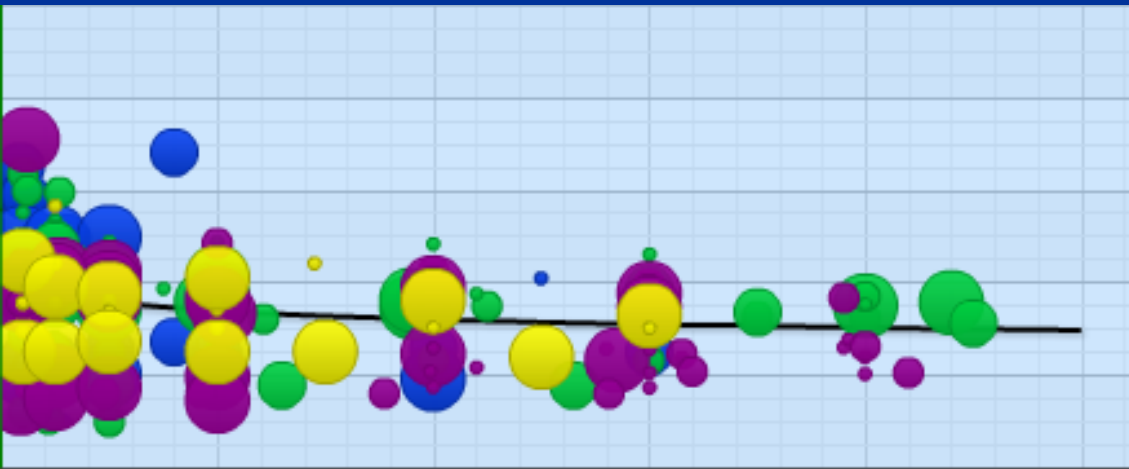


Defining True Price

Chuck Waterfield
Africa Pricing Transparency
Leadership Forum
Nairobi
June 2013



Income (Price)

What price DO we charge?

What is a “transparent price”?

How should we DEFINE price?





FREE

WI-FI

GREAT

BEER

GREAT SERVICE

ALL DAY

WAXYS.DE

**How did we end up with such
non-transparent pricing?**

The Downward Spiral

1. How did prices get so confusing and non-transparent?
2. It is a combination of:
 - Lack of transparent pricing regulation
 - Initial motivation of a small minority to mask the true price
3. The result is a downward spiral drawing in nearly all MFIs

The Downward Spiral

1. All MFIs have transparent prices

1. MFI 1:

- Interest: 2.5% decl.

2. MFI 2:

- Interest: 3.0% decl.

The Downward Spiral

1. All MFIs have transparent prices
2. **Some MFIs shift to flat interest**

1. MFI 1:
 - Interest: 2.5% decl.
2. MFI 2:
 - Interest: **2.0% flat**

The Downward Spiral

1. All MFIs have transparent prices
2. Some MFIs shift to flat interest
3. **All MFIs shift to non-transparent pricing**

1. MFI 1:
 - Interest: **1.75% flat**
2. MFI 2:
 - Interest: 2.0% flat

The Downward Spiral

1. All MFIs have transparent prices
2. Some MFIs shift to flat interest
3. **All MFIs shift to non-transparent pricing.. And it continues**

1. MFI 1:
 - Interest: 1.75% flat
2. MFI 2:
 - Interest: **1.6% flat, 2% upfront fee**

The Downward Spiral

1. All MFIs have transparent prices
2. Some MFIs shift to flat interest
3. All MFIs shift to non-transparent pricing
4. **Consumers struggle to choose.... Which would YOU choose?**

1. MFI 1:
 - Interest: 1.75% flat
2. MFI 2:
 - Interest: 1.6% flat, 2% upfront fee

The Downward Spiral

1. All MFIs have transparent prices
2. Some MFIs shift to flat interest
3. All MFIs shift to non-transparent pricing
4. **Consumers struggle to choose... Because the prices are far from clear**

1. MFI 1:
 - Interest: 1.75% flat
 - **APR: 37%**
2. MFI 2:
 - Interest: 1.6% flat, 2% upfront fee
 - **APR: 57%**

The Downward Spiral

1. All MFIs have transparent prices
2. Some MFIs shift to flat interest
3. All MFIs shift to non-transparent pricing
4. Consumers struggle to choose
5. **Profits are correlated to price when loans are identical**

1. MFI 1:
 - Interest: 1.75% flat
 - APR: 37%
 - **ROE: 10%**
2. MFI 2:
 - Interest: 1.6% flat, 2% upfront fee
 - APR: 57%
 - **ROE: 40%**

The Downward Spiral

1. Prices are far from clear, and thus:
 - Consumers over-consume
 - Market competition is hindered
 - Strong temptation from high profits
 - The poor are harmed
 - Public image is tarnished
 - Governments urged to intervene
2. Transparency, and particularly pricing transparency, is a key element to correct this serious problem in the microfinance industry

How should we define a “Transparent Price”?

Total Cost of Credit (TCC)?

Annual Percentage Rate (APR)?

Effective Interest Rate (EIR)?

(And can't we just keep using portfolio yield as
a proxy for price? We've been doing that for
years!)

Total Cost of Credit

“Isn’t Total Cost of Credit sufficient? It’s what clients ask for. They don’t understand abstract percentages!”

Which would you buy?



Which would you buy?



1 liter



3 liters

Prices of loans are much harder....

We aren't *buying* an item, we are *renting* money, and we are renting a variable amount of money for a variable amount of time.


Which would you buy?

Example 1

| | Loan 1 | Loan 2 |
|-------------------|-----------|-----------|
| Amount | \$1,000 | \$1,000 |
| Term | 12 months | 12 months |
| Total Cost | \$130 | \$119 |

Which would you buy?

Example 1

| | Loan 1 | Loan 2 |
|-------------------|-----------|--|
| Amount | \$1,000 | \$1,000 |
| Term | 12 months | 12 months |
| Total Cost | \$130 | \$119 |
| APR | 24% | 22%  |

Which would you buy?

Example 2

| | Loan 1 | Loan 2 |
|-------------------|-----------|-----------|
| Amount | \$1,000 | \$1,500 |
| Term | 12 months | 18 months |
| Total Cost | \$179 | \$333 |

Which would you buy?

Example 2

| | Loan 1 | Loan 2 |
|-------------------|------------|---|
| Amount | \$1,000 | \$1,500 |
| Term | 12 months | 18 months |
| Total Cost | \$179 | \$333 |
| APR | 33% | 28%  |


Now which?

Example 3

| | Loan 1 | Loan 2 |
|---------------------------|----------|-----------|
| Amount | \$2,000 | \$3,000 |
| Term | 6 months | 12 months |
| Compulsory Savings | 10% | 0% |
| Total Cost | \$245 | \$568 |

Now which?

Example 3

| | Loan 1 | Loan 2 |
|---------------------------|------------|--|
| Amount | \$2,000 | \$3,000 |
| Term | 6 months | 12 months |
| Compulsory Savings | 10% | 0% |
| Total Cost | \$245 | \$568 |
| APR | 50% | 35%  |

“Should we use TCC with clients?”

(Total Cost of Credit)

- **No!! TCC only works for exactly identical products**
 - TCC is flawed even for products that seem very similar.
 - TCC is deceptive for comparing dissimilar products
- **Why?**
 - A client doesn't *buy* a loan.
 - A client *rents* a variable amount of money for a variable amount of time.
 - We shouldn't use a “purchase price”, we need to use a “rental price”

What is the APR?

(Annual Percentage Rate)

The APR indicates the cost for you to borrow \$1.00 for one year. *It is a unit rental cost.*

An APR of 30% means it would cost you 30 cents to borrow \$1.00 and keep the entire \$1.00 for one full year.

The APR is an essential figure for you to compare the true cost of different loans.

“What costs should we include?”

- **Interest:** Certainly!
- What else? Everything that is a compulsory requirement for receiving the loan.
- **Fees:** Any compulsory fees must be included
 - **Training** fees? Yes, if the training is a requirement for the loan. The full-price is then for “credit-plus-training”
 - **Insurance** fees? Yes, if insurance is a requirement. The client can then compare: “Loan-only for 34% APR, loan-and-insurance for 38% APR”
 - **Compulsory Deposits** (“Savings”): Yes! We’ll see later.

**You can use our MFT Pricing
Calculator to deepen your
understanding and to calculate actual
prices of loans**

MFT Pricing Calculation Tool – Basic Analysis

Calculation of APR based on Loan Conditions and Pricing -- SIMPLE APPROACH

Basic Loan Conditions

| | | |
|--------------------|---------|--------|
| Loan Amount: | \$1,000 | |
| Term & Repay Freq. | 12 | Months |

Loan Pricing

| Inputs | Incremental Cost | APR | Factor |
|------------------------------|------------------|-------|--------|
| Interest Method | Flat | | |
| Annual Interest Rate (%) | 24.0% | 41.7% | 1.7 |
| Up-front Fee (%) | 2.0% | 45.8% | 1.9 |
| Value-Added Tax (%) | 0.0% | 45.8% | 1.9 |
| Security Deposit (%) | 0.0% | 45.8% | 1.9 |
| Interest Paid on Deposit (%) | | | |

Total Financial Cost to the Client

| | | |
|---------------------------------|-------|-----------------------------|
| Total Cost (less Sec.Dep. int): | \$260 | in 12 Months |
| Annualized | \$260 | in 1 year |
| Avg net loan balance: | \$522 | 52% of original loan amount |

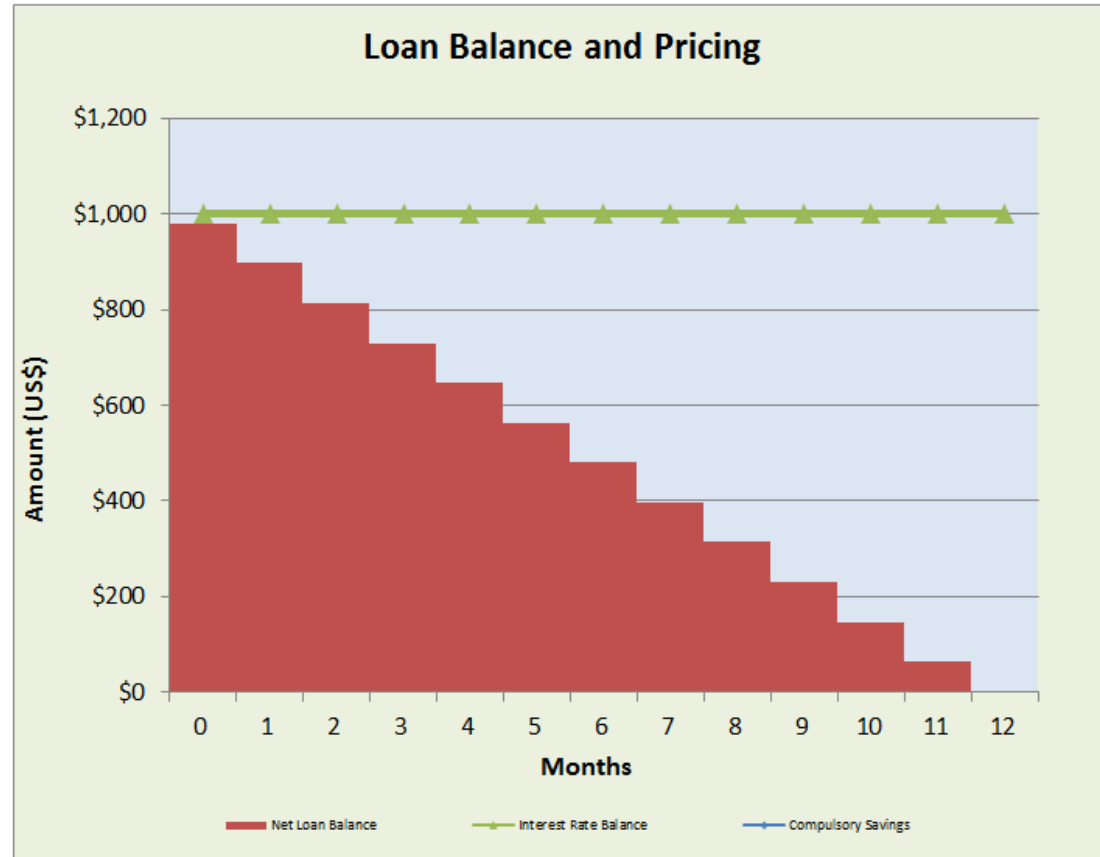
This is the amount the client has to invest in her business

Client Breakeven Point: 24.1 Months

The month when the total loan cost equals the avg loan balance

Amount of Time with Negative Net Balance

| | |
|-----------------|----|
| Months: | 0 |
| % of loan term: | 0% |



MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing

 Display EIR values

Basic Loan Conditions

Amortization:

Equal principal payments

MPR threshold

 Loan Amount: **\$1,000**

Interest:

Multiple installments

6

Term & Repay Freq.

12

Months

Days/per (t):

30

Capital

Int Pmt

Int Calc

Balloon

Per/Mon (m)

1.00

Grace or Prepay (Months)

Per/Yr (n):

12.00

Loan Pricing

Nominal interest Rate (%)

24.00%

Per year

Nominal Annual & Method

24.00%

Initial amount, or "flat"

Period
MPR (nom)
APR (nom)
EIR (comp)
i
i * *m*
i * *n*
 $(1+i)^n - 1$

3.475%

3.48%
41.70%
50.57%
Upfront
Ongoing
Increment

Fee (%)

1.00%
2.1%

3.646%

3.65%
43.76%
53.58%

Fee (fixed amount)

0.0%

3.646%

3.65%
43.76%
53.58%

Insurance (%)

0.0%

3.646%

3.65%
43.76%
53.58%

Insurance (fixed amount)

0.0%

3.646%

3.65%
43.76%
53.58%

Value-Added Tax (%)

On Fees:

0.0%

3.646%

3.65%
43.76%
53.58%

On Interest:

8.5%

4.358%

4.36%
52.30%
66.69%

Security Deposit (%)

10.0%
8.5%

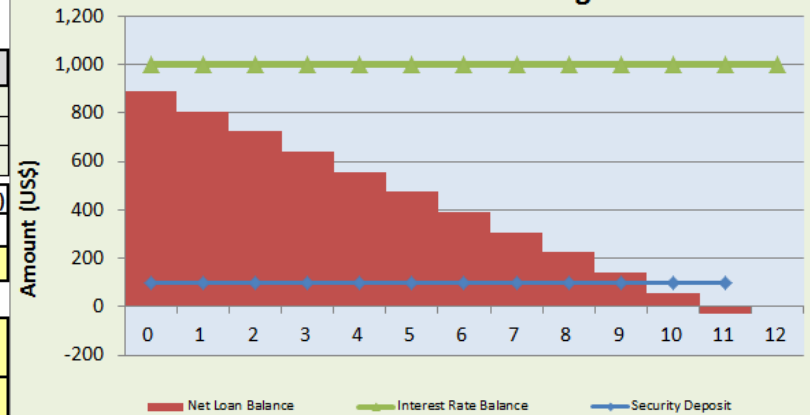
4.358%

4.36%
52.30%
66.69%

Security Deposit (fixed)

Interest Paid on Deposit (%)

Loan Balance and Pricing



Total Financial Cost to the Client

Transparency Index

46

Total Cost (less Sec.Dep. int):

\$250

in 12 Months, or

\$250

in 1 year

Avg net loan balance:

\$432

which is 43% of original loan amount

Client Breakeven Point:

1.73

Years until total loan cost equals the avg loan balance

Negative Net Balance for:

2

Months, which is....

17%

% of loan term

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| | Period | MPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|-----------|-----------|-----------------|
| | i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| | 3.475% | 3.48% | 41.70% | 50.57% |
| | Upfront | Ongoing | Increment | |
| Fee (%) | 1.00% | | 2.1% | 3.646% |
| Fee (fixed amount) | | | | 3.65% |
| Insurance (%) | | | 0.0% | 43.76% |
| Insurance (fixed amount) | | | | 53.58% |
| Value-Added Tax (%) | On Fees: | | 0.0% | 3.646% |
| | On Interest: | | | 3.65% |
| Security Deposit (%) | 10.0% | | 8.5% | 43.76% |
| Security Deposit (fixed) | | | | 53.58% |
| Interest Paid on Deposit (%) | | | | 4.358% |
| | | | | 4.36% |
| | | | | 52.30% |
| | | | | 66.69% |

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| Period | MPR (nom) | APR (nom) | EIR (comp) |
|--------|-----------|-----------|-----------------|
| i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| 3.475% | 3.48% | 41.70% | 50.57% |
| | 3.65% | 43.76% | 53.58% |
| | 3.65% | 43.76% | 53.58% |
| | 3.65% | 43.76% | 53.58% |
| | 4.36% | 52.30% | 66.69% |

Unfront Ongoing Increment

Fee (fixed)
 Insurance (fixed)
 Value-Added
 Security Depos
 Security Depos
 Interest Paid on Dep

All the standardized prices – MPR, APR, and EIR – are derived from the same process:

- Determine the “discount rate” (i) for the period
- Convert to an annual (or monthly) figure

Even Interest can be complicated

1. Declining Balance

- Do grace periods affect price?

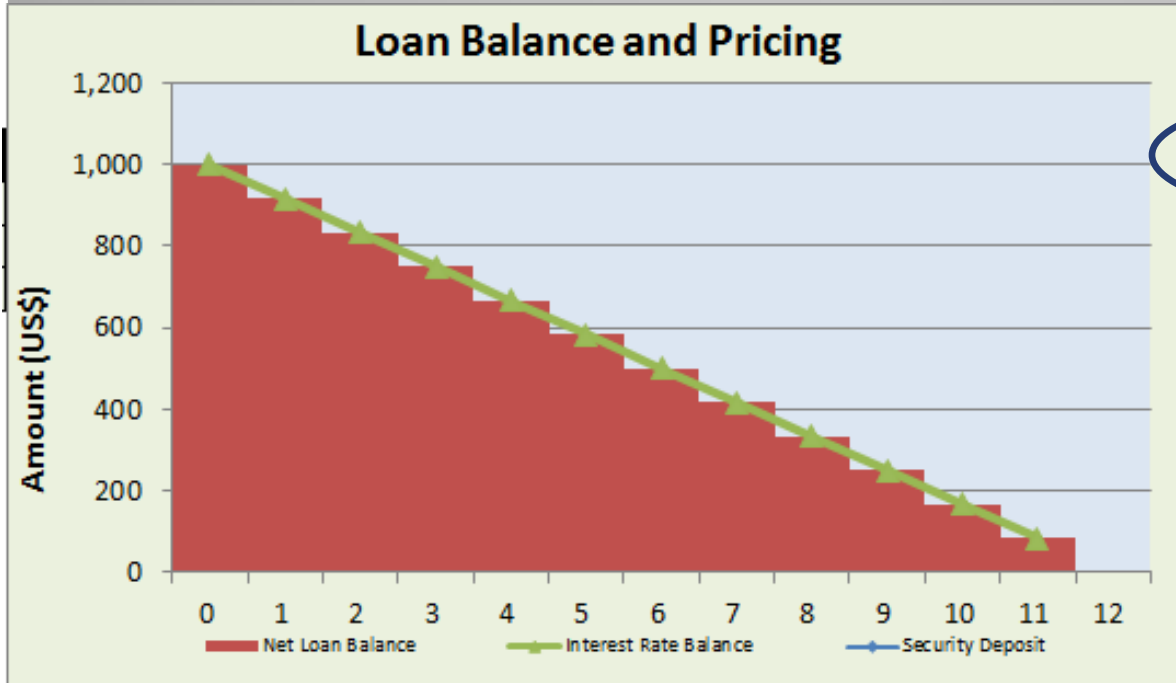
2. Flat Interest

- Do grace periods affect price?

3. Up-front Interest

- Does the timing of when interest is paid affect price?

Declining Balance, no grace

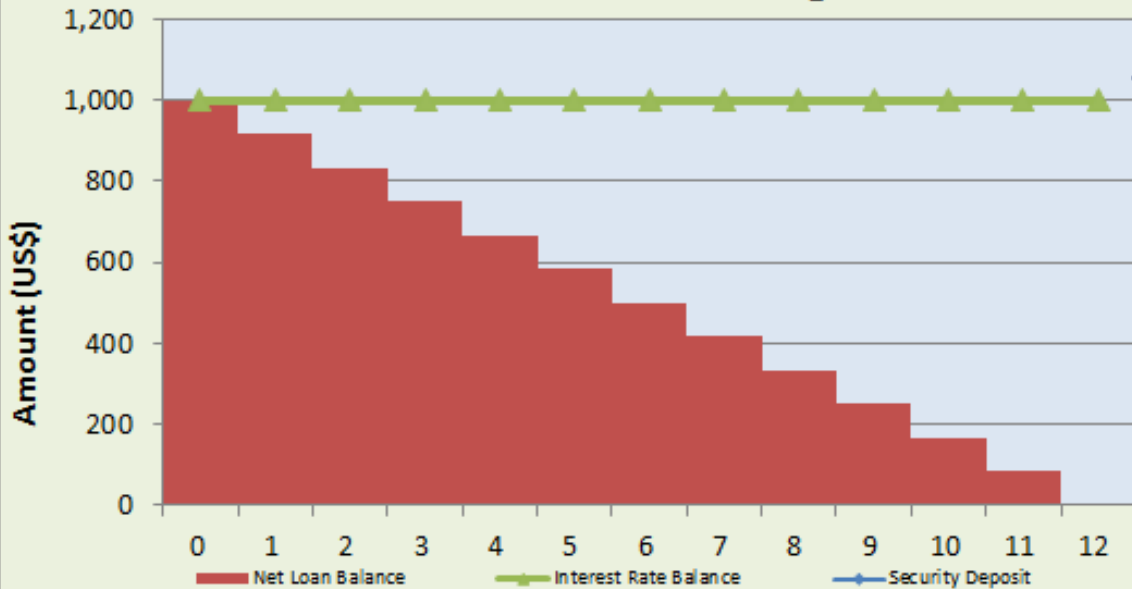


| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | 12.00% | + Insurance |
| upfront | 12.00% | + Taxes |
| ongoing | 12.00% | + Security Deposit |

| Total Financial Cost to the Client | | Transparency Index | 100 |
|------------------------------------|-------|--------------------------------------|----------------|
| Total Cost (less Sec. Dep. int): | \$65 | in 2 Months, or | \$65 in 1 year |
| Avg net loan balance: | \$542 | which is 54% of original loan amount | |

Flat Interest, no grace

Loan Balance and Pricing



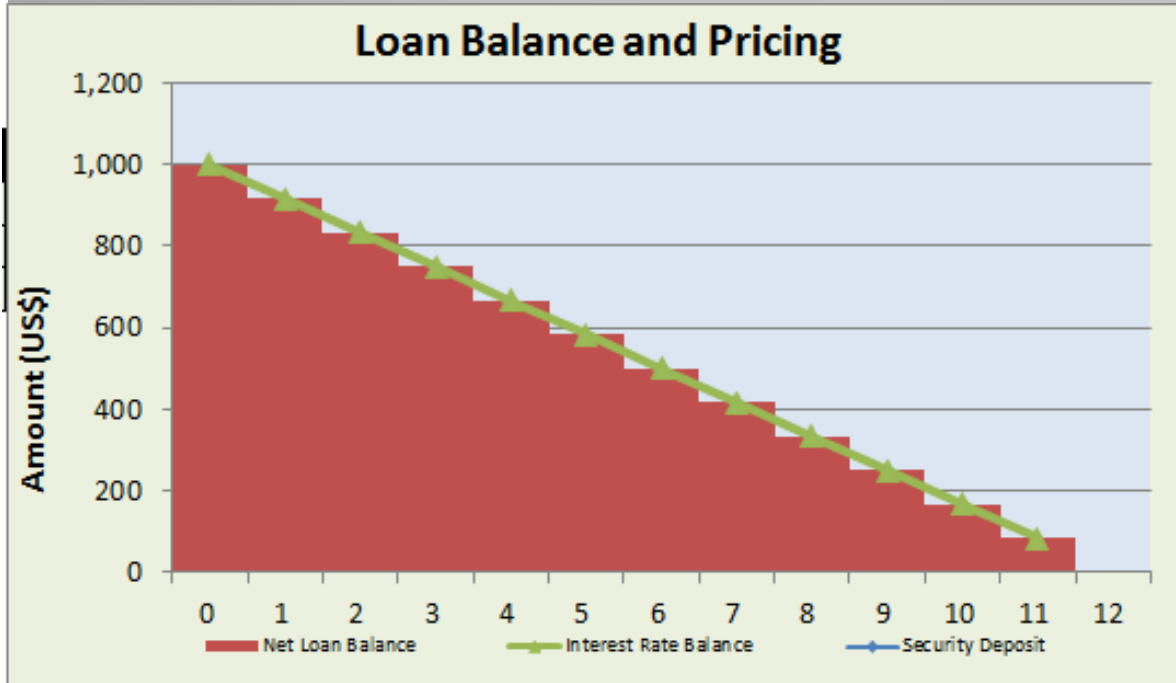
| | APR | |
|-------------|---------------|--------------------|
| 12.0% Flat | 21.46% | Interest |
| upfront | 21.46% | + Fees |
| ongoing | | |
| upfront | 21.46% | + Insurance |
| ongoing | | |
| on fees | 21.46% | + Taxes |
| on interest | | |
| upfront | 21.46% | + Security Deposit |
| ongoing | | |

~~Total Financial Cost to the Client~~

Transparency Index **56**

Total Cost (less Sec. Dep. int): **\$120** in 12 Months, or **\$120** in 1 year
 Avg net loan balance: **\$542** which is 54% of original loan amount

