

# **Assurance Bank Limited (ABL)**

## **SOX Risk Assessment Over Loan Principal, Instalment and Interest Income**

Assessment Type	SOX IT Risk Assessment - Loan Portfolio
Financial Areas	Loan Principal, Interest Income
Period Covered	FY 2026
Prepared By	Stephen Dugbartey, IT Auditor
Reviewed By	IT Audit Manager
Approved by	SOX Steering Committee
Date	14th January 2026

## **1.0 SOX Planning and Scope**

### **1.1 Executive Summary**

This SOX risk assessment evaluates IT-related risks impacting the accuracy, completeness, valuation and authorization of loan principal balances, instalment and interest income for Assurance Bank Limited. (ABL). The assessment focuses on key loan systems, automated interest calculations and supporting IT General Controls (ITGCs) relevant to Internal Control over Financial Reporting (ICFR).

### **1.2 Objective**

The objective of this SOX IT risk assessment is to:

- Identify and analyse IT risks that could result in a material misstatement of loan principal balances, instalment and interest income, including risks affecting accuracy, completeness, valuation, and authorisation
- Evaluate the design and operating effectiveness of relevant IT General Controls (ITGCs) and key automated processing controls supporting ICFR.
- Determine SOX in-scope loan systems, interfaces, reports, and supporting IT processes relevant to loan accounting and financial disclosures

### **1.3 Scope Definition**

In Scope Areas:

- Loan origination system
- Loan servicing
- Interest calculation engine
- General ledger (GL)
- Interfaces between loan systems and GL

Out of Scope Areas:

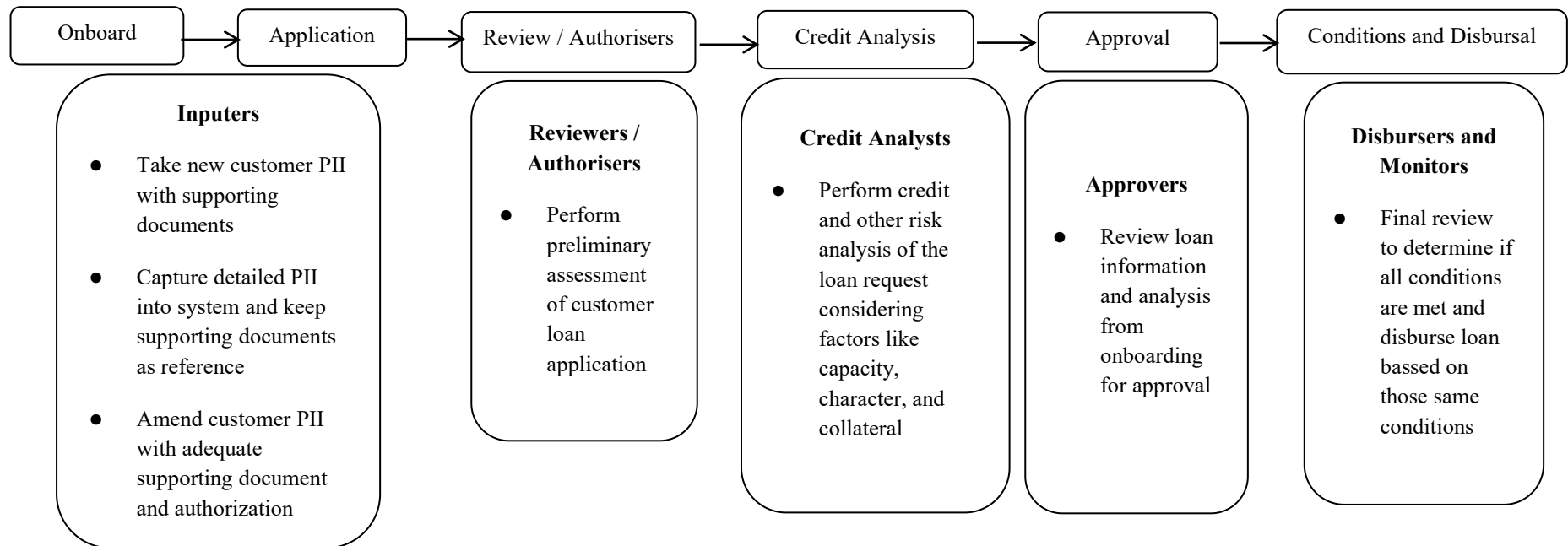
- Non-financial customer service platforms
- Marketing systems

