[a]	($12,500)	$0
Total		**$50,000**	**($37,500)**

ADB = Asian Development Bank, MOF = Ministry of Finance and Mass Media.
[a] Excludes the impact of short-term foreign exchange movements.
Source: Asian Development Bank.

14. This financial penalty led to a dramatic improvement in banks' performance. Following the first auction, NDB disbursed 96% of the $12.5 million within 33 days. Following the second round, the three banks had disbursed effectively all funds within 3 months. This compares to ADB's SME Regional Development Project where funds disbursed at a rate of $0.9 million per month. The penalty also improved performance on the development indicators. At least 5% (later raised to 20%) of the loans must go to women-led SMEs and 10% (later raised to 20%) to SMEs that had not previously borrowed from a bank. If banks did not maintain these percentages, their funds were not disbursed. Therefore, to minimize the risk of undisbursed funds, banks have tended to overcompensate and have surpassed the minimum requirements (Table 7).

Table 7: Development Indicators as of 30 August 2017

	Original Requirements (April 2016–March 2017)	Results (April 2016–March 2017)	Revised Requirements (April 2017–September 2017)	Results (April 2017–September 2017)	Total
SMEs led by women	5% of loans	25.6%	20% of loans	26.1%	**25.5%**
First-time bank borrowers	10% of loans	17.5%	20% of loans	25.4%	**23.2%**
“Targeted” SMEs	50% of principle	89.5%	70% of principle	86.2%	**87.0%**

Note: Includes SMEs that are (i) located outside of Colombo District, (ii) borrowing for working capital where fixed or financial assets are not pledged as collateral, (iii) led by women, and (iv) first-time borrowers of a licensed or specialized commercial bank.
Source: Asian Development Bank.

15. Even though the government decided not to move forward with the auctions, this penalty has been retained and continues to provide a strong incentive for timely performance.

6. Strong Administrative Protections

16. Auctions are naturally subject to operational risks. The project incorporated two key protections. First, the loan and project agreement gave ADB the right to cancel an auction’s results without giving cause. ADB used this right one time when the bids were unusually correlated. The auction was repeated, and the anomaly ceased. Second, ADB retained a third party to administer the auctions. Not only did the third-party increase transparency, but ADB required the third party to collect detailed data on the underlying subloans. ADB has collated this information into a dataset that provides a comprehensive perspective on Sri Lankan SMEs’ financial management and has used this data to shape other SME interventions.

7. Pilot Structure

17. Experimentation is important. Although the auction was not retained, the imposition of a strong financial penalty for undisbursed funds led to a dramatic improvement in both disbursements and development indicators and was retained. As ADB continues to emphasize innovation in project design, it is important to incorporate pilot periods and other measures that allow for experimentation without imposing onerous procedures to refine the experiments. Indeed, because this project had been structured with a two-auction trial, a minor change in scope was sufficient to change to a conventional allocation.