



Aaran Daniel

What, Where and Wine Identifying Value

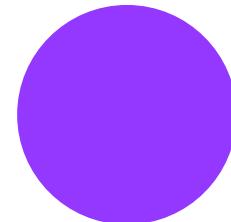
in the crowded consumer wine market



Agenda

- 1 Intro**
- 2 Problem Solution**
- 3 The Data**
- 4 Cleaning**
- 5 Finding Value**
- 6 Findings**
- 7 Modeling**
- 8 The Application**
- 9 Conclusion**

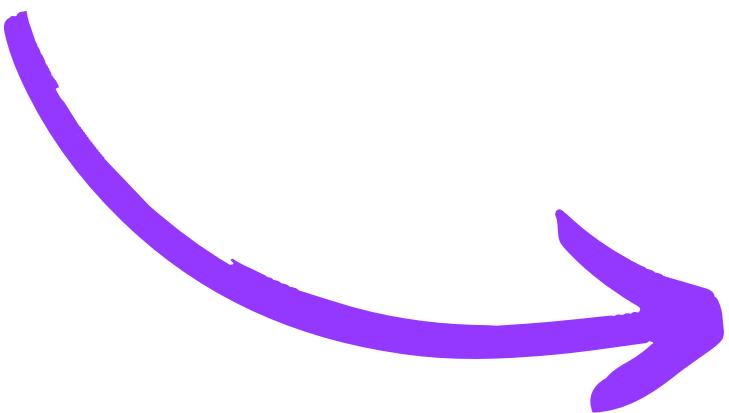




Problem Statement

**Let's face it, the world of wine is confusing,
a little pompous and often deeply
misunderstood.**

**Have you ever found yourself feeling like
Gary over here?**



**Choosing a wine without much to go on
beyond the label, price and the fact it's a
Friday night?**

If so, this project is for you.

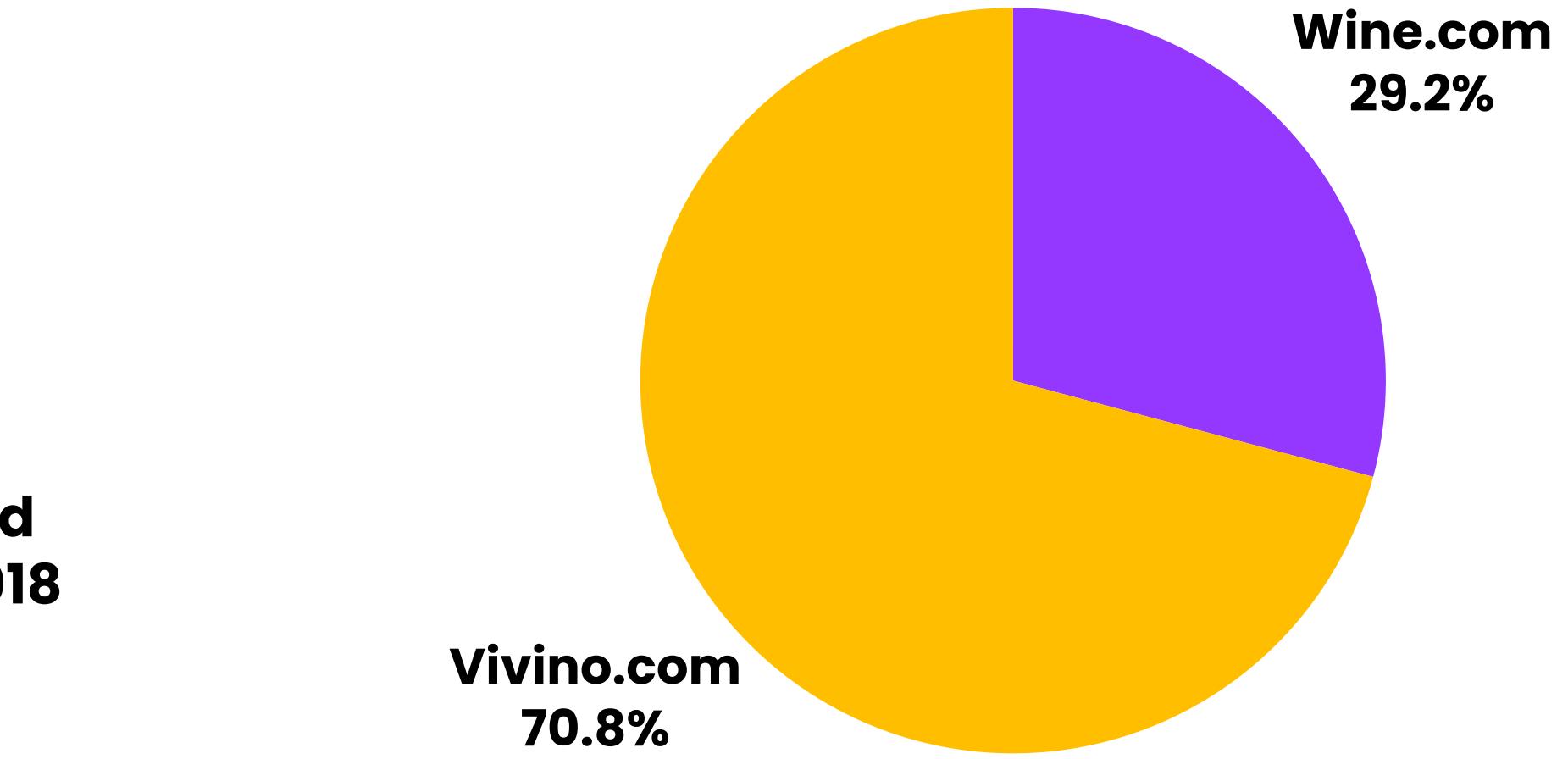
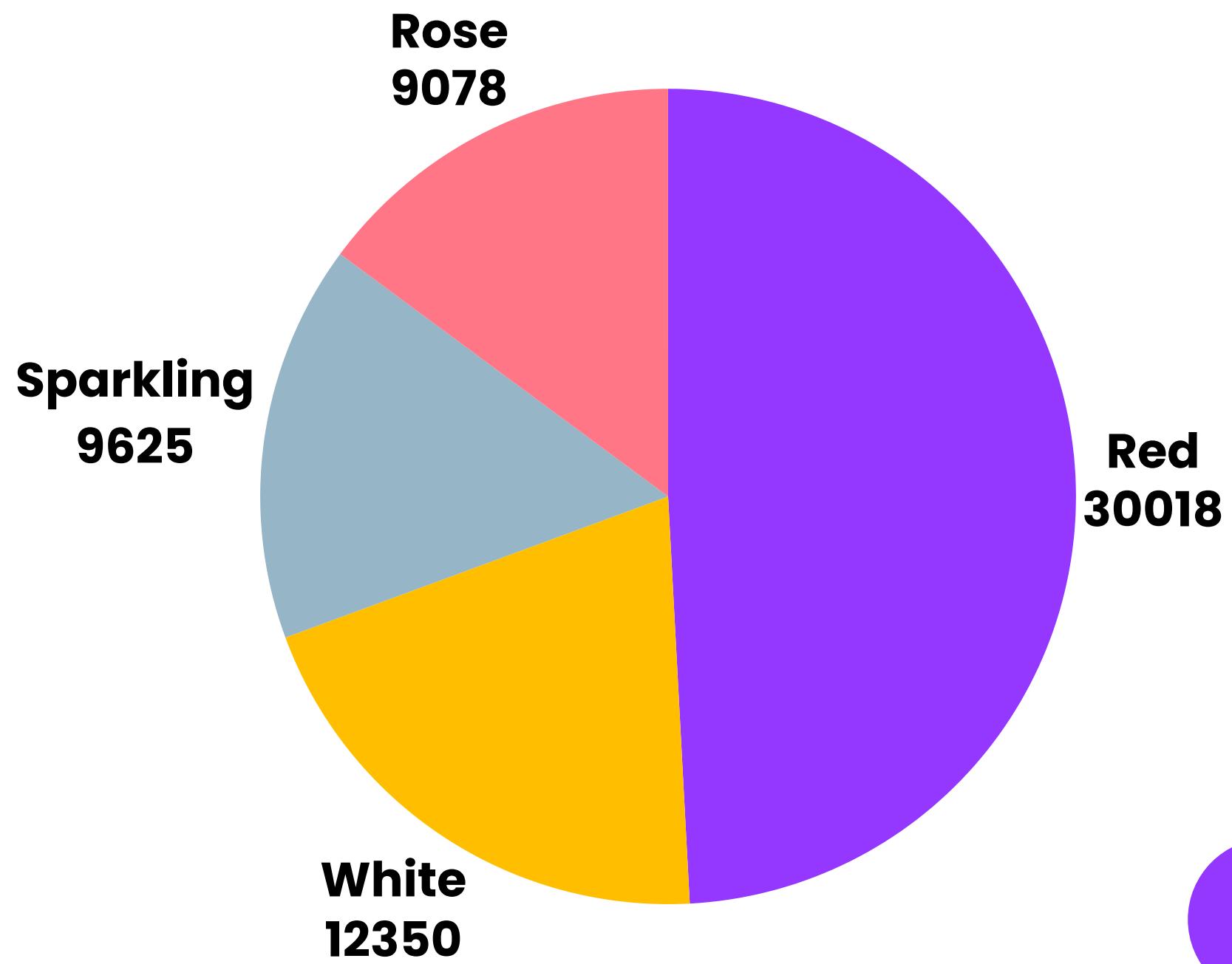




