# TDZ Fix: Finanzas SD Cost Catalog Route

Finanzas SD – Architecture, Flows & SOPs

Arquitectura, Flujos y Procedimientos

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# 1 TDZ Fix: Finanzas SD Cost Catalog Route

## 1.1 Issue Summary

**Route:** /finanzas/sdmt/cost/catalog
**Error:** ReferenceError: Cannot access 'B' before initialization
**Component:** src/features/sdmt/cost/Catalog/SDMTCatalog.tsx
**Date Fixed:** 2025-11-17

## 1.2 Root Cause

The component had a **Temporal Dead Zone (TDZ) violation** where a variable was referenced before its declaration:

```
[] // ❌ BEFORE (lines 83-87): Using lineItemsError BEFORE declaration const lineItemsErrorMessage = lineItemsError ? lineItemsError instanceof Error ? lineItemsError.message : String(lineItemsError) : "";
// Line 114: lineItemsError declared here (TOO LATE!) const { error: lineItemsError, ... } = useProjectLineItems();
```

## 1.3 Solution

Moved the useProjectLineItems() hook call to execute **before** any usage of its returned values:

```
[] // ✅ AFTER: Hook called first (lines 105-111) const { lineItems: queryLineItems, isLoading: isLineItemsLoading, isFetching: isLineItemsFetching, error: lineItemsError, invalidate: invalidateLineItems, } = useProjectLineItems();
// Then compute dependent values (lines 113-118) const lineItemsErrorMessage = lineItemsError ? lineItemsError instanceof Error ? lineItemsError.message : String(lineItemsError) : "";
```

## 1.4 Why This Happened

JavaScript/TypeScript's const and let declarations have **block scope** with a TDZ, meaning: - The variable exists in the scope from the start - But it cannot be accessed until the line where it's declared and initialized - Accessing it before declaration throws ReferenceError: Cannot access 'X' before initialization

In minified code, variable names are shortened (e.g., lineItemsError → B), which is why the error message referenced variable B.

## 1.5 Prevention Guidelines

To avoid similar TDZ issues in React components:

1. **Declare all hooks at the top** of the component function, following React's Rules of Hooks
2. **Order declarations properly:**

   - State hooks (useState, etc.)
   - Context hooks (useContext, custom hooks like useProject())
   - Computed values that depend on hook results

3. **Never reference a variable before its declaration line**
4. **Be careful with destructuring** - ensure the source is declared first
5. **Watch for circular dependencies** between modules (though not the issue here)

## 1.6 Files Modified

- src/features/sdmt/cost/Catalog/SDMTCatalog.tsx: Reordered hook calls and variable declarations

## 1.7 Verification

- ☐ Build succeeds without errors
- ☐ TypeScript type-checking passes (no new errors)
- ☐ ESLint passes with no warnings
- ☐ Route renders without runtime errors