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# The Complete Guide to **SaaS Revenue Modeling**





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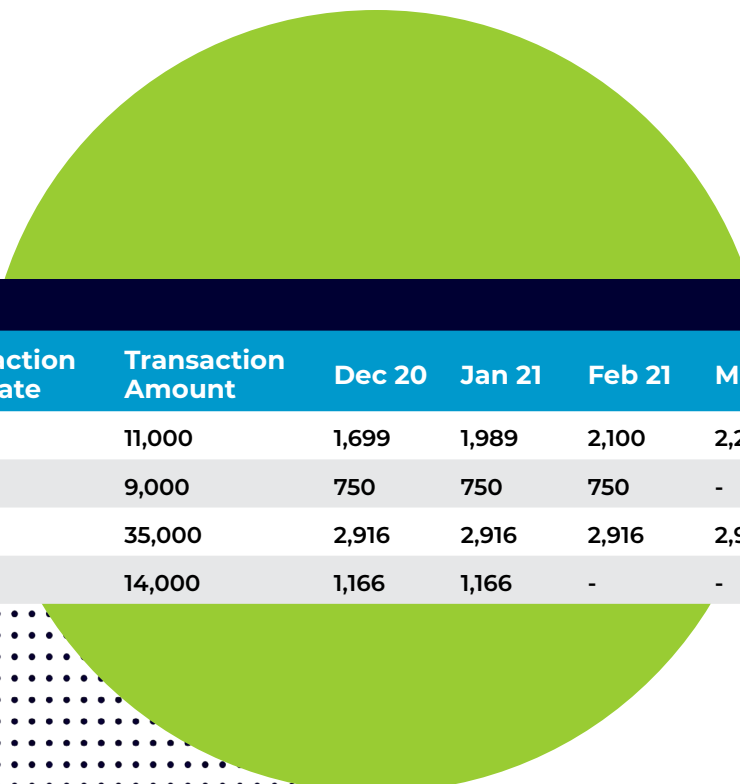
## AN INTRODUCTION

# Financial modeling for SaaS businesses is a tall task.

Because of the recurring nature of SaaS revenue and the range of customer billing approaches, it can be tricky to build a model that will accurately reflect your future cash position.

SaaS financial models require that you build an income statement, balance sheet, and cash flow statement. These models include inputs such as annual recurring revenue (“ARR”), GAAP, Revenue, cost of sales, operating expenses, working capital, deferred revenue, fixed assets, and debt/equity financing.

In this e-book, we’ll focus on the most complicated SaaS input to model: revenue. Specifically, we’ll dive into two distinct methods for forecasting ARR, explain the relationship between ARR and Revenue, and also highlight how to model cash flow associated with revenue.



| Revenue Projection         |                      |                    |        |        |        |        |
|----------------------------|----------------------|--------------------|--------|--------|--------|--------|
| Customer                   | Transaction End Date | Transaction Amount | Dec 20 | Jan 21 | Feb 21 | Mar 21 |
| SaaS <span>T</span> ropics | 4/20/21              | 11,000             | 1,699  | 1,989  | 2,100  | 2,250  |
| Astonish                   | 3/22/21              | 9,000              | 750    | 750    | 750    | -      |
| Almanaca                   | 9/4/21               | 35,000             | 2,916  | 2,916  | 2,916  | 2,916  |
| SaaS <span>S</span> quatch | 2/9/21               | 14,000             | 1,166  | 1,166  | -      | -      |

## Why model?

The simplest answer to the question, “why SaaS revenue modeling?” is that you’ll need it to manage business growth and to procure funding.

While historically many companies did not need a fully-baked revenue model until their first institutional round of funding (Series A), that attitude is shifting in today’s landscape and companies are increasingly adopting revenue models earlier.

Four primary reasons for creating SaaS revenue models include:



To determine cash runway



To validate your revenue model and unit economics



To manage business performance and track your growth over time and against plan



To communicate your business model and company story to investors

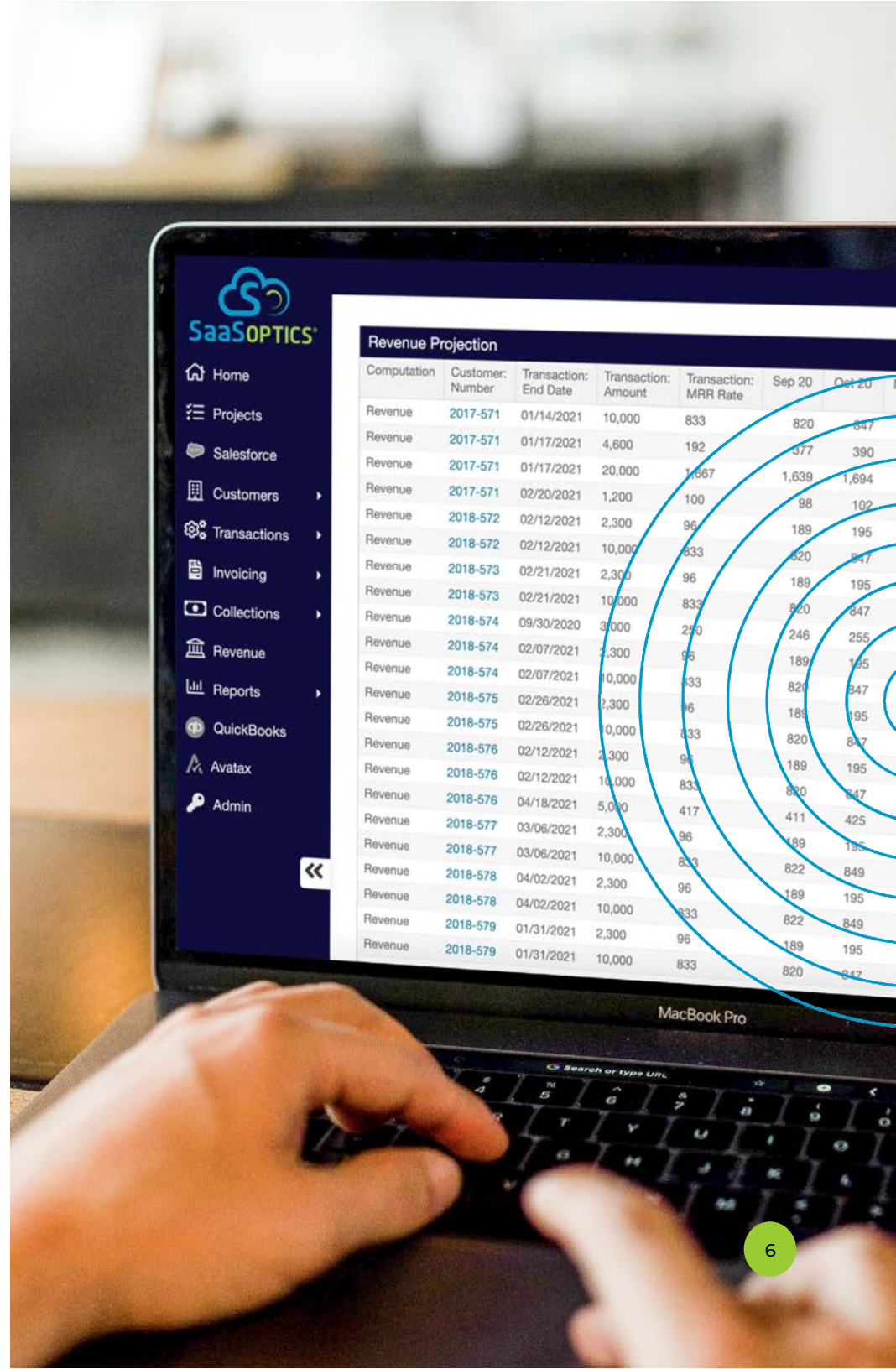
## CHAPTER ONE

# Fundamentals of SaaS ARR and Revenue Forecasting

Annual Recurring Revenue, or ARR, is a key metric used by SaaS or subscription businesses to measure the annual run rate of recurring revenue from the current install base. It represents the annual revenue for the next twelve months, assuming no additional business is added or churned. Some companies use a Monthly Recurring Revenue (MRR) metric, which is the same concept as ARR but expressed monthly.

In general, companies that have a larger proportion of annual or longer-term contracts will use the ARR metric, whereas companies that have monthly contracts may opt to use the MRR metric. In this e-book, we will refer to ARR, but please note that the concepts still apply for MRR.

For more information on SaaS metrics such as ARR and how to calculate them, check out David Skok's [SaaS Metrics 2.0 Guide](#) or SaaSOptics' [SaaSpedia](#).



## Momentum ARR Table

In the next two chapters, we will walk through two methodologies for forecasting ARR: a bottoms-up ARR forecast and a top-down ARR forecast.

While the two approaches differ, the outputs from these two approaches will look the same: a monthly momentum ARR table as shown in Figure 1.

The momentum ARR table breaks out monthly ARR growth into four components:

- **New ARR:** Increase in ARR driven by onboarding new customers during the month.
- **Expansion ARR:** Increase in ARR driven by growth from existing customers during the month.  
Expansion can be driven by a variety of factors, including product upgrades, an increase in user counts, and price increases.
- **Contraction ARR:** Decrease in ARR driven by declines from existing customers who remain customers at the end of the period, but at a lower ARR.
- **Churned ARR:** Lost ARR from churned customers during the month.

|                     | Historical Results |              |              |
|---------------------|--------------------|--------------|--------------|
| Momentum (ARR)      | Month 1            | Month 2      | Month 3      |
| Beginning ARR       | \$ 2,000,000       | \$ 2,219,000 | \$ 2,462,000 |
| New ARR             | \$ 200,000         | \$ 220,000   | \$ 242,000   |
| Expansion ARR       | \$ 42,000          | \$ 40,000    | \$ 44,000    |
| Contraction ARR     | \$ (3,000)         | \$ (2,000)   | \$ (3,750)   |
| Churned ARR         | \$ (20,000)        | \$ (15,000)  | \$ (10,000)  |
| Total Change in ARR | \$ 291,000         | \$ 243,000   | \$ 272,250   |
| Ending ARR          | \$ 2,219,000       | \$ 2,462,000 | \$ 2,734,250 |

Figure 1. Momentum ARR Table

As different factors drive each of these growth components, it is important to forecast them separately. An ARR momentum table tells a lot about a company's revenue model and growth prospects.

SaaS companies that are focused on a "land and expand" growth model will have a large proportion of their growth driven by expansion over time, whereas other companies may have growth primarily driven by new customers.

Companies that have lower levels of churned ARR as a percentage of their beginning ARR mean that they are better at retaining their customers, and thus have longer customer lifetimes.

In addition to looking at the ARR dollar movements in an ARR momentum table, it is also typical to view the changes in ARR as a percentage of the ARR at the beginning of the period.

Understanding how these percentages move over time is key in drawing insights into the company's historical growth trajectory and forecasting future growth. They are a key input to the top-down forecasting approach we will discuss in Chapter 3.



