farseer | Startup Finances Academy

EPISODE 1

SaaS Startup KPIs

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Overview

- Why is financial education crucial for successful startups?
- How SaaS startups differ from traditional business?
- Setting up the Financial Model: Tracking & Planning
- SaaS Revenue Structure & segmentation
- SaaS Cost Structure (by function and by nature)
- How does it come together? (P&L) Profit and Loss statement
- Input Assumptions: How to forecast revenue?
- Input Assumptions: How to forecast cost?
- Basic Financial KPIs and how to use them
- How does it all look in **farseer**?
- Q&A

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Why is financial education crucial for successful startups?

- You need a financial model to build an economically viable business. **You cannot manage what you cannot measure.**
- One of the top reasons that startups fail is **lack of cash**.Thus it is key to manage finances.
- You need a financial model as part of the **fundraising process.**
- You need a financial model to **inform yourself and shareholders.**
- It is **not easy** to develop relevant metrics

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How SaaS startups differ from traditional business?

- Subscription model: Recurring Revenue
- Higher importance of customer retention than most traditional business models
- Constant Product Updates
- Growth is often more important than profitability
- Cash Runway: Burning cash to reach important milestones
- Cash balance typically looks like this:

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The gist of startup finance

Key question: do we have enough runway to reach the next financing round?

Cash flow runway(months) = planned cash balance / planned monthly burn rate

Cash balance = cash in - cash out + cash from financing

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Setting up the Financial Model: Tracking & Planning

Inputs:

Tracking:

- SaaS specific Chart of Accounts (financial info should explain/follow business)
- Accounting (monthly tracking of revenues, costs, cash)
- Attention to: Revenue Recognition
- Relevant software tools (accounting platform, subscription management tool, pricing - invoicing/billing platform, payment platform)
- Quantitative (e.g. conversion rate) and qualitative data (e.g customer satisfaction)

Planning:

- Historical data
- Market data
- Assumptions

Outputs:

Tracking:

- Financial Statements: P&L, Cash Flow statement, Balance Sheet
- Business KPIs

Planning:

- Forecast/Target: (future projection of Financial statements and KPIs)
  - Short-term (≤1 yr) and long-term target (3-5 yrs), Rolling estimate (monthly or quarterly)
  - Top-Down (trendline), or Bottom-Up (drivers)

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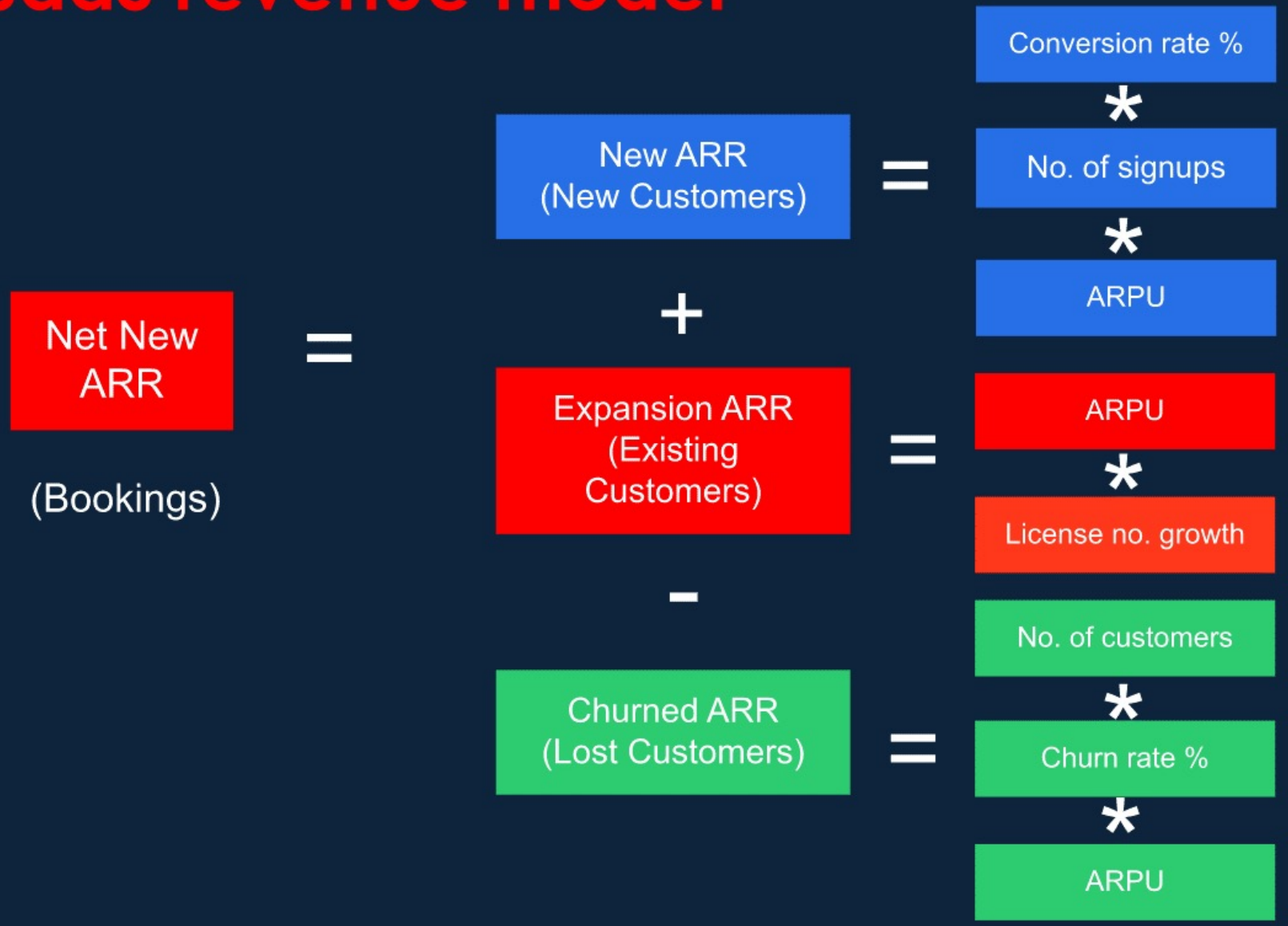
SaaS revenue model



