```vba
Dim wb As Workbook
Dim ws1 As Worksheet
Dim ws2 As Worksheet
Dim input_path As String
Dim LastRow As Integer
Dim FirstRow As Integer

Dim q As String
Dim Edate As String
Dim y As String

'integers v mil. CZK
Sub input_load()
    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")

    q = ws1.Range("period").Value
    Edate = ws1.Range("Edate").Value
    y = Year(Edate) 'extract year

    Application.Calculation = xlCalculationManual 'vypnutí automatického přepočítávání vzorců pro zrychlení
    Application.DisplayAlerts = False 'nevyskakují alerty jako například stažení aktualizace
    Application.ScreenUpdating = False 'neupdatuje se obrazovka, takže například nevidíme otvírané soubory

    ws1.Range("E:E").NumberFormat = "#,##0"
    input_path = Dir("C:\dokumenty\" & q & y & "\vyhlaska 163_2014" & "\*.xlsx")

    Do While input_path <> ""

        Set input_wb = Workbooks.Open("C:\dokumenty\" & q & y & "\vyhlaska 163_2014" & "\" & input_path,
UpdateLinks = False)
        auto_edit_wb 'sub pro povolení úprav
        LastRow = ws1.Cells(ws1.Rows.Count, "A").End(xlUp).Offset(1).Row 'nalezení prvního volného řádku pro
vložení podle soupce A

        'bonds CSOB only
        If UCase(Left(input_wb.Name, Application.WorksheetFunction.Find("_", input_wb.Name) - 1)) = "CSOB" Then
            input_wb.Worksheets("I. Část 6").Activate
            On Error Resume Next
            input_wb.Worksheets("Část 6").Activate
            On Error Resume Next
            ws1.Cells(LastRow, "E").Value = Round((Range("D28") + Range("D31")) / 1000, 0)
            ws1.Activate
            ws1.Cells(LastRow, "D") = "A bonds"
            ws1.Cells(LastRow, "C") = "bonds"
            ws1.Cells(LastRow, "B") = q & " " & y
            ws1.Cells(LastRow, "A") = "CSOB"

        Else
        End If

        LastRow = ws1.Cells(ws1.Rows.Count, "A").End(xlUp).Offset(1).Row 'nalezení prvního volného řádku pro
vložení podle soupce A

        'hedge derivatives
            On Error Resume Next
            input_wb.Worksheets("I. Část 5a").Activate
            On Error Resume Next
            input_wb.Worksheets("Část 5a").Activate

            ws1.Cells(LastRow, "E").Value = Round(ActiveSheet.Range("B11") / 1000, 0)

            ws1.Activate
            ws1.Cells(LastRow, "D").Value = "hedge"

        'hedge accounting derivatives
            On Error Resume Next
            input_wb.Worksheets("Část 5a").Activate
            On Error Resume Next
            input_wb.Worksheets("I. Část 5a").Activate

            ws1.Cells(LastRow + 1, "E").Value = Round(ActiveSheet.Range("B14") / 1000, 0)

            ws1.Activate
```

```vba
            ws1.Cells(LastRow + 1, "D").Value = "hedge acc"

        'total derivatives
            On Error Resume Next
            input_wb.Worksheets("Část 5a").Activate
            On Error Resume Next
            input_wb.Worksheets("I. Část 5a").Activate

            ws1.Cells(LastRow + 2, "E").Value = Round(Application.WorksheetFunction.Sum(Range("B14:B15")) /
1000, 0)

            ws1.Activate
            ws1.Cells(LastRow + 2, "D").Value = "total"

        ws1.Activate
        ws1.Range(Cells(LastRow, "C"), Cells(LastRow + 2, "C")).FormulaArray = "derivatives"
        ws1.Range(Cells(LastRow, "B"), Cells(LastRow + 2, "B")).FormulaArray = q & " " & y