Objectives

1. **Help Gary walk into a wine shop feeling empowered.**
2. **Identify undervalued wines, regions and producers.**
3. **Give Gary some rules of thumb to help him in his search for tasty bargains.**
4. **Create an app Gary can use to learn about wines**

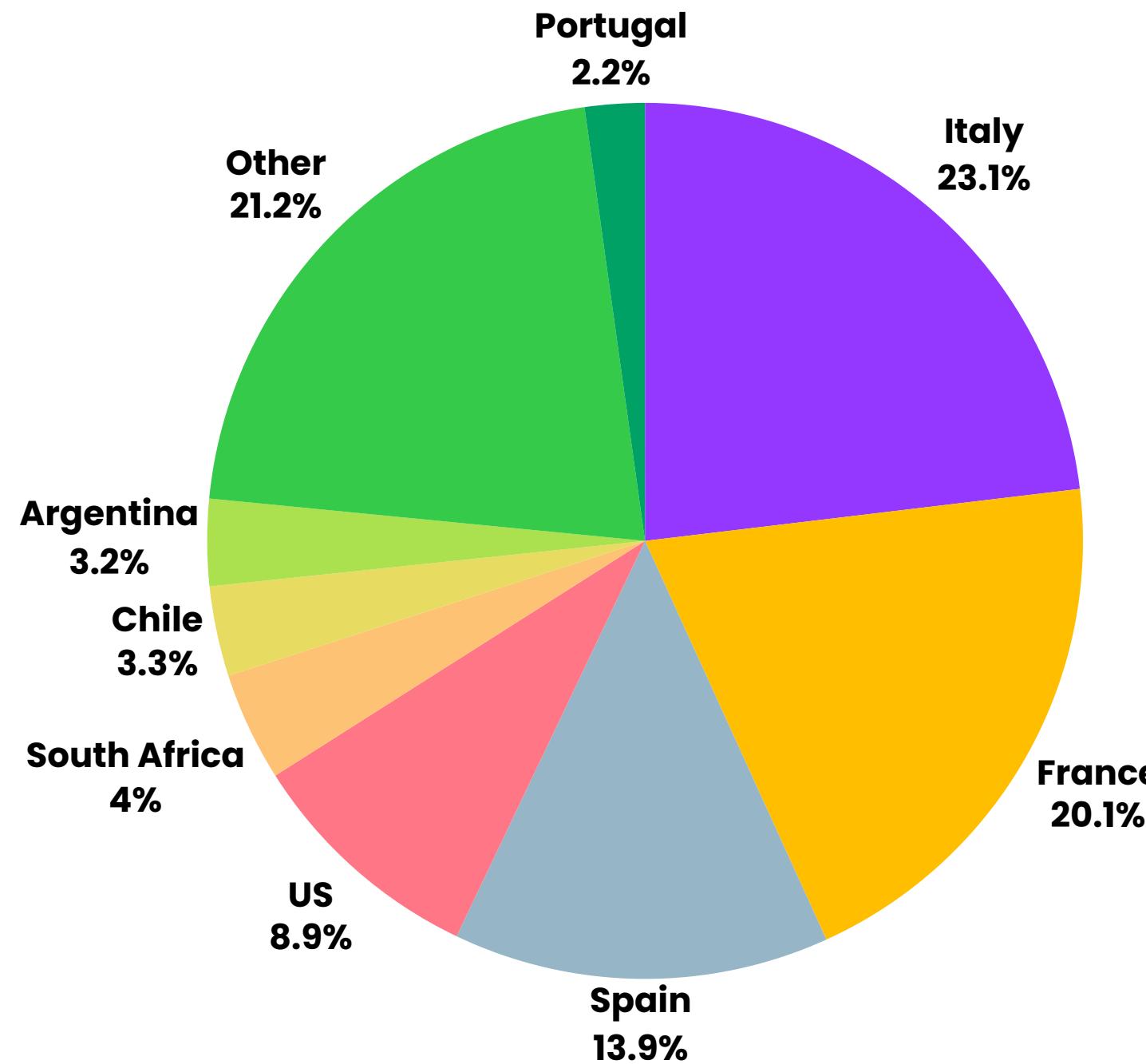




The Data

- 4 scrapes combined
- 60,000 750ml bottles
- Unfortified wine (5.5% to 16% abv)
- 10% separated for validation testing of the model

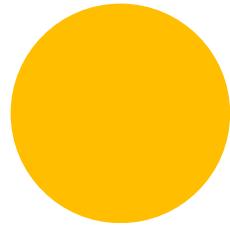




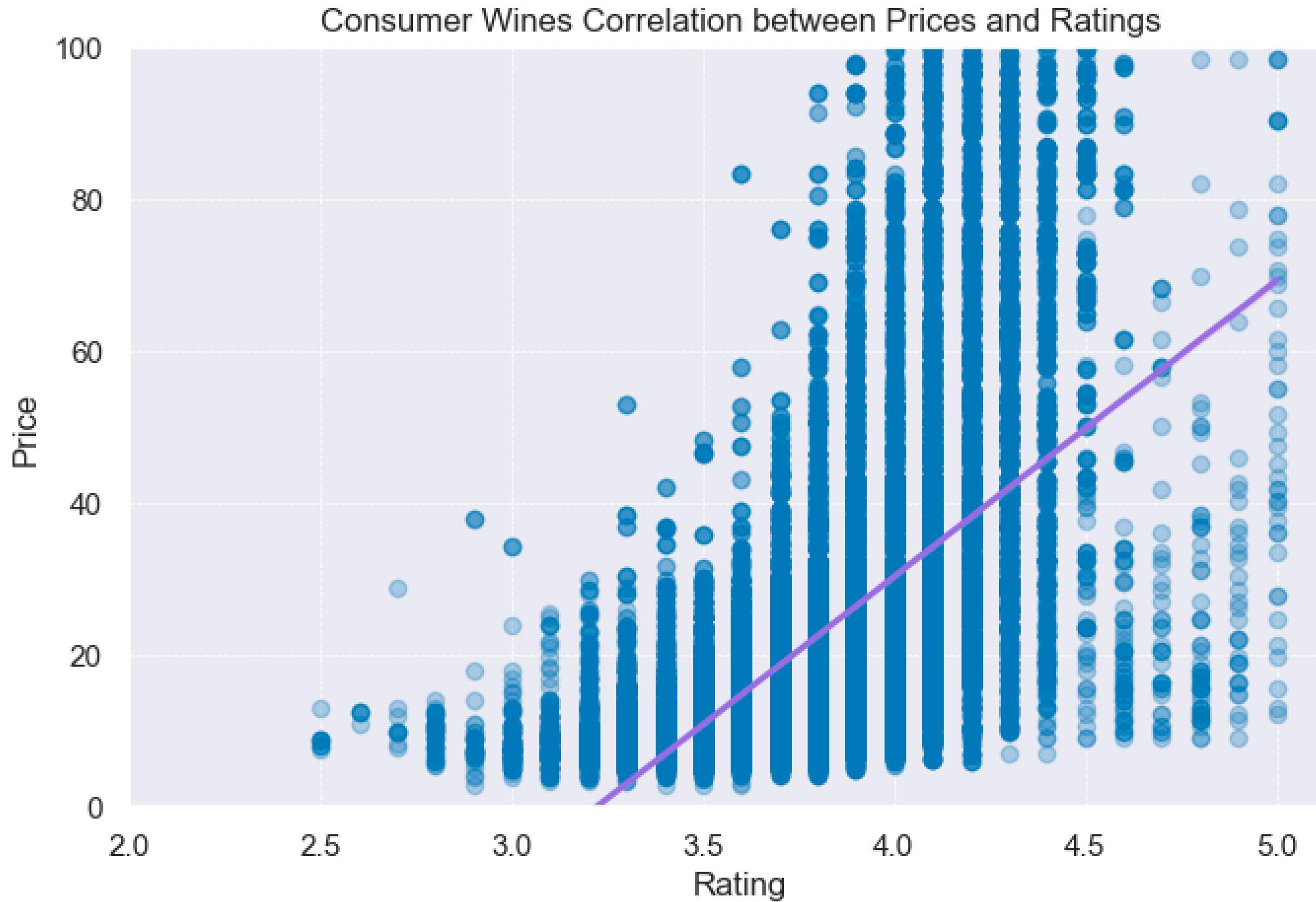
The Data

- A wide mix of countries
- Most countries produce red wine in highest quantities
- Priced in USD