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SaaS Revenue Structure : Recognition - Segmentation

Revenue Recognition:

- Revenue recognition is the process or accounting network to correctly apply the revenue based on the contracts you sign with your customer.

Revenue segmentation:

- Revenue by month, customer, product, region, salesperson etc
- Report it under different GL Accounts or profit centers
- Clearly defined Revenue Streams/Categories: (Subscription, Transactional, Services, Recurring – Non recurring)
    - Subscription Revenue (license, usage based, freemium/premium, transaction fees)
    - Upselling, cross selling, new versions (Improved: storage, speed, data, features, customized solutions, products/services)
    - Affiliate sales
    - APIs
    - White label licensing
    - Setup/validation/implementation fees
    - Reporting
    - Customer Service and technical support
    - Consulting
    - Advertising revenue
    - Reselling and partnerships revenue

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SaaS Cost Structure (code expenses by function and by nature)

Costs of Sales

- Hosting
- Payroll engineering and support personnel (salaries,taxes,benefits,travel)
- Merchant/Partner fees
- Subcontractor fees
- Software and tools cost
- Any other product development & support costs

Operating Expenses (OPEX)

Sales & Marketing
- Advertising & related marketing activities
- Promotional events
- Payroll Sales and Marketing personnel (salaries,taxes,benefits,travel)
- Subcontractor fees
- Software and tools cost
- Depreciation

Engineering (R&D only)
- Subcontractor fees
- Software and tools cost
- Payroll (salaries,taxes,benefits,travel,etc)
- Depreciation

General & Admin (Overhead)
- Subcontractor fees
- Software and tools cost
- Payroll (salaries,taxes, benefits,travel)
- Depreciation

Non – Operating Costs

Other non operating income & expenses (Non-operating)

Interest income and expenses (Financial)

Tax

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How does it come together? (P&L) Profit and Loss statement

Total Gross Revenue

Write-Off Revenue (unlikely to be paid)

Discounts

Net Revenue

Costs of Revenue

TIME DIMENSION

Gross Profit

OPEX

Depreciation

Operating Profit

Other non operating Income/Expenses

EBIT (Earnings Before Interest and Tax)

Interest Expenses/Income (Financial)

Tax

Net Profit

General / P&L

P&L

	2021	2022	2023
Revenue	**447.302**	**992.976**	**2.377.820**
Cost of revenue	53.640	119.160	285.240
Gross margin	**393.662**	**873.816**	**2.092.580**
Operational costs	**2.390.468**	**3.840.984**	**6.292.384**
Marketing	80.484	600.000	960.000
Employees	1.646.984	2.337.384	3.955.384
Office	180.000	360.000	720.000
Consultants	360.000	396.000	435.600
Tools	123.000	147.600	221.400
EBITDA	-1.996.806	-2.967.168	-4.199.804

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Input Assumptions: How to forecast revenue?

1. Start with past performance. Use data segmentation if available.
2. Consider Market research and benchmarking to similar business
3. Analyze your Sales Pipeline. (probability of new customers) and Conversion Rates
4. Measure the marketing and sales performance.
5. Measure the probability of subscription renewals.
6. Consider add-on sales.
7. Do not forget to include churn.
8. Consider capacity to support growth and risk factors
9. Set achievable targets