## Translating an ARR Forecast into a Revenue Forecast

In Chapters 2 and 3, we will delve into two methodologies for forecasting ARR. However, it should be noted that while ARR is a metric commonly used by SaaS and subscription companies, it is not an accounting metric and is distinct from the revenue number you find on a company's income statement.

ARR is a single point in time measurement (e.g. What is your recurring revenue on a specific date?), whereas revenue is measured over a period of time (e.g. How much revenue did you earn in a month or quarter?).

The recommended approach for translating an ARR forecast into a revenue forecast is to take the forecasted ARR number in a given month and divide by 12. However, there can be some pitfalls to this approach.

In practice, revenue is recognized for a customer that has a signed contract starting on the day the service is launched.

A company with an annual contract would recognize 1/365th of the contract value each day as revenue. When trying to determine how to translate an ARR forecast for a given month into forecast revenue, the timing of signing a new customer (or expanding, contracting, or churning) during that month will impact what the revenue during that month will be.

If a company signs a new customer on the first day of the month, the revenue will be higher than if they sign that same customer on the last day of the month.

A conservative revenue forecasting approach to address the timing issue outlined above is to forecast revenue based on the beginning of month forecast ARR. That is to say that the revenue forecast for a given month would be the beginning of month ARR divided by 12.

Note that while this is a conservative approach for a growing company, a company in decline may instead opt to forecast revenue based on the end of month ARR.

$$\text{Revenue} = \text{Beginning of Month ARR} \div 12$$



## Contracted ARR vs. Deployed (Live) ARR

Another possible pitfall to watch out for in forecasting revenue is large time lags between signing a new customer contract and implementing the service.

While new ARR is counted at the time a contract is signed, revenue is not recognized until the service is implemented. If there is a 6-month lag between signing a contract and implementing the service, there will be a large discrepancy between ARR and revenue recognition.

In these cases, many companies opt to track two separate ARR metrics:

- **CARR**, or, “contracted ARR,” which represents the ARR of contracts that have been signed
- **LARR**, or, “live ARR,” which represents ARR for customers with signed contracts where services have been launched

For companies that have these two separate metrics, the revenue forecast should be calculated as the beginning of month LARR divided by 12.

Now that you have a baseline understanding of SaaS revenue forecasting, we will turn now to the first method of ARR forecasting, the bottoms-up or revenue driver method.



## CHAPTER TWO

# Bottoms-Up or Revenue Driver ARR Modeling

The bottoms-up approach to modeling ARR involves breaking down the key components of a company's growth into its underlying revenue drivers, which represent the company's funnel of new business and net retention. The company evaluates how these revenue drivers will shift over time, leveraging historical data, external benchmarking, and general insights on the business opportunity.

## Who Should Use a Bottoms-Up Approach?

This method is most appropriate for early-stage companies that don't have sufficient historical ARR data on which to forecast ARR based on trend lines. For these companies, the bottoms-up approach allows them to break apart the key components of revenue growth to validate the reasonableness of revenue growth projections.

Bottoms-up forecasting can be useful for later-stage companies as well, particularly if their historical data isn't representative of future growth.

**The company evaluates how these revenue drivers will shift over time, leveraging historical data, external benchmarking, and general insights on the business opportunity.**

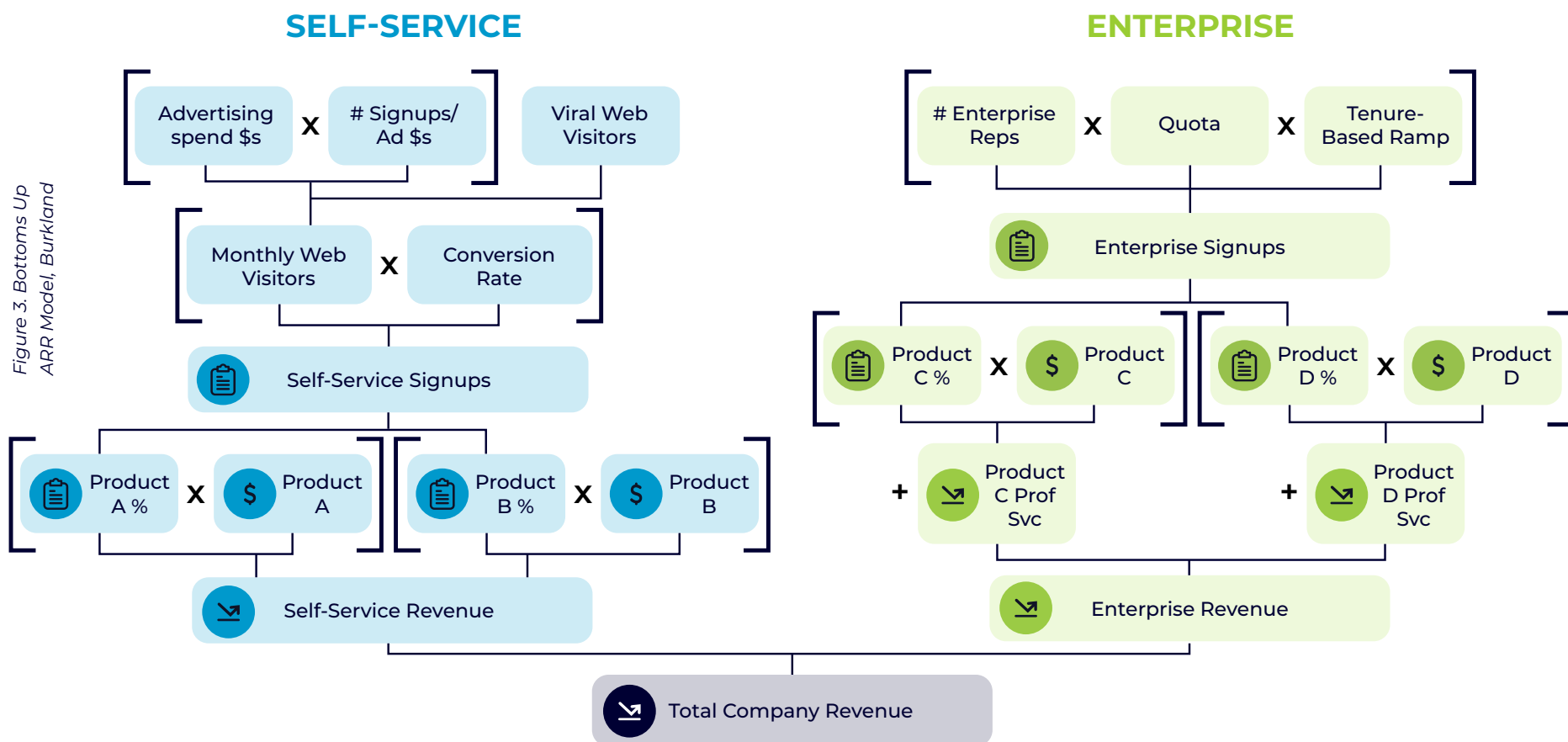
For example, this can happen when a company pivots, launches a new product or targets a new market with a different customer profile.