Basic Findings



Rating correlates with price

Rating correlates with age

Price correlates with age

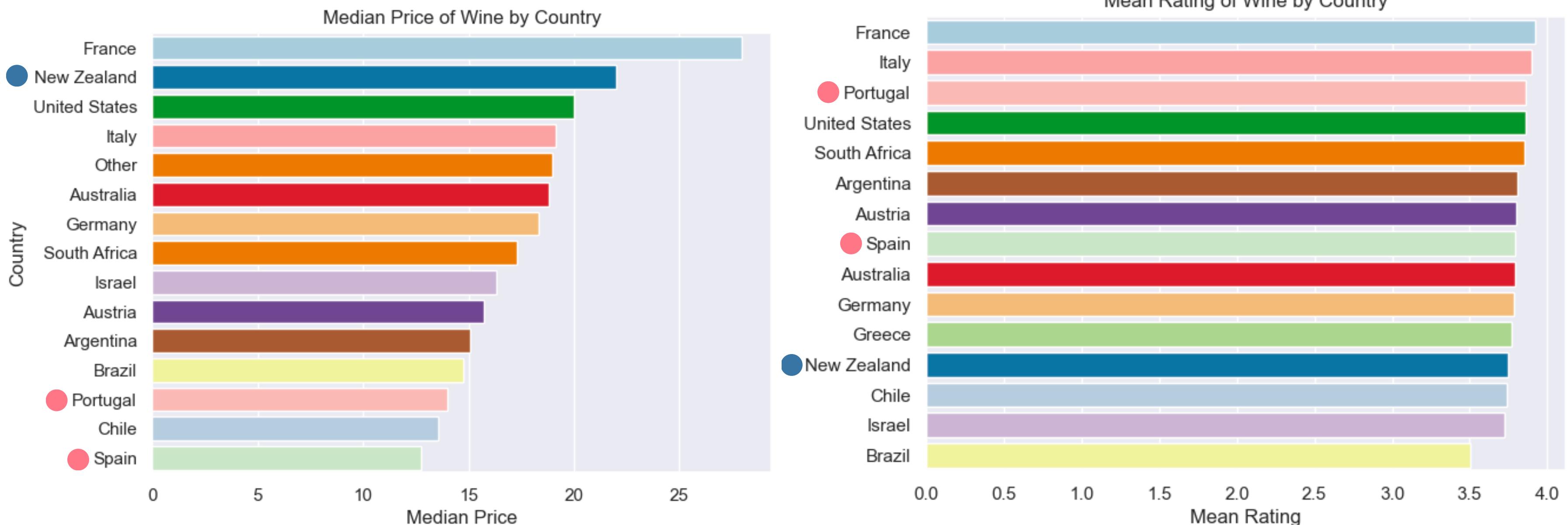
As wine ages its flavour profile expands





Analysis at Country Level

Countries: Prices and Ratings



France is France

Portugal & Spain bargains?

NZ overpriced?