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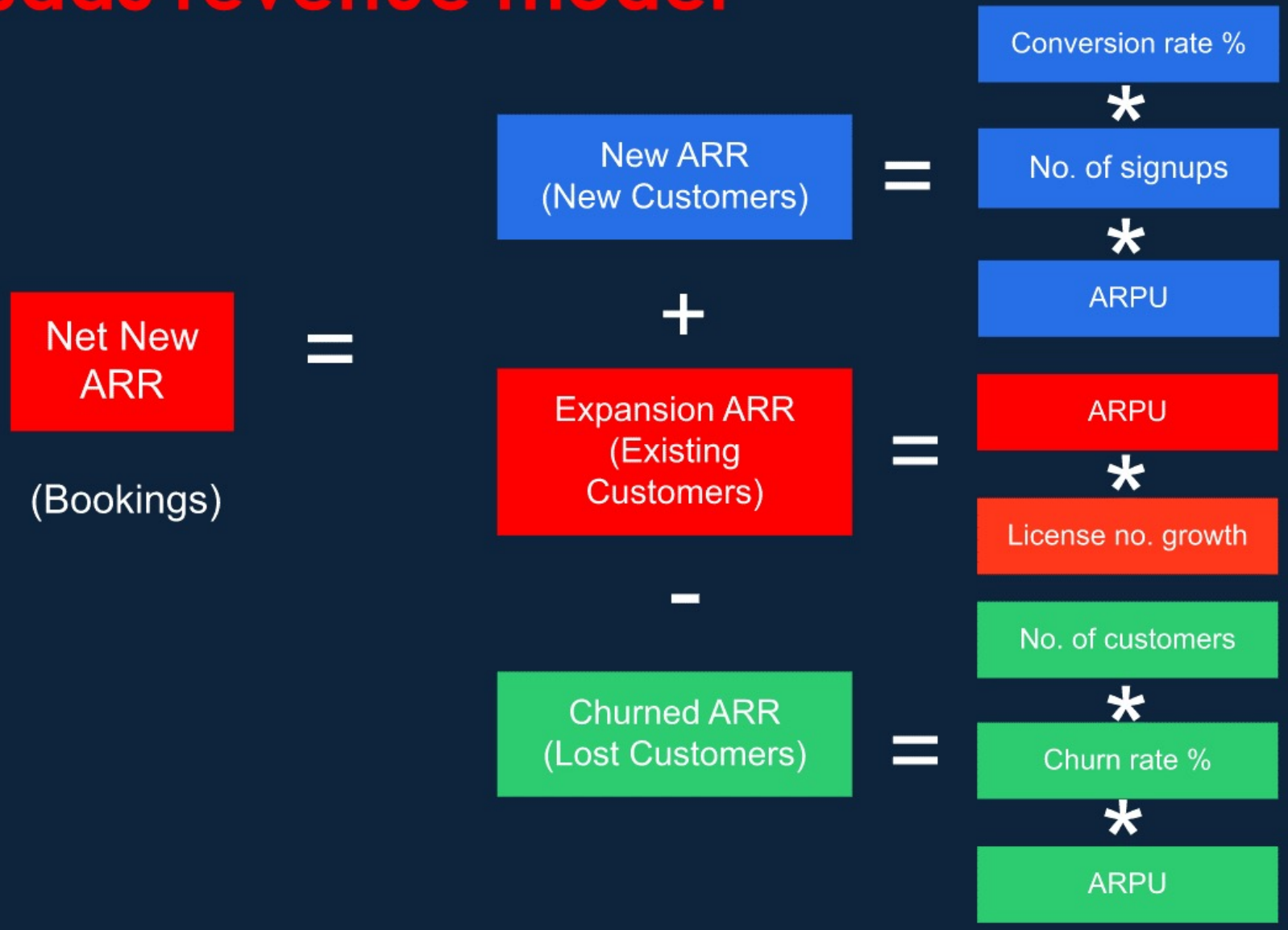
SaaS revenue model



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Input Assumptions: How to forecast cost?

- Use P&L structure over time, consider cash runway, projected revenue and profitability targets
- Define costs that grow with number of customers/employees
- Trends on Employee salaries, average cost of products and services, accounting and tax regulations
- Give a budget to every team and make them cash runway aware.
- Always keep runway and zero cash date in mind.
- Always budget for risks if possible.

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Basic Financial KPIs and how to use them

Customer Count Metrics	Conversion Rate, (New) Customer Count, Customer Churn
Recurring Revenue Metrics	MRR/ARR, Gross Revenue Churn, Net Revenue Churn
Cash Flow	Days Sales Outstanding, Cash Burn
Customer Unit Economic Metrics	LTV,CAC, LTV/CAC, Months to Recover CAC

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Customer Count Metrics

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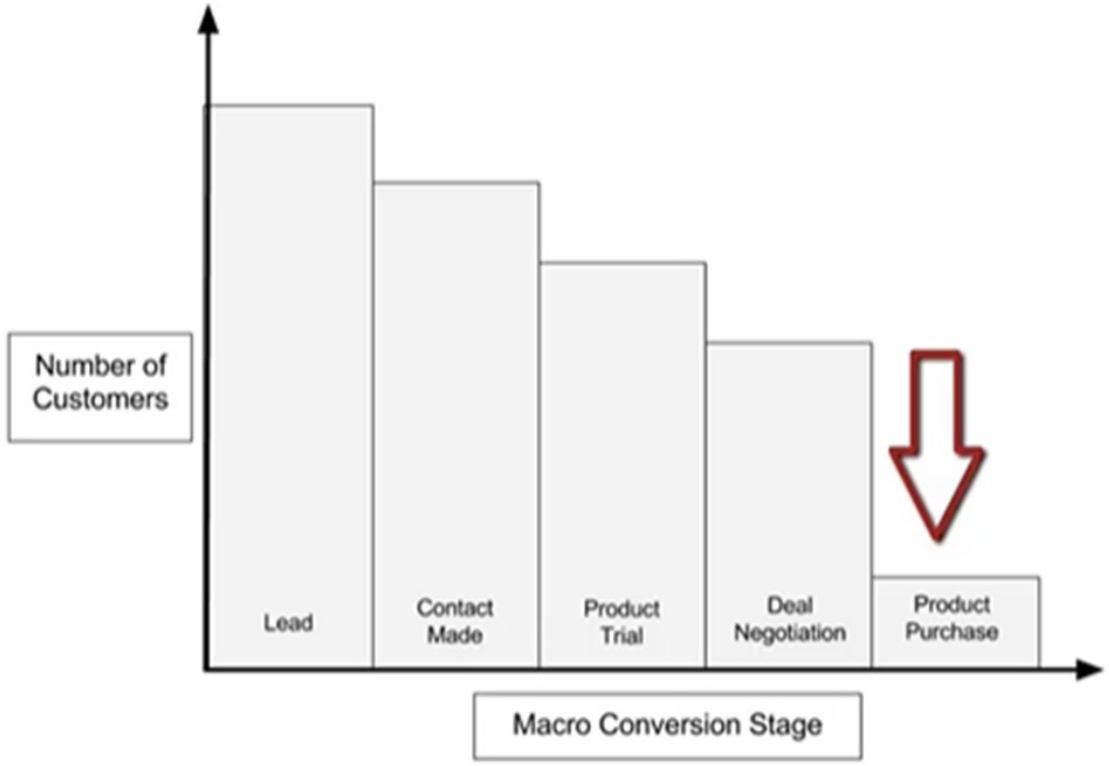
Customer Count Metrics: Conversion Rate