Another instance in which the bottoms-up approach might make sense is for companies that sell to large enterprises where there is significant variability in the revenue expectations and economics between different accounts.

In such an instance where the company may have a relatively small number of customers, it can make sense to forecast revenue at the individual customer level.

# Figure 3. Bottoms-Up ARR Model

Figure 3 is a graphical example of a bottoms-up revenue model for a company that has both an enterprise and self-service revenue stream.



## How to Build a Bottoms-Up ARR Model

### Step 1. Identify the Revenue Drivers

Revenue drivers will be unique for every company, but they often include the sales and marketing funnel, product line and pricing, and expected distribution of new customers between different products. You should also include expected net retention of customers over time as well as expectations around revenue derived from both software subscriptions and professional services.

### Step 2. Determine How Revenue Drivers Impact ARR

The ARR forecast should include all of the revenue drivers, some which are inputs to the model and others which are calculations in the spreadsheet based on the inputs (e.g. advertising spend is an input while the number of monthly web visitors is calculated based on advertising spend, conversions and viral web visitors).

The outputs of the revenue model should feed into a monthly ARR momentum table, which breaks out growth between New ARR, Expansion ARR, Contraction ARR, and Churned ARR.

See Figure 4 for an example.

Revenue driver growth assumptions should be validated based on external benchmarks, like [this one that Keybank Capital partners publish annually](#), internal trendlines, and general reality-checks for reasonableness.

|                     | Historical Results |              |              |
|---------------------|--------------------|--------------|--------------|
| Momentum (ARR)      | Month 1            | Month 2      | Month 3      |
| Beginning ARR       | \$ 2,000,000       | \$ 2,219,000 | \$ 2,462,000 |
| New ARR             | \$ 200,000         | \$ 220,000   | \$ 242,000   |
| Expansion ARR       | \$ 42,000          | \$ 40,000    | \$ 44,000    |
| Contraction ARR     | \$ (3,000)         | \$ (2,000)   | \$ (3,750)   |
| Churned ARR         | \$ (20,000)        | \$ (15,000)  | \$ (10,000)  |
| Total Change in ARR | \$ 291,000         | \$ 243,000   | \$ 272,250   |
| Ending ARR          | \$ 2,219,000       | \$ 2,462,000 | \$ 2,734,250 |

| New ARR   | Expansion ARR  |
|---|--|
| Increase in ARR driven by onboarding new customers during the month. Increase in ARR driven by onboarding new customers during the month. | Increase in ARR driven by growth from existing customers during the month. Expansion can be driven by a variety of factors, including product upgrades, an increase in user counts, and price increases. |
| Contraction ARR   | Churned ARR  |
| Decrease in ARR driven by declines from existing customers who remain customers at the end of the period, but at a lower ARR.             | Lost ARR from churned customers during the month.  |

Figure 4. Historical Results

### Step 3. Reality-Check Assumptions With Opportunities in Pipeline

In addition to external benchmarking, you should also make adjustments to your bottoms-up ARR forecast based on opportunities in your sales pipeline. Many companies look at a weighted probability of their current pipeline to ensure that they have sufficient coverage of opportunities in their forecast for the next quarter.

Specifically, a company should review all of the opportunities in their pipeline that are likely to close in a given month, multiply the dollar value of these opportunities by the probability of close, add together all the weighted probability opportunities and compare it to the bottoms-up forecast for that month.

See Figure 5 for an example.

| Opportunity             | Probability of Close | Probable Pipeline |
|-------------------------|----------------------|-------------------|
| \$10,000                | 90%                  | \$9,000           |
| \$10,000                | 85%                  | \$8,500           |
| \$10,000                | 80%                  | \$8,000           |
| Total Pipeline Expected |                      | \$25,500          |

Figure 5. Historical Results

If the weighted probability forecast is greater than the bottoms-up forecast, the company can feel comfortable that they will be able to achieve the forecast. If the weighted probability forecast is lower than the bottoms-up forecast, the company should re-evaluate and adjust the revenue driver inputs that are factored into the bottoms-up forecast.