Declining Interest, no grace

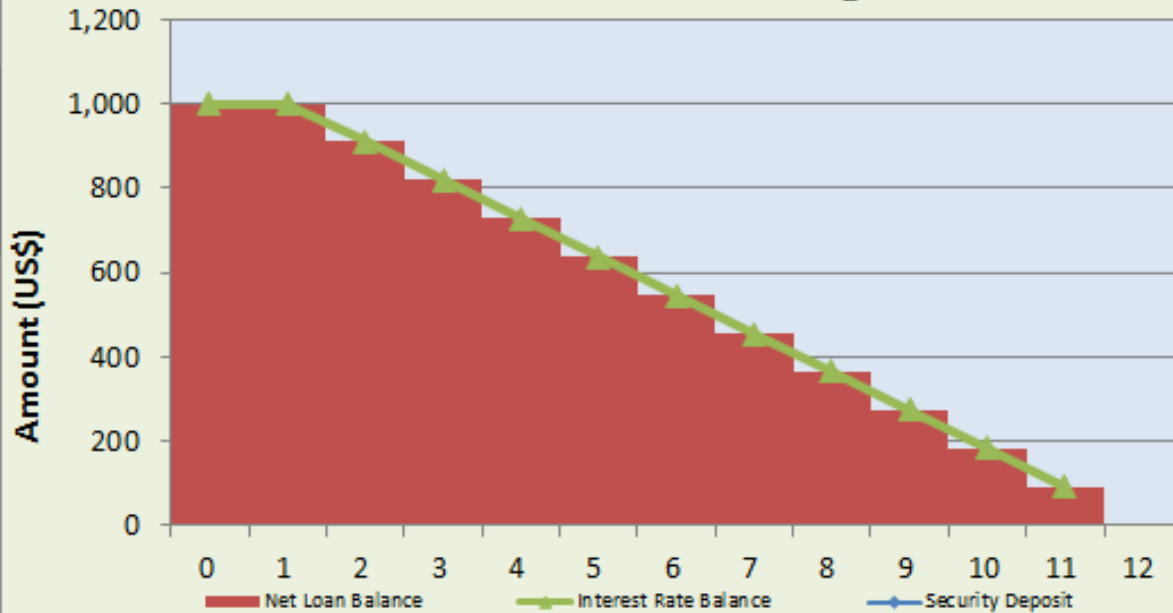


| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | | |
| upfront | 12.00% | + Insurance |
| ongoing | | |
| on fees | 12.00% | + Taxes |
| on interest | | |
| upfront | 12.00% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec. Dep. int): | \$65 | in 12 Months, or \$65 in 1 year |
| Avg net loan balance: | \$542 | which is 54% of original loan amount |

Declining Interest, 1 month grace

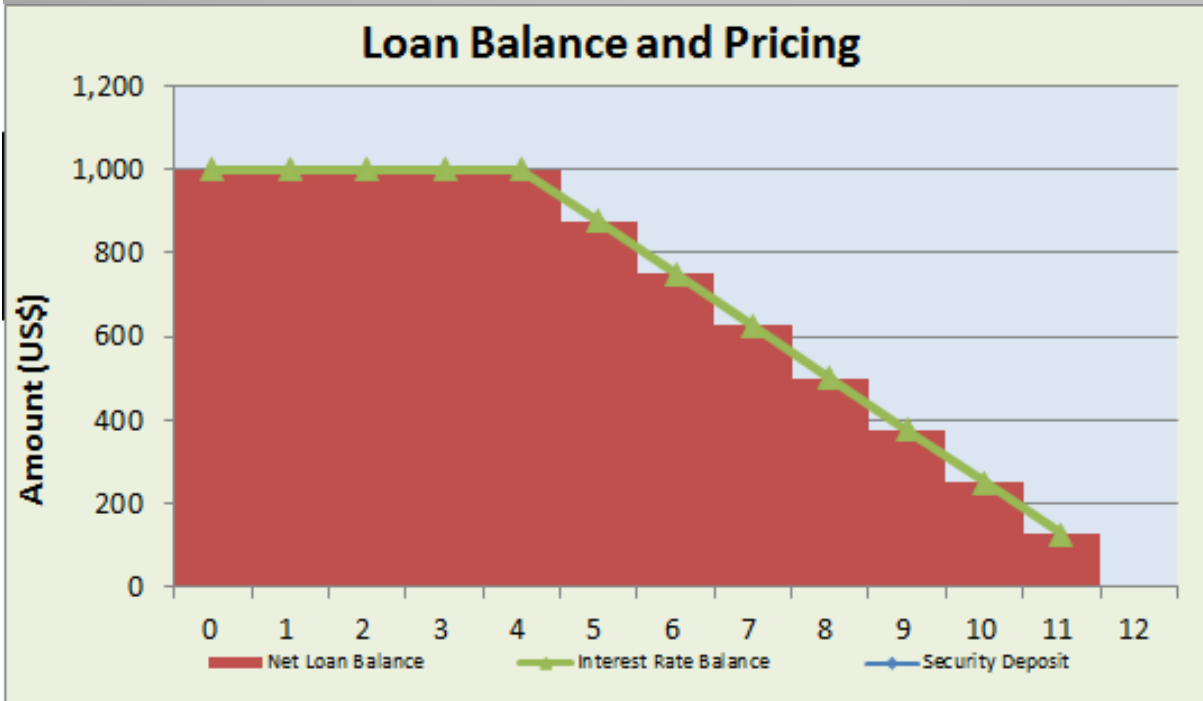
Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | | |
| upfront | 12.00% | + Insurance |
| ongoing | | |
| on fees | 12.00% | + Taxes |
| on interest | | |
| upfront | 12.00% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec. Dep. amt): | \$70 | in 12 Months, or \$70 in 1 year |
| Avg net loan balance: | \$584 | which is 58% of original loan amount |

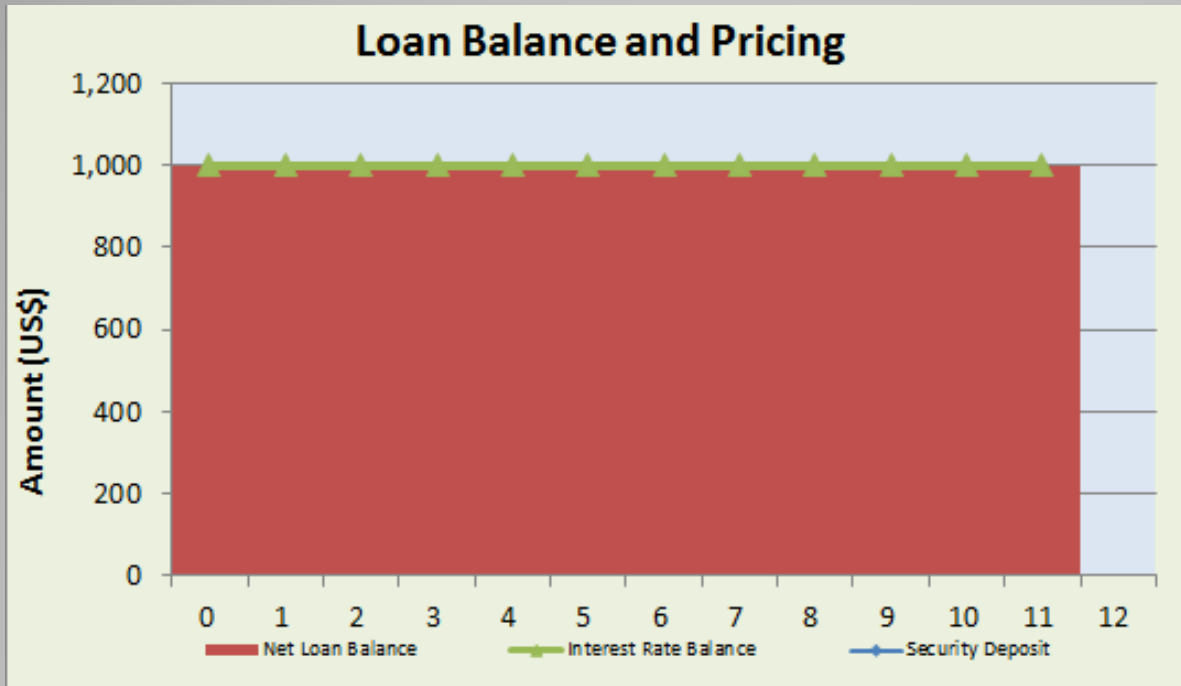
Declining Interest, 4 months grace



| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | | |
| upfront | 12.00% | + Insurance |
| ongoing | | |
| on fees | 12.00% | + Taxes |
| on interest | | |
| upfront | 12.00% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|--------------------------------------|
| Total Cost (less Sec. Dep. int): | \$85 | in 12 Months, or \$85 in 1 year |
| Avg net loan balance: | \$709 | which is 71% of original loan amount |

Declining Interest, 11 months grace

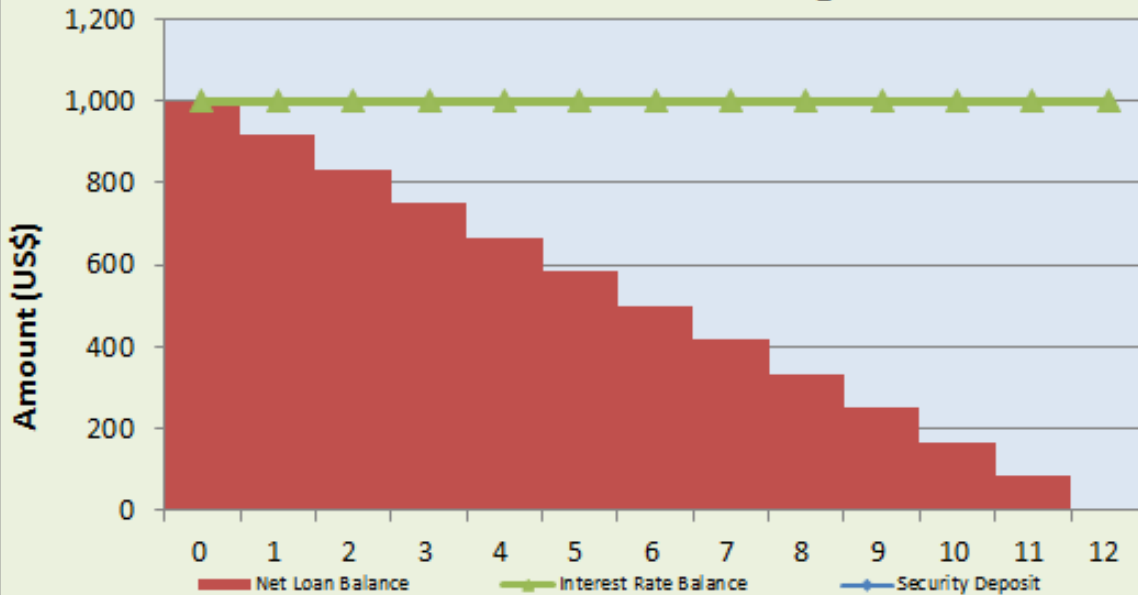


| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | 12.00% | + Insurance |
| upfront | 12.00% | + Taxes |
| ongoing | 12.00% | + Security Deposit |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|---|-----------------|
| Total Cost (less Sec. Dep. int): | \$120 in 12 Months, or | \$120 in 1 year |
| Avg net loan balance: | \$1,000 which is 100% of original loan amount | |

Flat Interest no grace

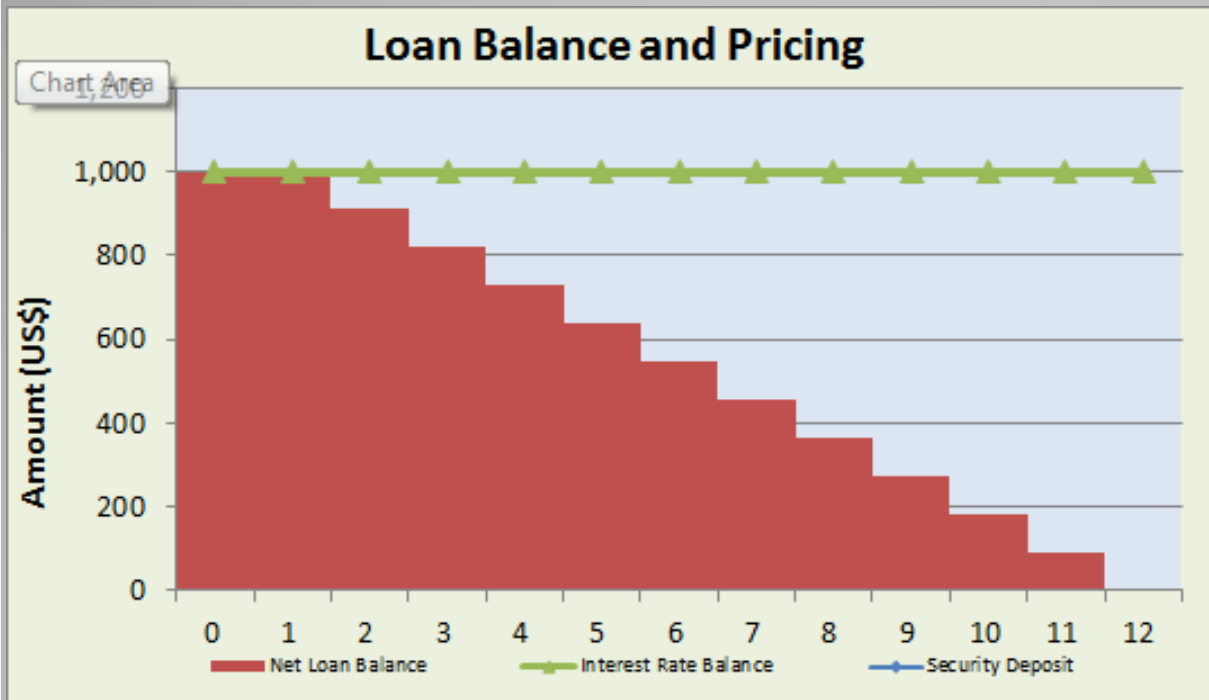
Loan Balance and Pricing



| | APR | |
|-------------|---------------|--------------------|
| 12.0% Flat | 21.46% | Interest |
| upfront | 21.46% | + Fees |
| ongoing | | |
| upfront | 21.46% | + Insurance |
| ongoing | | |
| on fees | 21.46% | + Taxes |
| on interest | | |
| upfront | 21.46% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 56 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec. Dep. int): | \$120 | in 12 Months, or \$120 in 1 year |
| Avg net loan balance: | \$542 | which is 54% of original loan amount |

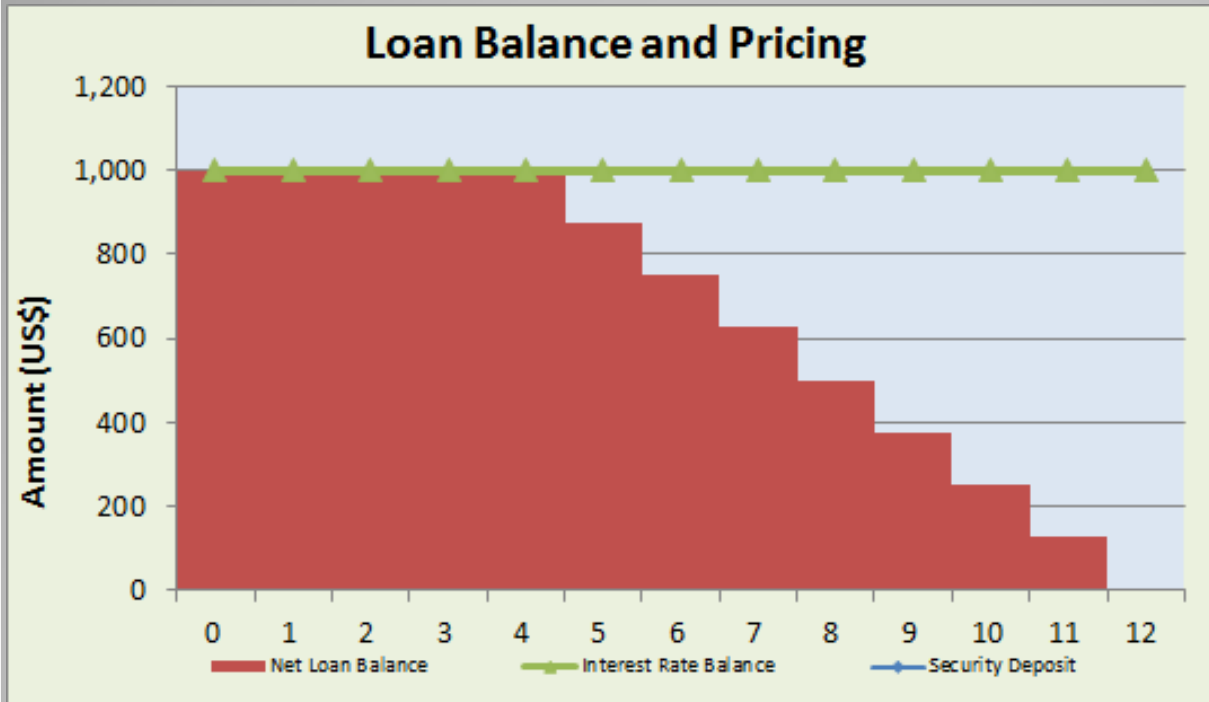
Flat Interest, 1 month grace



| | APR | |
|-------------|---------------|--------------------|
| 12.0% Flat | 19.98% | Interest |
| upfront | 19.98% | + Fees |
| ongoing | | |
| upfront | 19.98% | + Insurance |
| ongoing | | |
| on fees | 19.98% | + Taxes |
| on interest | | |
| upfront | 19.98% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 60 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec. Dep. int): | \$120 | in 12 Months, or \$120 in 1 year |
| Avg net loan balance: | \$584 | which is 58% of original loan amount |

Flat Interest, 4 months grace

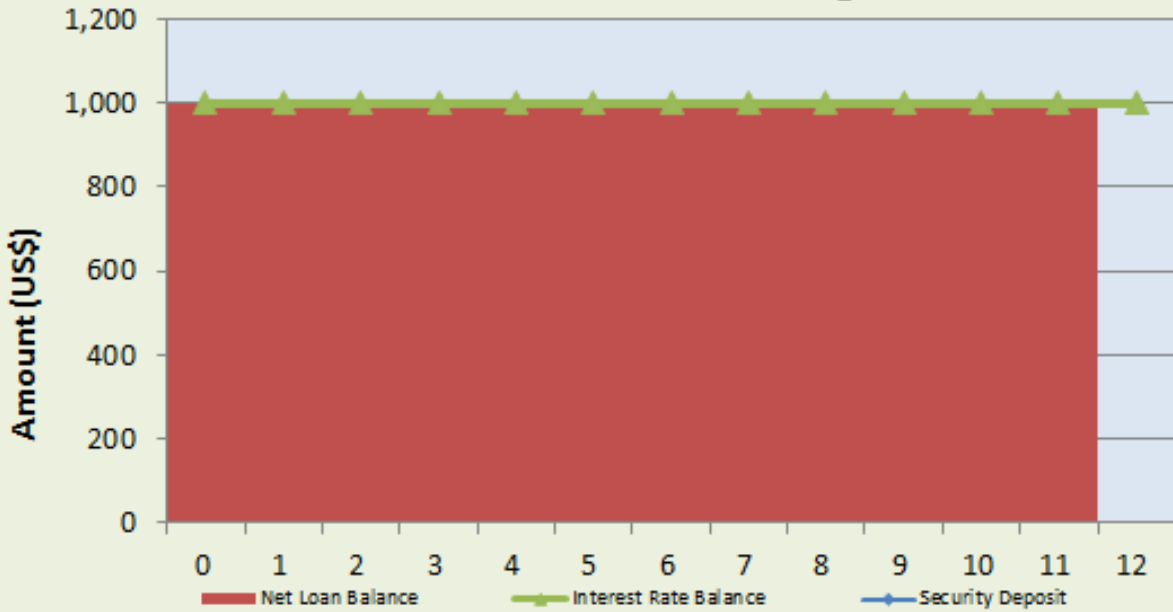


| | APR | |
|------------|---------------|--------------------|
| 12.0% Flat | 16.61% | Interest |
| upfront | 16.61% | + Fees |
| ongoing | 16.61% | + Insurance |
| upfront | 16.61% | + Taxes |
| ongoing | 16.61% | + Security Deposit |

| Total Financial Cost to the Client | Transparency Index | 72 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec. Dep. int): | \$120 | in 12 Months, or \$120 in 1 year |
| Avg net loan balance: | \$709 | which is 71% of original loan amount |

Flat Interest, 11 months grace

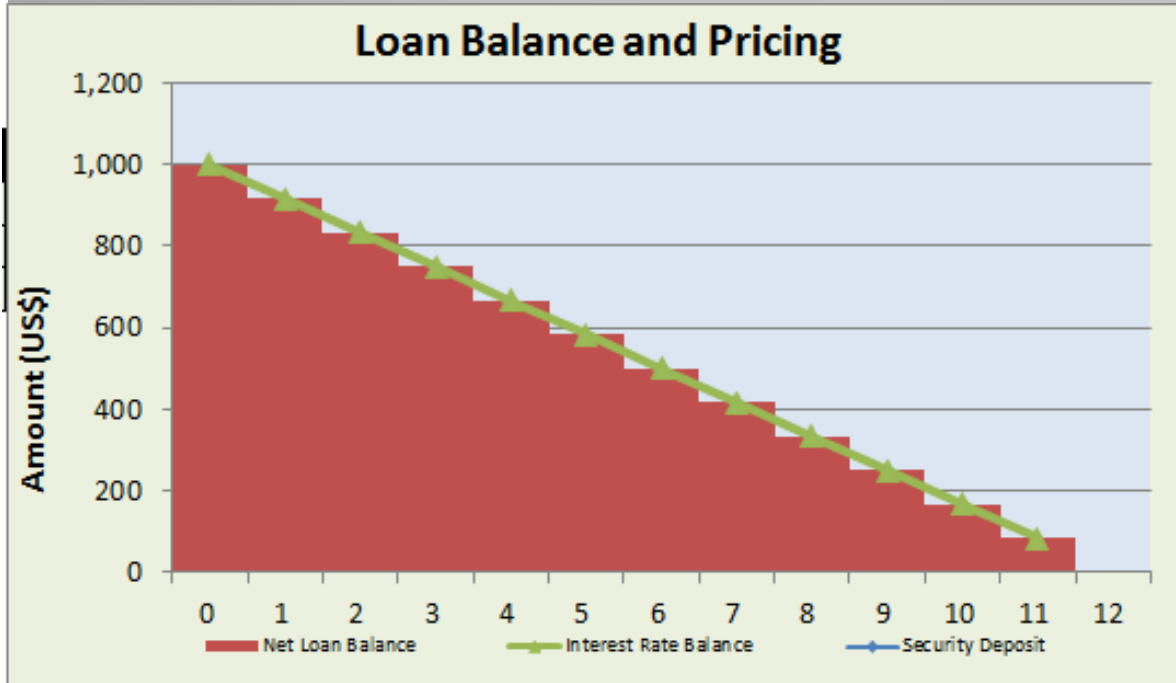
Loan Balance and Pricing



| | APR | |
|------------|---------------|--------------------|
| 12.0% Flat | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | 12.00% | + Insurance |
| upfront | 12.00% | + Taxes |
| ongoing | 12.00% | + Security Deposit |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec. Dep. int): | \$120 | in 12 Months, or \$120 in 1 year |
| Avg net loan balance: | \$1,000 | which is 100% of original loan amount |

Declining Interest, paid monthly

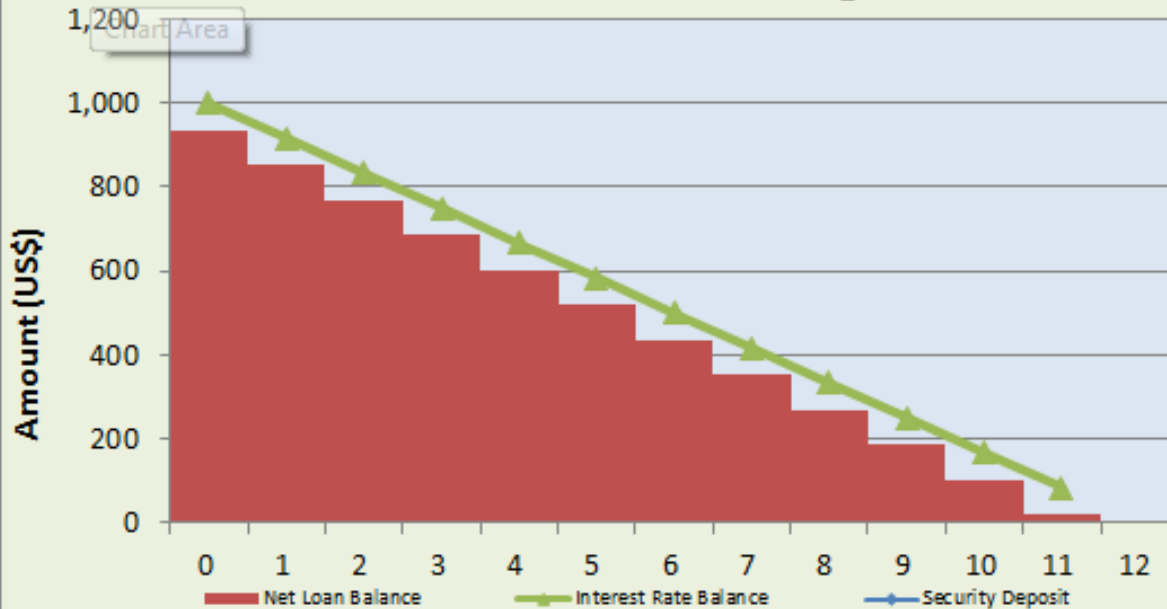


| | APR | |
|-----------------|--------|--------------------|
| 12.0% Declining | 12.00% | Interest |
| upfront | 12.00% | + Fees |
| ongoing | | |
| upfront | 12.00% | + Insurance |
| ongoing | | |
| on fees | 12.00% | + Taxes |
| on interest | | |
| upfront | 12.00% | + Security Deposit |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec. Dep. int): | \$65 | in 12 Months, or \$65 in 1 year |
| Avg net loan balance: | \$542 | which is 54% of original loan amount |

12% declining, paid up-front

Loan Balance and Pricing



| | APR | |
|----------------|---------------|--------------------|
| 0.0% Declining | 0.00% | Interest |
| 65.0 upfront | 12.59% | + Fees |
| ongoing | | |
| upfront | 12.59% | + Insurance |
| ongoing | | |
| on fees | 12.59% | + Taxes |
| on interest | | |
| upfront | 12.59% | + Security Deposit |
| ongoing | | |

Total Financial Cost to the Client

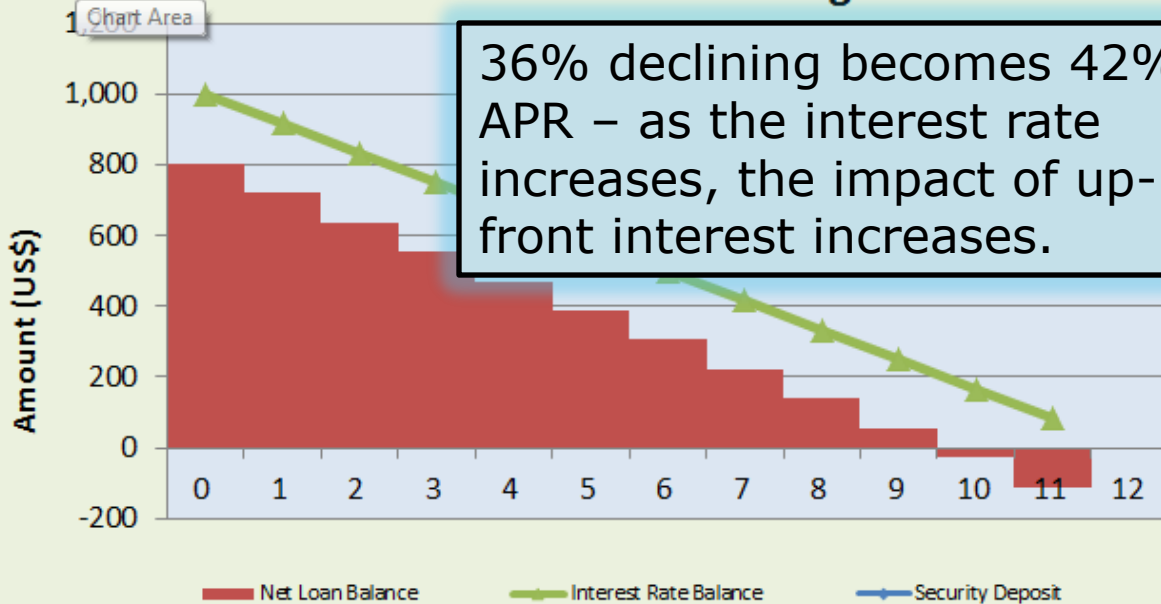
Transparency Index

0

Total Cost (less Sec. Dep. int): **\$65** in 12 Months, or **\$65** in 1 year
 Avg net loan balance: **\$477** which is 48% of original loan amount

36% declining, paid up-front

Loan Balance and Pricing



| | APR | |
|----------------|------------------|--------------------|
| 0.0% Declining | 0.00% | Interest |
| 195.0 upfront | 42.07% | + Fees |
| ongoing | | |
| upfront | 42.07% | + Insurance |
| ongoing | | |
| on fees | 42.07% | + Taxes |
| on interest | | |
| upfront | 42.07% | + Security Deposit |
| ongoing | | |

Total Financial Cost to the Client

Transparency Index

0

Total Cost (less Sec.Dep. int):

\$195

in 12 Months, or

\$195

in 1 year

Avg net loan balance:

\$347

which is 35% of original loan amount

Now for another quiz....
Same loan amounts, same term
and...
same interest rate, no fees

(should be easy, right?)