What is it?

- **(Macro) Conversion Rate:** Percentage of initial leads that becomes a paying customer.
- **(Micro) Conversion Rate:** Percentage of customers that moves through each stage of the sales funnel

How to use it?

- To **measure sales efficiency** in each step of the funnel.
- To **forecast revenue**.



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Customer Count Metrics: Customer Churn Rate

What is it?

- **Customer Churn Rate:** Percentage of Customers who stop using our product.

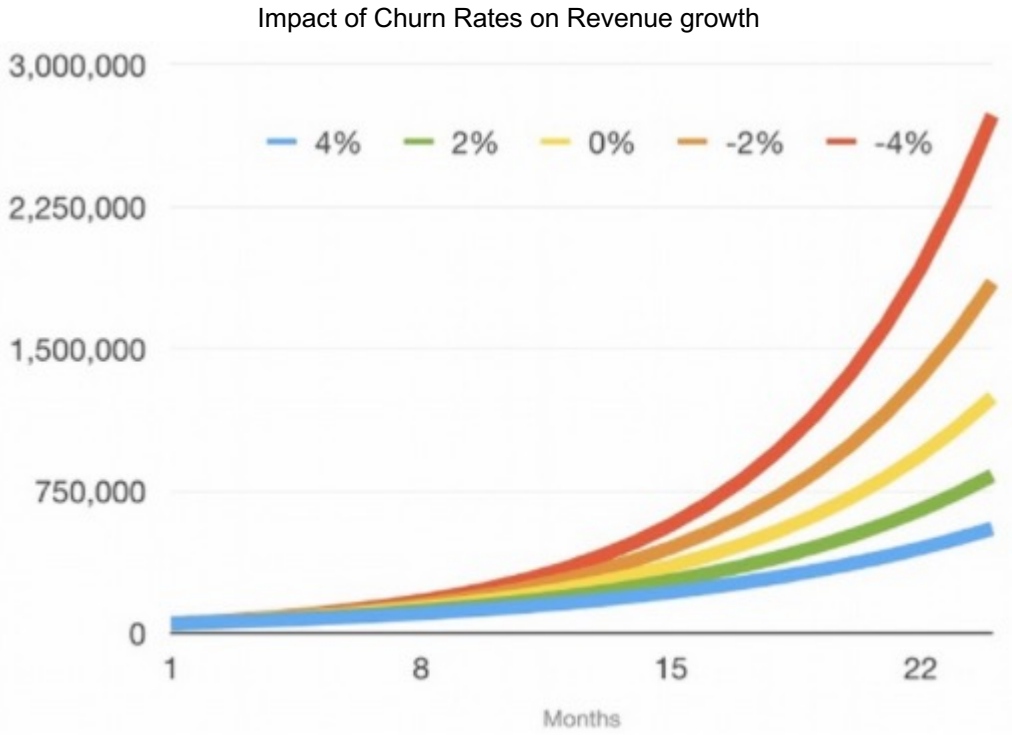
$$\text{Customer churn} = \frac{\text{Total \# of churned customers}}{\text{Total \# of customers}}$$

How to use it?

- To **forecast revenue growth**.
- To **measure Product – Market Fit (PMF)**
- To **measure Customer Satisfaction and Loyalty**

Tip:

- SME customer churn is higher due to lower switching cost (contract value, implementation cost,payment terms)



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Customer Count Metrics: compare vs actuals

Abbreviations:

MTD: Month-to-date = current month

MoM: Month-on Month growth: growth in current month vs last month

YoY: Year on year growth: current month vs same month last year

LTM: Last 12 months (could be measured as a sum or as average)

Segmentation:

Tracking Metrics by each month, product type, geographical area, or customer group

Target

Track and manage against a target

	XYZ Company Metrics	MTD	MoM % growth	YoY % growth	LTM	MoM % growth	YoY % growth
Customer Count Metrics	**Churn Rate**						
	Start of period Customers	593	3,1%	9,8%	7.120	5,3%	7,5%
	New Customers	14	6,7%	14,3%	217	4,8%	7,4%
	Churned Customers	12	-7,7%	-14,3%	164	-2,4%	-3,5%
	End of Period Customer	595	3,5%	10,6%	7.501	10,3%	12,7%
	Period Churn Rate	2,0%	-0,2%	-2,8%	2,3%	-0,2%	-2,7%
	Conversion Absolute						
	Leads	467	3,1%	9,9%	5.604	3,1%	9,9%
	Contact Made	243	6,1%	15,2%	2.893	5,6%	15,2%
	Product Trial	130	7,4%	18,2%	1.575	12,6%	22,6%
	Deal Negotiation	66	8,2%	15,8%	798	5,7%	16,7%
	Product Purchase	14	6,7%	14,3%	175	29,6%	4,2%
	Conversion Rate %						
	Leads	100%			100%		
	Contact Made	52,0%	1,5%	2,4%	51,6%	1,2%	2,4%
	Product Trial	27,8%	1,1%	2,0%	28,1%	2,4%	2,9%
	Deal Negotiation	14,1%	0,7%	0,7%	14,2%	0,4%	0,8%
	Product Purchase	3,0%	0,1%	0,1%	3,1%	0,6%	-0,2%