# Other Considerations

## **Bottoms-up models can be difficult to update.**

Bottoms-up ARR forecasts work well for setting an initial plan, but they are often cumbersome to update monthly with actual results and then roll forward an updated forecast. This can be especially hard on lean teams trying to scramble to put something in front of leadership or the board.

## **It's not well-suited for scenario planning.**

Because bottoms-up plans are modeled in such granular detail, it's challenging to do high-level scenario planning. In the current environment, many companies are conducting scenario planning to evaluate the impacts of revenue loss and slower-than-anticipated revenue growth. It's painstaking to account for those, "what if we took a 10% revenue hit?" scenarios when working with a detailed, bottoms-up model.

## CHAPTER THREE

# Top-Down or Trendline ARR Modeling

The top-down ARR model approach involves looking at historical trendlines for ARR growth and extrapolating future growth based on those trendlines. By and large, it's a much less detailed approach than the bottoms-up model, making it quicker to build and update and easier to make high-level adjustments.

**The top-down ARR model approach involves looking at historical trendlines for ARR growth and extrapolating future growth based on those trendlines.**

## Who Should Use This Model?

The ideal company profile for the top-down ARR model is a later-stage company with enough history and revenue growth to-date that the historical trend lines are representative of future growth projections.

A good rule of thumb to follow is that a company should have at least 2 years of revenue history. However, you'll need to ensure that the history being used for growth extrapolation is a good proxy for future expectations: e.g. similar use case/types of customers, product lines, expected revenue/customer, etc.

A SaaS business that started with a self-service model but is now looking to expand into Enterprise may not be able to use their historical trends as a proxy for future growth if the growth patterns are not comparable.



## How to Build a Top-Down ARR Model

### Step 1: Build out your history.

You'll need to ensure that you capture a historical ARR momentum chart, including ARR % change as a percentage of the beginning of month (BOM) ARR, as shown in Figure 6.

|                                       | Historical Results |              |              |
|---------------------------------------|--------------------|--------------|--------------|
| Momentum (ARR)                        | Month 1            | Month 2      | Month 3      |
| Beginning ARR                         | \$ 2,000,000       | \$ 2,219,000 | \$ 2,462,000 |
| New ARR                               | \$ 200,000         | \$ 220,000   | \$ 242,000   |
| Expansion ARR                         | \$ 42,000          | \$ 40,000    | \$ 44,000    |
| Contraction ARR                       | \$ (3,000)         | \$ (2,000)   | \$ (3,750)   |
| Churned ARR                           | \$ (20,000)        | \$ (15,000)  | \$ (10,000)  |
| Total Change in ARR                   | \$ 291,000         | \$ 243,000   | \$ 272,250   |
| Ending ARR                            | \$ 2,219,000       | \$ 2,462,000 | \$ 2,734,250 |
| ARR Change % Beginning of Month (BOM) |                    |              |              |
| New ARR                               | 10.0%              | 9.9%         | 9.8%         |
| Expansion ARR                         | 2.1%               | 1.8%         | 1.8%         |
| Contraction ARR                       | -0.2%              | -0.1%        | -0.2%        |
| Churned ARR                           | -1.0%              | -0.7%        | -0.4%        |
| Total Change in ARR                   | 11.0%              | 11.0%        | 11.1%        |

Figure 6. Beginning of Month ARR

## Step 2: Calculate your average historical growth rates.

Calculate averages for New, Expansion, Contraction, and Churned ARR as a percent of the beginning of the month ARR over a relevant time period.

It's important to use averages to extrapolate future growth as opposed to a single month growth rate because there can be a lot of variability between months. This is especially true at earlier stage companies where losing a single customer can account for a large portion of your ARR.

In many cases, it makes sense for companies to look at the latest 12 month average of the monthly growth rates and use that average to extrapolate future growth.

Using a full year time period to calculate the average helps to blend out the variability in growth between months.

|   | Historical Results |              |              |
|---|--------------------|--------------|--------------|
| Momentum (ARR)                          | Month 1            | Month 2      | Month 3      |
| Beginning ARR                           | \$ 2,000,000       | \$ 2,219,000 | \$ 2,462,000 |
| New ARR                                 | \$ 200,000         | \$ 220,000   | \$ 242,000   |
| Expansion ARR                           | \$ 42,000          | \$ 40,000    | \$ 44,000    |
| Contraction ARR                         | \$ (3,000)         | \$ (2,000)   | \$ (3,750)   |
| Churned ARR                             | \$ (20,000)        | \$ (15,000)  | \$ (10,000)  |
| Total Change in ARR                     | \$ 291,000         | \$ 243,000   | \$ 272,250   |
| Ending ARR                              | \$ 2,219,000       | \$ 2,462,000 | \$ 2,734,250 |
| ARR Change % Beginning of Month (BOM)   |                    |              |              |
| New ARR                                 | 10.0%              | 9.9%         | 9.8%         |
| Expansion ARR                           | 2.1%               | 1.8%         | 1.8%         |
| Contraction ARR                         | -0.2%              | -0.1%        | -0.2%        |
| Churned ARR                             | -1.0%              | -0.7%        | -0.4%        |
| Total Change in ARR                     | 11.0%              | 11.0%        | 11.1%        |
| Last 3 Month Average ARR Change % (BOM) |                    |              |              |
| New ARR                                 |                    |              | 9.9%         |
| Expansion ARR                           |                    |              | 1.9%         |
| Contraction ARR                         |                    |              | -0.1%        |
| Churned ARR                             |                    |              | -0.7%        |
| Total Change in ARR                     |                    |              | 11.0%        |

Figure 7. Beginning of Month ARR

However, for some earlier stage startups, the growth trends may shift significantly over a 12 month time period, so looking at a 12 month average may not be representative of future growth. In these cases, it may instead make sense to look at the average growth rate over a 3 or 6 month period. The example shows averages calculated for the prior 3 months.