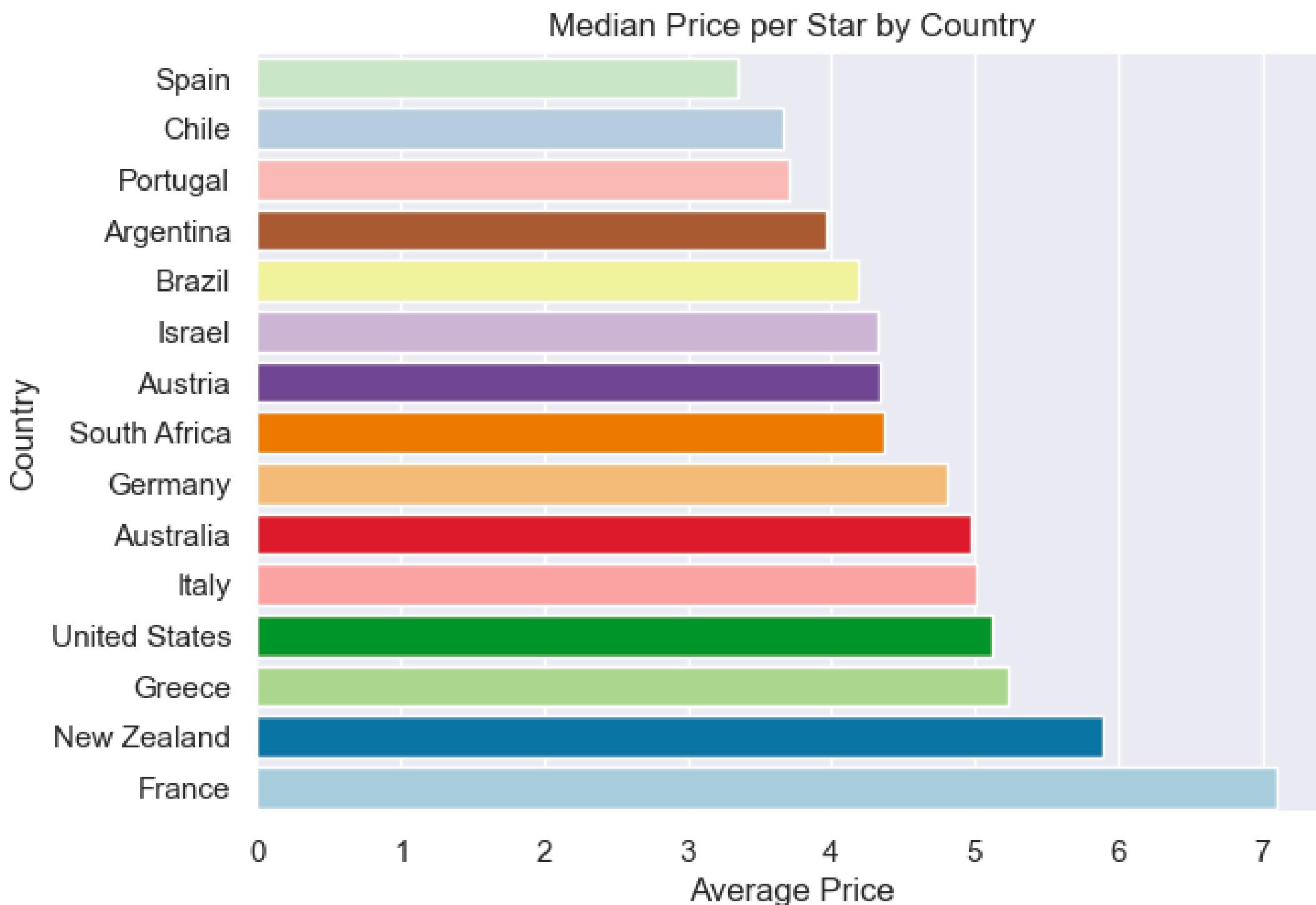
Countries: Price Per Star

Spain: lowest average price per star

NZ and Greece: 2nd and 3rd highest avg price per star

Portugal: 3rd lowest average price per star

France... is still France