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Customer Count Metrics: Rolling Forecast

	XYZ Company Metrics	MTD	vs PY	vs LE	vs Target	YTD	vs PY	vs LE	vs Target	YTG	vs PY	vs LE	vs Target	FY	vs PY	vs LE	vs Target
Customer Count Metrics	**Churn Rate**																
	Start of period Customers	593	3,1%	7,8%	-1,2%	1.779	24,0%	1,9%	-8,8%	5.337	3,1%	7,8%	-1,2%	7.116	7,7%	6,3%	-3,2%
	New Customers	27	17,4%	8,0%	8,0%	81	17,4%	8,0%	8,0%	243	7,0%	16,8%	-2,8%	324	9,5%	14,5%	-0,3%
	Churned Customers	11	-8,3%	-15,4%	10,0%	33	-13,2%	-5,7%	0,0%	99	-13,9%	-10,0%	10,0%	132	-13,7%	-9,0%	7,3%
	End of Period Customer	631															-2,9%
	Period Churn Rate	2,0%															0,2%
	Conversion Absolute																
	Leads	467															-6,6%
	Contact Made	267															-4,6%
	Product Trial	148															-1,3%
	Deal Negotiation	69															13,8%
	Product Purchase	27															8,0%
	Conversion Rate %																
	Leads	100,0%															
	Contact Made	57,2%															1,2%
	Product Trial	31,7%															1,7%
	Deal Negotiation	14,8%															-1,2%
	Product Purchase	5,8%	0,7%	-0,1%	0,8%	5,8%	0,7%	-0,1%	0,8%	5,8%	0,7%	2,4%	0,8%	5,8%	0,7%	1,7%	0,8%

Tracking against Rolling Latest Estimate and Target. Incorporate latest changes in expectations. Useful in more mature stages.

MTD: Month-to-date = current month
YTD: Year-to-date = current month + the past
YTG: Year-to-go = the future
FY: Full Year = where do we land?
LE: Latest Estimate= incorporation of actuals and updated estimations
PY: Previous Year

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Recurring Revenue Metrics

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Finance KPIs: Recurring Revenue Metrics

- **Start of period MRR:** Monthly recurring revenue at the start of the month
- **New MRR:** Monthly portion of Recurring Revenue from new customers acquired during this month.
- **Lost MRR:** Monthly portion of Recurring Revenue from customers lost during this month.
- **Expansion:** Up-selling, cross-selling, price increase, resulting in MRR expansion during month
- **Contraction:** Loss in MRR in existing customers
- **End of period MRR:** Monthly recurring revenue at the end of the month.
- **MRR Monthly Growth:** % increase of MRR during month (End of period MRR/Start of period MRR-1)
- **End of period ARR:** Annual Recurring revenue in the last 12 months
- **Gross Revenue Churn:** Lost MRR during month/Start of period MRR.
- **Net Revenue Churn:** (Expansion in MRR from existing customers – Contraction – Lost MRR during month)/Start of period MRR. – Still lost same number of customers as calculated with Gross Churn but now taking into account the changes in MRR from existing customers

	XYZ Company Metrics	Jan-21	Feb-21	MoM % VaR
Recurring Revenue Metrics	Start of period MRR	75.000	76.000	
	New MRR	1.000	1.500	0,64%
	Lost MRR	- 300	- 450	-0,19%
	Expansion	600	800	0,25%
	Contraction	- 300	- 300	0,01%
	End of period MRR	76.000	77.550	0,71%
	MRR Monthly Growth	1,3%	2,0%	0,71%
	End of period ARR	891.735	914.600	2,56%
	Gross Revenue Churn	0,4%	0,6%	0,19%
	Net Revenue Churn	0,4%	0,5%	0,06%