Which loan would you pick?

Upfront interest can dramatically increase the cost because client has *less* money for less time

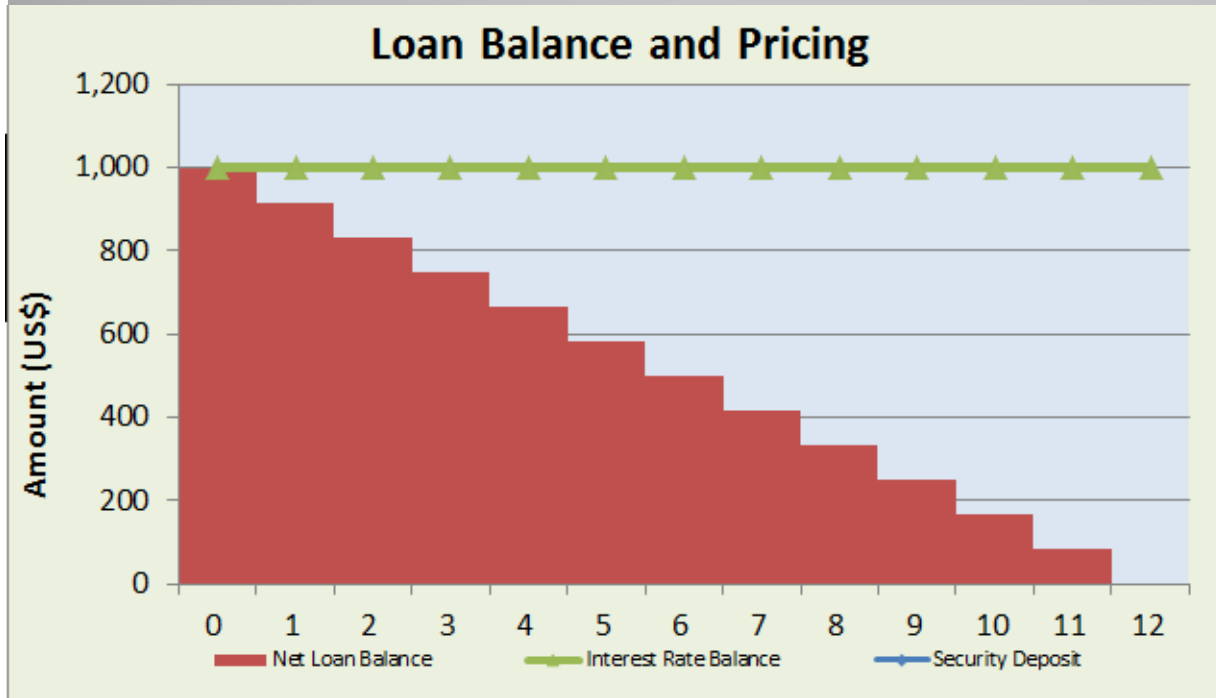
Grace periods on “flat interest” loans can significantly *reduce* the actual price, because client has *more* money for more time

| | | | |
|----------------|--|---------------------------------|---------------------------------|
| Loan term: | 12 months | 12 months | 12 months |
| Interest Rate: | 36% p.a. “flat” Paid upfront | 36% p.a. “flat” Paid monthly | 36% p.a. “flat” Paid monthly |
| Grace period | No | 3 months grace | No |

| | | | |
|---------------------------|--------------|--------------|--------------|
| Total Cost Credit | \$360 | \$360 | \$360 |
| APR | 91% | 51% | 61% |
| Transparency Index | 39 | 71 | 59 |

Calculating those three examples

36% flat interest, no grace

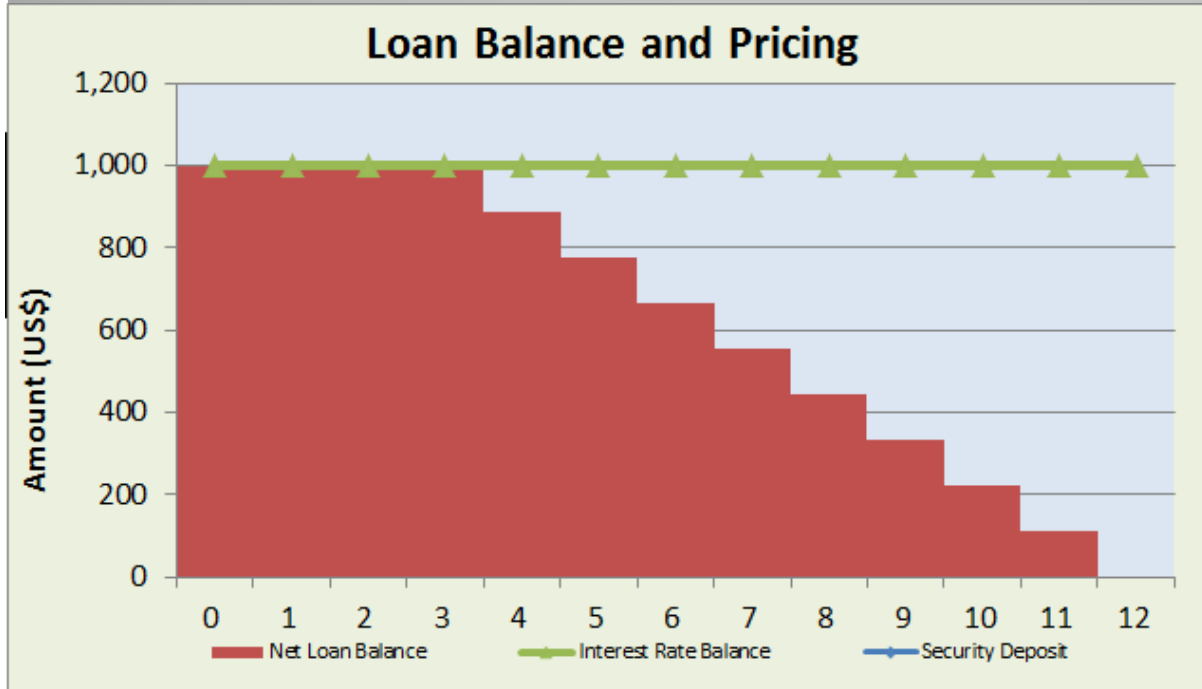


| | APR | |
|------------|---------------|---------------------------|
| 36.0% Flat | 60.96% | Interest |
| upfront | 60.96% | + Fees |
| ongoing | 60.96% | + Insurance |
| upfront | 60.96% | + Taxes |
| ongoing | 60.96% | + Security Deposit |

Amount \$1,000
 Term 12 Months
 Int. on Savings 0.0% Annually

| Total Financial Cost to the Client | Transparency Index | 59 |
|------------------------------------|--------------------|---|
| Total Cost (less Sec.Dep. int): | \$360 | in 12 Months, or \$360 in 1 year |
| Avg net loan balance: | \$542 | which is 54% of original loan amount |

36% flat interest, 3 month grace

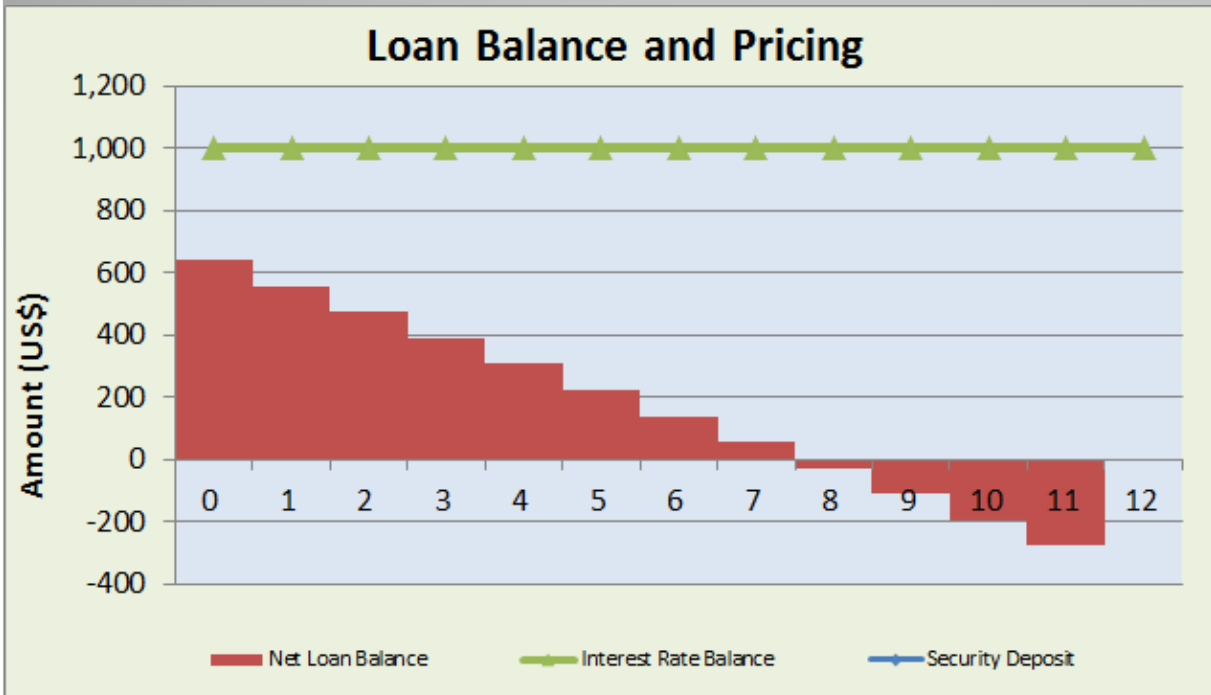


| | APR | |
|------------|--------|--------------------|
| 36.0% Flat | 50.73% | Interest |
| upfront | 50.73% | + Fees |
| ongoing | 50.73% | + Insurance |
| upfront | 50.73% | + Taxes |
| ongoing | 50.73% | + Security Deposit |

Amount \$1,000
 Term 12 Months
 Int. on Savings 0.0% Annually

| Total Financial Cost to the Client | Transparency Index | 71 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec.Dep. int): | \$360 | in 12 Months, or \$360 in 1 year |
| Avg net loan balance: | \$668 | which is 67% of original loan amount |

36% flat interest, paid up-front



| | APR | |
|---------------|---------------|--------------------|
| 0.0% Flat | 0.00% | Interest |
| 360.0 upfront | 91.64% | + Fees |
| ongoing | | |
| upfront | 91.64% | + Insurance |
| ongoing | | |
| on fees | 91.64% | + Taxes |
| on interest | | |
| upfront | 91.64% | + Security Deposit |
| ongoing | | |

Amount \$1,000
 Term 12 Months
 Int. on Savings 0.0% Annually

| Total Financial Cost to the Client | Transparency Index | 0 |
|------------------------------------|--------------------|---|
| Total Cost (less Sec.Dep. int): | \$360 | in 12 Months, or \$360 in 1 year |
| Avg net loan balance: | \$182 | which is 18% of original loan amount |

36% flat interest, paid up-front

| Payment Date | | Loan Cost and Cashflow | | | Interest | | Fees | | |
|--------------|-----------|------------------------|---------------------|----------------|----------|---------------|-------------------------|-----------|---------------------|
| Period # | Date | # Days | Principal Disbursed | Principal Paid | Balance | Interest Paid | Cashflow incl. Interest | Fees Paid | Cashflow incl. Fees |
| 0 | 13-Jun-10 | | 1,000.00 | | 1,000.00 | | 1,000.00 | 360.00 | 640.00 |
| 1 | 13-Jul-10 | 30 | | 83.33 | 916.67 | - | (83.33) | - | (83.33) |
| 2 | 13-Aug-10 | 31 | | 83.33 | 833.33 | - | (83.33) | - | (83.33) |
| 3 | 13-Sep-10 | 31 | | 83.33 | 750.00 | - | (83.33) | - | (83.33) |
| 4 | 13-Oct-10 | 30 | | 83.33 | 666.67 | - | (83.33) | - | (83.33) |
| 5 | 13-Nov-10 | 31 | | 83.33 | 583.33 | - | (83.33) | - | (83.33) |
| 6 | 13-Dec-10 | 30 | | 83.33 | 500.00 | - | (83.33) | - | (83.33) |
| 7 | 13-Jan-11 | 31 | | 83.33 | 416.67 | - | (83.33) | - | (83.33) |
| 8 | 13-Feb-11 | 31 | | 83.33 | 333.33 | - | (83.33) | - | (83.33) |
| 9 | 13-Mar-11 | 28 | | 83.33 | 250.00 | - | (83.33) | - | (83.33) |
| 10 | 13-Apr-11 | 31 | | 83.33 | 166.67 | - | (83.33) | - | (83.33) |
| 11 | 13-May-11 | 30 | | 83.33 | 83.33 | - | (83.33) | - | (83.33) |
| 12 | 13-Jun-11 | 31 | | 83.33 | - | - | (83.33) | - | (83.33) |
| | | 365 | 1,000.00 | 1,000.00 | | 0.00 | 0.00 | 360.00 | (360.00) |
| MPR | | | | | | | 0.000% | | 7.637% |
| APR | | | | | | | 0.000% | | 91.641% |

And what about EIR instead of APR?

1. The terms APR and EIR actually have no standard definition outside of MFTransparency. They are used interchangeably.
2. All approaches use this formula to solve for “i”

$$\sum_{k=1}^m \frac{A_k}{(1+i)^q_k} = \sum_{j=1}^n \frac{P_j}{(1+i)^t_j}$$

1. “i” is then converted to an annual rate either nominally or by compounding, eg:

$$\text{APR} = i \times 12 \quad \text{EIR} = (1+i)^{12^{\text{th}}} - 1$$

Practicing with "i" for Discounted Present Value

Estimated "i"

0.0% APR (i * n)

0.0% EIR : (1 + i) ^ n - 1

Try a HIGHER discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,200.00 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 2 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 3 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 4 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 5 | | \$100.00 | 1.00000 | | | | |
| 6 | | \$100.00 | 1.00000 | | | | |
| 7 | | \$100.00 | 1.00000 | | | | |
| 8 | | \$100.00 | 1.00000 | | | | |
| 9 | | \$100.00 | 1.00000 | | | | |
| 10 | | \$100.00 | 1.00000 | | | | |
| 11 | | \$100.00 | 1.00000 | | | | |
| 12 | | \$100.00 | 1.00000 | | | | |

Formula

$$\sum_{k=1}^m \frac{A_k}{(1+i)^k} = \sum_{j=1}^n \frac{P_j}{(1+i)^j}$$

Solve for i, and then,

$$\text{APR} = i * n$$

Use previous formula to solve for i, and then

$$\text{EIR} = (1+i)^n - 1$$

This is the sec

Practicing with "i" for Discounted Present Value

Estimated "i"

0.0% APR ($i * n$)

0.0% EIR : $(1 + i)^n - 1$

Try a **HIGHER** discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,200.00 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 2 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 3 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 4 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 5 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 6 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 7 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 8 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 9 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 10 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 11 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 12 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |

This is the secret "correct answer" ---->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i"

0.0% APR ($i * n$)

0.0% EIR : $(1 + i)^n - 1$

Try a **HIGHER** discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,200.00 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 2 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 3 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 4 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 5 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 6 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 7 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 8 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 9 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 10 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 11 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 12 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |

This is the secret "correct answer" ---->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i"

0.0% APR ($i * n$)
0.0% EIR : $(1 + i)^n - 1$

Try a HIGHER discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | Divisor | % | Discounted Values | | Difference |
|--------|----------------|------------|---------|-------|-------------------|------------|------------|
| | Inflow | Outflow | | | Inflow | Outflow | |
| | \$1,000.00 | \$1,200.00 | | | \$1,000.00 | \$1,200.00 | (\$200.00) |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 2 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 3 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 4 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 5 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 6 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 7 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 8 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 9 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 10 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 11 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |
| 12 | | \$100.00 | 1.00000 | 0.00% | \$0.00 | \$100.00 | (\$100.00) |

This is the secret "correct answer" ->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **1.00%**

12.0% APR ($i * n$)

12.7% EIR : $(1 + i)^n - 1$

Try a **HIGHER** discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,125.51 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.01000 | 1.00% | \$0.00 | \$99.01 | (\$100.00) |
| 2 | | \$100.00 | 1.02010 | 1.00% | \$0.00 | \$98.03 | (\$100.00) |
| 3 | | \$100.00 | 1.03030 | 1.00% | \$0.00 | \$97.06 | (\$100.00) |
| 4 | | \$100.00 | 1.04060 | 1.00% | \$0.00 | \$96.10 | (\$100.00) |
| 5 | | \$100.00 | 1.05101 | 1.00% | \$0.00 | \$95.15 | (\$100.00) |
| 6 | | \$100.00 | 1.06152 | 1.00% | \$0.00 | \$94.20 | (\$100.00) |
| 7 | | \$100.00 | 1.07214 | 1.00% | \$0.00 | \$93.27 | (\$100.00) |
| 8 | | \$100.00 | 1.08286 | 1.00% | \$0.00 | \$92.35 | (\$100.00) |
| 9 | | \$100.00 | 1.09369 | 1.00% | \$0.00 | \$91.43 | (\$100.00) |
| 10 | | \$100.00 | 1.10462 | 1.00% | \$0.00 | \$90.53 | (\$100.00) |
| 11 | | \$100.00 | 1.11567 | 1.00% | \$0.00 | \$89.63 | (\$100.00) |
| 12 | | \$100.00 | 1.12683 | 1.00% | \$0.00 | \$88.74 | (\$100.00) |

This is the secret "correct answer" --->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **1.00%**

12.0% APR (i * n)

Try a HIGHER discount rate to get DIFF to \$0

12.7% EIR : $(1 + i)^n - 1$

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|-------------------|-------------------|---------|-------------------|-------------------|-------------------|------------|
| | Inflow | Outflow | | Inflow | Outflow | | |
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,125.51 | (\$125.51) | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.01000 | 1.00% | \$0.00 | \$99.01 | (\$100.00) |
| 2 | | \$100.00 | 1.02010 | 1.00% | \$0.00 | \$98.03 | (\$100.00) |
| 3 | | \$100.00 | 1.03030 | 1.00% | \$0.00 | \$97.06 | (\$100.00) |
| 4 | | \$100.00 | 1.04060 | 1.00% | \$0.00 | \$96.10 | (\$100.00) |
| 5 | | \$100.00 | 1.05101 | 1.00% | \$0.00 | \$95.15 | (\$100.00) |
| 6 | | \$100.00 | 1.06152 | 1.00% | \$0.00 | \$94.20 | (\$100.00) |
| 7 | | \$100.00 | 1.07214 | 1.00% | \$0.00 | \$93.27 | (\$100.00) |
| 8 | | \$100.00 | 1.08286 | 1.00% | \$0.00 | \$92.35 | (\$100.00) |
| 9 | | \$100.00 | 1.09369 | 1.00% | \$0.00 | \$91.43 | (\$100.00) |
| 10 | | \$100.00 | 1.10462 | 1.00% | \$0.00 | \$90.53 | (\$100.00) |
| 11 | | \$100.00 | 1.11567 | 1.00% | \$0.00 | \$89.63 | (\$100.00) |
| 12 | | \$100.00 | 1.12683 | 1.00% | \$0.00 | \$88.74 | (\$100.00) |

This is the secret "correct answer" ->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **1.00%**

12.0% APR ($i * n$)

12.7% EIR: $(1 + i)^n - 1$

Try a HIGHER discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | Inflow | Outflow | | Inflow | Outflow | | |
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,125.51 | (\$125.51) | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.01000 | 1.00% | \$0.00 | \$99.01 | (\$100.00) |
| 2 | | \$100.00 | 1.02010 | 1.00% | \$0.00 | \$98.03 | (\$100.00) |
| 3 | | \$100.00 | 1.03030 | 1.00% | \$0.00 | \$97.06 | (\$100.00) |
| 4 | | \$100.00 | 1.04060 | 1.00% | \$0.00 | \$96.10 | (\$100.00) |
| 5 | | \$100.00 | 1.05101 | 1.00% | \$0.00 | \$95.15 | (\$100.00) |
| 6 | | \$100.00 | 1.06152 | 1.00% | \$0.00 | \$94.20 | (\$100.00) |
| 7 | | \$100.00 | 1.07214 | 1.00% | \$0.00 | \$93.27 | (\$100.00) |
| 8 | | \$100.00 | 1.08286 | 1.00% | \$0.00 | \$92.35 | (\$100.00) |
| 9 | | \$100.00 | 1.09369 | 1.00% | \$0.00 | \$91.43 | (\$100.00) |
| 10 | | \$100.00 | 1.10462 | 1.00% | \$0.00 | \$90.53 | (\$100.00) |
| 11 | | \$100.00 | 1.11567 | 1.00% | \$0.00 | \$89.63 | (\$100.00) |
| 12 | | \$100.00 | 1.12683 | 1.00% | \$0.00 | \$88.74 | (\$100.00) |

This is the secret "correct answer" --->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **3.00%**

36.0% APR (i * n)

42.6% EIR : (1 + i) ^ n - 1

Try a LOWER discount rate to get DIFF to \$0

| | | Nominal Values | | | Discounted Values | | Difference |
|--------|------------|----------------|---------|-------|-------------------|----------|------------|
| TOTALS | \$1,000.00 | \$1,200.00 | | i | \$1,000.00 | \$995.40 | \$4.60 |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.03000 | 3.00% | \$0.00 | \$97.09 | (\$100.00) |
| 2 | | \$100.00 | 1.06090 | 3.00% | \$0.00 | \$94.26 | (\$100.00) |
| 3 | | \$100.00 | 1.09273 | 3.00% | \$0.00 | \$91.51 | (\$100.00) |
| 4 | | \$100.00 | 1.12551 | 3.00% | \$0.00 | \$88.85 | (\$100.00) |
| 5 | | \$100.00 | 1.15927 | 3.00% | \$0.00 | \$86.26 | (\$100.00) |
| 6 | | \$100.00 | 1.19405 | 3.00% | \$0.00 | \$83.75 | (\$100.00) |
| 7 | | \$100.00 | 1.22987 | 3.00% | \$0.00 | \$81.31 | (\$100.00) |
| 8 | | \$100.00 | 1.26677 | 3.00% | \$0.00 | \$78.94 | (\$100.00) |
| 9 | | \$100.00 | 1.30477 | 3.00% | \$0.00 | \$76.64 | (\$100.00) |
| 10 | | \$100.00 | 1.34392 | 3.00% | \$0.00 | \$74.41 | (\$100.00) |
| 11 | | \$100.00 | 1.38423 | 3.00% | \$0.00 | \$72.24 | (\$100.00) |
| 12 | | \$100.00 | 1.42576 | 3.00% | \$0.00 | \$70.14 | (\$100.00) |

This is the secret "correct answer" ---->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **2.90%**

34.8% APR (i * n)

40.9% EIR : (1 + i) ^ n - 1

Try a HIGHER discount rate to get DIFF to \$0

| TOTALS | Nominal Values | | i | Discounted Values | | Difference |
|--------|----------------|------------|---------|-------------------|------------|------------|
| | Inflow | Outflow | | Inflow | Outflow | |
| Period | | | Divisor | % | | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 |
| 1 | | \$100.00 | 1.02900 | 2.90% | \$0.00 | \$97.18 |
| 2 | | \$100.00 | 1.05884 | 2.90% | \$0.00 | \$94.44 |
| 3 | | \$100.00 | 1.08955 | 2.90% | \$0.00 | \$91.78 |
| 4 | | \$100.00 | 1.12114 | 2.90% | \$0.00 | \$89.19 |
| 5 | | \$100.00 | 1.15366 | 2.90% | \$0.00 | \$86.68 |
| 6 | | \$100.00 | 1.18711 | 2.90% | \$0.00 | \$84.24 |
| 7 | | \$100.00 | 1.22154 | 2.90% | \$0.00 | \$81.86 |
| 8 | | \$100.00 | 1.25696 | 2.90% | \$0.00 | \$79.56 |
| 9 | | \$100.00 | 1.29342 | 2.90% | \$0.00 | \$77.31 |
| 10 | | \$100.00 | 1.33093 | 2.90% | \$0.00 | \$75.14 |
| 11 | | \$100.00 | 1.36952 | 2.90% | \$0.00 | \$73.02 |
| 12 | | \$100.00 | 1.40924 | 2.90% | \$0.00 | \$70.96 |
| TOTALS | \$1,000.00 | \$1,200.00 | | | \$1,000.00 | \$1,001.37 |

This is the secret "correct answer" --->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **2.92%**

That looks close enough!