## 1.4 Loan Process Flow

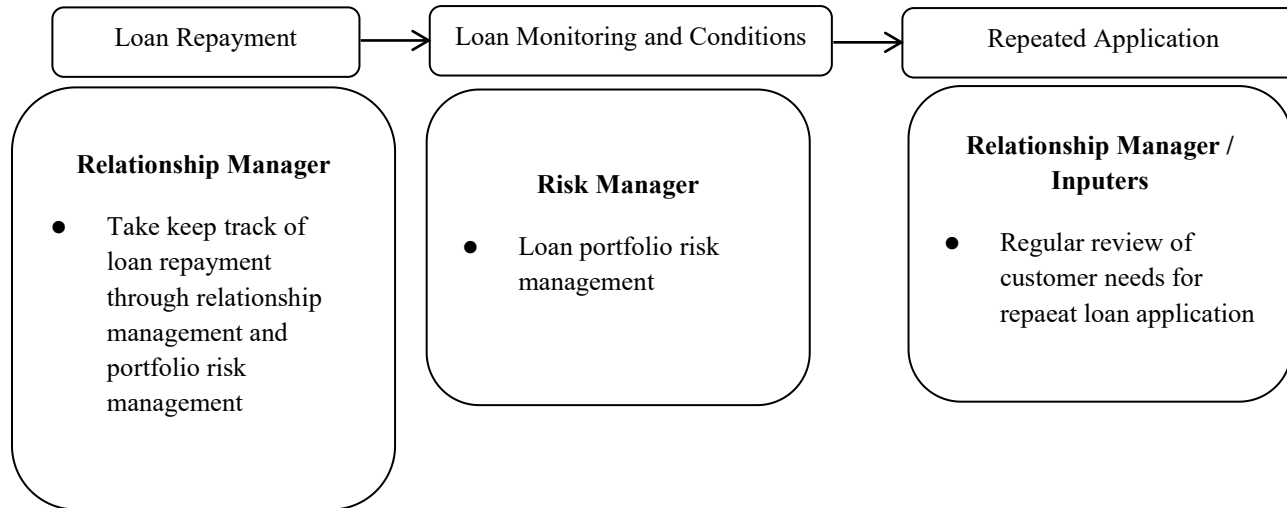
The loan process flow is categorised under two broad functions:

- Loan origination and
- Loan servicing and Customer Relationship Management (CRM)

### 1.4.1 The Loan Origination Process



### 1.4.2 The Loan Servicing Process



### 1.5 SOX Scoping - Key Systems and Data Flows

System Name	Purpose Description	Financial Impact Area	SOX Inscope (Yes/No)
Loan origination	Loan setup and approval	Principal loan balance	Yes
Loan Servicing	Interest accrual and repayments	Interest income	Yes
General Ledger (GL)	Financial reporting	Loan balance and interest income	Yes
Data warehouse	Reporting	Indirect	Yes
Customer relationship management (CRM)	Customer management	Indirect	No

## 1.6 Governance Structure

A SOX Steering Committee includes the following membership:

Position	Name	Function
Chief Financial Officer (CFO)	Martin Drake	Chairperson
Chief Information Security Officer (CISO)	James John	Member
Chief Risk Officer (CRO)	Benjamin Owens	Member
Head of Internal Audit	Mark Hunter	Member

## 1.7 Implementation Schedule

Phase 1 – Planning & Scoping (Months 1–2)

Phase 2 – Risk Assessment (Months 2–3)

Phase 3 – Control Design (Months 3–4)

Phase 4 – Implementation (Months 4–6)

Phase 5 – Testing (Months 6–8)

Phase 6 – Reporting & Attestation (Month 9)

## 1.8 Resources and Budget Overview

ABL allocates:

- Four internal full-time employees
- An external SOX adviser paid \$75,000 annually.
- A GRC documentation tool used requires a licence usage fee of \$25,000 annually supports evidence tracking.
- Training budget: \$10,000