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Cash Flow Metrics

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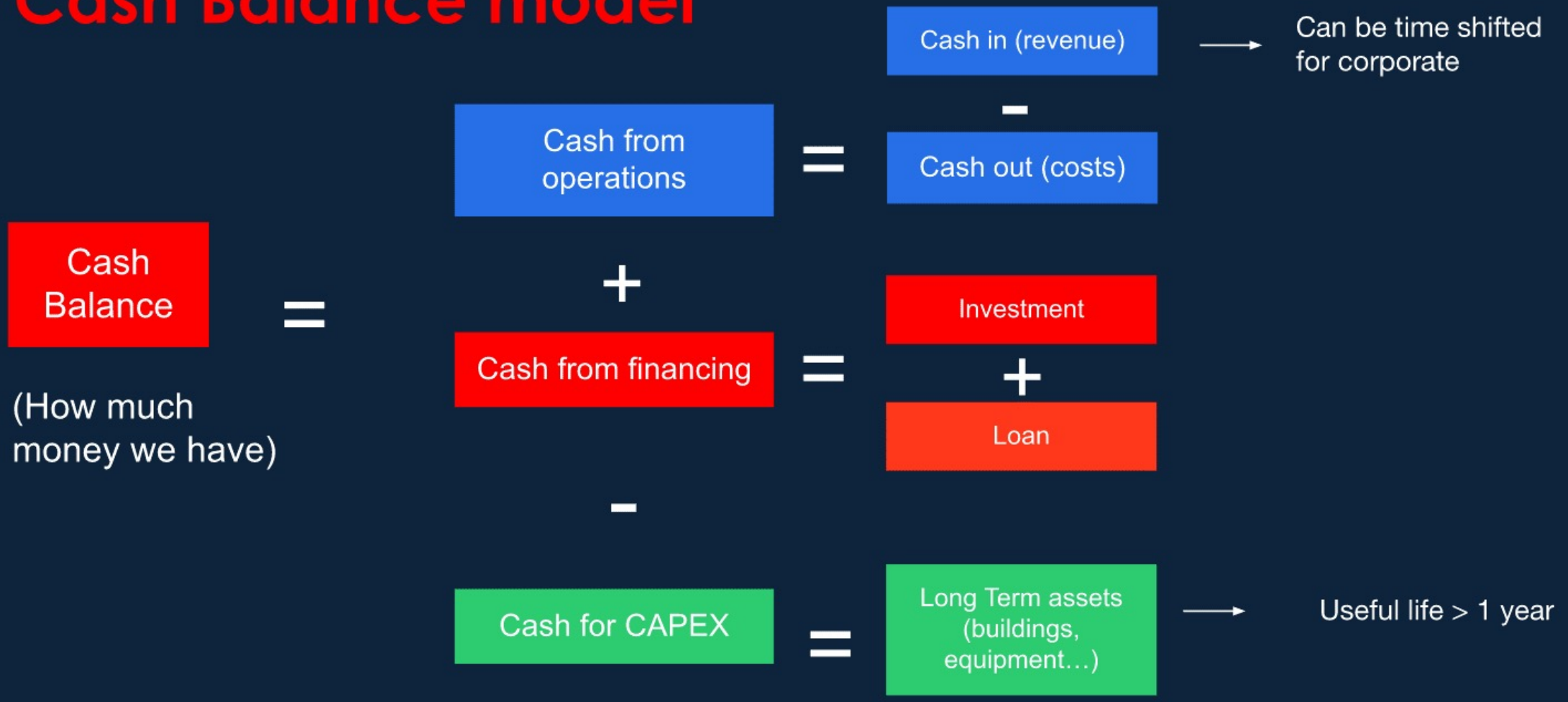
Cash Balance model



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Finance KPIs: Cash Flow Metrics

- **Starting Cash Balance:** How much cash we have at the beginning of the month.
- **Accounts Receivable:** Revenue that we have not received yet from services provided.
- **DSO:** How many days it takes to get paid.

  (Accounts Receivable/ Revenue)* (# of days)
- **Accounts Payable:** Cost that we have not received yet from services received.
- **DPO:** How many days it takes us to get pay vendors.

  (Accounts Payable/ Cost)* (# of days)
- **Ending Cash balance:**

  Starting Cash Balance + (Monthly Revenue - Monthly Receivables) – (Monthly Cost
- **Cash Burn**: Ending – Starting Cash Balance
- **Cash Runway Months:** Number of months it will take us to run out of cash, with the current rate of cash burn.
- **Drivers:** Revenue and Cost Growth, Payment terms with customers and suppliers

	XYZ Company Metrics	Jan-21	Feb-21	Mar-21	3M Avg
Cash Flow Metrics	Starting Cash Balance	300.000	284.000	267.820	283.940
	Total Monthly Revenue	7.000	7.140	7.283	7.141
	Accounts Receivable	3.000	3.570	3.641	3.404
	DSO	13	15	15	14
	Total Monthly Cost	25.000	25.250	25.503	25.251
	Accounts Payable	5.000	5.500	5.501	5.334
	DPO	6	7	6	6
	Ending Cash Balance	284.000	267.820	251.460	267.760
	Cash Burn	- 16.000	- 16.180	- 16.360	- 16.180
	Cash Runway Months	19	18	16	18

- Improve your Payment Terms: Get paid earlier - Pay later
- Incentivize sales to bring in yearly prepayment contracts .

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Customer Unit Economics Metrics