35.0% APR ($i * n$)

41.3% EIR : $(1 + i)^n - 1$

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,000.17 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.02920 | 2.92% | \$0.00 | \$97.16 | (\$100.00) |
| 2 | | \$100.00 | 1.05925 | 2.92% | \$0.00 | \$94.41 | (\$100.00) |
| 3 | | \$100.00 | 1.09018 | 2.92% | \$0.00 | \$91.73 | (\$100.00) |
| 4 | | \$100.00 | 1.12202 | 2.92% | \$0.00 | \$89.13 | (\$100.00) |
| 5 | | \$100.00 | 1.15478 | 2.92% | \$0.00 | \$86.60 | (\$100.00) |
| 6 | | \$100.00 | 1.18850 | 2.92% | \$0.00 | \$84.14 | (\$100.00) |
| 7 | | \$100.00 | 1.22320 | 2.92% | \$0.00 | \$81.75 | (\$100.00) |
| 8 | | \$100.00 | 1.25892 | 2.92% | \$0.00 | \$79.43 | (\$100.00) |
| 9 | | \$100.00 | 1.29568 | 2.92% | \$0.00 | \$77.18 | (\$100.00) |
| 10 | | \$100.00 | 1.33351 | 2.92% | \$0.00 | \$74.99 | (\$100.00) |
| 11 | | \$100.00 | 1.37245 | 2.92% | \$0.00 | \$72.86 | (\$100.00) |
| 12 | | \$100.00 | 1.41253 | 2.92% | \$0.00 | \$70.80 | (\$100.00) |

This is the secret "correct answer" --->

IRR (i) = 2.923%

Practicing with "i" for Discounted Present Value

Estimated "i" **2.92%**

That looks close enough!

35.0% APR (i * n)

41.3% EIR : (1 + i) ^ n - 1

| TOTALS | Nominal Values | | i | Discounted Values | | Difference | |
|--------|----------------|------------|---------|-------------------|------------|------------|------------|
| | \$1,000.00 | \$1,200.00 | | \$1,000.00 | \$1,000.17 | | |
| Period | Inflow | Outflow | Divisor | % | Inflow | Outflow | |
| 0 | \$1,000.00 | | 1.00000 | | \$1,000.00 | \$0.00 | \$1,000.00 |
| 1 | | \$100.00 | 1.02920 | 2.92% | \$0.00 | \$97.16 | (\$100.00) |
| 2 | | \$100.00 | 1.05925 | 2.92% | \$0.00 | \$94.41 | (\$100.00) |
| 3 | | \$100.00 | 1.09018 | 2.92% | \$0.00 | \$91.73 | (\$100.00) |
| 4 | | \$100.00 | 1.12202 | 2.92% | \$0.00 | \$89.13 | (\$100.00) |
| 5 | | \$100.00 | 1.15478 | 2.92% | \$0.00 | \$86.60 | (\$100.00) |
| 6 | | \$100.00 | 1.18850 | 2.92% | \$0.00 | \$84.14 | (\$100.00) |
| 7 | | \$100.00 | 1.22320 | 2.92% | \$0.00 | \$81.75 | (\$100.00) |
| 8 | | \$100.00 | 1.25892 | 2.92% | \$0.00 | \$79.43 | (\$100.00) |
| 9 | | \$100.00 | 1.29568 | 2.92% | \$0.00 | \$77.18 | (\$100.00) |
| 10 | | \$100.00 | 1.33351 | 2.92% | \$0.00 | \$74.99 | (\$100.00) |
| 11 | | \$100.00 | 1.37245 | 2.92% | \$0.00 | \$72.86 | (\$100.00) |
| 12 | | \$100.00 | 1.41253 | 2.92% | \$0.00 | \$70.80 | (\$100.00) |

This is the secret "correct answer" ---->

IRR (i) = 2.923%

Difference between APR (nominal annualization and EIR (compound annualization)

| Period "I" | APR | EIR | Difference |
|------------|--------|--------|------------|
| 0.5% | 6.00% | 6.17% | 0.17% |
| 1.0% | 12.00% | 12.68% | 0.68% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |

Difference between APR (nominal annualization and EIR (compound annualization)

| Period "I" | APR | EIR | Difference |
|------------|--------|--------|------------|
| 0.5% | 6.00% | 6.17% | 0.17% |
| 1.0% | 12.00% | 12.68% | 0.68% |
| 1.5% | 18.00% | 19.56% | 1.56% |
| 2.0% | 24.00% | 26.82% | 2.82% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |

Difference between APR (nominal annualization and EIR (compound annualization)

| Period "I" | APR | EIR | Difference |
|------------|--------|--------|------------|
| 0.5% | 6.00% | 6.17% | 0.17% |
| 1.0% | 12.00% | 12.68% | 0.68% |
| 1.5% | 18.00% | 19.56% | 1.56% |
| 2.0% | 24.00% | 26.82% | 2.82% |
| 3.0% | 36.00% | 42.58% | 6.58% |
| 4.0% | 48.00% | 60.10% | 12.10% |
| 5.0% | 60.00% | 79.59% | 19.59% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |

**Difference between APR (nominal annualization
and EIR (compound annualization)**

| Period "I" | APR | EIR | Difference |
|------------|---------|---------|------------|
| 0.5% | 6.00% | 6.17% | 0.17% |
| 1.0% | 12.00% | 12.68% | 0.68% |
| 1.5% | 18.00% | 19.56% | 1.56% |
| 2.0% | 24.00% | 26.82% | 2.82% |
| 3.0% | 36.00% | 42.58% | 6.58% |
| 4.0% | 48.00% | 60.10% | 12.10% |
| 5.0% | 60.00% | 79.59% | 19.59% |
| 6.0% | 72.00% | 101.22% | 29.22% |
| 7.0% | 84.00% | 125.22% | 41.22% |
| 8.0% | 96.00% | 151.82% | 55.82% |
| 9.0% | 108.00% | 181.27% | 73.27% |
| 10.0% | 120.00% | 213.84% | 93.84% |
| | 0.00% | 0.00% | 0.00% |
| | 0.00% | 0.00% | 0.00% |

**Difference between APR (nominal annualization
and EIR (compound annualization)**

| Period "I" | APR | EIR | Difference |
|------------|---------|---------|------------|
| 0.5% | 6.00% | 6.17% | 0.17% |
| 1.0% | 12.00% | 12.68% | 0.68% |
| 1.5% | 18.00% | 19.56% | 1.56% |
| 2.0% | 24.00% | 26.82% | 2.82% |
| 3.0% | 36.00% | 42.58% | 6.58% |
| 4.0% | 48.00% | 60.10% | 12.10% |
| 5.0% | 60.00% | 79.59% | 19.59% |
| 6.0% | 72.00% | 101.22% | 29.22% |
| 7.0% | 84.00% | 125.22% | 41.22% |
| 8.0% | 96.00% | 151.82% | 55.82% |
| 9.0% | 108.00% | 181.27% | 73.27% |
| 10.0% | 120.00% | 213.84% | 93.84% |
| 12.0% | 144.00% | 289.60% | 145.60% |
| 15.0% | 180.00% | 435.03% | 255.03% |

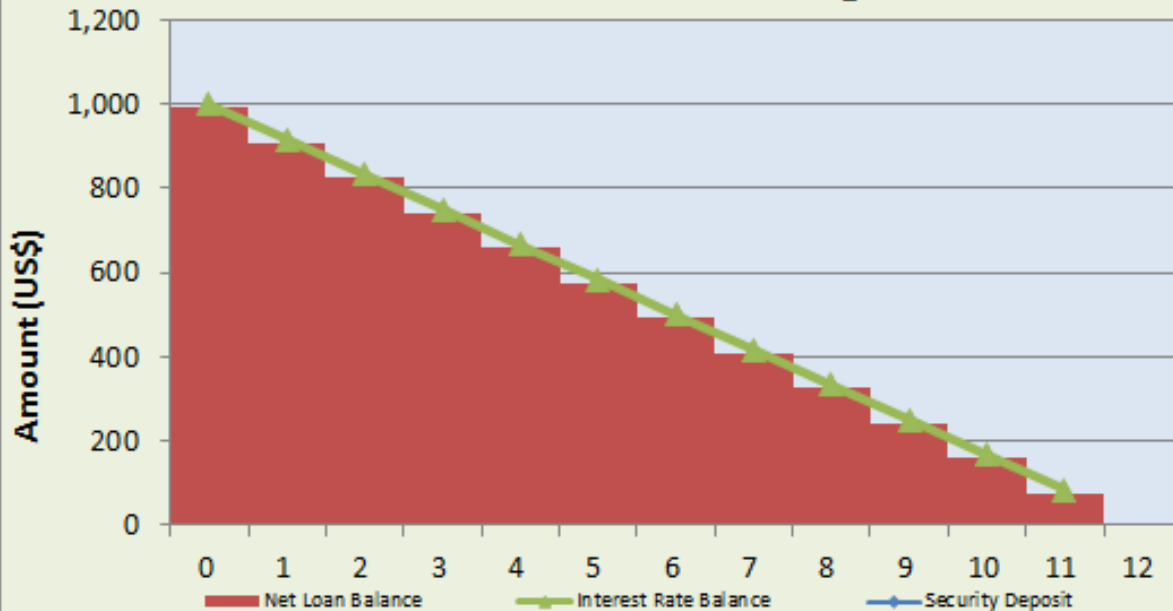
Understanding Fees

1. Up-Front Fees
 - Percentage
 - Fixed Amount
2. On-going Fees
 - Percentage
 - Fixed Amount
3. Sensitivity of Up-front fees and loan terms
4. Sensitivity of Fixed fees and loan amount
5. Upfront fees are more expensive than on-going

Up-front Percent Fees with differing loan terms

Fee of 1% up-front, 12 months

Loan Balance and Pricing



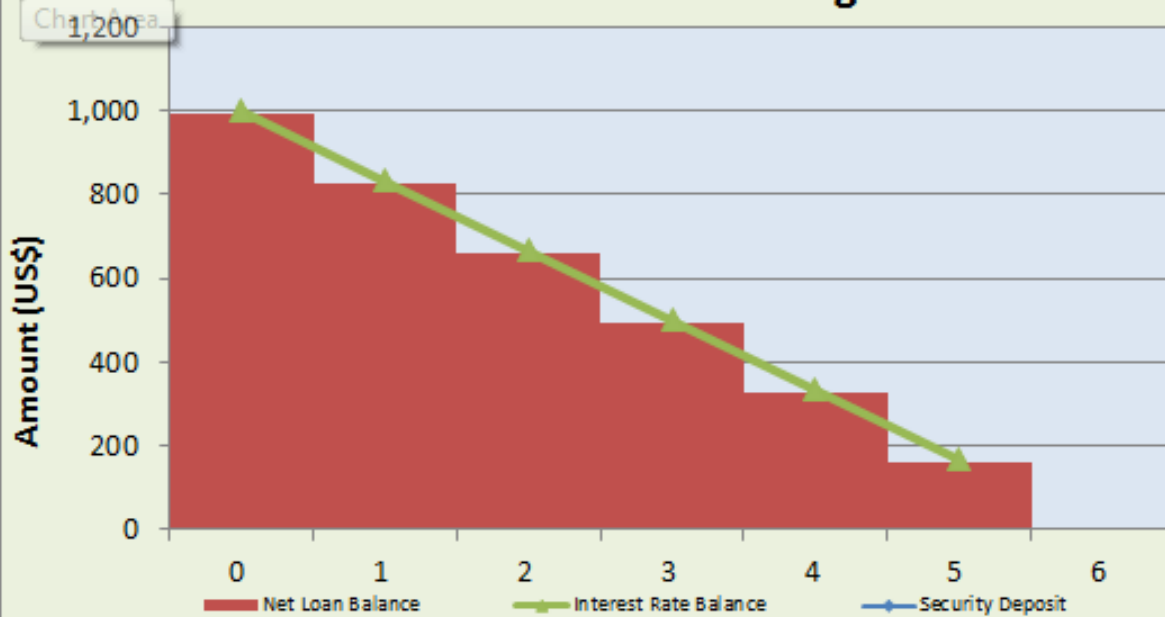
| | APR | |
|-----------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront | 32.08% | + Fees |
| ongoing | | |
| upfront | 32.08% | + Insurance |
| ongoing | | |
| on fees | 32.08% | + Taxes |
| on interest | | |
| upfront | 32.08% | + Security Deposit |
| ongoing | | |

| | |
|--------|-----------|
| Amount | \$1,000 |
| Term | 12 Months |

| Total Financial Cost to the Client | Transparency Index | 94 |
|------------------------------------|--------------------|---|
| Total Cost (less Sec. Dep. int): | \$173 | in 12 Months, or \$173 in 1 year |
| Avg net loan balance: | \$532 | which is 53% of original loan amount |

Fee of 1% up-front, 6 months

Loan Balance and Pricing



| APR | | |
|-----------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront | 33.69% | + Fees |
| ongoing | | |
| upfront | 33.69% | + Insurance |
| ongoing | | |
| on fees | 33.69% | + Taxes |
| on interest | | |
| upfront | 33.69% | + Security Deposit |
| ongoing | | |

| | |
|--------|----------|
| Amount | \$1,000 |
| Term | 6 Months |

Total Financial Cost to the Client

Transparency Index

89

Total Cost (less Sec. Dep. int):

\$98

in 6 Months, or

\$195

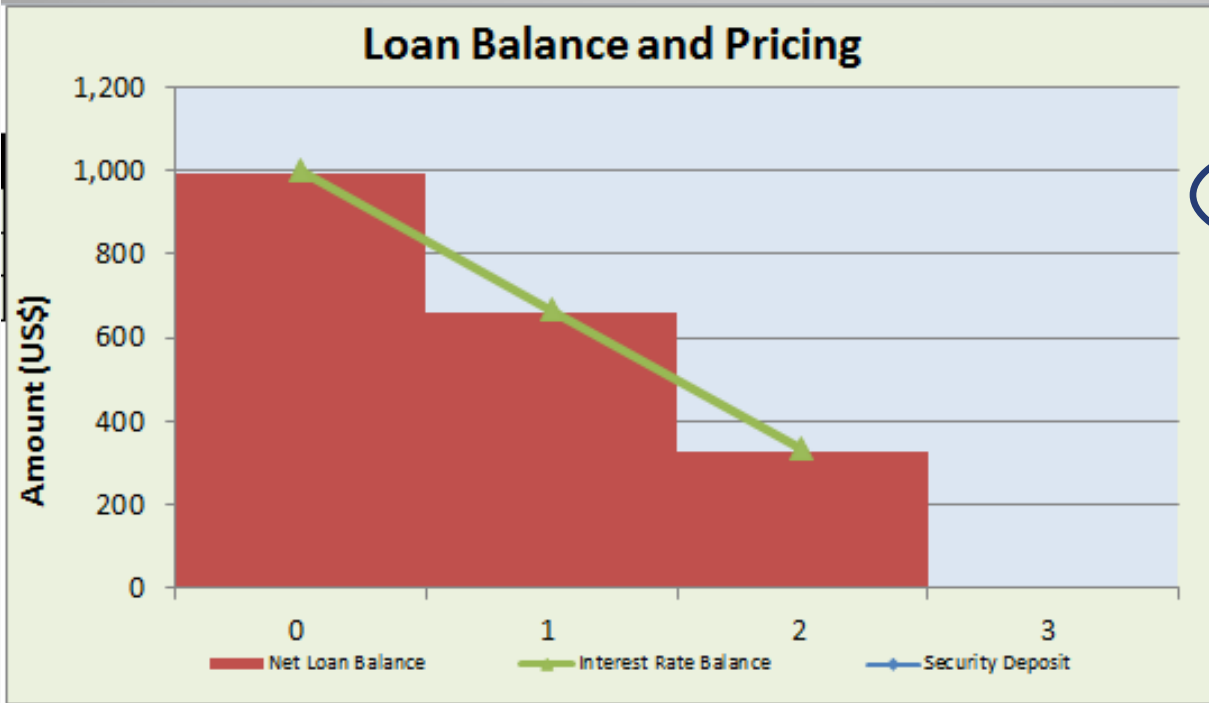
in 1 year

Avg net loan balance:

\$574

which is 57% of original loan amount

Fee of 1% up-front, 3 months



| APR | | |
|-----------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront | 36.30% | + Fees |
| ongoing | | |
| upfront | 36.30% | + Insurance |
| ongoing | | |
| on fees | 36.30% | + Taxes |
| on interest | | |
| upfront | 36.30% | + Security Deposit |
| ongoing | | |

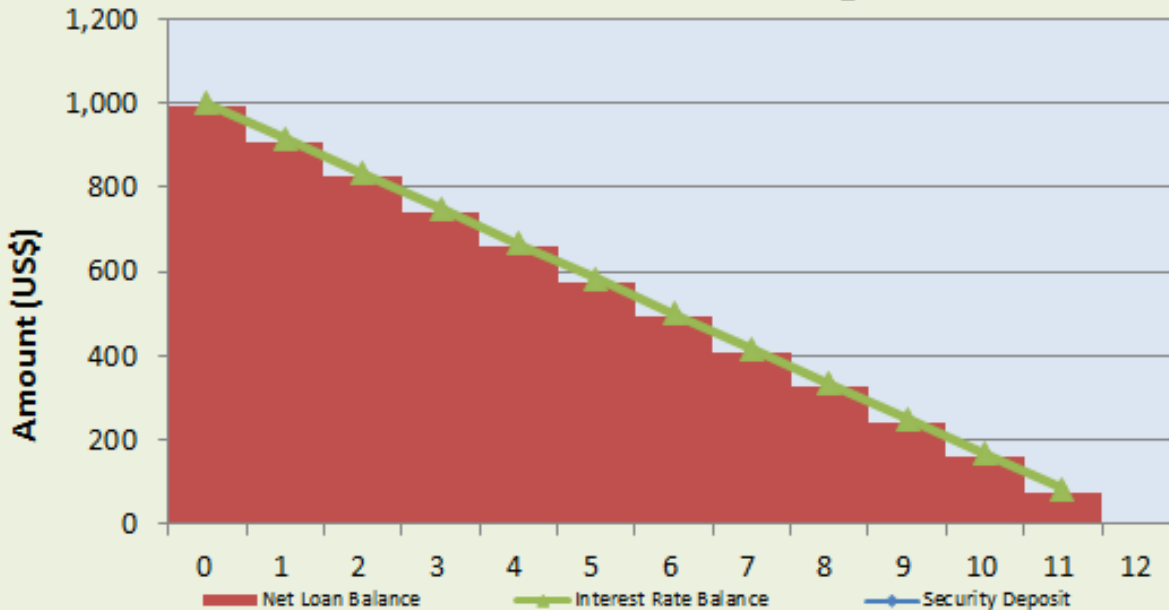
| | |
|--------|----------|
| Amount | \$1,000 |
| Term | 3 Months |

| Total Financial Cost to the Client | Transparency Index | 83 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec. Dep. int): | \$60 | in 3 Months, or \$240 in 1 year |
| Avg net loan balance: | \$653 | which is 65% of original loan amount |

Up-front Percent Fees with differing loan amounts

Fee of 1% up-front, \$1,000

Loan Balance and Pricing



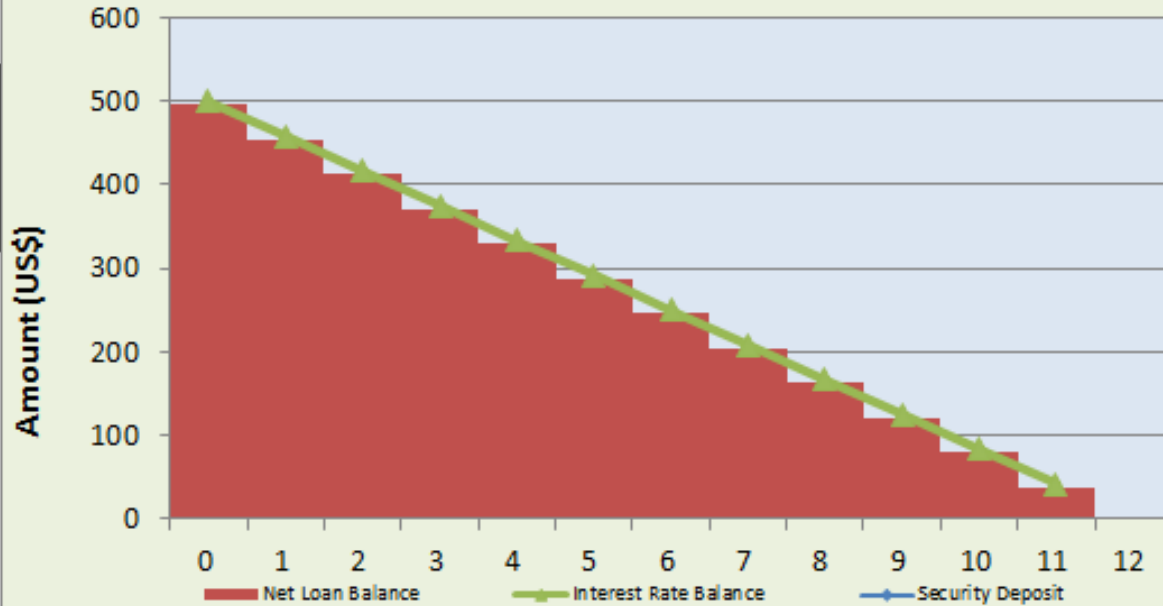
| | APR | |
|-------------------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront ongoing | 32.08% | + Fees |
| upfront ongoing | 32.08% | + Insurance |
| on fees | 32.08% | + Taxes |
| upfront ongoing | 32.08% | + Security Deposit |

Amount \$1,000
Term 12 Months

| Total Financial Cost to the Client | Transparency Index | 94 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec. Dep. int): | \$173 | in 12 Months, or \$173 in 1 year |
| Avg net loan balance: | \$532 | which is 53% of original loan amount |

Fee of 1% up-front, \$500

Loan Balance and Pricing



| | APR | |
|-----------------|-------------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront | 32.08% | + Fees |
| ongoing | | |
| upfront | 32.08% | + Insurance |
| ongoing | | |
| on fees | 32.08% | + Taxes |
| on interest | | |
| upfront | 32.08% | + Security Deposit |
| ongoing | | |

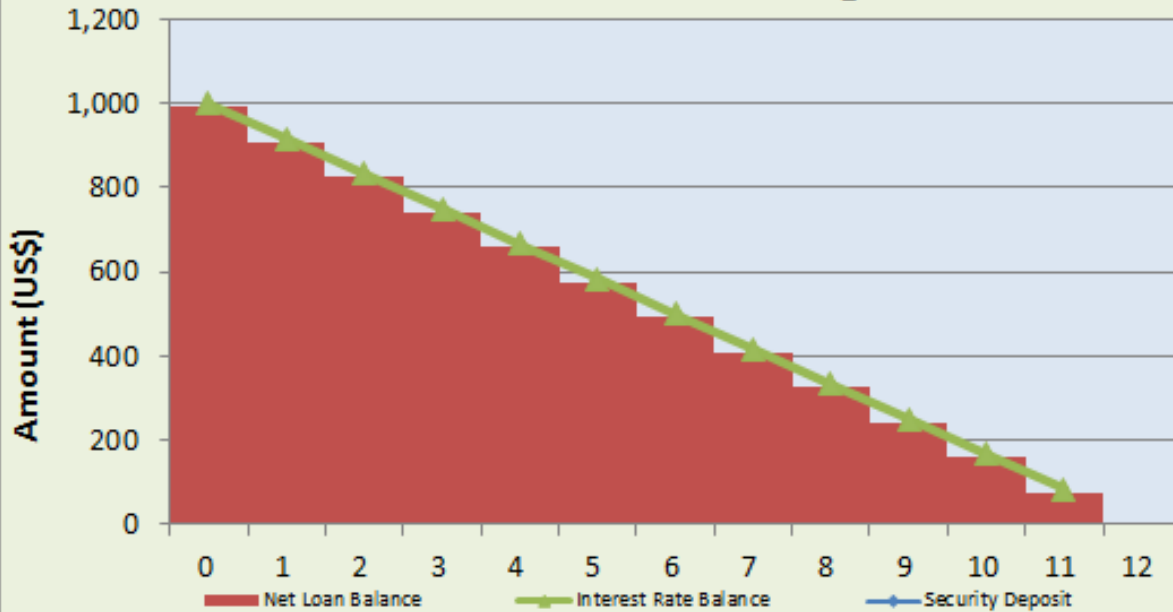
| | |
|--------|-----------|
| Amount | \$500 |
| Term | 12 Months |

| Total Financial Cost to the Client | | Transparency Index | | 94 |
|------------------------------------|-------|--------------------------------------|------|-----------|
| Total Cost (less Sec.Dep. int): | \$86 | in 12 Months, or | \$86 | in 1 year |
| Avg net loan balance: | \$266 | which is 53% of original loan amount | | |