*See figure 7 on page 17.*

### **Step 3. Use historical growth rates to estimate future ARR.**

Figure 8 shows the methodology for extrapolating growth using a 3 month average. As reflected in the table, the ARR growth broken out by growth component is calculated for three months of actual historical results, and an average of the last three months of growth is calculated. This 3 month average is then applied to forecast future growth for New, Expansion, Contraction, and Churned ARR.

*See figure 8. on page 19.*

### **Step 4. Make high-level adjustments to extrapolated growth.**

Building forecasts based solely on historical trendlines doesn't always drive a realistic forecast. It can fail to take into account actions the company has taken that will impact changes in the trendlines. For example, perhaps your company is making significant investments in sales or marketing which will accelerate your ARR growth. You will need to factor in these types of adjustments when building your model.

Figure 8.  
Historical Results and Forecast

|   | Historical Results |              |              | Forecast Results |              |
|---|--------------------|--------------|--------------|------------------|--------------|
| Momentum (ARR)                          | Month 1            | Month 2      | Month 3      | Month 4          | Month 5      |
| Beginning ARR                           | \$ 2,000,000       | \$ 2,219,000 | \$ 2,462,000 | \$ 2,734,250     | \$ 3,034,643 |
| New ARR                                 | \$ 200,000         | \$ 220,000   | \$ 242,000   | \$ 271,090       | \$ 300,873   |
| Expansion ARR                           | \$ 42,000          | \$ 40,000    | \$ 44,000    | \$ 51,858        | \$ 57,555    |
| Contraction ARR                         | \$ (3,000)         | \$ (2,000)   | \$ (3,750)   | \$ (3,577)       | \$ (3,970)   |
| Churned ARR                             | \$ (20,000)        | \$ (15,000)  | \$ (10,000)  | \$ (18,977)      | \$ (21,062)  |
| Total Change in ARR                     | \$ 291,000         | \$ 243,000   | \$ 272,250   | \$ 300,393       | \$ 333,396   |
| Ending ARR                              | \$ 2,219,000       | \$ 2,462,000 | \$ 2,734,250 | \$ 3,034,643     | \$ 3,368,039 |
| ARR Change % Beginning of Month (BOM)   |                    |              |              |                  |              |
| New ARR                                 | 10.0%              | 9.9%         | 9.8%         | 9.9%             | 9.9%         |
| Expansion ARR                           | 2.1%               | 1.8%         | 1.8%         | 1.9%             | 1.9%         |
| Contraction ARR                         | -0.2%              | -0.1%        | -0.2%        | -0.1%            | -0.1%        |
| Churned ARR                             | -1.0%              | -0.7%        | -0.4%        | -0.7%            | -0.7%        |
| Total Change in ARR                     | 11.0%              | 11.0%        | 11.1%        | 11.0%            | 11.0%        |
| Last 3 Month Average ARR Change % (BOM) |                    |              |              |                  |              |
| New ARR                                 |                    |              | 9.9%         |                  |              |
| Expansion ARR                           |                    |              | 1.9%         |                  |              |
| Contraction ARR                         |                    |              | -0.1%        |                  |              |
| Churned ARR                             |                    |              | -0.7%        |                  |              |
| Total Change in ARR                     |                    |              | 11.0%        |                  |              |

Figure 8. Historical Results + Forecast

## Bonus: How to Get More Detailed

Depending on how granular you'd like to get, you can build separate ARR forecast analyses for different business segments that have different growth profiles (e.g. SMB vs. Enterprise or different industries).

Say, for example, you expect future pricing changes and want to be able to explicitly bake that into the model. You can prepare a forecast that breaks out your historical ARR on a per-customer basis and the average price for each customer. Then, for each new customer you project to add, you can use the expected future price multiplied by the estimated number of new customers to calculate your estimated new ARR.

## Key Pain Points

While the top-down approach has many advantages, chief among them being their relative simplicity compared to bottoms-up modeling, there are a few drawbacks.

First, due to the high-level nature of the extrapolation, it can be challenging to factor in known shifts in the business at a more detailed level, like pricing changes and new product launches.

Secondly, investors often want to see more detail behind high-level growth assumptions, which can make raising capital more difficult. To address this concern, you can supplement your top-down model with other analyses, such as a TAM (total available market) analysis, a review of pipeline/targeted opportunities, or any other analyses of revenue driver trendlines. Even so, some investors like to see a closer linkage of the revenue drivers to the financial model.

**You can supplement your top-down model with other analyses, such as a TAM analysis, a review of pipeline / targeted opportunities, or any other analyses of revenue driver trendlines.**

# Other Considerations

Companies that do top-down ARR planning can and should still separately track and monitor their key revenue drivers, even if they aren't what's used to drive revenue in their financial model.

These revenue drivers, such as conversion rates, are key funnel metrics that are critical for the business and are KPIs that the company should track and report on.

An understanding of the trends for these key revenue drivers should inform the topline assumptions.