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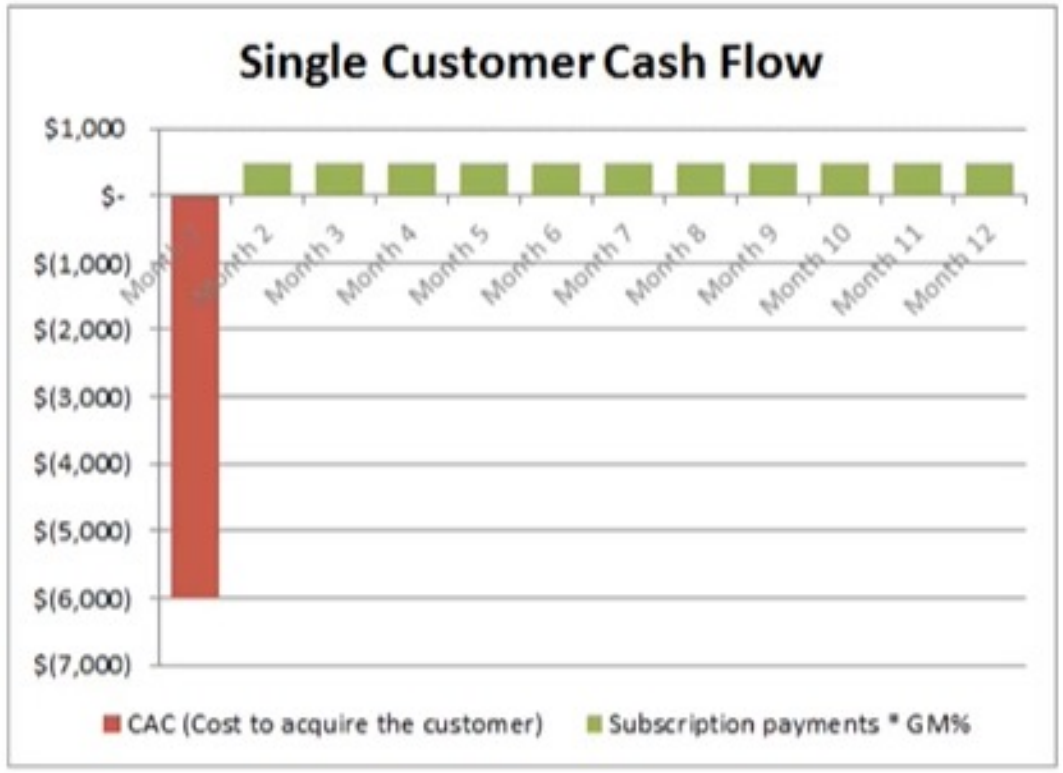
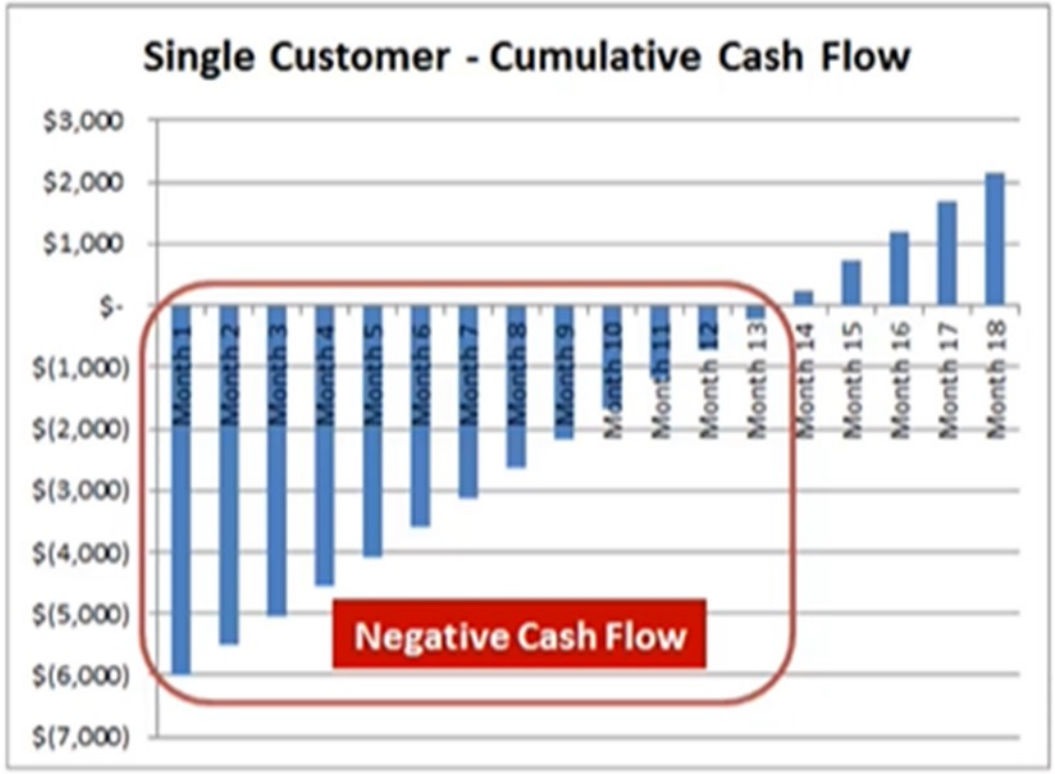
Unit Economics Metrics: CAC, CLV, Months to recover CAC





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Unit Economics Metrics: CAC & CLV, CLV/CAC ratio, Months to recover CAC

What is it?

- **(CAC) Conversion Rate:** How much it costs a vendor to acquiter a customer in Sales and Marketing spend.

  = Sales and Marketing Expenses / Number of Customers

- **Customer Lifetime:** Duration of subscription of the customer in months
- **(CLV) Customer Lifetime Value:** Total Revenue we expect to get from the customer for the duration of their subscription

  = Customer Lifetime in Months * Average Monthly Recurring Revenue

How to use it?

- To **measure and manage sales and marketing absolute efficiency** in acquiring new customers **and ROI**
- To **measure how long it takes to recover CAC**

Indicative rules of thumb.

- CLV > x3 CAC
- Months to recover CAC < 12 months

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Finance KPIs: Customer Unit Economic Metrics

- **CLV:** How much churn rates affect total revenue we expect to get from customers
- **LTV/CAC:** Identify and maximize cost efficient acquisition channels. What is driving my ratio?
- **Months to Recover CAC:** Is our payback period impacted and how does this connect to our Cash runway?