Up-front Fixed Fees with differing loan amounts

Fixed-fee of \$10 up-front, \$1000

Loan Balance and Pricing



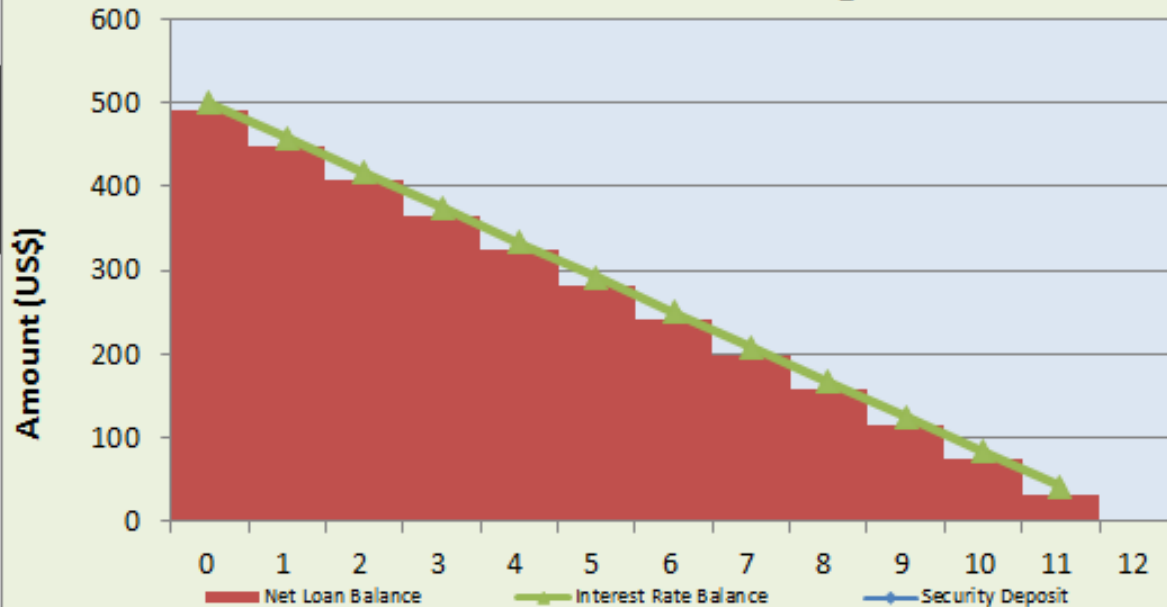
| | APR | |
|-------------------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 10.0 upfront ongoing | 32.08% | + Fees |
| upfront ongoing | 32.08% | + Insurance |
| on fees on interest | 32.08% | + Taxes |
| upfront ongoing | 32.08% | + Security Deposit |

Amount \$1,000
Term 12 Months

| Total Financial Cost to the Client | | Transparency Index | | 94 |
|------------------------------------|-------|--------------------------------------|-------|-----------|
| Total Cost (less Sec. Dep. int): | \$173 | in 12 Months, or | \$173 | in 1 year |
| Avg net loan balance: | \$532 | which is 53% of original loan amount | | |

Fixed-fee of \$10 up-front, \$500

Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 10.0 upfront | 34.20% | + Fees |
| ongoing | | |
| upfront | 34.20% | + Insurance |
| ongoing | | |
| on fees | 34.20% | + Taxes |
| on interest | | |
| upfront | 34.20% | + Security Deposit |
| ongoing | | |

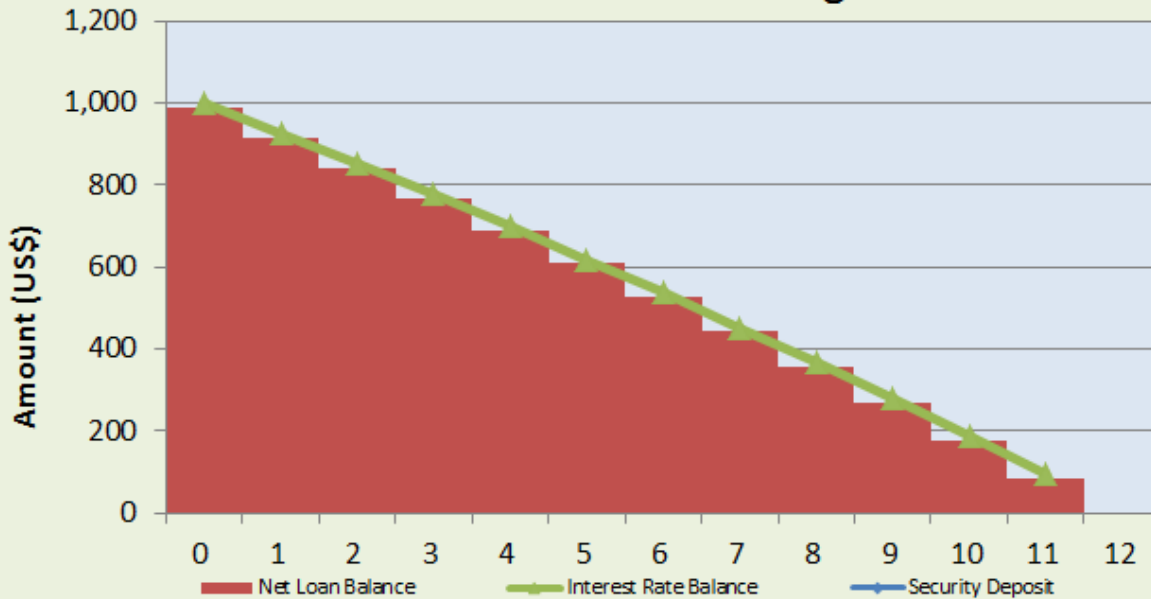
| | |
|--------|-----------|
| Amount | \$500 |
| Term | 12 Months |

| Total Financial Cost to the Client | Transparency Index | 88 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec. Dep. int): | \$91 | in 12 Months, or \$91 in 1 year |
| Avg net loan balance: | \$261 | which is 52% of original loan amount |

Comparing Up-front and On-going Fees

Fee of 1% up-front, \$1,000

Loan Balance and Pricing



| | APR | |
|-------------------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 1.0% upfront ongoing | 32.00% | + Fees |
| upfront | 32.00% | + Insurance |
| ongoing | 32.00% | + Taxes |
| on fees | 32.00% | + Security Deposit |
| on interest | 32.00% | |
| upfront | 32.00% | |
| ongoing | 32.00% | |

Amount \$1,000
Term 12 Months

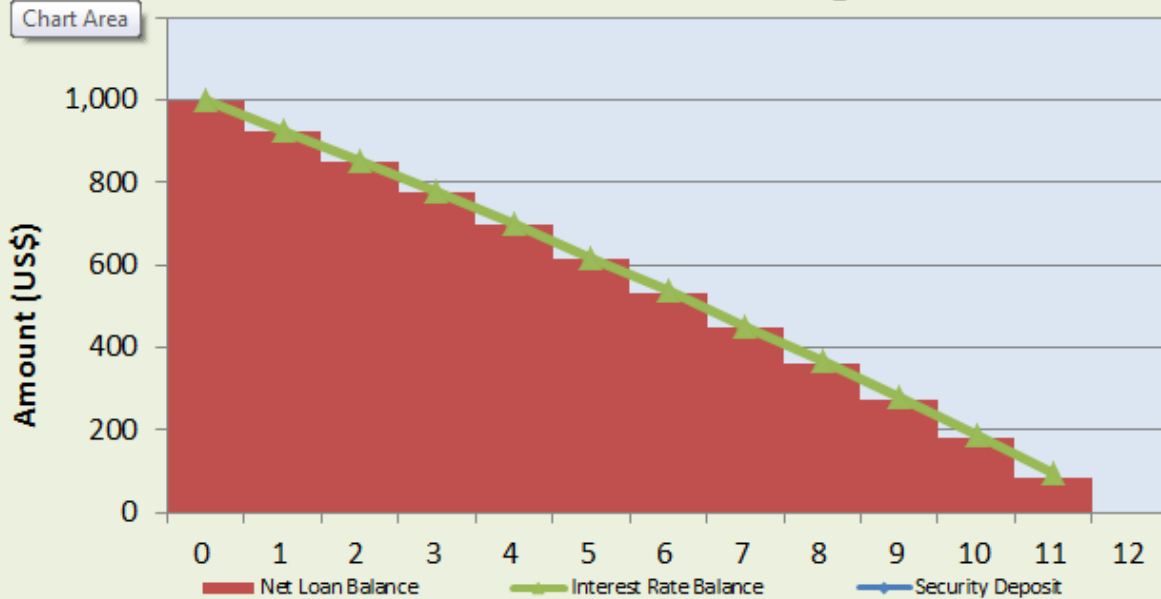
| Total Financial Cost to the Client | Transparency Index | 94 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec.Dep. int): | \$180 | in 12 Months, or \$180 in 1 year |
| Avg net loan balance: | \$557 | which is 56% of original loan amount |

Fee of 1% up-front, \$1,000

| Payment Date | | Loan Cost and Cashflow | | | Interest | | Fees | | |
|--------------|-----------|------------------------|---------------------|----------------|----------|---------------|-------------------------|-----------|---------------------|
| Period # | Date | # Days | Principal Disbursed | Principal Paid | Balance | Interest Paid | Cashflow incl. Interest | Fees Paid | Cashflow incl. Fees |
| 0 | 13-Jun-10 | | 1,000.00 | | 1,000.00 | | 1,000.00 | 10.00 | 990.00 |
| 1 | 13-Jul-10 | 30 | | 72.49 | 927.51 | 25.00 | (97.49) | - | (97.49) |
| 2 | 13-Aug-10 | 31 | | 74.30 | 853.21 | 23.19 | (97.49) | - | (97.49) |
| 3 | 13-Sep-10 | 31 | | 76.16 | 777.06 | 21.33 | (97.49) | - | (97.49) |
| 4 | 13-Oct-10 | 30 | | 78.06 | 699.00 | 19.43 | (97.49) | - | (97.49) |
| 5 | 13-Nov-10 | 31 | | 80.01 | 618.98 | 17.47 | (97.49) | - | (97.49) |
| 6 | 13-Dec-10 | 30 | | 82.01 | 536.97 | 15.47 | (97.49) | - | (97.49) |
| 7 | 13-Jan-11 | 31 | | 84.06 | 452.91 | 13.42 | (97.49) | - | (97.49) |
| 8 | 13-Feb-11 | 31 | | 86.16 | 366.74 | 11.32 | (97.49) | - | (97.49) |
| 9 | 13-Mar-11 | 28 | | 88.32 | 278.43 | 9.17 | (97.49) | - | (97.49) |
| 10 | 13-Apr-11 | 31 | | 90.53 | 187.90 | 6.96 | (97.49) | - | (97.49) |
| 11 | 13-May-11 | 30 | | 92.79 | 95.11 | 4.70 | (97.49) | - | (97.49) |
| 12 | 13-Jun-11 | 31 | | 95.11 | - | 2.38 | (97.49) | - | (97.49) |
| | | 365 | 1,000.00 | 1,000.00 | | 169.85 | (169.85) | 10.00 | (179.85) |
| | | | | | | | 2.500% | | 2.666% |
| | | | | | | | 30.000% | | 31.997% |

Fee of 1% on-going, 12 months

Loan Balance and Pricing



| | APR | |
|-------------------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront 1.0% ongoing | 31.68% | + Fees |
| upfront ongoing | 31.68% | + Insurance |
| on fees on interest | 31.68% | + Taxes |
| upfront ongoing | 31.68% | + Security Deposit |

| | |
|--------|-----------|
| Amount | \$1,000 |
| Term | 12 Months |

| Total Financial Cost to the Client | Transparency Index | 95 |
|------------------------------------|--------------------|---|
| Total Cost (less Sec.Dep. int): | \$180 | in 12 Months, or \$180 in 1 year |
| Avg net loan balance: | \$563 | which is 56% of original loan amount |

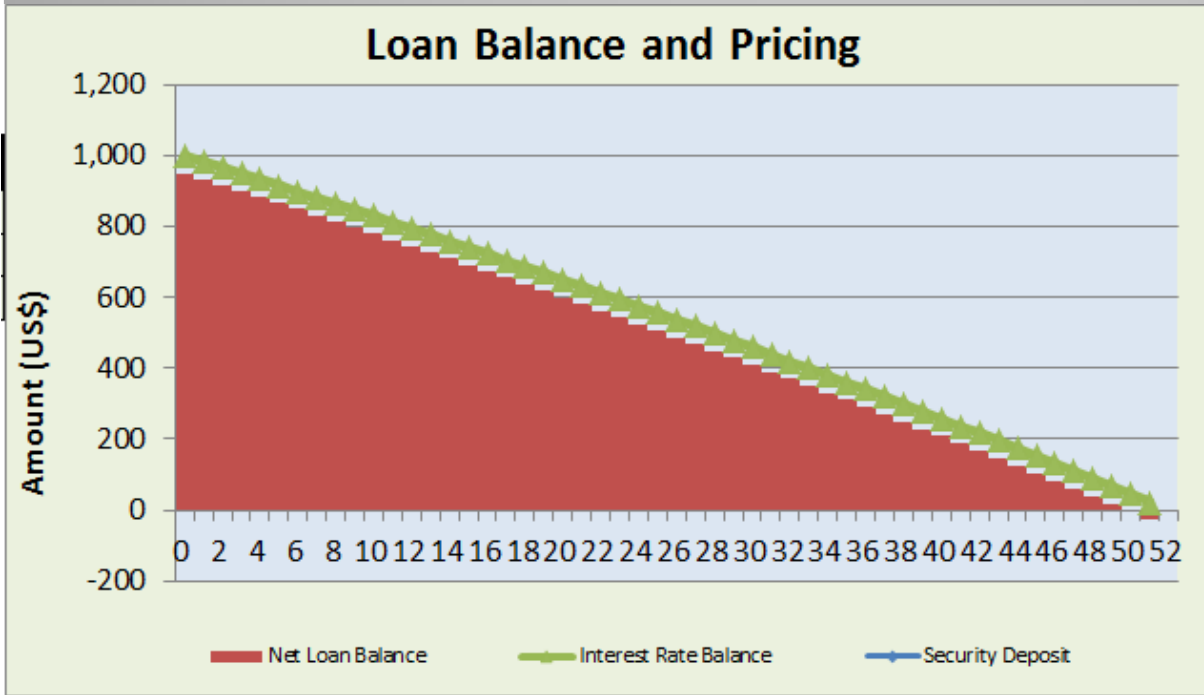
Fee of 1% on-going, 12 months

| Payment Date | | Loan Cost and Cashflow | | | | Interest | | Fees | | |
|--------------|-----------|------------------------|---------------------|----------------|----------|---------------|-------------------------|-----------|---------------------|--|
| Period # | Date | # Days | Principal Disbursed | Principal Paid | Balance | Interest Paid | Cashflow incl. Interest | Fees Paid | Cashflow incl. Fees | |
| 0 | 13-Jun-10 | | 1,000.00 | | 1,000.00 | | 1,000.00 | - | 1,000.00 | |
| 1 | 13-Jul-10 | 30 | | 72.49 | 927.51 | 25.00 | (97.49) | 0.72 | (98.21) | |
| 2 | 13-Aug-10 | 31 | | 74.30 | 853.21 | 23.19 | (97.49) | 0.74 | (98.23) | |
| 3 | 13-Sep-10 | 31 | | 76.16 | 777.06 | 21.33 | (97.49) | 0.76 | (98.25) | |
| 4 | 13-Oct-10 | 30 | | 78.06 | 699.00 | 19.43 | (97.49) | 0.78 | (98.27) | |
| 5 | 13-Nov-10 | 31 | | 80.01 | 618.98 | 17.47 | (97.49) | 0.80 | (98.29) | |
| 6 | 13-Dec-10 | 30 | | 82.01 | 536.97 | 15.47 | (97.49) | 0.82 | (98.31) | |
| 7 | 13-Jan-11 | 31 | | 84.06 | 452.91 | 13.42 | (97.49) | 0.84 | (98.33) | |
| 8 | 13-Feb-11 | 31 | | 86.16 | 366.74 | 11.32 | (97.49) | 0.86 | (98.35) | |
| 9 | 13-Mar-11 | 28 | | 88.32 | 278.43 | 9.17 | (97.49) | 0.88 | (98.37) | |
| 10 | 13-Apr-11 | 31 | | 90.53 | 187.90 | 6.96 | (97.49) | 0.91 | (98.39) | |
| 11 | 13-May-11 | 30 | | 92.79 | 95.11 | 4.70 | (97.49) | 0.93 | (98.42) | |
| 12 | 13-Jun-11 | 31 | | 95.11 | - | 2.38 | (97.49) | 0.95 | (98.44) | |
| | | 365 | 1,000.00 | 1,000.00 | | 169.85 | (169.85) | 10.00 | (179.85) | |
| MPR | | | | | | | 2.500% | | 2.640% | |
| APR | | | | | | | 30.000% | | 31.677% | |

Example of pushing the limits:

**Impact of high up-front Fees with short
loan term**

5% up-front fee on 52-week loan



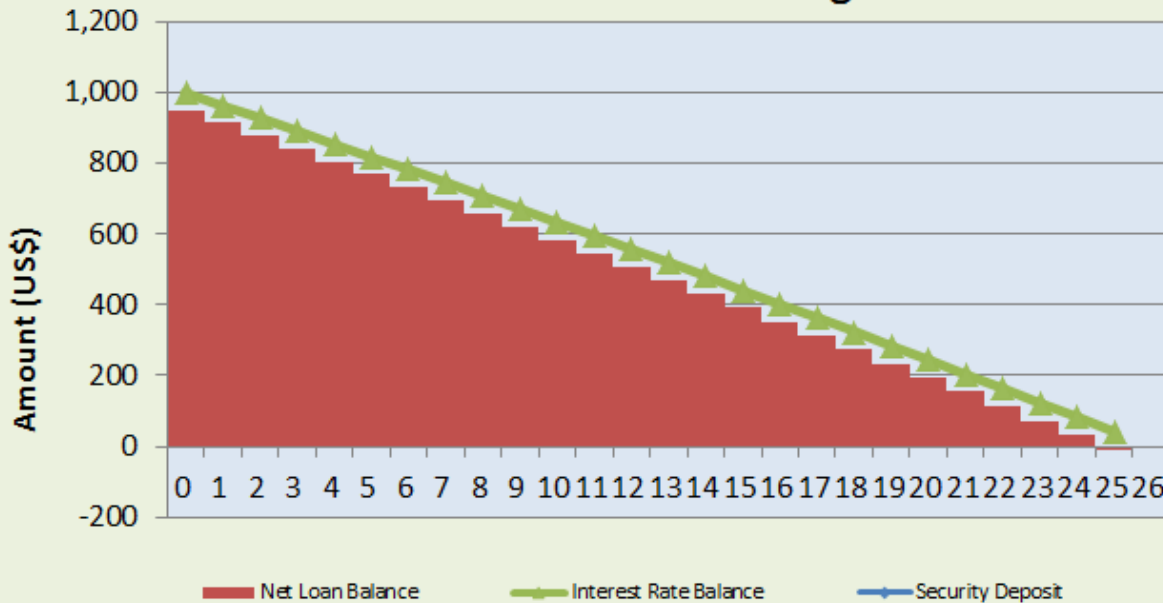
| | APR | |
|-------------------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 5.0% upfront ongoing | 40.75% | + Fees |
| upfront ongoing | 40.75% | + Insurance |
| on fees on interest | 40.75% | + Taxes |
| upfront ongoing | 40.75% | + Security Deposit |

| | |
|--------|----------|
| Amount | \$1,000 |
| Term | 52 Weeks |

| Total Financial Cost to the Client | Transparency Index | 74 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec.Dep. int): | \$210 | in 52 Weeks, or \$210 in 1 year |
| Avg net loan balance: | \$484 | which is 48% of original loan amount |

5% up-front fee on 26-week loan

Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 5.0% upfront | 50.57% | + Fees |
| ongoing | | |
| upfront | 50.57% | + Insurance |
| ongoing | | |
| on fees | 50.57% | + Taxes |
| on interest | | |
| upfront | 50.57% | + Security Deposit |
| ongoing | | |

| | |
|--------|----------|
| Amount | \$1,000 |
| Term | 26 Weeks |

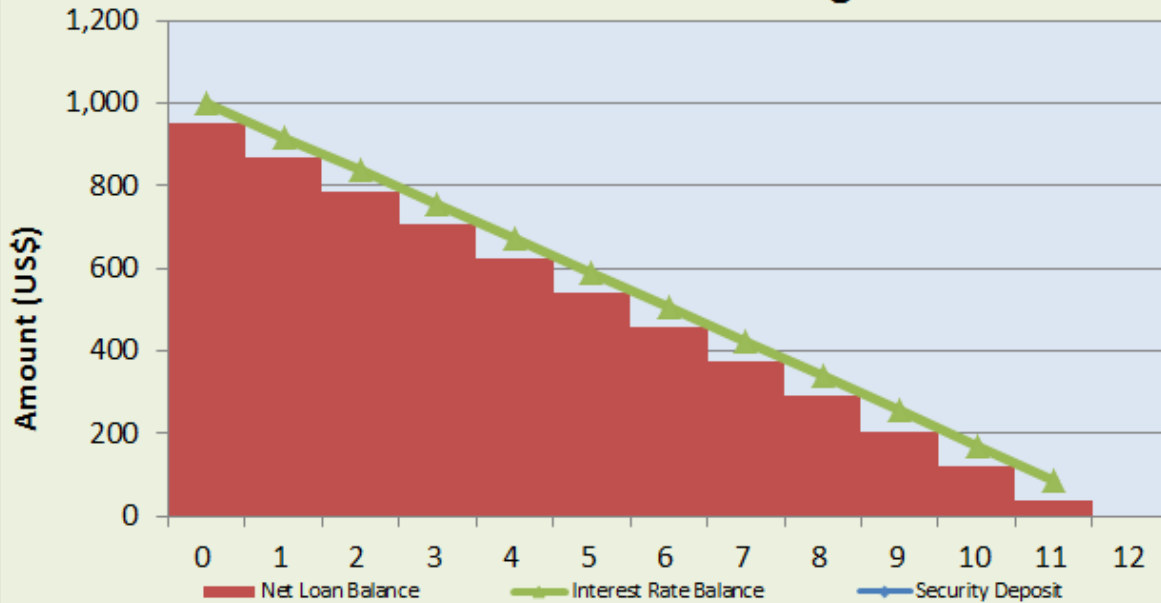
Total Financial Cost to the Client

Transparency Index 59

Total Cost (less Sec.Dep. int): **\$130** in 26 Weeks, or **\$260** in 1 year
 Avg net loan balance: **\$482** which is 48% of original loan amount

5% up-front fee on 12-week loan

Loan Balance and Pricing



| | APR | |
|-------------------------|---------------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 5.0% upfront ongoing | 72.19% | + Fees |
| upfront ongoing | 72.19% | + Insurance |
| on fees on interest | 72.19% | + Taxes |
| upfront ongoing | 72.19% | + Security Deposit |

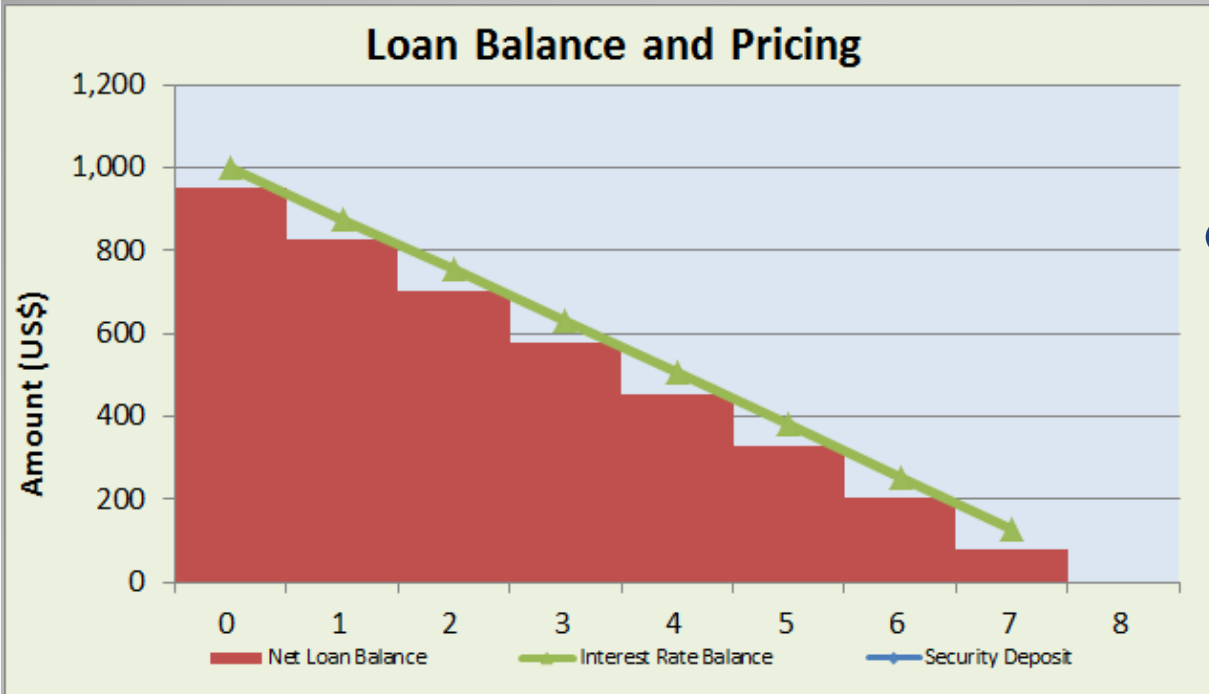
Amount \$1,000
Term 12 Weeks

Total Financial Cost to the Client

Transparency Index **42**

Total Cost (less Sec.Dep. int): **\$88** in 12 Weeks, or **\$381** in 1 year
Avg net loan balance: **\$497** which is 50% of original loan amount