        ws1.Range(Cells(LastRow, "A"), Cells(LastRow + 2, "A")).FormulaArray = UCase(Left(input_wb.Name,
Application.WorksheetFunction.Find("_", input_wb.Name) - 1))

        input_wb.Close
        wb.Save

    input_path = Dir() 'vyčerpání všech souborů v definovém adresáři

    Loop

    Application.Calculation = xlCalculationAutomatic
    Application.DisplayAlerts = True
    Application.ScreenUpdating = True

wb.Save
manual_inputs 'sub, který přidá prázdné řádky k ručnímu doplnění
input_load2 'sub, který loaduje ze složky NII
action_color 'sub, který podbarví prázdné buňky, které je potřeba doplnit ručně
comparison 'sub, který ukáže YoY změnu

End Sub
Private Sub auto_edit_wb()

Dim wbPV As ProtectedViewWindow
    If Application.ProtectedViewWindows.Count > 0 Then
        Set wb = wbPV.Edit()
    Else
    End If

End Sub
Private Sub input_load2()
    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")

    q = ws1.Range("period").Value
    Edate = ws1.Range("Edate").Value
    y = Year(Edate) 'extract year

    Application.Calculation = xlCalculationManual 'vypnutí automatického přepočítávání vzorců pro zrychlení
    Application.DisplayAlerts = False 'nevyskakují alerty jako například stažení aktualizace
    Application.ScreenUpdating = False 'neupdatuje se obrazovka, takže například nevidíme otvírané soubory

    input_path = Dir("C:\dokumenty\" & q & y & "\NII" & "\*.xlsx")

        Do While input_path <> ""
          Set input_wb = Workbooks.Open("C:\dokumenty\" & q & y & "\NII" & "\" & input_path, UpdateLinks =
False)
          input_wb.Activate
          LastRow = ws1.Cells(ws1.Rows.Count, "A").End(xlUp).Offset(1).Row 'nalezení prvního volného řádku pro
vložení podle soupce A

                Select Case input_wb.Name
                    Case "csob_" & q & y & ".xlsx", "CSOB_" & q & y & ".xlsx", "Csob_" & q & y & ".xlsx"
                        input_csob_nii
                    Case "kb_" & q & y & ".xlsx", "KB_" & q & y & ".xlsx", "Kb_" & q & y & ".xlsx"
                        input_kb_nii
                    Case "cs_" & q & y & ".xlsx", "CS_" & q & y & ".xlsx", "Cs_" & q & y & ".xlsx"
```

```vba
                        input_cs_nii
                End Select

            input_path = Dir() 'vyčerpání všech souborů v definovém adresáři

        Loop

    wb.Save

    Application.Calculation = xlCalculationAutomatic
    Application.DisplayAlerts = True
    Application.ScreenUpdating = True

End Sub
Private Sub input_csob_nii()

'total quarter NII

    Sheets("P&L Qtd.").Select
    On Error GoTo Handler:
    LastCol = Cells(7, Selection.Columns.Count).End(xlToRight).End(xlToRight).Column 'nalezení posledního
použitého sloupce dle řádku 7

    ws1.Cells(LastRow, "E").Value = Round(ActiveSheet.Cells(8, LastCol), 0)
    ws1.Cells(LastRow, "D").Value = "interest income"

    ws1.Cells(LastRow + 1, "E").Value = Round(ActiveSheet.Cells(9, LastCol), 0)
    ws1.Cells(LastRow + 1, "D").Value = "interest expense"

    ws1.Cells(LastRow + 2, "E").Value = Round(ActiveSheet.Cells(10, LastCol), 0)
    ws1.Cells(LastRow + 2, "D").Value = "total"

'client business

    Sheets("Business volumes").Select
    On Error GoTo Handler:
    LastCol = Cells(8, Selection.Columns.Count).End(xlToRight).End(xlToRight).Column 'nalezení posledního