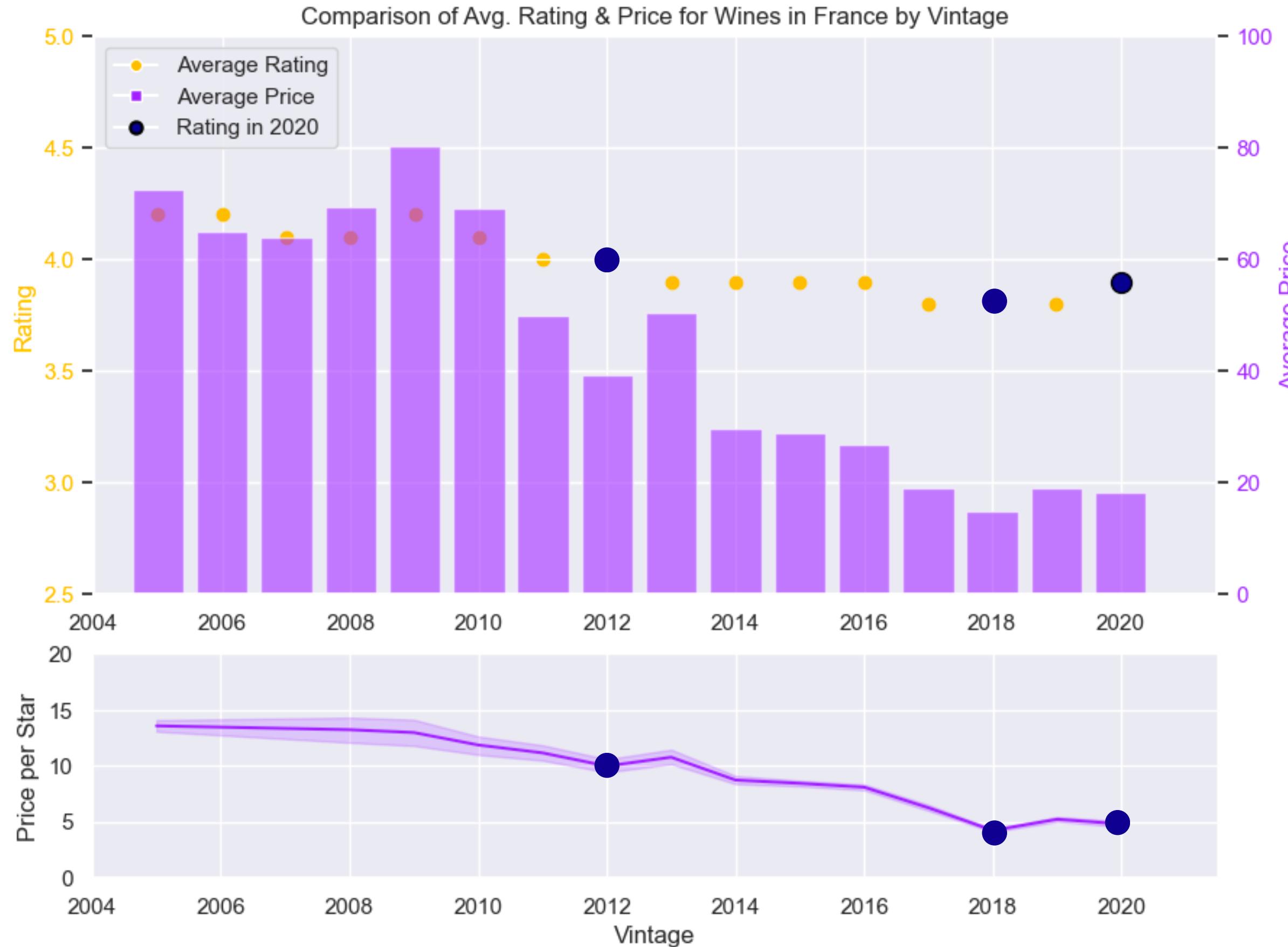


Spain & France

Vintages



France: Vintages



Potential value: 2020

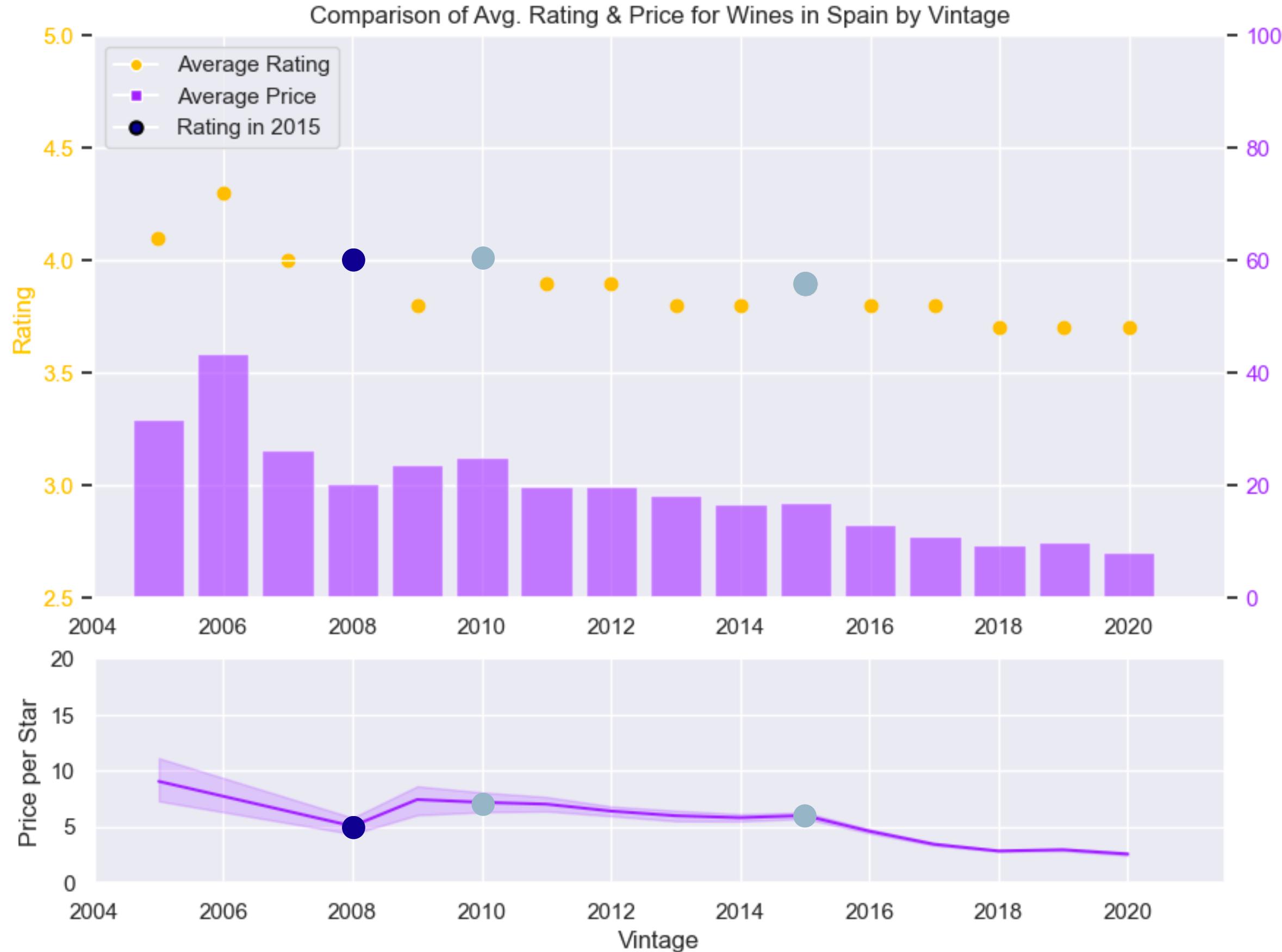
2012

2018





Spain: Vintages



Potential value 2008

2010 and 2015?

France much more
expensive than Spain...