5% up-front fee on 8-week loan



| | APR | |
|-------------------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| 5.0% upfront ongoing | 90.78% | + Fees |
| upfront ongoing | 90.78% | + Insurance |
| on fees on interest | 90.78% | + Taxes |
| upfront ongoing | 90.78% | + Security Deposit |

| | |
|--------|---------|
| Amount | \$1,000 |
| Term | 8 Weeks |

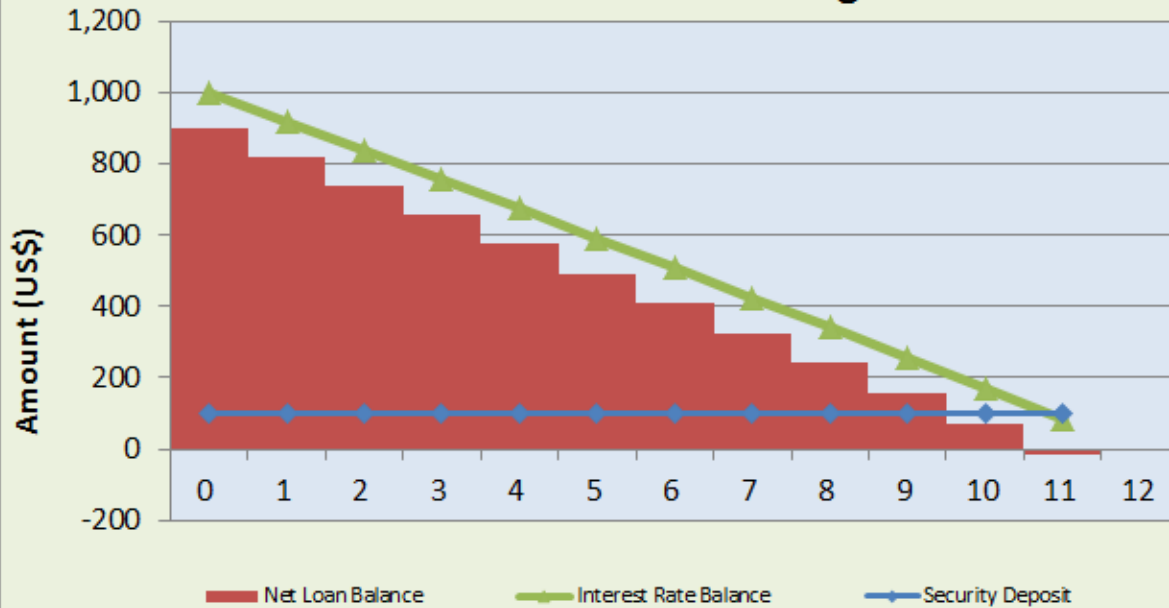
| Total Financial Cost to the Client | | Transparency Index | 33 |
|------------------------------------|-------|--------------------------------------|-----------------|
| Total Cost (less Sec.Dep. int): | \$76 | in 8 Weeks, or | \$495 in 1 year |
| Avg net loan balance: | \$516 | which is 52% of original loan amount | |

Understanding Security Deposits

1. Called “savings” in some countries, but it is collateral, inaccessible to client during the loan
2. Frequently part of the loan, but adds to cost even if the client deposits the money before the loan
3. Frequently, the MFIs pay interest on the “savings”, but
 - The “savings” is part of the loan balance
 - The client is paying a higher interest rate on the loan
 - Therefore, the “savings” increases the true cost of the loan.

10% up-front security deposit

Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | 30.00% | |
| on interest | 30.00% | |
| 10.0% upfront | 36.60% | |
| ongoing | | |

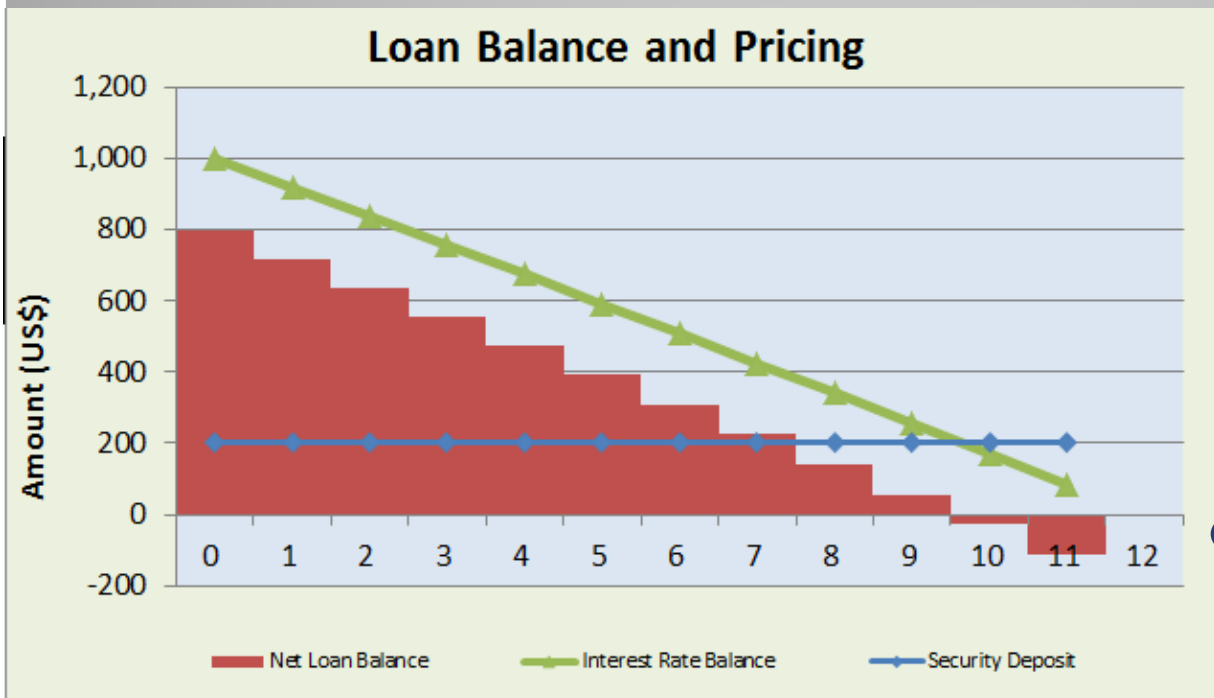
Total Financial Cost to the Client

Transparency Index 82

Total Cost (less Sec.Dep. int): **\$38** in 12 Weeks, or **\$164** in 1 year
 Avg net loan balance: **\$447** which is 45% of original loan amount

Amount \$1,000
 Term 12 Weeks
 Int. on Savings 0.0% Annually

20% up-front security deposit



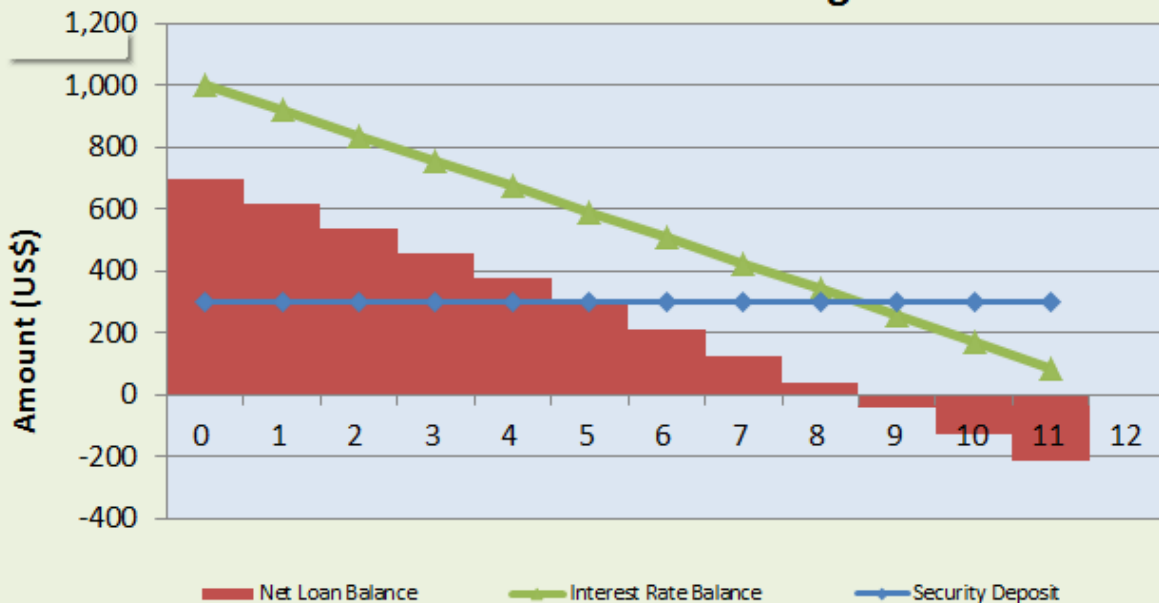
| | APR | |
|-----------------|---------------|---------------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | | |
| upfront | 30.00% | + Insurance |
| ongoing | | |
| on fees | 30.00% | + Taxes |
| on interest | | |
| 20.0% upfront | 46.84% | + Security Deposit |
| ongoing | | |

Amount \$1,000
 Term 12 Weeks
 Int. on Savings 0.0% Annually

| Total Financial Cost to the Client | Transparency Index | 64 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec.Dep. int): | \$38 | in 12 Weeks, or \$164 in 1 year |
| Avg net loan balance: | \$347 | which is 35% of original loan amount |

30% up-front security deposit

Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | 30.00% | |
| on interest | 30.00% | |
| 30.0% upfront | 64.67% | |
| ongoing | | |

| | |
|-----------------|---------------|
| Amount | \$1,000 |
| Term | 12 Weeks |
| Int. on Savings | 0.0% Annually |

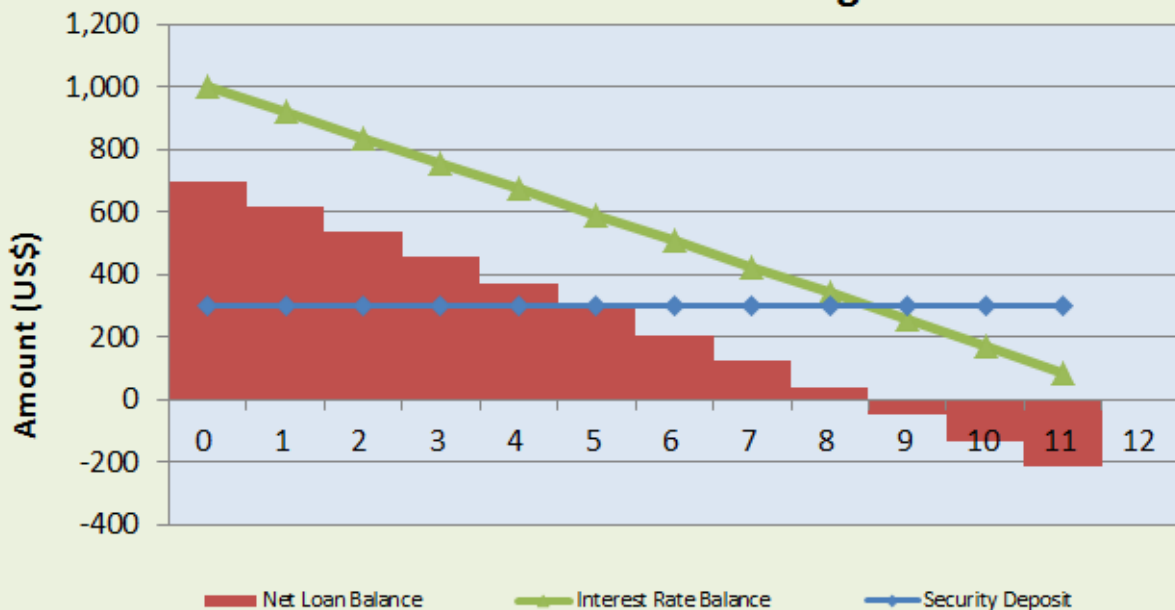
Total Financial Cost to the Client

Transparency Index 46

| | | | | |
|---------------------------------|-------|--------------------------------------|-------|-----------|
| Total Cost (less Sec.Dep. int): | \$38 | in 12 Weeks, or | \$164 | in 1 year |
| Avg net loan balance: | \$247 | which is 25% of original loan amount | | |

30% up-front, pay 5% interest

Loan Balance and Pricing



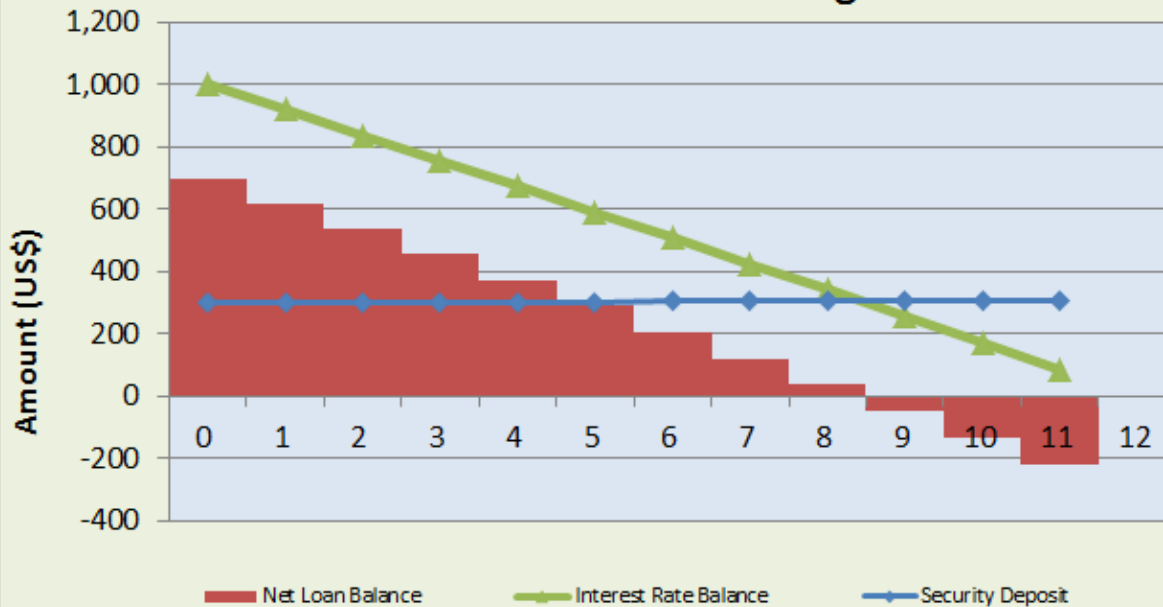
| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | | |
| on interest | | |
| 30.0% upfront | 59.33% | |
| ongoing | | |

Amount \$1,000
 Term 12 Weeks
 Int. on Savings 5.0% Annually

| Total Financial Cost to the Client | Transparency Index | 51 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec.Dep. int): | \$34 | in 12 Weeks, or \$149 in 1 year |
| Avg net loan balance: | \$246 | which is 25% of original loan amount |

30% up-front, pay 10% interest

Loan Balance and Pricing



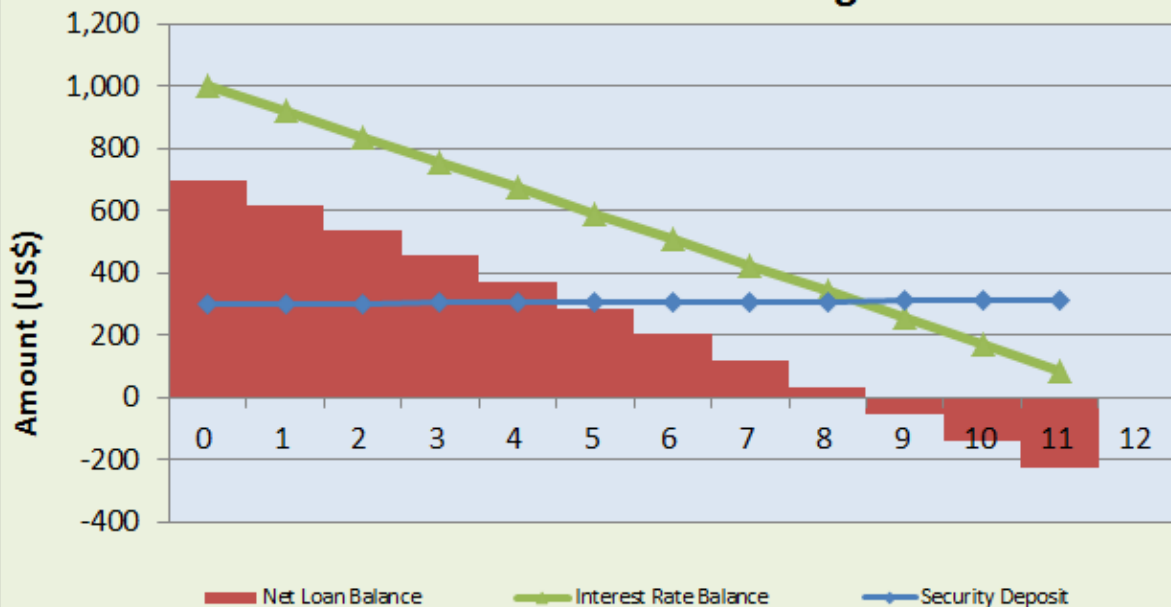
| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | 53.83% | |
| on interest | | |
| 30.0% upfront | | |
| ongoing | | |

| Total Financial Cost to the Client | Transparency Index | 56 |
|------------------------------------|--------------------|---------------------------------------|
| Total Cost (less Sec.Dep. int): | \$31 | in 12 Weeks, or \$134 in 1 year |
| Avg net loan balance: | \$245 | which is 24% of original loan amount |

| | |
|-----------------|----------------|
| Amount | \$1,000 |
| Term | 12 Weeks |
| Int. on Savings | 10.0% Annually |

30% up-front, pay 20% interest

Loan Balance and Pricing



| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | 30.00% | |
| on interest | 30.00% | |
| 30.0% upfront | 42.30% | |
| ongoing | | |

| | |
|-----------------|----------------|
| Amount | \$1,000 |
| Term | 12 Weeks |
| Int. on Savings | 20.0% Annually |

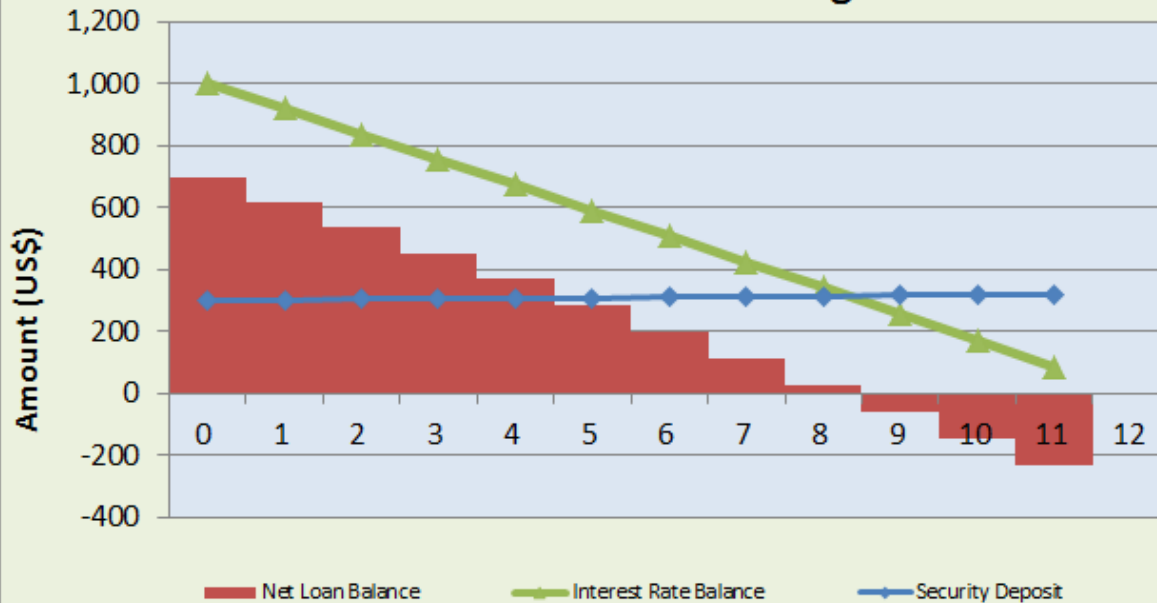
Total Financial Cost to the Client

Transparency Index **71**

| | | | | |
|---------------------------------|-------|--------------------------------------|-------|-----------|
| Total Cost (less Sec.Dep. int): | \$24 | in 12 Weeks, or | \$103 | in 1 year |
| Avg net loan balance: | \$242 | which is 24% of original loan amount | | |

30% up-front, pay 30% interest

Loan Balance and Pricing



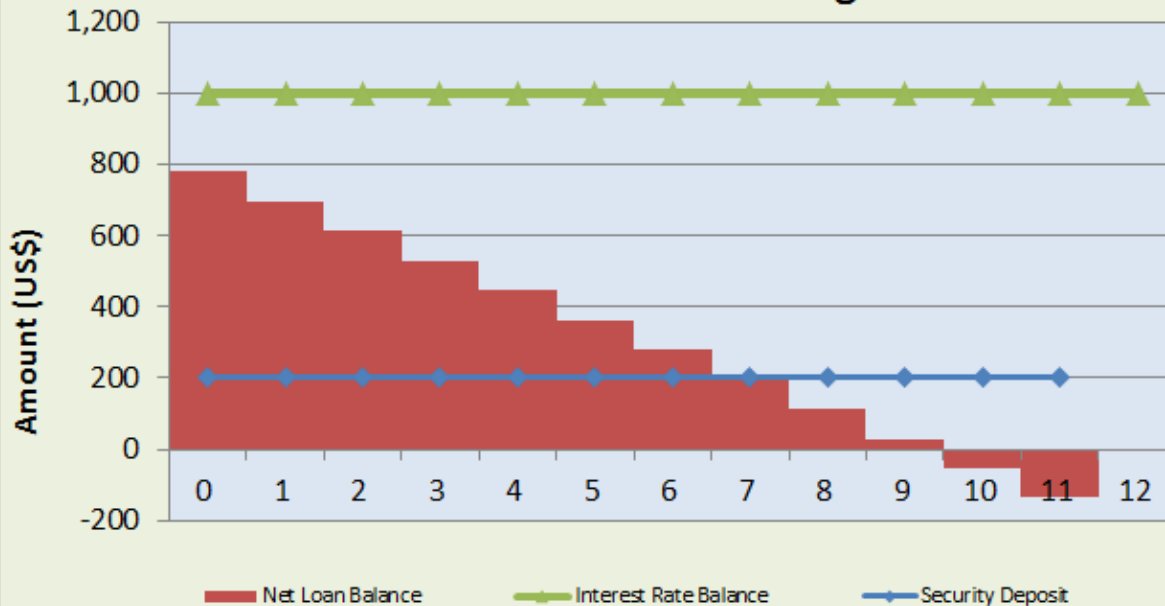
| | APR | |
|-----------------|--------|--------------------|
| 30.0% Declining | 30.00% | Interest |
| upfront | 30.00% | + Fees |
| ongoing | 30.00% | + Insurance |
| upfront | 30.00% | + Taxes |
| ongoing | 30.00% | + Security Deposit |
| on fees | 30.00% | |
| on interest | 30.00% | |
| 30.0% upfront | 30.00% | |
| ongoing | 30.00% | |

| | |
|-----------------|----------------|
| Amount | \$1,000 |
| Term | 12 Weeks |
| Int. on Savings | 30.0% Annually |

| Total Financial Cost to the Client | Transparency Index | 100 |
|------------------------------------|--------------------|--------------------------------------|
| Total Cost (less Sec.Dep. int): | \$16 | in 12 Weeks, or \$71 in 1 year |
| Avg net loan balance: | \$239 | which is 24% of original loan amount |

Complex loan, 20% security deposit

Loan Balance and Pricing



| | APR | |
|---------------|---------|--------------------|
| 30.0% Flat | 54.35% | Interest |
| 2.0% upfront | 71.07% | + Fees |
| ongoing | | |
| 1.0% upfront | 79.62% | + Insurance |
| ongoing | | |
| on fees | 79.62% | + Taxes |
| on interest | | |
| 20.0% upfront | 123.56% | + Security Deposit |
| ongoing | | |

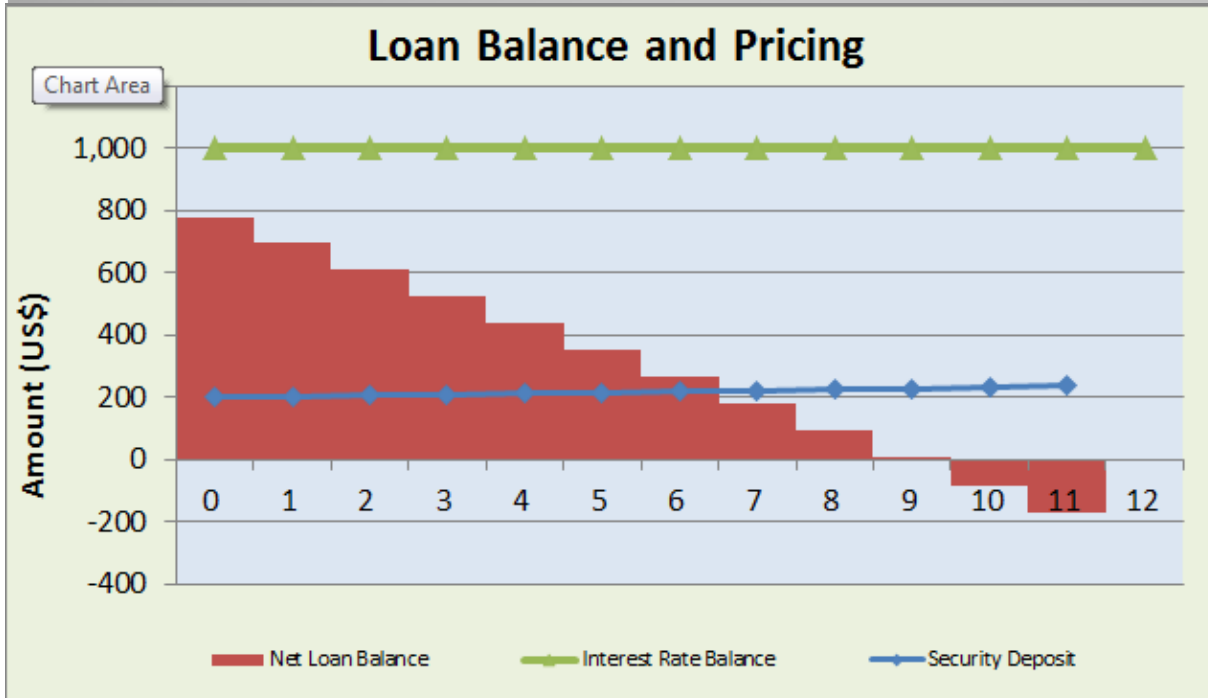
Amount \$1,000
 Term 12 Weeks
 Int. on Savings 0.0% Annually

Total Financial Cost to the Client

Transparency Index 24

Total Cost (less Sec.Dep. int): **\$99** in 12 Weeks, or **\$430** in 1 year
 Avg net loan balance: **\$322** which is 32% of original loan amount

Complex loan, pay 79% on sec. dep.



| | APR | |
|--------------------------|---------------|--------------------|
| 30.0% Flat | 54.35% | Interest |
| 2.0% upfront ongoing | 71.07% | + Fees |
| 1.0% upfront ongoing | 79.62% | + Insurance |
| on fees | 79.62% | + Taxes |
| on interest | 79.62% | + Security Deposit |
| 20.0% upfront ongoing | 79.62% | |

| | |
|-----------------|----------------|
| Amount | \$1,000 |
| Term | 12 Weeks |
| Int. on Savings | 79.6% Annually |

| Total Financial Cost to the Client | Transparency Index | 38 |
|------------------------------------|--------------------|--|
| Total Cost (less Sec.Dep. int): | \$59 | in 12 Weeks, or \$257 in 1 year |
| Avg net loan balance: | \$307 | which is 31% of original loan amount |

**You can use our MFT Pricing
Calculator to deepen your
understanding and to calculate actual
prices of loans**

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing

 Display EIR values

Basic Loan Conditions

Amortization:

Equal principal payments

MPR threshold

 Loan Amount: **\$1,000**

Interest:

Multiple installments

6

Term & Repay Freq.