použitého sloupce dle řádku 7

        ws1.Cells(LastRow + 3, "E").Value = Round(ActiveSheet.Cells(10, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 3, "D").Value = "mortgages"

        ws1.Cells(LastRow + 4, "E").Value = Round(ActiveSheet.Cells(11, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 4, "D").Value = "building savings loans"

        ws1.Cells(LastRow + 5, "E").Value = Round(ActiveSheet.Cells(12, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 5, "D").Value = "consumer finance"

        ws1.Cells(LastRow + 6, "E").Value = Round(ActiveSheet.Cells(13, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 6, "D").Value = "SME loans"

        ws1.Cells(LastRow + 7, "E").Value = Round(ActiveSheet.Cells(14, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 7, "D").Value = "leasing"

        ws1.Cells(LastRow + 8, "E").Value = Round(ActiveSheet.Cells(15, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 8, "D").Value = "corporate loans"

        ws1.Cells(LastRow + 9, "E").Value = Round(ActiveSheet.Cells(16, LastCol) * 1000, 0)
        ws1.Cells(LastRow + 9, "D").Value = "factoring"

        ws1.Cells(LastRow + 10, "E").Value = Round(Application.WorksheetFunction.Sum(Range(Cells(19, LastCol),
Cells(20, LastCol))) * 1000, 0)
        ws1.Cells(LastRow + 10, "D").Value = "client deposits"

    Sheets("Balance Sheet").Select
    On Error GoTo Handler:
    LastCol = Cells(8, Selection.Columns.Count).End(xlToRight).End(xlToRight).Column 'nalezení posledního
použitého sloupce dle řádku 7

        ws1.Cells(LastRow + 11, "E").Value = Round(ActiveSheet.Cells(40, LastCol), 0)
        ws1.Cells(LastRow + 11, "D").Value = "bank deposits"

        ws1.Cells(LastRow + 12, "E").Value = Round(ActiveSheet.Cells(63, LastCol), 0)
        ws1.Cells(LastRow + 12, "D").Value = "total equity"
```

```vbnet
        ws1.Cells(LastRow + 13, "E").Value = Round(ActiveSheet.Cells(65, LastCol), 0)
        ws1.Cells(LastRow + 13, "D").Value = "total BS"

'bonds detail
        ws1.Cells(LastRow + 14, "E").Value = Round(ActiveSheet.Cells(42, LastCol), 0)
        ws1.Cells(LastRow + 14, "D").Value = "issued bonds"

        ws1.Cells(LastRow + 15, "E").Value = ""
        ws1.Cells(LastRow + 15, "D").Value = "bonds IG"

'derivatives detail

        ws1.Cells(LastRow + 16, "E").Value = ""
        ws1.Cells(LastRow + 16, "D").Value = "derivatives income"

        ws1.Cells(LastRow + 17, "E").Value = ""
        ws1.Cells(LastRow + 17, "D").Value = "derivatives expense"

        ws1.Cells(LastRow + 18, "E").Value = ""
        ws1.Cells(LastRow + 18, "D").Value = "derivatives NII"

    ActiveWorkbook.Close

    ws1.Activate
        ws1.Range(Cells(LastRow, "C"), Cells(LastRow + 2, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow + 3, "C"), Cells(LastRow + 13, "C")).FormulaArray = "volumes"
        ws1.Range(Cells(LastRow + 14, "C"), Cells(LastRow + 15, "C")).FormulaArray = "bonds"
        ws1.Range(Cells(LastRow + 16, "C"), Cells(LastRow + 18, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow, "B"), Cells(LastRow + 18, "B")).FormulaArray = q & " " & y
        ws1.Range(Cells(LastRow, "A"), Cells(LastRow + 18, "A")).FormulaArray = "CSOB"

    wb.Save

Exit Sub

Handler:
    MsgBox ("There is a problem with CSOB NII file.")