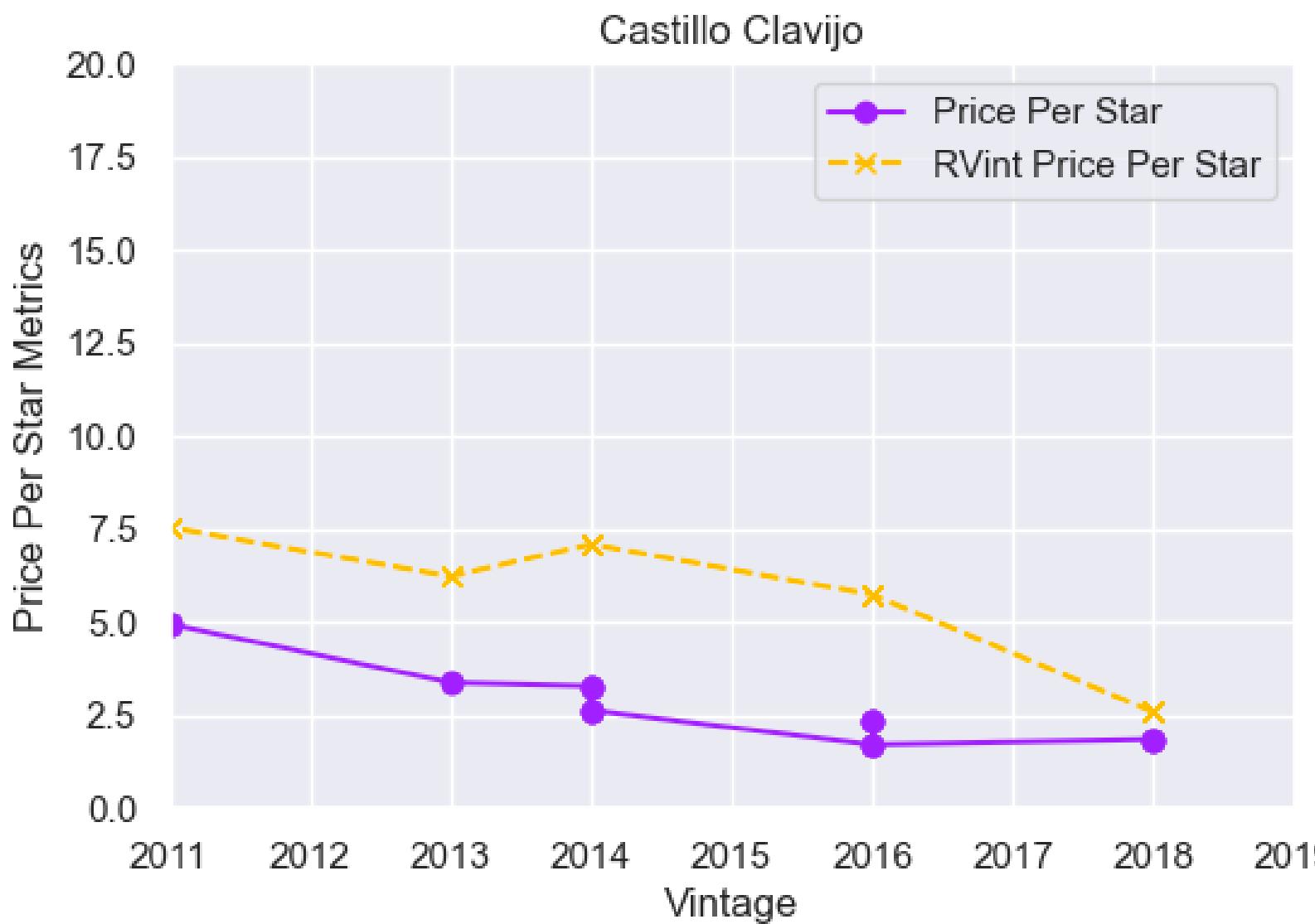
Spain & France

Producer Level

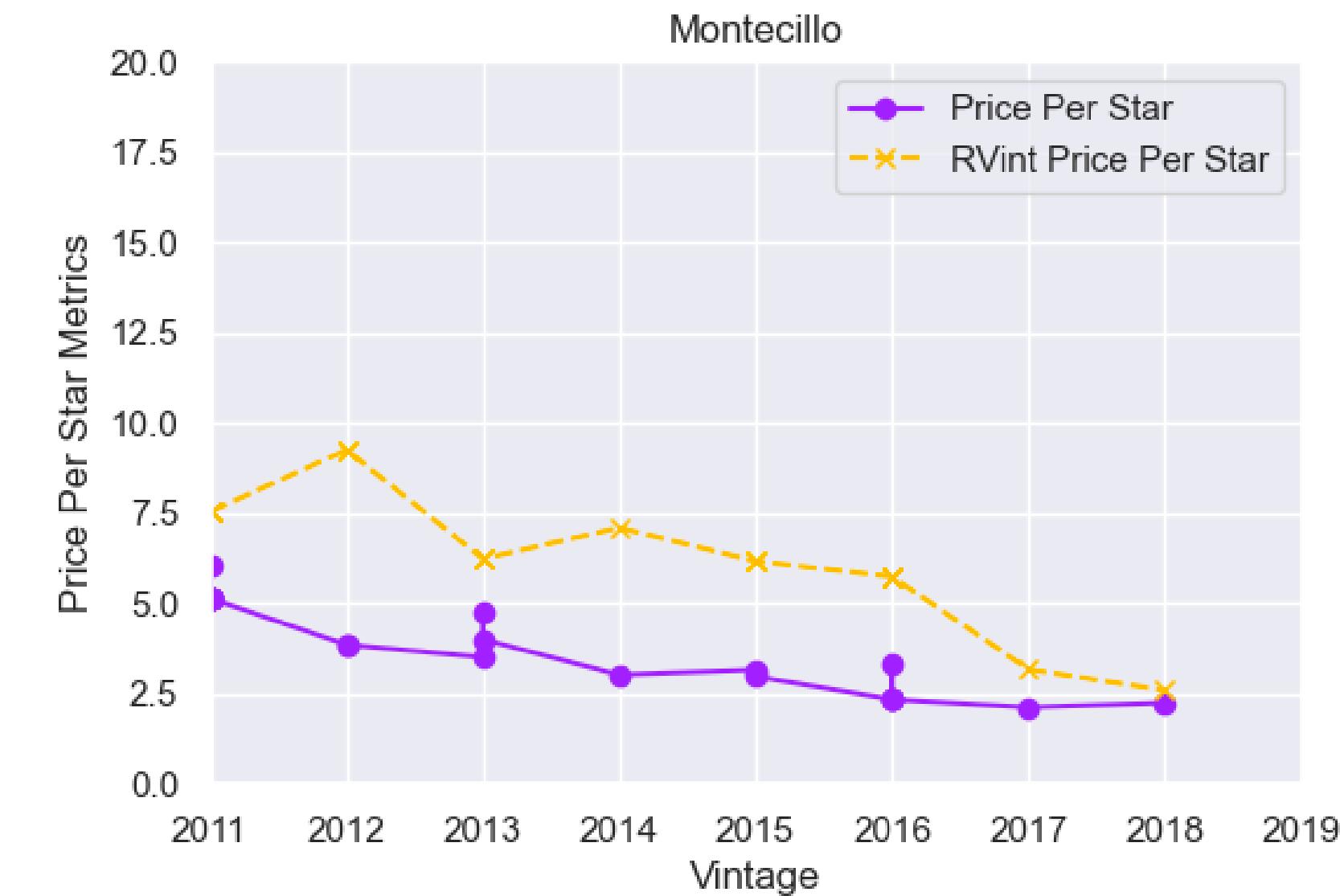


Rioja: Best Value Producers