12

Months

Days/per (t):

30

Capital

Int Pmt

Int Calc

Balloon

Per/Mon (m)

1.00

Grace or Prepay (Months)

Per/Yr (n):

12.00

Loan Pricing

Nominal interest Rate (%)

24.00%

Per year

Nominal Annual & Method

24.00%

Initial amount, or "flat"

Period
MPR (nom)
APR (nom)
EIR (comp)
i
i * *m*
i * *n*
 $(1+i)^n - 1$

3.475%

3.48%
41.70%
50.57%
Upfront
Ongoing
Increment

Fee (%)

1.00%
2.1%

3.646%

3.65%
43.76%
53.58%

Fee (fixed amount)

0.0%

3.646%

3.65%
43.76%
53.58%

Insurance (%)

0.0%

3.646%

3.65%
43.76%
53.58%

Insurance (fixed amount)

0.0%

3.646%

3.65%
43.76%
53.58%

Value-Added Tax (%)

On Fees:

0.0%

3.646%

3.65%
43.76%
53.58%

On Interest:

8.5%

4.358%

4.36%
52.30%
66.69%

Security Deposit (%)

10.0%
8.5%

4.358%

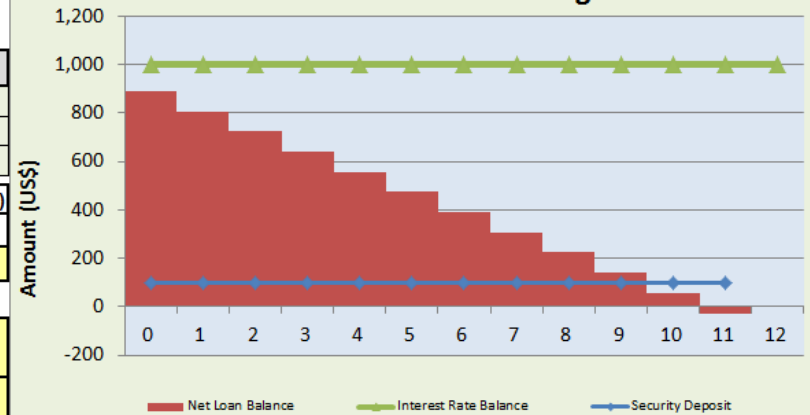
4.36%
52.30%
66.69%

Security Deposit (fixed)

Interest Paid on Deposit (%)

.

Loan Balance and Pricing



Total Financial Cost to the Client

Transparency Index

46

Total Cost (less Sec.Dep. int):

\$250

 in 12 Months, or **\$250** in 1 year

Avg net loan balance:

\$432

which is 43% of original loan amount

Client Breakeven Point:

1.73

Years until total loan cost equals the avg loan balance

Negative Net Balance for:

2

 Months, which is.... **17%** % of loan term

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| | Period | MPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|-----------|-----------|-----------------|
| | i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| | 3.475% | 3.48% | 41.70% | 50.57% |
| | Upfront | Ongoing | Increment | |
| Fee (%) | 1.00% | | 2.1% | 3.646% |
| Fee (fixed amount) | | | | 3.65% |
| Insurance (%) | | | 0.0% | 43.76% |
| Insurance (fixed amount) | | | | 53.58% |
| Value-Added Tax (%) | On Fees: | | 0.0% | 3.646% |
| | On Interest: | | | 3.65% |
| Security Deposit (%) | 10.0% | | 8.5% | 43.76% |
| Security Deposit (fixed) | | | | 53.58% |
| Interest Paid on Deposit (%) | | | | 4.358% |
| | | | | 4.36% |
| | | | | 52.30% |
| | | | | 66.69% |

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Loan Amount: **\$1,000**

Term & Repay Freq.: **12** Months

Grace or Prepay (Months):

Loan Pricing

Nominal interest Rate (%): **24.00%**

Nominal Annual & Method: **24.00%**

Amortization: **Months**

Days/per (t): 30

Per/Mon (m): 1.00

Per/Yr (n): 12.00

Period: **Months**

MPR (nom): **3.48%**

APR (nom): **41.70%**

EIR (comp): **50.57%**

| | Upfront | Ongoing | Increment | | | | |
|------------------------------|--------------|---------|-------------|--------|--------------|---------------|---------------|
| Fee (%) | 1.00% | | 2.1% | 3.646% | 3.65% | 43.76% | 53.58% |
| Fee (fixed amount) | | | | | | | |
| Insurance (%) | | | 0.0% | 3.646% | 3.65% | 43.76% | 53.58% |
| Insurance (fixed amount) | | | | | | | |
| Value-Added Tax (%) | On Fees: | | 0.0% | 3.646% | 3.65% | 43.76% | 53.58% |
| | On Interest: | | | | | | |
| Security Deposit (%) | 10.0% | | 8.5% | 4.358% | 4.36% | 52.30% | 66.69% |
| Security Deposit (fixed) | | | | | | | |
| Interest Paid on Deposit (%) | | | | | | | |

A broad variety of repayment frequencies

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Loan Amount: **\$1,000**

Amortization: Equal principal payments

Interest: Multiple installments

MPR threshold: **6**

Days/per (t): 30

Per/Mon (m): 1.00

Per/Yr (n): 12.00

Configure different repayment schedule options

Loan Pricing

Nominal interest Rate (%) **24.00%** Per year

Nominal Annual & Method **24.00%** Initial amount, or "flat"

| | Upfront | Ongoing | Increment | Period | MPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|---------|-----------|----------|--------------|--------------|-----------------|
| Fee (%) | 1.00% | | 2.1% | <i>i</i> | <i>i * m</i> | <i>i * n</i> | $(1 + i)^n - 1$ |
| Fee (fixed amount) | | | | 3.475% | 3.48% | 41.70% | 50.57% |
| Insurance (%) | | | 0.0% | | | | |
| Insurance (fixed amount) | | | | 3.646% | 3.65% | 43.76% | 53.58% |
| Value-Added Tax (%) | On Fees: | | 0.0% | | | | |
| | On Interest: | | | 3.646% | 3.65% | 43.76% | 53.58% |
| Security Deposit (%) | 10.0% | | 8.5% | | | | |
| Security Deposit (fixed) | | | | 4.358% | 4.36% | 52.30% | 66.69% |
| Interest Paid on Deposit (%) | | | | | | | |

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):

| | | | |
|---------|---------|----------|---------|
| Capital | Int Pmt | Int Calc | Balloon |
| | | | |

Loan Pricing

| | Period | IMPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|----------------|-----------|------------|
| Nominal interest Rate (%) | 24.00% | Per year | | 1 |
| Nominal Annual & Method | 24.00% | Initial amount | | % |
| | Upfront | Ongoing | Increment | |
| Fee (%) | 1.00% | | 2.1% | 3.646% |
| Fee (fixed amount) | | | 3.65% | 43.76% |
| Insurance (%) | | | 0.0% | 3.646% |
| Insurance (fixed amount) | | | 3.65% | 43.76% |
| Value-Added Tax (%) | On Fees: | | 0.0% | 3.646% |
| | On Interest: | | 3.65% | 43.76% |
| Security Deposit (%) | 10.0% | | 8.5% | 4.358% |
| Security Deposit (fixed) | | | 4.36% | 52.30% |
| Interest Paid on Deposit (%) | | | | 66.69% |

Different options for grace periods and balloon payments

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

| | Period | MPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|---------------------------|-----------|------------|
| Nominal interest Rate (%) | 24.00% | Per year | | |
| Nominal Annual & Method | 24.00% | Initial amount, or "flat" | | |
| | Upfront | Ongoing | Incre | |
| Fee (%) | 1.00% | | 2.1 | |
| Fee (fixed amount) | | | | |
| Insurance (%) | | | 0.0% | 3.646% |
| Insurance (fixed amount) | | | | 3.65% |
| Value-Added Tax (%) | On Fees: | | 0.0% | 43.76% |
| | On Interest: | | | 53.58% |
| Security Deposit (%) | 10.0% | | 8.5% | 4.358% |
| Security Deposit (fixed) | | | | 4.36% |
| Interest Paid on Deposit (%) | | | | 52.30% |
| | | | | 66.69% |

Many options to mix upfront and ongoing pricing criteria and percentage or fixed pricing

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| | Period | MPR (nom) | APR (nom) | EIR (comp) |
|------------------------------|--------------|-----------|-----------|-----------------|
| | i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| | 3.475% | 3.48% | 41.70% | 50.57% |
| | Upfront | Ongoing | Increment | |
| Fee (%) | 1.00% | | 2.1% | 3.646% |
| Fee (fixed amount) | | | | 3.65% |
| Insurance (%) | | | 0.0% | 43.76% |
| Insurance (fixed amount) | | | | 53.58% |
| Value-Added Tax (%) | On Fees: | | 0.0% | 3.646% |
| | On Interest: | | | 3.65% |
| Security Deposit (%) | 10.0% | | 8.5% | 43.76% |
| Security Deposit (fixed) | | | | 53.58% |
| Interest Paid on Deposit (%) | | | | 4.358% |
| | | | | 4.36% |
| | | | | 52.30% |
| | | | | 66.69% |

Shows incremental cost of each different price component

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| Period | MPR (nom) | APR (nom) | EIR (comp) |
|---------|-----------|-----------|-----------------|
| i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| 3.475% | 3.48% | 41.70% | 50.57% |
| Upfront | Ongoing | Increment | |

| | | | |
|-----------------------|-------|--------|--------|
| Fee (fixed a | 0.65% | 43.76% | 53.58% |
| Insurance | 0.65% | 43.76% | 53.58% |
| Insurance (fixed a | 0.65% | 43.76% | 53.58% |
| Value-Added T | 0.65% | 43.76% | 53.58% |
| Security Depo | 0.36% | 52.30% | 66.69% |
| Security Depositi | | | |
| Interest Paid on Depo | | | |

Shows pricing for the Period (i.e., repayment frequency) and then converts that price to a Monthly Rate (MPR), a nominal Annual Rate (APR), and a compound Annual Rate (EIR)

MFT Pricing Calculation Tool – Advanced Analysis

Repayment Schedule The following table shows the repayment schedule and cashflow for the loan given the conditions indicated on the companion sheet with the Interest Rate Graph.

Enter Manual Mode to modify dates and specific amounts

13-Jun-10 <-- Disbursement Date Maturity: 13-Jun-11 Days: 365

| Payment Date | | Loan Cost and Cashflow | | | | Interest | | Fees | | | Insurance | | Taxes | | Security Deposit | | | | |
|--------------|-----------|------------------------|---------------------|----------------|----------|---------------|-------------------------|-----------|---------------------|------------|----------------|--------------------------|-------|----------------------|------------------|---------------|-----------------|-----------------|-------------------------|
| Period # | Date | # Days | Principal Disbursed | Principal Paid | Balance | Interest Paid | Cashflow incl. Interest | Fees Paid | Cashflow incl. Fees | Period APR | Insurance Paid | Cashflow incl. insurance | Taxes | Cashflow Incl. Taxes | Security Deposit | Interest Paid | Deposit Withdr. | Deposit Balance | Cashflow incl. Sec.Dep. |
| 0 | 13-Jun-10 | | 1,000.00 | | 1,000.00 | | 1,000.00 | 10.00 | 990.00 | 1.0% | - | 990.00 | - | 990.00 | 100.00 | | | 100.00 | 890.00 |
| 1 | 13-Jul-10 | 30 | | 83.33 | 916.67 | 20.00 | (103.33) | - | (103.33) | 24.4% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 2 | 13-Aug-10 | 31 | | 83.33 | 833.33 | 20.00 | (103.33) | - | (103.33) | 25.7% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 3 | 13-Sep-10 | 31 | | 83.33 | 750.00 | 20.00 | (103.33) | - | (103.33) | 28.3% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 4 | 13-Oct-10 | 30 | | 83.33 | 666.67 | 20.00 | (103.33) | - | (103.33) | 32.5% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 5 | 13-Nov-10 | 31 | | 83.33 | 583.33 | 20.00 | (103.33) | - | (103.33) | 35.3% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 6 | 13-Dec-10 | 30 | | 83.33 | 500.00 | 20.00 | (103.33) | - | (103.33) | 41.7% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 7 | 13-Jan-11 | 31 | | 83.33 | 416.67 | 20.00 | (103.33) | - | (103.33) | 47.1% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 8 | 13-Feb-11 | 31 | | 83.33 | 333.33 | 20.00 | (103.33) | - | (103.33) | 56.6% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 9 | 13-Mar-11 | 28 | | 83.33 | 250.00 | 20.00 | (103.33) | - | (103.33) | 78.3% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 10 | 13-Apr-11 | 31 | | 83.33 | 166.67 | 20.00 | (103.33) | - | (103.33) | 94.3% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 11 | 13-May-11 | 30 | | 83.33 | 83.33 | 20.00 | (103.33) | - | (103.33) | 146.1% | - | (103.33) | - | (103.33) | - | - | - | 100.00 | (103.33) |
| 12 | 13-Jun-11 | 31 | | 83.33 | - | 20.00 | (103.33) | - | (103.33) | 282.8% | - | (103.33) | - | (103.33) | - | - | 100.00 | - | (3.33) |
| | | 365 | 1,000.00 | 1,000.00 | | 240.00 | (240.00) | 10.00 | (250.00) | | 0.00 | (250.00) | 0.00 | (250.00) | 100.00 | 0.00 | 100.00 | | (250.00) |
| MPR | | | | | | | 3.475% | | 3.646% | | | 3.646% | | 3.646% | | | | | 4.358% |
| APR | | | | | | | 41.703% | | 43.756% | | | 43.756% | | 43.756% | | | | | 52.300% |
| EAIR | | | | | | | 50.573% | | 53.582% | | | 53.582% | | 53.582% | | | | | 66.686% |

The tool generates a full repayment schedule and shows the cash flow for the client, which is used to calculate the true price.

MFT Pricing Calculation Tool – Advanced Analysis

| Interest | | | Fees | | | |
|---------------|----------|-------------------------|-----------|----------|---------------------|------------|
| Interest Paid | Override | Cashflow incl. Interest | Fees Paid | Override | Cashflow incl. Fees | Period APR |
| | | 1,000.00 | 10.00 | | 990.00 | 0.0% |
| 20.00 | | (103.33) | - | | (103.33) | 24.4% |
| 20.00 | | (103.33) | - | | (103.33) | 25.7% |
| 20.00 | | (103.33) | - | | (103.33) | 28.3% |
| 20.00 | | (103.33) | - | | (103.33) | 32.5% |
| 20.00 | | (103.33) | - | | (103.33) | 35.3% |
| 20.00 | | (103.33) | - | | (103.33) | 41.7% |
| 20.00 | | (103.33) | - | | (103.33) | 47.1% |
| 20.00 | | (103.33) | - | | (103.33) | 56.6% |
| | | | | | (103.33) | 78.3% |
| | | | | | (103.33) | 94.3% |
| | | | | | (103.33) | 146.1% |
| | | | | | (103.33) | 282.8% |
| | | | | | .00 | (250.00) |
| | | | | | | 3.640% |
| | | | | | | 43.682% |
| | | | | | | 53.582% |

It includes a useful calculation of the APR for each period, showing how pricing changes dramatically with “flat interest” calculations.

MFT Pricing Calculation Tool – Advanced Analysis

Repayment Schedule

The following table shows the repayment schedule and cashflow for the loan given the conditions indicated on the co

Enter Manual Mode to modify dates and specific amounts

13-Jun-10

Disbursement Date

Maturity: 13-Jun-11

Days: 365

| Payment Date | | | | | Loan Cost and Cashflow | | | | Interest | | | Fees | | | |
|--------------|------|---------|-----------|--------|------------------------|----------------|----------|----------|---------------|----------|-------------------------|-----------|----------|---------------------|------------|
| Period # | Days | OR Date | Date | # Days | Principal Disbursed | Principal Paid | Override | Balance | Interest Paid | Override | Cashflow incl. Interest | Fees Paid | Override | Cashflow incl. Fees | Period APR |
| 0 | | | 13-Jun-10 | | 1,000.00 | | | 1,000.00 | | | 1,000.00 | 10.00 | | 990.00 | 0.0% |
| 1 | | | 13-Jul-10 | 30 | | 83.33 | | 916.67 | 20.00 | | (103.33) | - | | (103.33) | 24.4% |
| 2 | | | 13-Aug-10 | 31 | | 83.33 | | 833.33 | 20.00 | | (103.33) | - | | (103.33) | 25.7% |
| 3 | | | 13-Sep-10 | 31 | | 83.33 | | 750.00 | 20.00 | | (103.33) | - | | (103.33) | 28.3% |
| 4 | | | 13-Oct-10 | 30 | | 83.33 | | 666.67 | 20.00 | | (103.33) | - | | (103.33) | 32.5% |
| 5 | | | 13-Nov-10 | 31 | | 83.33 | | 583.33 | 20.00 | | (103.33) | - | | (103.33) | 35.3% |
| 6 | | | 13-Dec-10 | 30 | | 83.33 | | 500.00 | 20.00 | | (103.33) | - | | (103.33) | 41.7% |
| 7 | | | 13-Jan-11 | 31 | | 83.33 | | 416.67 | 20.00 | | (103.33) | - | | (103.33) | 47.1% |
| 8 | | | 13-Feb-11 | 31 | | 83.33 | | 333.33 | 20.00 | | (103.33) | - | | (103.33) | 56.6% |
| 9 | | | 13-Mar-11 | 28 | | 83.33 | | 250.00 | 20.00 | | (103.33) | - | | (103.33) | 78.3% |
| 10 | | | 13-Apr-11 | 31 | | 83.33 | | 166.67 | 20.00 | | (103.33) | - | | (103.33) | 94.3% |
| 11 | | | 13-May-11 | 30 | | 83.33 | | 83.33 | 20.00 | | (103.33) | - | | (103.33) | 146.1% |
| 12 | | | 13-Jun-11 | 31 | | 83.33 | | - | 20.00 | | (103.33) | - | | (103.33) | 282.8% |
| | | | | 365 | 1,000.00 | 1,000.00 | 0.00 | | 240.00 | 0.00 | (240.00) | 10.00 | 0.00 | (250.00) | |
| | | | | | | | | | | | 3.469% | | | 3.640% | |
| | | | | | | | | | | | 41.634% | | | 43.682% | |
| | | | | | | | | | | | | | | 53.582% | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

You can also enter "manual mode" to put in exact dates and amounts when the automatic options don't give you the exact price.