End Sub
Private Sub input_kb_nii()
Dim mortg As Range 'mortgages

'total quarter NII

    Sheets("Conso P_L ").Select
    On Error GoTo Handler:

        ws1.Cells(LastRow, "E").Value = Round(ActiveSheet.Range("D11"), 0)
        ws1.Cells(LastRow, "D").Value = "interest income"

        ws1.Cells(LastRow + 1, "E").Value = Round(ActiveSheet.Range("D12"), 0)
        ws1.Cells(LastRow + 1, "D").Value = "interest expense"

        ws1.Cells(LastRow + 2, "E").Value = Round(ActiveSheet.Range("D13"), 0)
        ws1.Cells(LastRow + 2, "D").Value = "total"

'client business

    Sheets("Business").Select
    On Error GoTo Handler:
    Set mortg = ActiveSheet.Range("B5:B70").Find("Mortgages") 'vyhledávána pozice dle názvu; další produkty a
segment vychází z této pozice a předpkládá se tak jejich vzájemná neměnnost

        ws1.Cells(LastRow + 3, "E").Value = Round(mortg.Offset(1, 1), 0)
        ws1.Cells(LastRow + 3, "D").Value = "mortgages"

        ws1.Cells(LastRow + 4, "E").Value = Round(mortg.Offset(7, 1), 0)
        ws1.Cells(LastRow + 4, "D").Value = "building savings loans"

        ws1.Cells(LastRow + 5, "E").Value = Round(mortg.Offset(4, 1), 0)
        ws1.Cells(LastRow + 5, "D").Value = "consumer finance"

        ws1.Cells(LastRow + 6, "E").Value = Round(mortg.Offset(10, 1), 0)
```

```vba
        ws1.Cells(LastRow + 6, "D").Value = "SME loans"

        ws1.Cells(LastRow + 7, "E").Value = Round(mortg.Offset(19, 1), 0)
        ws1.Cells(LastRow + 7, "D").Value = "leasing"

        ws1.Cells(LastRow + 8, "E").Value = Round(mortg.Offset(13, 1), 0)
        ws1.Cells(LastRow + 8, "D").Value = "corporate loans"

        ws1.Cells(LastRow + 9, "E").Value = Round(mortg.Offset(16, 1), 0)
        ws1.Cells(LastRow + 9, "D").Value = "factoring"

    Sheets("Conso B_S ").Select
    On Error GoTo Handler:

        ws1.Cells(LastRow + 10, "E").Value = Round((ActiveSheet.Range("D38") - ActiveSheet.Range("D39")), 0)
        ws1.Cells(LastRow + 10, "D").Value = "client deposits"

        ws1.Cells(LastRow + 11, "E").Value = Round(ActiveSheet.Range("D37"), 0)
        ws1.Cells(LastRow + 11, "D").Value = "bank deposits"

        ws1.Cells(LastRow + 12, "E").Value = Round(ActiveSheet.Range("D51"), 0)
        ws1.Cells(LastRow + 12, "D").Value = "total equity"

        ws1.Cells(LastRow + 13, "E").Value = Round(ActiveSheet.Range("D52"), 0)
        ws1.Cells(LastRow + 13, "D").Value = "total BS"

'bonds detail

        ws1.Cells(LastRow + 14, "E").Value = Round(ActiveSheet.Range("D40"), 0)
        ws1.Cells(LastRow + 14, "D").Value = "issued bonds"

        ws1.Cells(LastRow + 15, "E").Value = Round((ActiveSheet.Range("D15") + ActiveSheet.Range("D20") -
ActiveSheet.Range("D21")), 0)
        ws1.Cells(LastRow + 15, "D").Value = "A bonds"

        ws1.Cells(LastRow + 16, "E").Value = 0
        ws1.Cells(LastRow + 16, "D").Value = "bonds IG"

'derivatives detail

    Sheets("NIM ").Select
    On Error GoTo Handler:

        ws1.Cells(LastRow + 17, "E").Value = Round(ActiveSheet.Range("C34"), 0)
        ws1.Cells(LastRow + 17, "D").Value = "derivatives income"

        ws1.Cells(LastRow + 18, "E").Value = Round(ActiveSheet.Range("C35"), 0)
        ws1.Cells(LastRow + 18, "D").Value = "derivatives expense"

        ws1.Cells(LastRow + 19, "E").Value = Round(Application.WorksheetFunction.Sum(Range("C34:C35")), 0)
        ws1.Cells(LastRow + 19, "D").Value = "derivatives NII"

    ActiveWorkbook.Close

    ws1.Activate
        ws1.Range(Cells(LastRow, "C"), Cells(LastRow + 2, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow + 3, "C"), Cells(LastRow + 13, "C")).FormulaArray = "volumes"
        ws1.Range(Cells(LastRow + 14, "C"), Cells(LastRow + 16, "C")).FormulaArray = "bonds"
        ws1.Range(Cells(LastRow + 17, "C"), Cells(LastRow + 19, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow, "B"), Cells(LastRow + 19, "B")).FormulaArray = q & " " & y
        ws1.Range(Cells(LastRow, "A"), Cells(LastRow + 19, "A")).FormulaArray = "KB"

    wb.Save

Exit Sub

Handler:
    MsgBox ("There is a problem with KB NII file.")