## 2.0 Risk and Control

### 2.1 Risk Assessment Methodology

Risk were assessed based on their likelihood and potential impact to ICFR. Inherent risk was evaluated prior to considering controls while residual risk reflects the effectiveness of mitigating ITGCs and automated controls

Risk Level	Impact	Likelihood
High	Material misstatement possible	Very Likely
Medium	Moderate financial impact	Likely
Low	Minimal financial impact	Unlikely

### 2.2 Identified IT Risks - Loan Principal and Interest

Risk Area ID	Risk Area Type	Risk ID	Risk Description	Impact	Inherent Risk
AM	Access Management Risks	AM-01	Unauthorized access to loan systems	Manipulated loan balances	High
		AM-02	Excessive user privileges	Unauthorized interest rate changes and manipulated loan balances	High
CM	Change Management	CM-01	Unauthorized interest logic changes	Misstated interest income	High

	<b>Risks</b>	CM-02	Emergency changes not reviewed	Incorrect amortization	High
<b>ITOPS</b>	<b>IT Operation Risks</b>	ITOPS-01	Backup failures	Loan data loss	Medium
		ITOPS-02	Failed batch interest jobs	Incomplete interest postings	High

### 2.3 Control Design and Documentation

<b>Control ID</b>	<b>Control Description</b>	<b>Risk ID and Description</b>	<b>Impact</b>	<b>Inherent Risk</b>	<b>Residual Risk</b>	<b>Responsibility</b>	<b>Frequency</b>
<b>C-01</b>	Periodic role-based and access reviews	AM-01: Unauthorized access to loan systems	Manipulated loan balances and interest rates	High	Medium	Risk manager	Monthly
<b>C-02</b>	Segregation of duties	AM-02: Excessive privileges or unauthorized user access	Unauthorized interest rate changes and manipulated loan balances	High	Low	Risk manager	Daily
<b>C-03</b>	Change approval	CM-01: Unauthorized interest logic	Misstated interest income	High	Medium	Chief Information Officer	Monthly

		changes					
<b>C-04</b>	Testing migration controls	CM-01: Unauthorized interest logic changes	Misstated interest income	High	Medium	Revenue manager	Annually
<b>C-05</b>	Post-implementation review	CM-02: Emergency changes not reviewed	Incorrect amortization	High	Low	Chief Information Officer	Annually
<b>C-06</b>	Full backup	ITOPS-01: Backup failures	Loan data loss	Medium	Low	Chief Technology Officer	Daily
<b>C-07</b>	Monitoring alerts	ITOPS-01: Backup failures	Loan data loss	Medium	Low	Chief Technology Officer	Daily
<b>C-08</b>	Job reviews	ITOPS-02: Failed batch interest jobs	Incomplete interest postings	High	Low	Chief Technology Officer	Weekly
<b>C-09</b>	Incident management	ITOPS-02: Failed batch interest jobs	Incomplete interest postings	High	Low	Chief Technology Officer	Weekly



## 2.4 Control Implementation

Control ID	Control Description	Implementation Task	Responsibility	Frequency	Due Date	Status
C-01	Periodic role-based and access reviews	Assess the roles of officers of the loan processes in against their defined job description and activities	Risk manager	Monthly	31 <sup>st</sup> Dec. 2025	In-progress
C-02	Segregation of duties	Review the loan process to determine appropriate separated duties of roles	Risk manager	Daily	31 <sup>st</sup> Dec. 2025	Complete
C-03	Change approval	Examine change management approval and documentation	Chief Information Officer	Monthly	31 <sup>st</sup> Dec. 2025	In-progress
C-04	Testing migration controls	Perform control testing to determine correctness of interest income logic implementation	Revenue manager	Annually	31 <sup>st</sup> Dec. 2025	Complete
C-05	Post-implementation review	Review emergency change implementation and appropriate reversal to default after use	Chief Information Officer	Annually	31 <sup>st</sup> Dec. 2025	Not started
C-06	Full backup	Verify current state of loan data backup in line with backup policy	Chief Technology Officer	Daily	13 <sup>th</sup> Jan. 2026	Complete
C-07	Monitoring alerts	Determine activeness of monitoring and triggers to	Chief Technology	Daily	13 <sup>th</sup> Jan. 2026	Complete

		responsible people	Officer			
<b>C-08</b>	Job monitoring	Examine appropriate entry and batching of interest incomes	Chief Technology Officer	Weekly	7 <sup>th</sup> Jan. 2026	Complete
<b>C-09</b>	Incident management	Examine interest income and principal balance incident management plans	Chief Technology Officer	Weekly	7 <sup>th</sup> Jan. 2026	In-progress