MFT Pricing Calculation Tool – Advanced Analysis

Calculation of Transparent Pricing Display EIR values

Basic Loan Conditions

Amortization: Equal principal payments
 Interest: Multiple installments
 MPR threshold: 6

Loan Amount: \$1,000
 Term & Repay Freq.: 12 Months
 Days/per (t): 30
 Per/Mon (m): 1.00
 Per/Yr (n): 12.00

Grace or Prepay (Months):
 Capital Int Pmt Int Calc Balloon

Loan Pricing

Nominal interest Rate (%): 24.00% Per year
 Nominal Annual & Method: 24.00% Initial amount, or "flat"

| Period | MPR (nom) | APR (nom) | EIR (comp) |
|--------|-----------|-----------|-----------------|
| i | $i * m$ | $i * n$ | $(1 + i)^n - 1$ |
| 3.475% | 3.48% | 41.70% | 50.57% |
| | 3.65% | 43.76% | 53.58% |
| | 3.65% | 43.76% | 53.58% |
| | 3.65% | 43.76% | 53.58% |
| | 4.36% | 52.30% | 66.69% |

Unfront Ongoing Increment

Fee (fixed)
 Insurance (fixed)
 Value-Added
 Security Depos
 Security Depos
 Interest Paid on Dep

All the standardized prices – MPR, APR, and EIR – are derived from the same process:

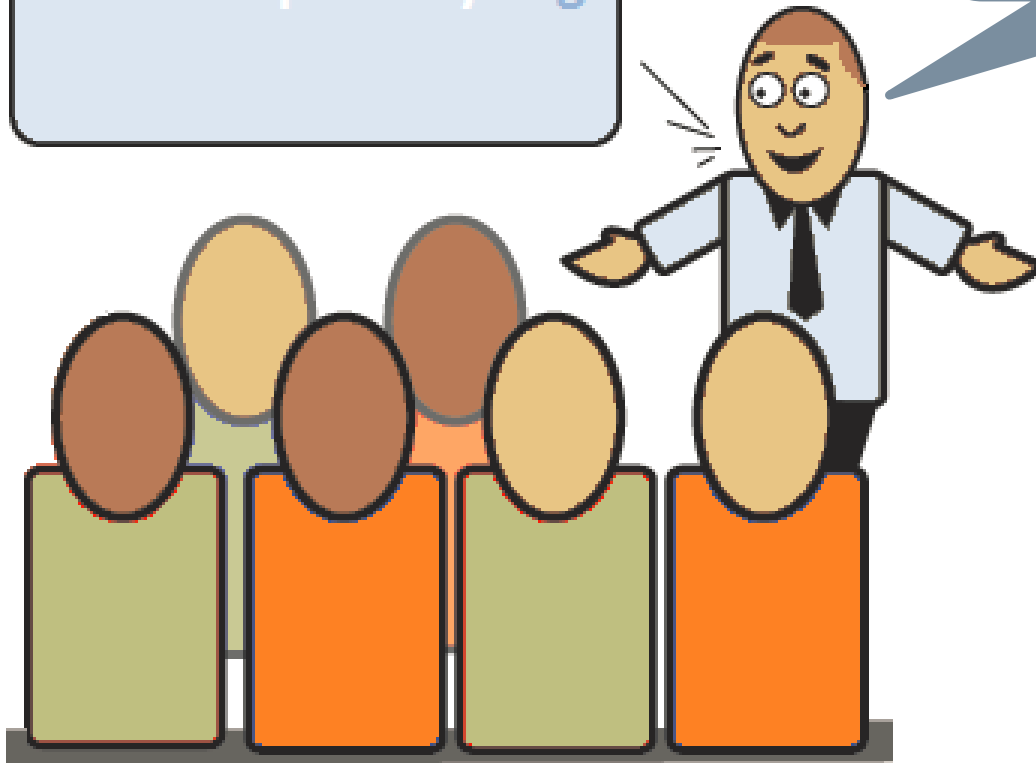
- Determine the “discount rate” (i) for the period
- Convert to an annual (or monthly) figure

COLLATERAL DEPOSITS (“SAVINGS”)

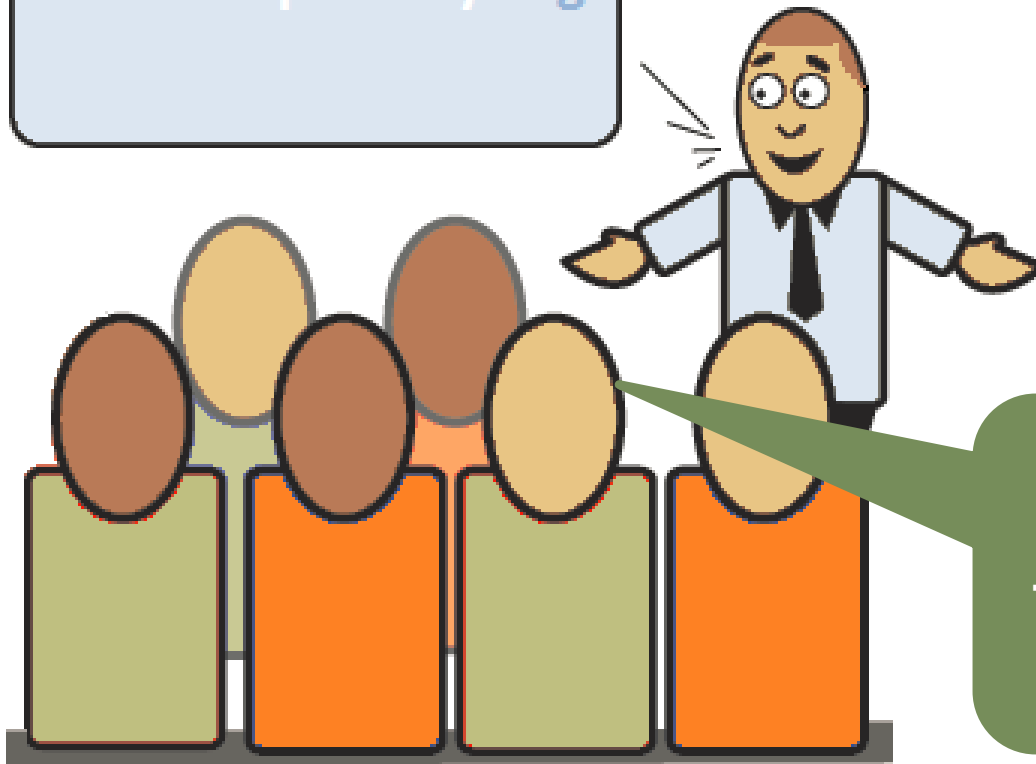
Though potentially offering some benefits to the client, compulsory deposits clearly have a financial cost to the client.

mftransparency.org

“The full cost of a loan must include not only interest and fees, but also Compulsory Deposits, that we often call “savings”



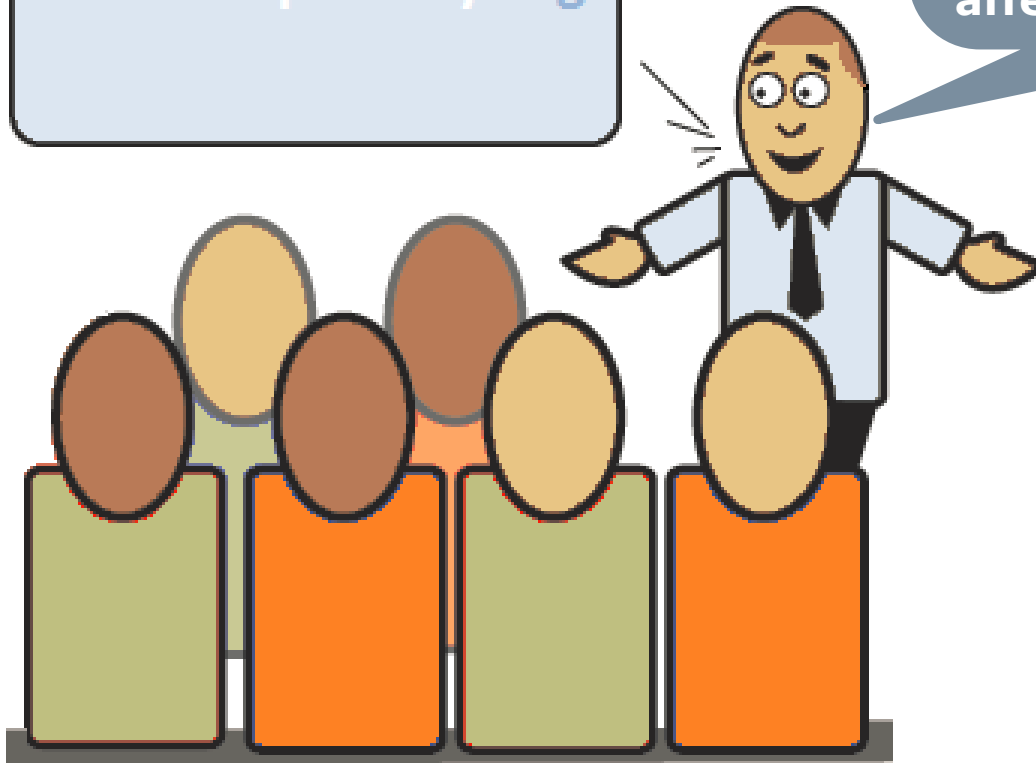
mftransparency.org



"I believe it should be what the client pays – interest and fees. The Total Cost of Credit is the real cost. Savings is a benefit, not a cost."

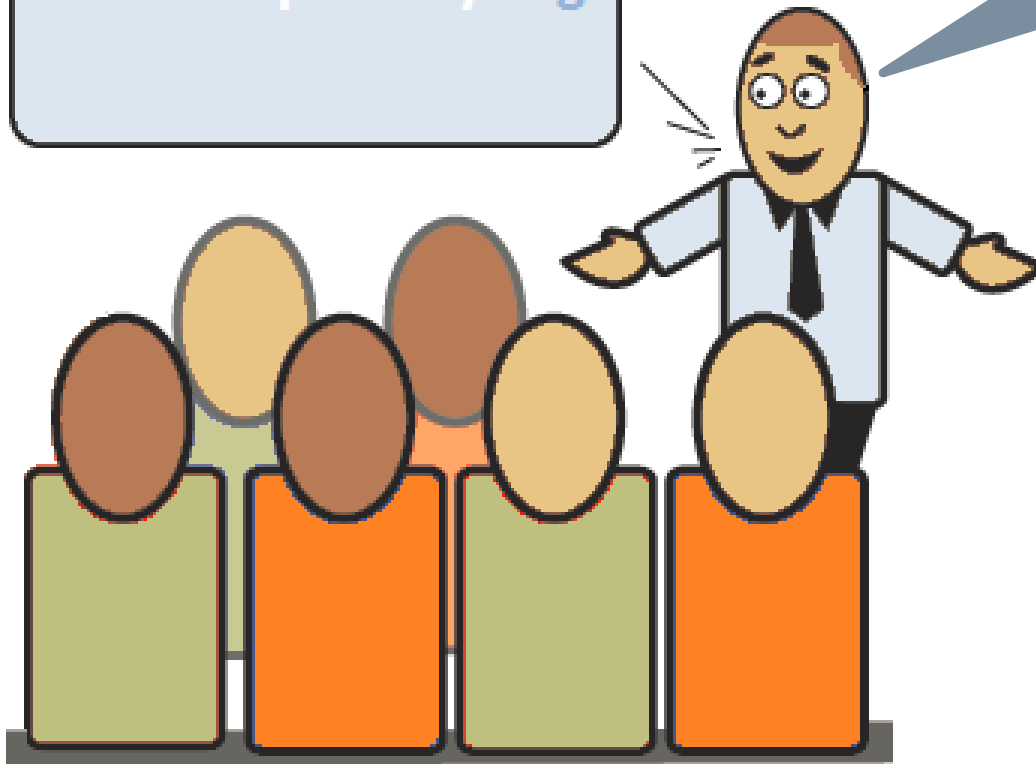
mftransparency.org

“Savings does have some perceived benefit – the client leaves with cash in their pocket. But when borrowing and saving at the same time, that savings affects the price of the loan”



mftransparency.org

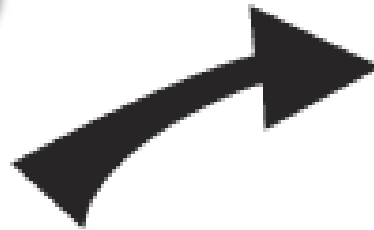
“Let’s look at a simple example, following a loan to a client, to understand why.”



“Here’s a loan.... AND we help you **SAVE**”
(savings is a requirement of this loan)



Loan Term = 10 months
Loan Amount = \$1000
Compulsory deposit = 20%
Interest Rate = 2.5% per month (flat) or \$25 per month



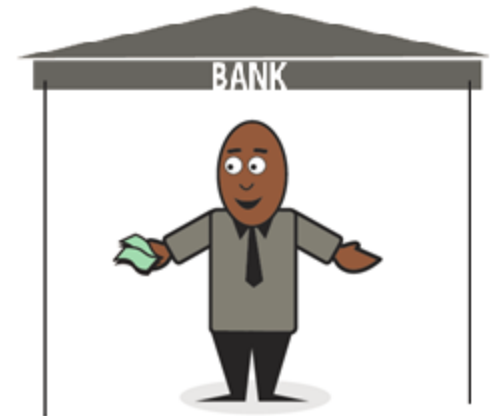
After 1 month



% interest



Part of the loan interest paid is for the part of the loan that is in "savings"

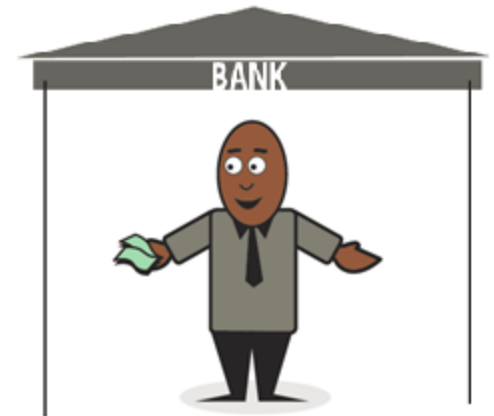


% interest + principal

After 6 months – Amounts are equal



% interest

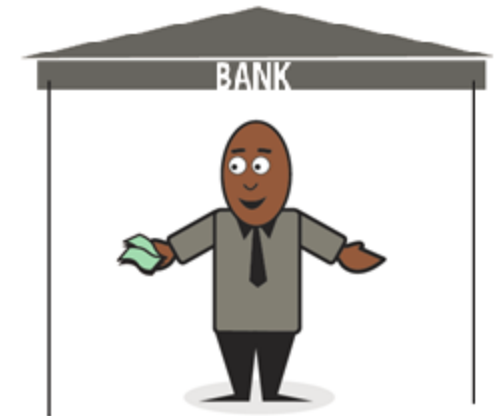


% interest + principal

After 8 months - none of original loan left



% interest



% interest + principal

Loan payments are now coming out of her business assets, as all the loan that went to the business is repaid

shop



So client may be forced to liquidate stock in order to repay the loan

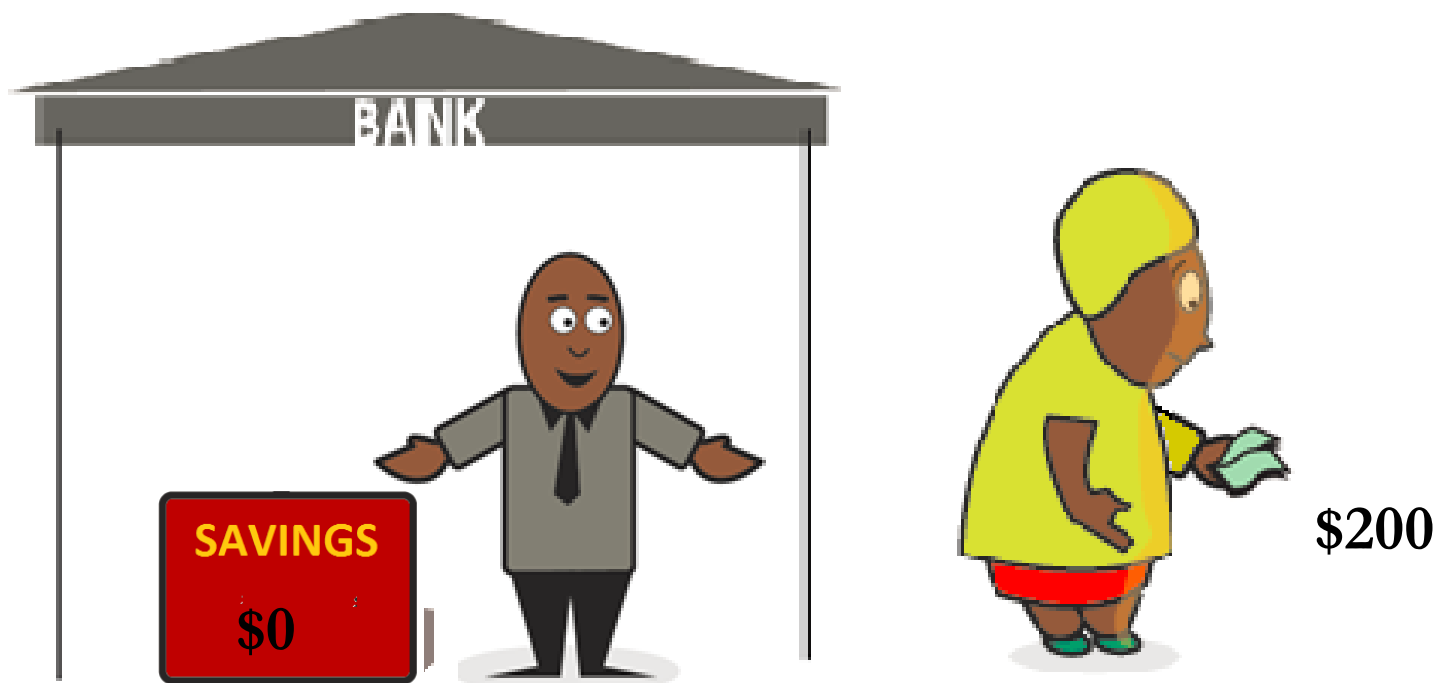
SAVINGS



BUSINESS

Negative \$!!

At end of loan – savings are repaid to client



But what has client actually paid?

Using TCC – Total Cost of Credit

PRINCIPAL

Loan repayments = \$1000



With Savings

INTEREST

Interest paid on loan = \$200

Interest paid on savings = \$50

TCC = \$250

Av. Loan Balance for
business = \$350

Without Savings

INTEREST

Interest paid on loan = \$250

TCC = \$250

Av. Loan Balance for
business = \$550

But what has client actually paid?

Using APR – Annual Percentage Rate

PRINCIPAL

Loan repayments = \$1000



With Savings

INTEREST

Interest paid on loan = \$200

Interest paid on savings = \$50

Total APR = 75%

Av. Loan Balance for
business = \$350

Without Savings

INTEREST

Interest paid on loan = \$250

Total APR = 51%

Av. Loan Balance for
business = \$550

Burning off the Fog of Pricing

Making sense of the complications of the price communicated

Fanikiwa Microfinance Company Limited**Zanzibar****Loan Repayment Schedule**

Client Name : ██████████ Client ID : ██████████
Account ID : ██████████ Loan Series : 1
Product Name : Personal Loans
Loan Amount : 3,000,000.00 (TZS) Interest Rate : 24.00 %Flat
Term : 12 (Month(s)) Repayment Term : 12 (Monthly)

| Installment No. | Installment Due Date | Installment Amount |
|-----------------|----------------------|--------------------|
| 1 | 20/Mar/2013 | 310,000.00 |
| 2 | 22/Apr/2013 | 310,000.00 |
| 3 | 20/May/2013 | 310,000.00 |
| 4 | 20/Jun/2013 | 310,000.00 |
| 5 | 22/Jul/2013 | 310,000.00 |
| 6 | 20/Aug/2013 | 310,000.00 |
| 7 | 20/Sep/2013 | 310,000.00 |
| 8 | 21/Oct/2013 | 310,000.00 |
| 9 | 20/Nov/2013 | 310,000.00 |
| 10 | 20/Dec/2013 | 310,000.00 |
| 11 | 20/Jan/2014 | 310,000.00 |
| 12 | 20/Feb/2014 | 310,000.00 |

MicroFinance Transparency Pricing Calculation

Institution: Fanikiwa Microfinance Company Limited

Country: Tanzania

Full Price: 62.42%

Product 4: Personal Loan

Transparency Index: 38/100

Sample 3 of 5, Variation 1 of 1 FileName: TZ-006-V02-FMFC-P04-PriceCalc-S3-1-20130208.PDF

Date of Analysis: 2013-05-22

| Loan Amt: | 3,000,000.00 | Pricing Info | Quoted info | Total Pd | Incr | MPR | APR | EIR |
|----------------------|--------------|-------------------|---------------------|-------------------|--------|--------------|---------------|---------------|
| Avg Balance: | NA* | Interest | 24.00% annual, Flat | 720,000.00 | 41.24% | 3.44% | 41.24% | 51.01% |
| Disb Date: | 20-Feb-13 | Fees | 2.00% upfront | 60,000.00 | 4.02% | 3.77% | 45.26% | 57.20% |
| Term (Months): | 12.0 | Insurance | 1.00% upfront | 30,000.00 | 2.05% | 3.94% | 47.31% | 60.45% |
| Grace (Months): | -0.1 | Taxes | None | 0.00 | 0.00% | 3.94% | 47.31% | 60.45% |
| | | Deposit | 15.00% upfront | | 15.11% | 5.20% | 62.42% | 86.58% |
| Transp INDEX: | 38 | Total Cost | | 810,000.00 | | 5.20% | 62.42% | 86.58% |

| Loan Amount & Balance | | | Total Cost of Loan | | | | Compulsory Deposit | | | | |
|--|-----------|--------------|--------------------|------------------|------------------|------------------|--------------------|-------------------|--------------|---------------------|-------------|
| Per | Date | Disburse | Prin+Int | Fees | Insurance | Taxes | Deposit | Interest | Withdraw | Balance | |
| Transparent Price (nominal APR) | | | 41.24% | 45.26% | 47.31% | 47.31% | 62.42% | | | | |
| Totals | | | 3,000,000 | 3,720,000 | 60,000.00 | 30,000.00 | 0.00 | 450,000.00 | 0.00 | (450,000.00) | 0.00 |
| 0 | 20-Feb-13 | 3,000,000.00 | - | 60,000.00 | 30,000.00 | - | 450,000.00 | - | - | 450,000.00 | |
| 1 | 20-Mar-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 2 | 22-Apr-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 3 | 20-May-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 4 | 20-Jun-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 5 | 22-Jul-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 6 | 20-Aug-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 7 | 20-Sep-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 8 | 21-Oct-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 9 | 20-Nov-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 10 | 20-Dec-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 11 | 20-Jan-14 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 | |
| 12 | 20-Feb-14 | - | 310,000.00 | - | - | - | - | - | (450,000.00) | - | |

| Loan Amount & Balance | | | Total Cost of Loan | | |
|--|-----------|------------------|--------------------|------------------|------------------|
| Per | Date | Disburse | Prin+Int | Fees | Insurance |
| Transparent Price (nominal APR) | | | 41.24% | 45.26% | 47.31% |
| Totals | | 3,000,000 | 3,720,000 | 60,000.00 | 30,000.00 |
| 0 | 20-Feb-13 | 3,000,000.00 | - | 60,000.00 | 30,000.00 |
| 1 | 20-Mar-13 | - | 310,000.00 | - | - |
| 2 | 22-Apr-13 | - | 310,000.00 | - | - |
| 3 | 20-May-13 | - | 310,000.00 | - | - |
| 4 | 20-Jun-13 | - | 310,000.00 | - | - |
| 5 | 22-Jul-13 | - | 310,000.00 | - | - |
| 6 | 20-Aug-13 | - | 310,000.00 | - | - |
| 7 | 20-Sep-13 | - | 310,000.00 | - | - |
| 8 | 21-Oct-13 | - | 310,000.00 | - | - |
| 9 | 20-Nov-13 | - | 310,000.00 | - | - |
| 10 | 20-Dec-13 | - | 310,000.00 | - | - |
| 11 | 20-Jan-14 | - | 310,000.00 | - | - |
| 12 | 20-Feb-14 | - | 310,000.00 | - | - |

MicroFinance Transparency Pricing Calculation

Institution: Fanikiwa Microfinance Company Limited

Country: Tanzania

Full Price: 62.42%

Product 4: Personal Loan

Transparency Index: 38/100

Sample 3 of 5, Variation 1 of 1 FileName: TZ-006-V02-FMFC-P04-PriceCalc-S3-1-20130208.PDF

Date of Analysis: 2013-05-22

| Loan Amt: | 3,000,000.00 | Pricing Info | Quoted info | Total Pd | Incr | MPR | APR | EIR |
|----------------------|--------------|-------------------|---------------------|-------------------|--------|--------------|---------------|---------------|
| Avg Balance: | NA* | Interest | 24.00% annual, Flat | 720,000.00 | 41.24% | 3.44% | 41.24% | 51.01% |
| Disb Date: | 20-Feb-13 | Fees | 2.00% upfront | 60,000.00 | 4.02% | 3.77% | 45.26% | 57.20% |
| Term (Months): | 12.0 | Insurance | 1.00% upfront | 30,000.00 | 2.05% | 3.94% | 47.31% | 60.45% |
| Grace (Months): | -0.1 | Taxes | None | 0.00 | 0.00% | 3.94% | 47.31% | 60.45% |
| | | Deposit | 15.00% upfront | | 15.11% | 5.20% | 62.42% | 86.58% |
| Transp INDEX: | 38 | Total Cost | | 810,000.00 | | 5.20% | 62.42% | 86.58% |

| Loan Amount & Balance | | | Total Cost of Loan | | | | Compulsory Deposit | | | |
|--|-----------|------------------|--------------------|------------------|------------------|---------------|--------------------|-------------|---------------------|-------------|
| Per | Date | Disburse | Prin+Int | Fees | Insurance | Taxes | Deposit | Interest | Withdraw | Balance |
| Transparent Price (nominal APR) | | | 41.24% | 45.26% | 47.31% | 47.31% | 62.42% | | | |
| Totals | | 3,000,000 | 3,720,000 | 60,000.00 | 30,000.00 | 0.00 | 450,000.00 | 0.00 | (450,000.00) | 0.00 |
| 0 | 20-Feb-13 | 3,000,000.00 | - | 60,000.00 | 30,000.00 | - | 450,000.00 | - | - | 450,000.00 |
| 1 | 20-Mar-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 2 | 22-Apr-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 3 | 20-May-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 4 | 20-Jun-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 5 | 22-Jul-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 6 | 20-Aug-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 7 | 20-Sep-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 8 | 21-Oct-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 9 | 20-Nov-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 10 | 20-Dec-13 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 11 | 20-Jan-14 | - | 310,000.00 | - | - | - | - | - | - | 450,000.00 |
| 12 | 20-Feb-14 | - | 310,000.00 | - | - | - | - | - | (450,000.00) | - |

Company Limited

Country: Tanzania

Full Price: 62.42%

Transparency Index: 38/100

006-V02-FMFC-P04-PriceCalc-S3-1-20130208.PDF

Date of Analysis: 2013-05-22

| Pricing Info | Quoted info | Total Pd | Incr | MPR | APR | EIR |
|-------------------|---------------------|-------------------|--------|--------------|---------------|---------------|
| Interest | 24.00% annual, Flat | 720,000.00 | 41.24% | 3.44% | 41.24% | 51.01% |
| Fees | 2.00% upfront | 60,000.00 | 4.02% | 3.77% | 45.26% | 57.20% |
| Insurance | 1.00% upfront | 30,000.00 | 2.05% | 3.94% | 47.31% | 60.45% |
| Taxes | None | 0.00 | 0.00% | 3.94% | 47.31% | 60.45% |
| Deposit | 15.00% upfront | | 15.11% | 5.20% | 62.42% | 86.58% |
| Total Cost | | 810,000.00 | | 5.20% | 62.42% | 86.58% |

Company Limited

Country: Tanzania

Full Price: 62.42%

Transparency Index: 38/100

006-V02-FMFC-P04-PriceCalc-S3-1-20130208.PDF

Date of Analysis: 2013-05-22

| Pricing Info | Quoted info | Total Pd | Incr | MPR | APR | EIR |
|-------------------|---------------------|-------------------|--------|--------------|---------------|---------------|
| Interest | 24.00% annual, Flat | 720,000.00 | 41.24% | 3.44% | 41.24% | 51.01% |
| Fees | 2.00% upfront | 60,000.00 | 4.02% | 3.77% | 45.26% | 57.20% |
| Insurance | 1.00% upfront | 30,000.00 | 2.05% | 3.94% | 47.31% | 60.45% |
| Taxes | None | 0.00 | 0.00% | 3.94% | 47.31% | 60.45% |
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Group Exercise – Part I

- Review some example repayment schedules that clients receive. Compare the information to the complete information for the companion MFT Price Calculation Sheet.
- Rate what is good and what needs improvement

| Sample | Strengths | Weaknesses |
|------------------------|-----------|------------|
| Gatsby Microfinance | | |
| Ujjivan | | |
| Hofokam | | |

Group Exercise – Part II

- Review the different price components and propose an approach for how legislation should address them

| Price Components | Approach |
|---|----------|
| Interest | |
| Should flat interest be allowed? | |
| Should there be a single defined approach to how interest is calculated | |
| Fees | |
| Should there be a limit to the number of fees charged? | |



Promoting Transparent Pricing in the Microfinance Industry

MicroFinance Transparency is an NGO registered in the USA