End Sub
Private Sub input_cs_nii()
Dim int_inc As Range 'úrokové výnosy
Dim mc As Range 'měnové podmínky
Dim q_col As Range
```

```vba
    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")

    q = ws1.Range("period").Value

'total quarter NII

    Sheets("Fin_vykazy_IFRS9").Select
    On Error GoTo Handler:
    LastCol = Cells(2, Selection.Columns.Count).End(xlToRight).Column 'nalezení posledního použitého sloupce
dle řádku 2; další vychází z této pozice a předpokládá se tak jejich vzájemná neměnnost
    Set int_inc = ActiveSheet.Range("A2:A90").Find("Úrokové výnosy")

    If q = "1Q" Then

        ws1.Cells(LastRow, "E").Value = Round(int_inc.Offset(0, LastCol - 1), 0)
        ws1.Cells(LastRow, "D").Value = "interest income"

        ws1.Cells(LastRow + 1, "E").Value = Round(int_inc.Offset(4, LastCol - 1), 0)
        ws1.Cells(LastRow + 1, "D").Value = "interest expense"

        ws1.Cells(LastRow + 2, "E").Value = Round(int_inc.Offset(8, LastCol - 1), 0)
        ws1.Cells(LastRow + 2, "D").Value = "total"

    Else 'kumulativní

        ws1.Cells(LastRow, "E").Value = Round((int_inc.Offset(0, LastCol - 1)) - (int_inc.Offset(0, LastCol -
2)), 0)
        ws1.Cells(LastRow, "D").Value = "interest income"

        ws1.Cells(LastRow + 1, "E").Value = Round(-(int_inc.Offset(4, LastCol - 2)) + (int_inc.Offset(4,
LastCol - 1)), 0)
        ws1.Cells(LastRow + 1, "D").Value = "interest expense"

        ws1.Cells(LastRow + 2, "E").Value = Round((int_inc.Offset(8, LastCol - 1)) - (int_inc.Offset(8, LastCol
- 2)), 0)
        ws1.Cells(LastRow + 2, "D").Value = "total"

    End If

'client business

        ws1.Cells(LastRow + 3, "E").Value = ""
        ws1.Cells(LastRow + 3, "D").Value = "mortgages"

        ws1.Cells(LastRow + 4, "E").Value = ""
        ws1.Cells(LastRow + 4, "D").Value = "consumer finance"

        ws1.Cells(LastRow + 5, "E").Value = ""
        ws1.Cells(LastRow + 5, "D").Value = "SME loans"

        ws1.Cells(LastRow + 6, "E").Value = ""
        ws1.Cells(LastRow + 6, "D").Value = "corporate loans"

        ws1.Cells(LastRow + 7, "E").Value = ""
        ws1.Cells(LastRow + 7, "D").Value = "client deposits"

        ws1.Cells(LastRow + 8, "E").Value = ""
        ws1.Cells(LastRow + 8, "D").Value = "building savings loans"

        ws1.Cells(LastRow + 9, "E").Value = ""
        ws1.Cells(LastRow + 9, "D").Value = "factoring"

        ws1.Cells(LastRow + 10, "E").Value = ""
        ws1.Cells(LastRow + 10, "D").Value = "leasing"

        ws1.Cells(LastRow + 11, "E").Value = Round(ActiveSheet.Cells(80, LastCol), 0)
        ws1.Cells(LastRow + 11, "D").Value = "bank deposits"

        ws1.Cells(LastRow + 12, "E").Value = Round(ActiveSheet.Cells(91, LastCol), 0)
        ws1.Cells(LastRow + 12, "D").Value = "total equity"