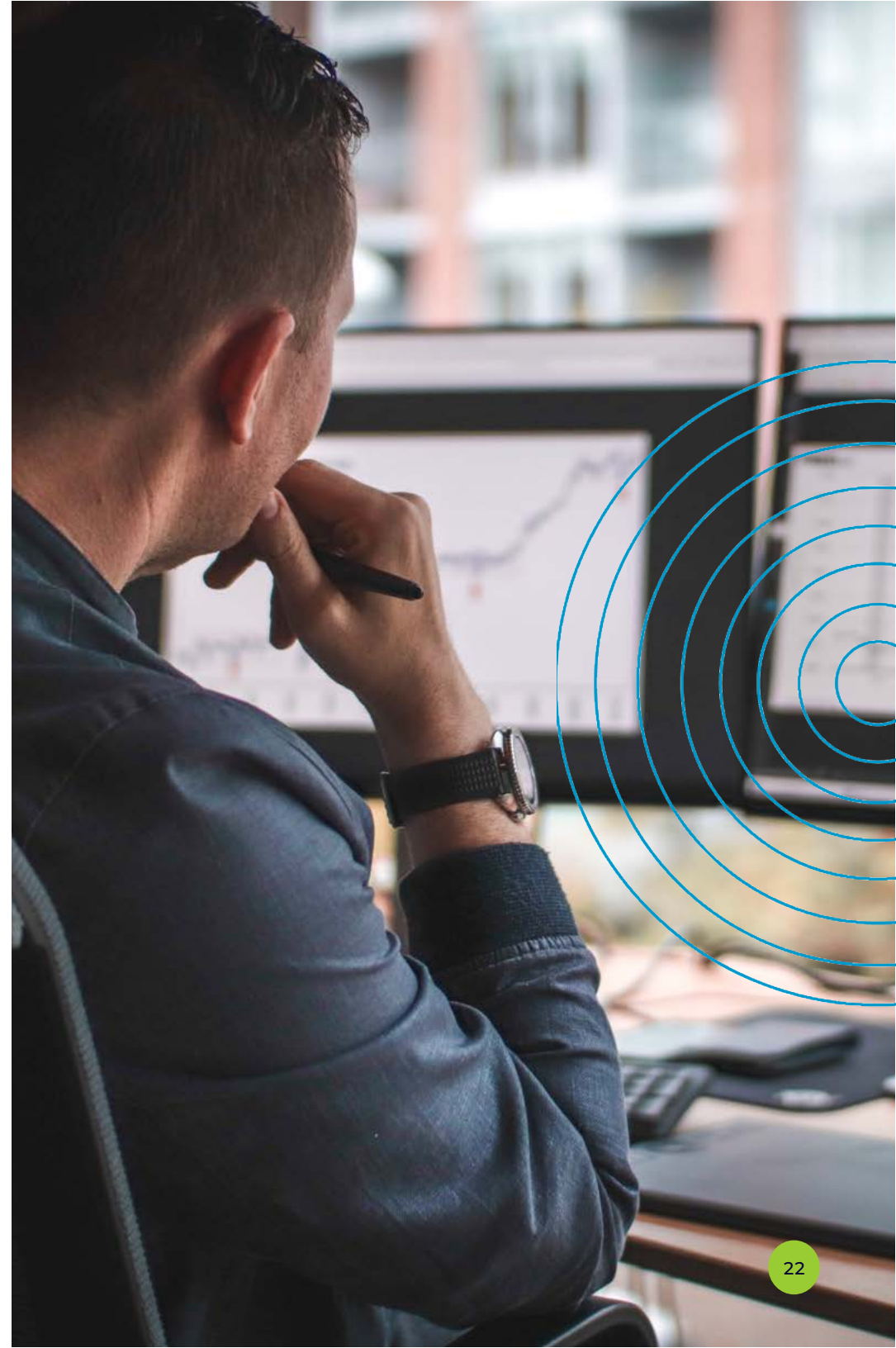
For example, if a company expects that their conversion rates will increase due to a marketing initiative, they can factor this into their top-level assumptions around new ARR growth.

## CHAPTER FOUR

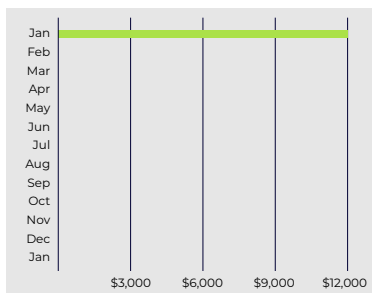
# Forecasting Cash Flow Associated with ARR

The relationship between ARR, revenue, and cash flow can be quite different among SaaS companies due to variability in customer billing and collections practices. To forecast cash flow associated with Revenue and ARR, you need to understand the timing of customer invoicing relative to the timeline of providing services, the period for which services are invoiced, and how long it takes to collect on customer invoices.

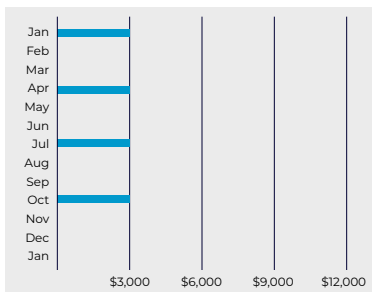
Billing practices vary across SaaS businesses, but many require customers to pay annually in advance. This drives meaningful favorability to the company's cash flow and is a great approach for SaaS companies to employ if the market will accept those terms.