	XYZ Company Metrics	Jan-21	Feb-21	Mar-21	L3M
Customer Unit Economic Metrics	Customer Lifetime Value (CLV)	15.000	20.000	30.000	65.000
	Customer Acquisition Cost (CAC)	2.500	3.500	6.500	12.500
	LTV to CAC Ratio	6	6	5	16
	Months to Recover CAC	6	6	7	7

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KPI best practises

- Data quality
- Understand Data Sources
- Define use cases
- Choose appropriate visualization
- Clarify process and ownership
- Scalability, Flexibility, Automation

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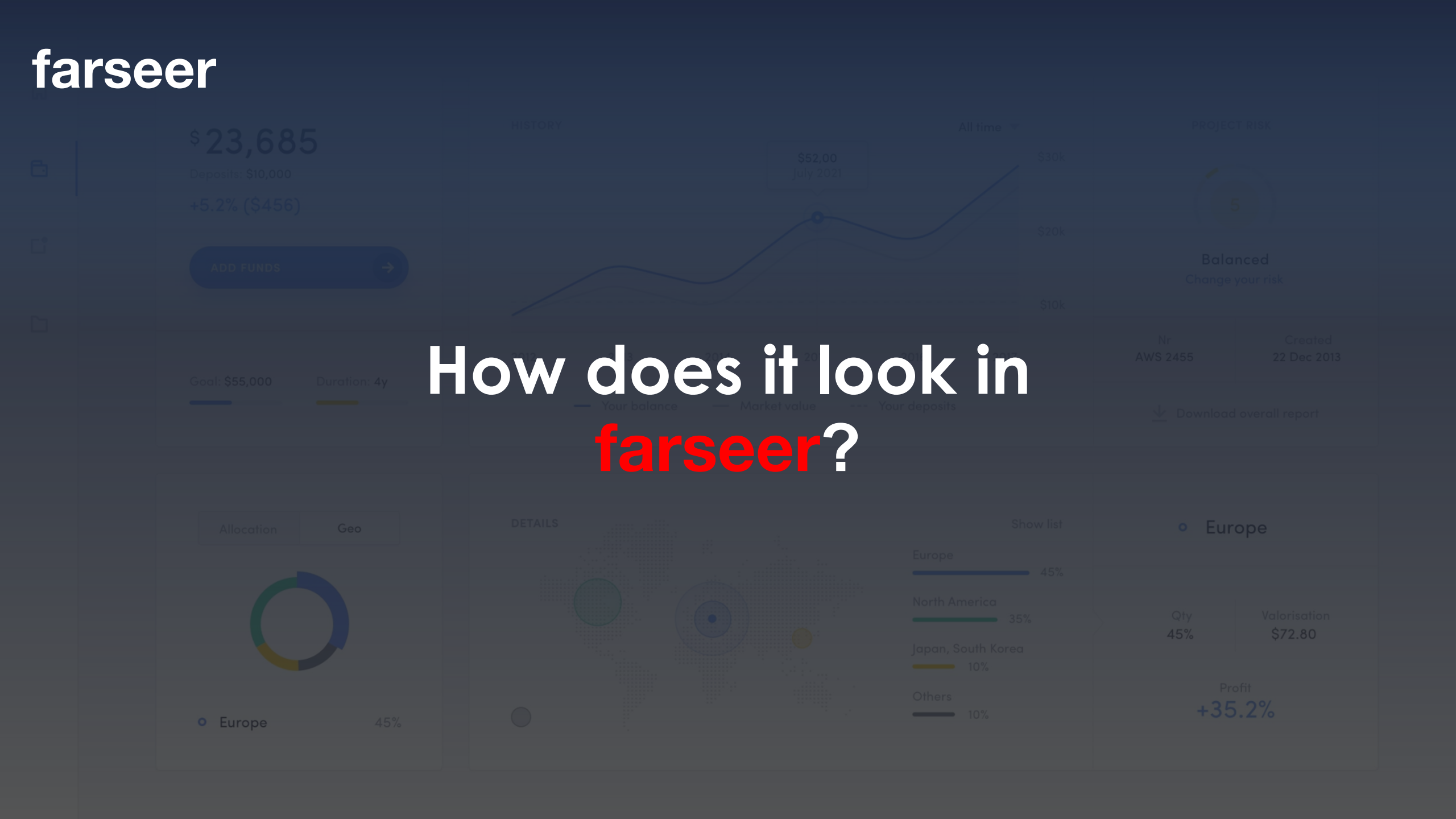

How does it look in farseer?

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$23,685
Deposits: $10,000
+5.2% ($456)
ADD FUNDS
Goal: $55,000
Duration: 4y
HISTORY
All time
$52,00
July 2021
$30k
$20k
$10k
2012
2016
2017
Your balance
Market value
Your deposits
PROJECT RISK
Balanced
Change your risk
Nr
AWS 2455
Created
22 Dec 2013
Download overall report
Allocation
Geo
Europe
45%
DETAILS
Show list
Europe
45%
North America
35%
Japan, South Korea
10%
Others
10%
Europe
Qty
45%
Valorisation
$72.80
Profit
+35.2%

Q & A

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Thank you for your time.

If you are interested in a product demo or a free consultation meeting, please contact:

consulting@farseer.io