        ws1.Cells(LastRow + 13, "E").Value = Round(ActiveSheet.Cells(94, LastCol), 0)
```

```vba
        ws1.Cells(LastRow + 13, "D").Value = "total BS"

'bonds detail
        ws1.Cells(LastRow + 14, "E").Value = ""
        ws1.Cells(LastRow + 14, "D").Value = "issued bonds"

        ws1.Cells(LastRow + 15, "E").Value = ""
        ws1.Cells(LastRow + 15, "D").Value = "A bonds"

        ws1.Cells(LastRow + 16, "E").Value = ""
        ws1.Cells(LastRow + 16, "D").Value = "bonds IG"

'derivatives detail

        ws1.Cells(LastRow + 17, "E").Value = ""
        ws1.Cells(LastRow + 17, "D").Value = "derivatives income"

        ws1.Cells(LastRow + 18, "E").Value = ""
        ws1.Cells(LastRow + 18, "D").Value = "derivatives expense"

        ws1.Cells(LastRow + 19, "E").Value = ""
        ws1.Cells(LastRow + 19, "D").Value = "derivatives NII"

'macro environment for all banks
    Sheets("Makro").Select
    On Error GoTo Handler:
    Set mc = ActiveSheet.Range("A2:A40").Find("Měnové podmínky")
    Set q_col = ActiveSheet.Range("A2:Z90").Find(q)
    col = q_col.Column

        ws1.Cells(LastRow + 20, "E").Value = mc.Offset(1, col)
        ws1.Cells(LastRow + 20, "D").Value = "CZK/EUR"

        ws1.Cells(LastRow + 21, "E").Value = mc.Offset(3, col)
        ws1.Cells(LastRow + 21, "D").Value = "2W repo"

        ws1.Cells(LastRow + 22, "E").Value = mc.Offset(4, col)
        ws1.Cells(LastRow + 22, "D").Value = "3M PRIBOR"

        ws1.Cells(LastRow + 23, "E").Value = mc.Offset(5, col)
        ws1.Cells(LastRow + 23, "D").Value = "12M PRIBOR"

        ws1.Cells(LastRow + 24, "E").Value = mc.Offset(6, col)
        ws1.Cells(LastRow + 24, "D").Value = "10Y CZGB"

        ws1.Cells(LastRow + 25, "E").Value = ""
        ws1.Cells(LastRow + 25, "D").Value = "10Y CZK IRS"


    ActiveWorkbook.Close

    ws1.Activate
        ws1.Range(Cells(LastRow + 20, "E"), Cells(LastRow + 25, "E")).NumberFormat = "0.00"
        ws1.Range(Cells(LastRow, "C"), Cells(LastRow + 2, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow + 3, "C"), Cells(LastRow + 13, "C")).FormulaArray = "volumes"
        ws1.Range(Cells(LastRow + 14, "C"), Cells(LastRow + 16, "C")).FormulaArray = "bonds"
        ws1.Range(Cells(LastRow + 17, "C"), Cells(LastRow + 19, "C")).FormulaArray = "NII"
        ws1.Range(Cells(LastRow + 20, "C"), Cells(LastRow + 25, "C")).FormulaArray = "macro"
        ws1.Range(Cells(LastRow, "B"), Cells(LastRow + 25, "B")).FormulaArray = q & " " & y
        ws1.Range(Cells(LastRow, "A"), Cells(LastRow + 19, "A")).FormulaArray = "CS"
        ws1.Range(Cells(LastRow + 20, "A"), Cells(LastRow + 25, "A")).FormulaArray = "XNA"

    wb.Save

Exit Sub

Handler:
    MsgBox ("There is a problem with CS NII file.")