## 2.5 Control Testing

The related SOX controls have been tested using on a set of 25 loan customers shown in appendix 1

<b>Control ID</b>	<b>Control Description</b>	<b>Evidence Gathered</b>	<b>Result</b>	<b>Reviewer Comments</b>
<b>C-01</b>	Periodic role-based and access reviews as of Q4 2025	Reviewing the list of group roles	Passed	All role groups are well defined and followed
<b>C-02</b>	Segregation of duties as of Q4 2025	Audit the loan process to determine SoD of loan processes	Passed	Loan process has been well defined with roles adequately separated by maker-approver matrix
<b>C-04</b>	Testing migration controls as of 13 <sup>th</sup> Jan. 2026	Manually calculating the interest, instalment and principal balances against system	Failed	The system automated calculations of interest, instalment and principal balances

		generated values		were inaccurate and incomplete
<b>C-06</b>	Full backup as of 13 <sup>th</sup> Jan. 2026	Last backup copy was acquired to determining functioning backups	Passed	Backup is timely, stored on primary, secondary and tertiary media

### 3.0 Deficiency Assessment and Remediation

Deficiency ID	Control ID	Issue Description	ICFR Impact	Root Cause	Owner	Expected Resolution Timeline	Status	Recommended Remediation	Evidence Required for Closure
Def-01	C-04	Testing migration controls as of 13 <sup>th</sup> Jan. 2026	High	People - operational lapse	Chief Information Officer (CIO)	Immediately	Started	The loan system logic	Through observation and correspondence reports from CIO