Average rating: 3.74
Average Price: \$10.82



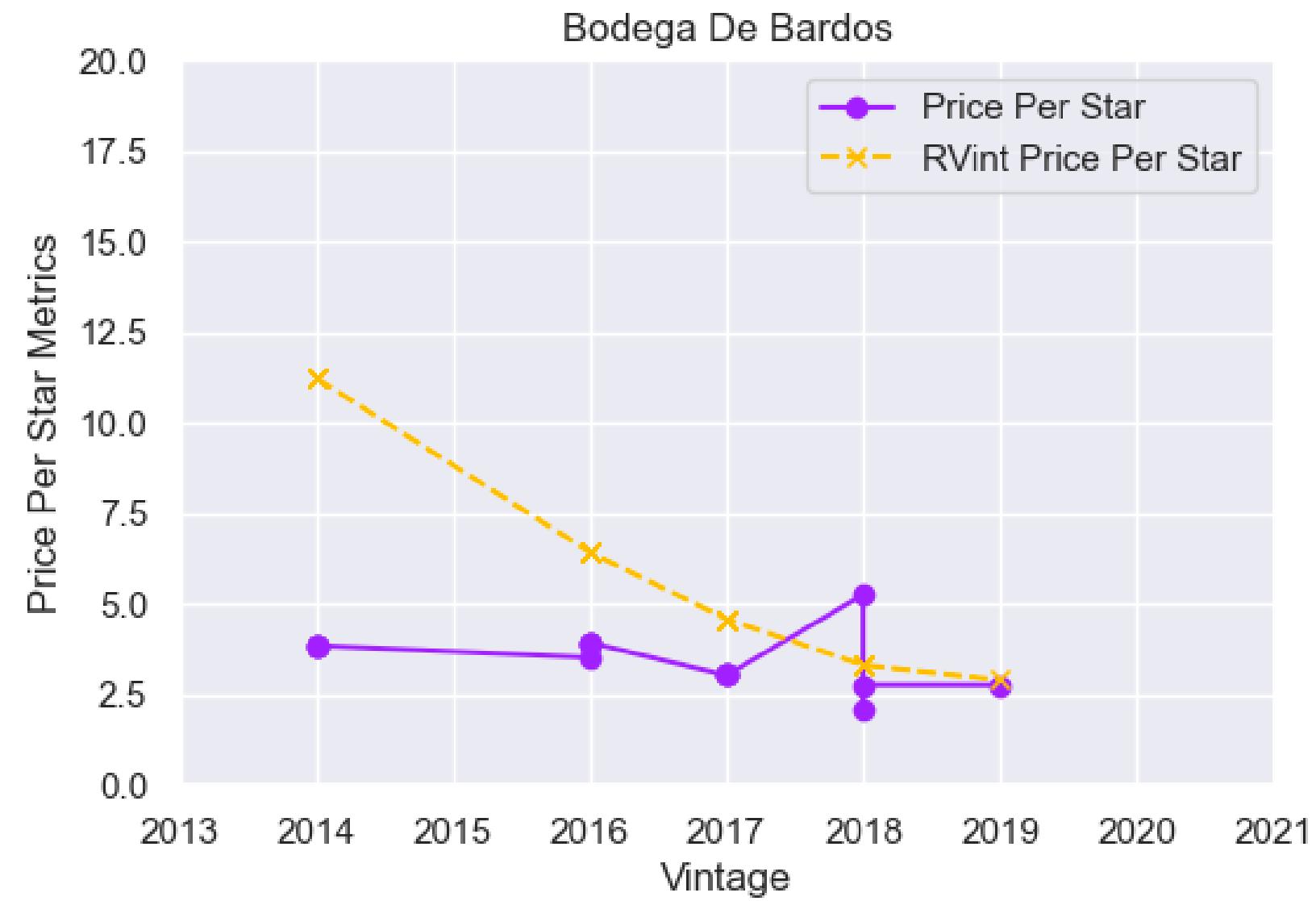
Average rating: 3.73
Average Price: \$14.39