End Sub
Private Sub manual_inputs()
'rows for manual inputs
'client rates
    LastRow = ws1.Cells(ws1.Rows.Count, "A").End(xlUp).Offset(1).Row 'nalezení prvního volného řádku pro
```

```
vložení podle soupce A

    ws1.Cells(LastRow, "E").Value = ""
    ws1.Cells(LastRow, "D").Value = "mortgages"

    ws1.Cells(LastRow + 1, "E").Value = ""
    ws1.Cells(LastRow + 1, "D").Value = "consumer finance"

    ws1.Cells(LastRow + 2, "E").Value = ""
    ws1.Cells(LastRow + 2, "D").Value = "SME loans"

    ws1.Cells(LastRow + 3, "E").Value = ""
    ws1.Cells(LastRow + 3, "D").Value = "corporate loans"

    ws1.Cells(LastRow + 4, "E").Value = ""
    ws1.Cells(LastRow + 4, "D").Value = "client deposits"

    ws1.Cells(LastRow + 5, "E").Value = ""
    ws1.Cells(LastRow + 5, "D").Value = "leasing"

    ws1.Cells(LastRow + 6, "E").Value = ""
    ws1.Cells(LastRow + 6, "D").Value = "factoring"

    ws1.Cells(LastRow + 7, "E").Value = ""
    ws1.Cells(LastRow + 7, "D").Value = "building savings loans"

    ws1.Cells(LastRow + 8, "E").Value = ""
    ws1.Cells(LastRow + 8, "D").Value = "A bonds"

    ws1.Cells(LastRow + 9, "E").Value = ""
    ws1.Cells(LastRow + 9, "D").Value = "core LQ placements"

    ws1.Range(Cells(LastRow + 10, "E"), Cells(LastRow + 12, "E")).FormulaArray = ""
    ws1.Range(Cells(LastRow + 10, "D"), Cells(LastRow + 12, "D")).FormulaArray = "core LQ placements"


    ws1.Range(Cells(LastRow, "E"), Cells(LastRow + 9, "E")).NumberFormat = "0.00"
    ws1.Range(Cells(LastRow, "C"), Cells(LastRow + 9, "C")).FormulaArray = "client rates"
    ws1.Range(Cells(LastRow + 10, "C"), Cells(LastRow + 12, "C")).FormulaArray = "volumes"
    ws1.Range(Cells(LastRow, "B"), Cells(LastRow + 12, "B")).FormulaArray = q & " " & y
    ws1.Range(Cells(LastRow, "A"), Cells(LastRow + 9, "A")).FormulaArray = "XNA"
    ws1.Cells(LastRow + 10, "A") = "CSOB"
    ws1.Cells(LastRow + 11, "A") = "CS"
    ws1.Cells(LastRow + 12, "A") = "KB"

    wb.Save
End Sub
Private Sub action_color() 'Conditional formatting - color when cell is blank; sort by color - colored on top

Dim data_range As Range

    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")

    ws1.Activate
    last_row = Cells(1, Selection.Rows.Count).End(xlDown).Row 'nalezení posledního použitého řádku dle sloupce
A
    Set data_range = ws1.Range(Range("E2"), Cells(last_row, "E"))

    'delete existing conditional formatting from range and apply new one
        data_range.FormatConditions.Delete
        data_range.FormatConditions.Add Type:=xlExpression, Formula1:="=LEN(TRIM(E2))=0"
        data_range.FormatConditions(1).Interior.ThemeColor = xlThemeColorAccent4

    'sort by color
        ws1.Sort.SortFields.Clear
        ws1.Sort.SortFields.Add(data_range, xlSortOnCellColor, xlAscending).SortOnValue.ThemeColor =
xlThemeColorAccent4

            With ws1.Sort
                .SetRange Range(Range("A1"), Cells(last_row, "E"))
                .Header = xlYes
                .MatchCase = False
                .Orientation = xlTopToBottom
```

```vba
                    .SortMethod = xlPinYin
                    .Apply
                End With

End Sub
Sub copy_input()

Dim data_range As Range
Dim c As Range
Dim period_date As String

    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")
    Set ws2 = wb.Worksheets("dataset")

    q = ws1.Range("period").Value
    Edate = ws1.Range("Edate").Value
    y = Year(Edate) 'extract year
    period_date = q & " " & y

    ws1.Activate
    last_row = ws1.Cells(1, Selection.Rows.Count).End(xlDown).Row 'nalezení posledního použitého řádku dle
sloupce A
