

Debt Swap Calculator - User Guide

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Overview of the Calculator Interface

The [Debt Swap Calculator](#) helps users analyze potential savings from conducting debt swaps. The tool assesses the financial impact of replacing one or multiple existing debt instruments with a new instrument under different terms, . The webpage is divided into the following two sections:

- 1 **Calculation Input Data** –enables entering terms of the existing and new debt and choose a discount rate.
- 2 **Results Dashboard** - displays savings tables, charts and export results into a spreadsheet.

Debt Swap Calculator

Analyze potential savings from conducting debt swaps

Results Dashboard

2

Calculate Results

Enter your data and click Calculate Results to see analysis

Calculation Input Data

1

Current Year: 2025

Existing Debt

Type	Maturity	Principal (m\$)	Repayment	Remaining Grace Period	Interest rate (% p.y.)	Prepayment fee / premium (%)	Pricing - only for bonds (%)
Loan	2029	100	Equal	0	5	0	—

+ Add Debt Instrument

New Debt

Final Maturity (year)

2035

Amount (m\$)

100.00

Auto-calculated from existing debt

Repayment Profile

Equal installments

Interest rate (% p.y.)

5

Discount Factor

Fixed

Yield Curve

Fixed Discount Factor (%)

5

1 Inputs

The following inputs are required for the tool.

Calculation Input Data

Current Year: 2025

Existing Debt

Type	Maturity	Principal (m\$)	Repayment	Remaining Grace Period	Interest rate (% p.y.)	Prepayment fee / premium (%)	Pricing - only for bonds (%)
Loan	2029	100	Equal	0	5	0	—
Loan	2030	30	Equal	3	3	0	—
Loan	2029	60	Maturity	—	4	0	—
Bond	2040	150	Last 3 years	—	8	0	80

+ Add Debt Instrument

New Debt

Final Maturity (year)

2035

Amount (m\$)

310.00

Auto-calculated from existing debt

Repayment Profile

Equal installments

Interest rate (% p.y.)

5

Grace period

5

Upfront Fees (m\$)

5

Discount Factor

☒ Fixed
 ☐ Yield Curve

Fixed Discount Factor (%)

5

A Existing Debt – Enter one or more instruments (loan or bond) to be repurchased. For each, user has to provide:

Field	What to enter
Instrument type	<i>Bond or Loan</i>
Maturity	Final calendar-year maturity
Principal amount	Outstanding principal (million USD)
Repayment profile	<i>Equal instalments</i> (equal principal payments after grace period), <i>At maturity</i> (one principal payment at maturity), or <i>Last 3 years</i> (three equal principal payments on the last 3 years)

Remaining grace period	Remaining years of grace period (i.e., no principal payment)
Interest rate	Fixed annual rate (%). <i>Convert floating rates into fixed-equivalent</i>
Pre-payment fee / premium	Up-front fee or buy-back premium over prevailing market price (%)
Pricing	Used for bonds only(%).
Add / remove instrument	Use + to add Debt Instrument or × to remove them.