#### Result Definitin:

- 85% and above - passed
- 65% to 84% - average
- Below 65% - failed

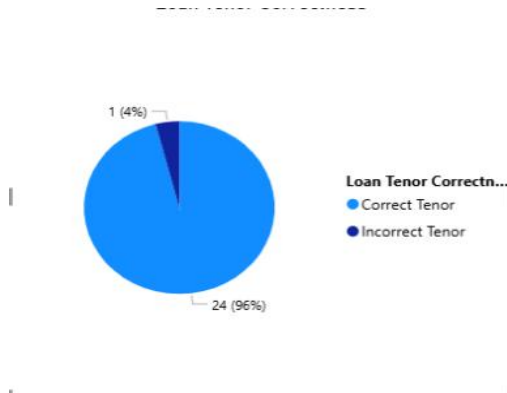
## Appendix

### 1. Raw loan data list

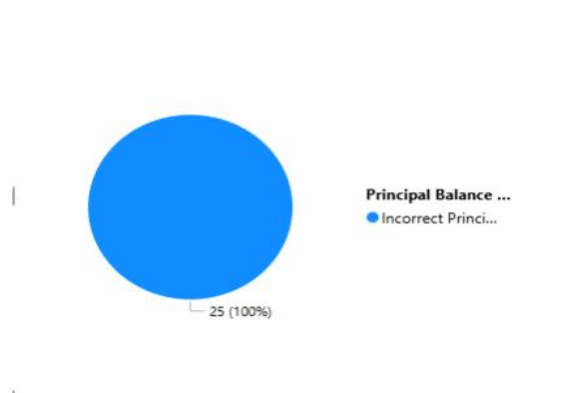
Customer ID	Customer Name	Loan Disbursed Date	Loan Amount Disbursed	Loan Period (Months)	Loan Annual Interest Rate (%)	Loan Principal Balance	Loan Final Repayment Date	Type of Security	Monthly Loan Instalment	Collateral Held By Bank
1001	Noah Peterson	2025-10-11 00:00:00	120000	63	7.2	112913.15	2030-12-14 00:00:00	Vehicle	2624.76	Yes
1002	Robert Sinclair	2025-12-27 00:00:00	120000	27	6.5	119320.74	2028-03-16 00:00:00	Equipment	5094.44	Yes
1003	Kevin Park	2025-10-01 00:00:00	40000	25	8	34337.77	2027-10-21 00:00:00	Equipment	1866.67	Yes
1004	Jean Tremblay	2025-07-15 00:00:00	120000	29	7.2	92633.66	2027-12-02 00:00:00	Vehicle	4857.93	Yes
1005	Victor Ivanov	2025-10-15 00:00:00	40000	65	8	37736.07	2031-02-16 00:00:00	Commercial Property	882.05	Yes
1006	Priya Patel	2025-09-10 00:00:00	85000	27	11	70338.04	2027-11-29 00:00:00	Unsecured	3927.31	No
1007	Grace O'Neill	2025-07-21 00:00:00	120000	52	7.2	103549.55	2029-10-28 00:00:00	Cash Collateral	3027.69	Yes
1008	Lucas Martin	2025-10-11 00:00:00	200000	41	6.5	183904.27	2029-02-22 00:00:00	Unsecured	5961.38	No
1009	Noah Peterson	2025-10-30 00:00:00	120000	49	6.5	113595.44	2029-11-08 00:00:00	Commercial Property	3098.98	Yes
1010	James Wilson	2025-09-13 00:00:00	200000	67	8	184309.78	2031-03-16 00:00:00	Commercial Property	4318.41	Yes
1011	Olivia Chen	2025-09-26 00:00:00	40000	57	8	36901.06	2030-06-02 00:00:00	Equipment	968.42	Yes
1012	Mohammed Hassan	2025-10-25 00:00:00	60000	33	8	55046.06	2028-07-11 00:00:00	Commercial Property	2218.18	Yes
1013	Daniel Okafor	2025-10-08 00:00:00	200000	59	8	186775.15	2030-08-13 00:00:00	Cash Collateral	4723.16	Yes
1014	Robert Sinclair	2025-10-12 00:00:00	200000	37	9.5	181363.36	2028-10-26 00:00:00	Residential Property	6988.74	Yes
1015	Mohammed Hassan	2025-11-29 00:00:00	25000	54	7.2	24346.18	2030-05-07 00:00:00	Cash Collateral	612.96	Yes
1016	Robert Sinclair	2025-11-08 00:00:00	40000	71	8	38533.58	2031-09-08 00:00:00	Vehicle	830.05	Yes
1017	Fatima Ali	2025-11-27 00:00:00	25000	38	8	24065.5	2029-01-10 00:00:00	Cash Collateral	824.56	Yes
1018	Sophie Dubois	2025-08-22 00:00:00	120000	31	8	139444.8	2028-03-09 00:00:00	Vehicle	4670.97	Yes
1019	Robert Sinclair	2025-07-02 00:00:00	85000	37	7.2	67969.05	2028-07-16 00:00:00	Unsecured	2807.3	No
1020	Lucas Martin	2025-09-26 00:00:00	60000	46	11	75692.51	2029-07-07 00:00:00	Vehicle	1854.35	Yes
1021	Sarah Nguyen	2025-12-05 00:00:00	40000	63	11	39131.96	2031-08-06 00:00:00	Unsecured	1001.59	No
1022	Grace O'Neill	2025-08-07 00:00:00	200000	44	9.5	170173.22	2029-03-19 00:00:00	Unsecured	6128.79	No
1023	Emily Brown	2025-11-07 00:00:00	200000	39	7.2	188609.22	2029-01-20 00:00:00	Unsecured	6328.21	No
1024	Aisha Mohammed	2025-07-21 00:00:00	40000	68	9.5	35083.38	2031-02-20 00:00:00	Unsecured	904.9	No
1025	Jean Tremblay	2025-12-08 00:00:00	120000	41	11	116912.76	2029-04-21 00:00:00	Cash Collateral	4026.83	Yes

### 2. Breakdown of failed control - *Testing Migration Controls*

**Loan Tenor**  
Amount at Risk: \$40k



**Principal Balance**  
Amount at Risk: \$2.62m



**Monthly Instalment**  
Amount at Risk: \$2.58m