    Set data_range = ws1.Range(Range("A2"), Cells(last_row, "E"))

    ws2.Activate
    last_row2 = ws2.Cells(ws2.Rows.Count, "A").End(xlUp).Row 'nalezení posledního použitého řádku na listu
dataset podle sloupce A
    first_row = ws2.Cells(ws2.Rows.Count, "A").End(xlUp).Offset(1).Row

    'check for duplicity
    For Each c In ws2.Range("B2", Cells(last_row2, "B"))
        If c = period_date Then
            msg_duplicit
            Exit For
        Else

        End If
    Next

    ws2.Activate
    first_row = ws2.Cells(ws2.Rows.Count, "A").End(xlUp).Offset(1).Row
    data_range.FormatConditions.Delete
    data_range.Cut ws2.Cells(first_row, "A")

    ws1.Columns("F:F").Hidden = True

    'string for percentage comparison
    last_row2 = ws2.Cells(ws2.Rows.Count, "A").End(xlUp).Row
    Range("G2").Select
    Range("G2").FormulaR1C1 = "=CONCAT(RC[-6]:RC[-3])" 'zřetězení sloupců A až D (zapisovány jsou v absolutní
pozici -6, resp. -3 sloupců od G, kam se řetěz zapisuje)
    Selection.AutoFill Destination:=Range("G2", Cells(last_row2, "G")) 'řetěz od G2 po poslední využitý řádek

    update_pivot_table

End Sub
Private Sub comparison()
    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")
    Set ws2 = wb.Worksheets("dataset")

    ws1.Activate
    last_row = ws1.Cells(1, Selection.Rows.Count).End(xlDown).Row 'nalezení posledního použitého řádku dle
sloupce A

    Range("K2").Select
    Range("K2").FormulaR1C1 = "=CONCAT(RC[-10],R1C11,RC[-8],RC[-7])" 'zřetězení sloupců A až D, s tím, že místo
sloupce B je hodnota o rok zpět z K1
    Selection.AutoFill Destination:=Range("K2", Cells(last_row, "K")) 'řetěz od K2 po poslední využitý řádek

    ws1.Columns("F:F").Hidden = False

End Sub
```

```vba
Sub clear_all()
    Set wb = ThisWorkbook
    Set ws1 = wb.Worksheets("input")

    last_row = ws1.Cells(1, Selection.Rows.Count).End(xlDown).Row 'nalezení posledního použitého řádku dle
sloupce A
    Range("A2", Cells(1048576, "E")).Clear
    Range("A2", Cells(last_row, "E")).FormatConditions.Delete
    On Error Resume Next
    ws1.ShowAllData
    ws1.Columns("F:F").Hidden = True

End Sub
Private Sub msg_duplicit()
Dim quest As Integer

    quest = MsgBox("This period is already loaded. Do you want that data to be rewritten?", vbOKCancel)
            If quest = vbOK Then
                delete_period
            Else
                End
            End If
End Sub
Private Sub delete_period()

Dim period_date As String

    q = ws1.Range("period").Value
    Edate = ws1.Range("Edate").Value
    y = Year(Edate) 'extract year
    period_date = q & " " & y

    ws2.Activate
    last_row2 = ws2.Cells(ws2.Rows.Count, "A").End(xlUp).Row 'nalezení posledního použitého řádku na listu
dataset podle sloupce A

    For i = last_row2 To 2 Step -1

        If Range("B" & i).Value = period_date Then

            Range("B" & i).EntireRow.Delete shift:=xlUp
        End If
    Next i

End Sub
Private Sub update_pivot_table()

Dim start_point As Range
Dim data_range As Range
Dim new_range As String
Dim pt As PivotTable

    Set wb = ThisWorkbook
    Set ws2 = wb.Worksheets("dataset")

    ws2.Activate
    Set start_point = ws2.Range("A1")
    last_row = start_point.End(xlDown).Row
    Set data_range = ws2.Range(start_point, Cells(last_row, 5))
    new_range = ws2.Name & "!" & data_range.Address(ReferenceStyle:=xlR1C1)

    For Each Worksheet In wb.Worksheets
        For Each pt In Worksheet.PivotTables
            pt.ChangePivotCache wb.PivotCaches.Create(xlDatabase, new_range)
        Next pt
    Next Worksheet

MsgBox "All pivot tables have been updated."

End Sub
```