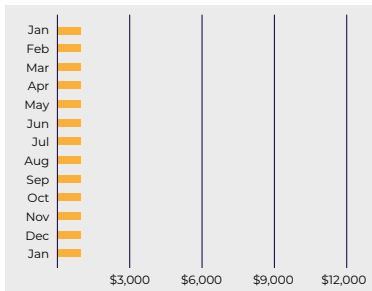




### Annually



### Quarterly



### Monthly

Figure 9. Variance Model

The example to the left highlights how much variance there can be in cash collections based on a company's invoicing practices. Additionally, companies may invoice in advance of providing service or after the fact, also known as, "in arrears," not depicted in the chart on the left. The charts to the left highlight 3 different examples of cash collections for a \$12k annual contract:

- **Annually**, represented in green, reflects a company that bills annually in advance at the beginning of the year.
- **Quarterly**, represented in blue, reflects a company that bills quarterly in advance of providing services, with  $\frac{1}{4}$  of the annual contract value invoiced at the beginning of each quarter.
- **Monthly**, represented in orange, reflects a company that bills monthly in advance of providing services, with  $\frac{1}{12}$  of the annual contract value invoiced at the beginning of each month.

This example assumes that customer payments are received in the same month that invoices are sent. In reality, the cash collection timeframes relative to invoicing can be quite variable. For companies that are paid via credit card, the timing of the collections

is often very close in line with the billing timeframe. However, for companies that have larger enterprise contracts that are not paid via credit card, collection timeframes can be quite variable, often ranging from 15-90 days.

When building the ARR and revenue portion of a financial model, it is important to also factor in billing and collections timeframes for the companies to ensure that you appropriately reflect the associated cash flow. It often makes sense to build out standard assumptions associated with the billing practices for new and renewal ARR. For some companies that offer a variety of billing practices (e.g. some monthly bill, some annual in advance), it may make sense to model cash flows based on assumptions around an assumed split of invoicing between the different approaches, often based on historical experience (e.g. 40% of contracts will bill annually in advance, 60% will bill monthly, all will collect in 30 days).

Now that you know how to extrapolate cash flow from your ARR forecast, you're ready to be off to the races. In the next chapter, we'll pull together everything we've learned so far and provide you with a free, downloadable metrics template to help you build your own forecasts.

# Key Takeaways

In this e-book, we've discussed in detail the importance of financial modeling in SaaS businesses, specifically revenue and ARR modeling. We've also taken a deep dive into two common approaches to ARR modeling and discussed how you can forecast cash associated with ARR and revenue.

### Here are a few key takeaways:



Revenue modeling is important for fundraising, scenario planning, and making informed business decisions.



Revenue modeling for subscription businesses is fundamentally different because of recurring revenue.



When forecasting ARR growth over time, one should build a momentum ARR table that breaks out the components of growth into new ARR, expansion ARR, contraction ARR and churned ARR.



The bottoms-up ARR forecast approach is great for early-stage companies that don't yet have historical data.



The top-down modeling approach is ideal for later-stage companies with at least 2 years of revenue history from which they can extrapolate growth trends.



Forecasting ARR is one thing, but anticipating cash flow is more complicated and hinges largely on how your company handles billing.



## About Burkland

Burkland gives startups smarter finance, accounting, and tax advice to grow with confidence. They provide financial expertise that makes economic sense for all growth stages - ranging from Pre-Seed to Series C.

Their on-demand CFOs, accountants, and tax experts give strategic guidance to ease a company's growing pains and provide financial insight to scale. Burkland serves over 250 startups across the United States.

For more information on Burkland services, email [hello@burklandassociates.com](mailto:hello@burklandassociates.com).



## About SaaSOptics

SaaSOptics is a subscription management platform that automates financial operations for growing B2B SaaS businesses. A cloud-based solution, the SaaSOptics platform allows businesses to pull accurate SaaS metrics and analytics quickly, scale billing and payments smoothly, and automate GAAP/IFRS-compliant revenue recognition.

Businesses built on SaaSOptics eliminate their risky dependency on spreadsheets and streamline financial operations. SaaSOptics is easy to use, trusted by investors, within reach for early-stage startups and provides a streamlined implementation process. SaaSOptics serves more than 700 customers worldwide and manages \$7 billion in revenue.

Learn more at [www.saasoptics.com](http://www.saasoptics.com).



Coultas uses a **hybrid** of the two forecasting techniques we discussed in this e-book to model revenue for his client.



## Putting It All Together: SaaSOptics + Burkland

Burkland CFO David Coultas was well prepared to do extensive scenario planning when his client, a SaaS company who serves an industry hard-hit by Covid-19, enlisted his help to navigate the financial uncertainty of the pandemic.

Coultas uses a hybrid of the two forecasting techniques we discussed in this e-book to model revenue for his client. For New ARR, Coultas works closely with the client's sales leadership to assess rep capacity and closely monitors opportunities in the pipeline to project New ARR. This practice aligns closely with the Bottoms-Up approach discussed in detail in Chapter 2.

For Expansion, Contraction, and Churn, Coultas leverages historical data found in SaaSOptics to extrapolate rolling averages for the future based on past performance. This aligns with the top-down approach discussed in Chapter 3.

From there, Coultas models a Low, Medium, and High scenario for each of his clients based on averages derived from various periods, a practice made exponentially easier by having the client's historical data at his fingertips in SaaSOptics.

SaaSOptics provides the data Coultas needs to build revenue models for clients, so he can spend time walking their Board through the numbers and aiding the client's leadership team with important operational decisions.

# Metrics Template

Now that you understand the importance of building an ARR model for your business and know more about two common approaches to modeling, you're ready to start building your own ARR model.

The teams at SaaSOptics and Burkland have put together a comprehensive metrics template with an example of a tops-down ARR model to help you get started. You can download the free, editable template [here](#).



## SaaSOptics SaaS Metrics Template

**Get our robust template including  
calculations, formulas, definitions  
and a customizable dashboard.**



[www.saasoptics.com](http://www.saasoptics.com)



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