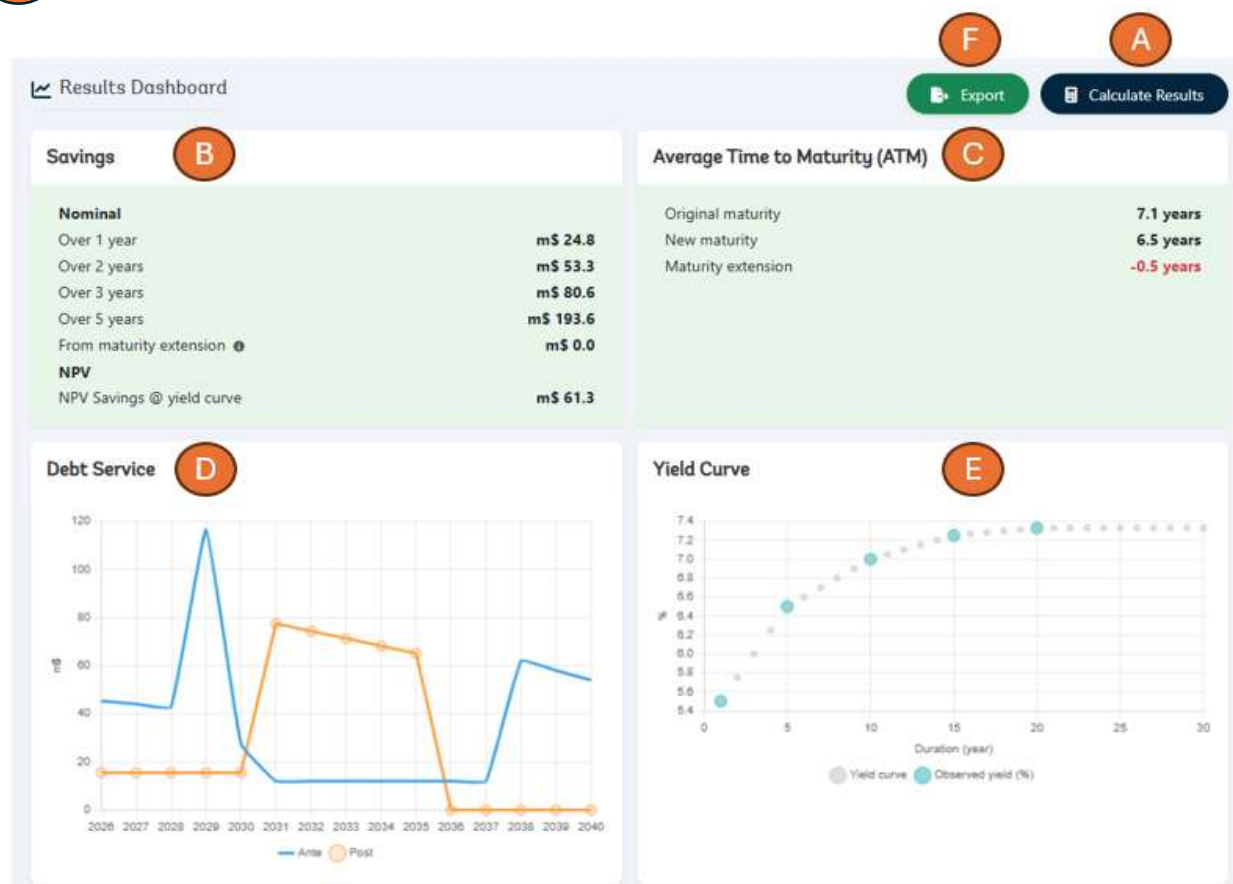
B New Debt – Define the new instrument that will fund the buy-back.

Field	What to enter
Maturity	Final calendar-year maturity
Repayment profile	<i>Equal installments, At maturity or Last 3 years.</i>
Grace period	Remaining years of grace period (i.e., no principal payment)
Amount	Auto-calculated based on swap funding needs (million USD)
Interest rate	Fixed annual rate (%). Convert floating rates to fixed-equivalent first.
Up-front fees	Total fees paid up front (million USD). This can include fees for arrangement, guarantee, syndication, etc.

C Discount factor – Choose the basis for present-value calculations:

- **Fixed rate** – enter a single discount rate (default = 5 %).
- **Yield curve** – enter up to five observable bonds terms (maturity year and current yield %) to build a country-specific curve.

D Current Year – This field is filled automatically using the calendar year.



A

Calculate Results - Pressing this button computes savings and populates the Results Dashboard.

B

Savings - Calculated savings on different horizons in m\$. Nominal savings are shown over 1- to 5-year horizons. Additionally, implicit interest savings from maturity extension are also shown, using the selected discount factor as marginal interest rate. NPV Savings are calculated based on selected discount rate. Negative values (negative savings) are shown in red.

C

Average Time to Maturity - Maturity calculations in years. Original portfolio's maturity and new instrument's maturity are both displayed, followed by calculation of maturity extension. Negative value (shortening of maturity) is shown in red.

D

Debt service - This chart shows the annual debt service before (orange) and after (blue) the debt swap.

- E** **Yield curve** - If the yield-curve method is chosen as discount rate, it displays a chart of the fitted curve. This yield curve is estimated using the linear-logarithmic regression as following:

$$y_i = \beta_0 + \beta_1 * \ln(d_i)$$

where y_i denotes the yield and d_i denotes the duration of each instrument i . The curve represents best fit to equation above.

- F** **Export** - Results can be exported into spreadsheet using the 'Export' button.
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Tips & Support

Tips: Additional guidance in using selected fields when hovered over 

Additional questions or need more information?

Please contact:

- Diego Rivetti – drivetti@worldbank.org
- David Mihalyi – dmihalyi@worldbank.org