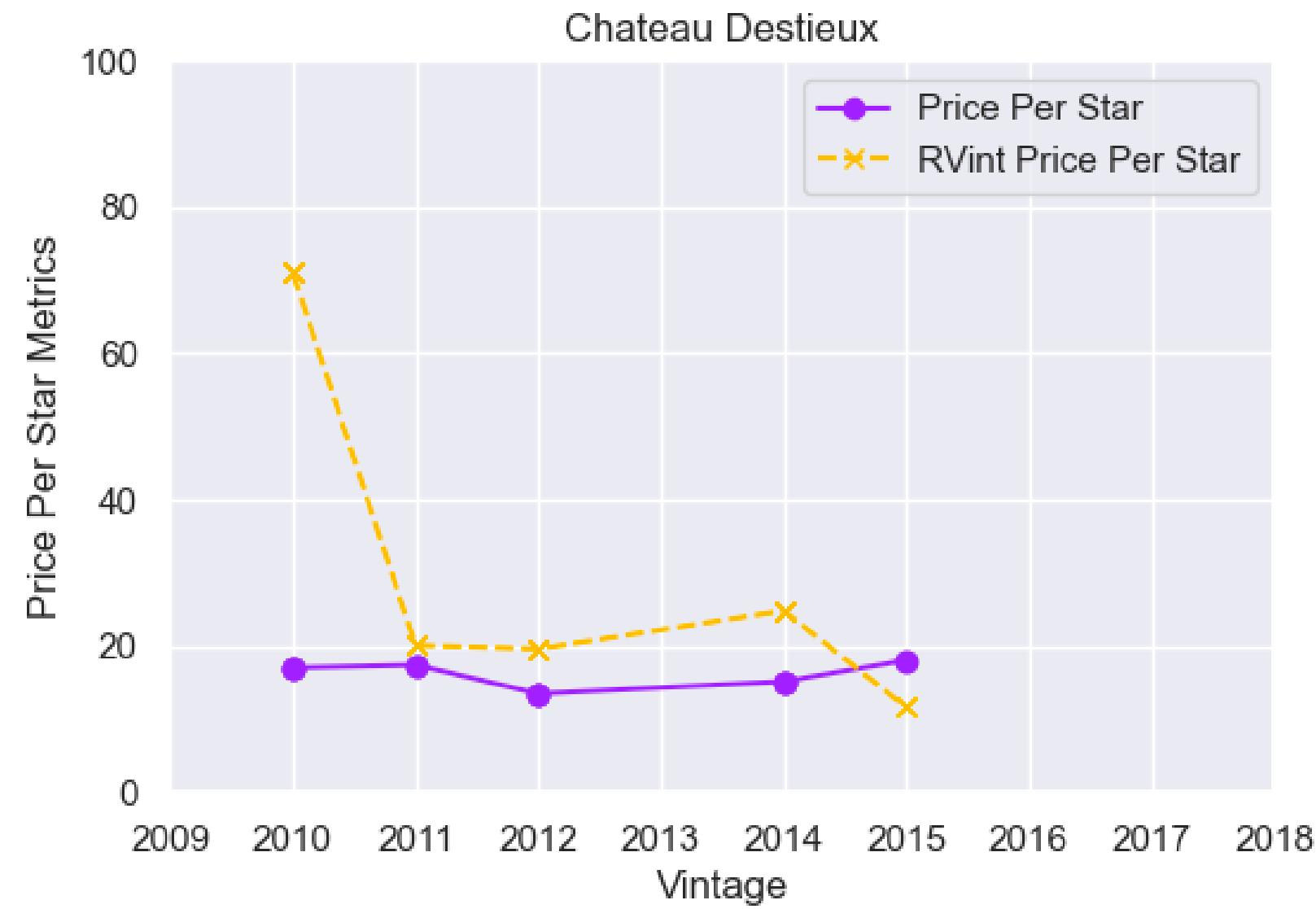
Ribera: Best Value Producer

Average rating: 4
Average Price: \$14.00



Bordeux: Best Value Producer

Average rating: 4.2
Average Price: \$67.23

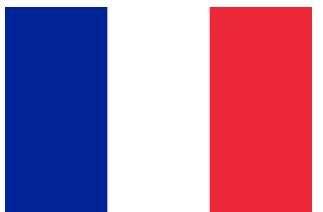


Best Value Bottles



4,6 stars
\$6.13

Les Jamelles Mourvedre 2018



wine-searcher.com



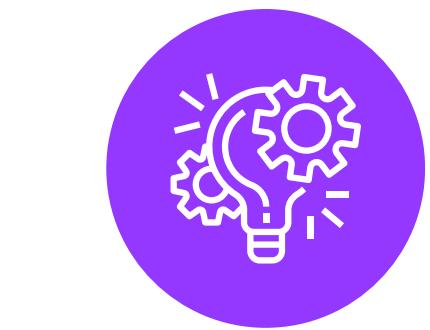
4,3 stars
\$6.80

Torres San Valentin Garnacha 2019



The background features a large, semi-transparent purple circle on the left and a smaller, solid purple circle on the right. A small, solid yellow circle is positioned near the center-left of the slide.

Modeling Price



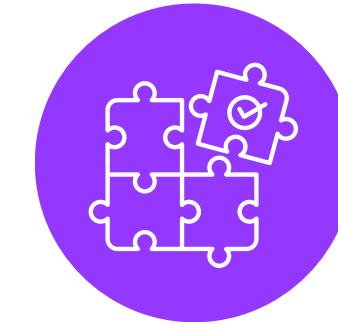
Feat. Eng. &
Imputation



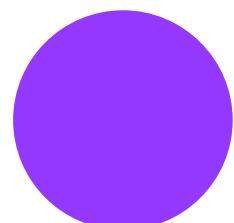
PCA

Encoding

Model
Selection



Validation



Modeling



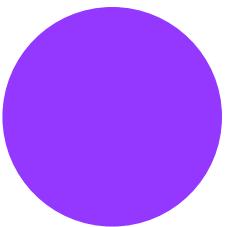
Pricing 5000 unseen
bottles of wine:



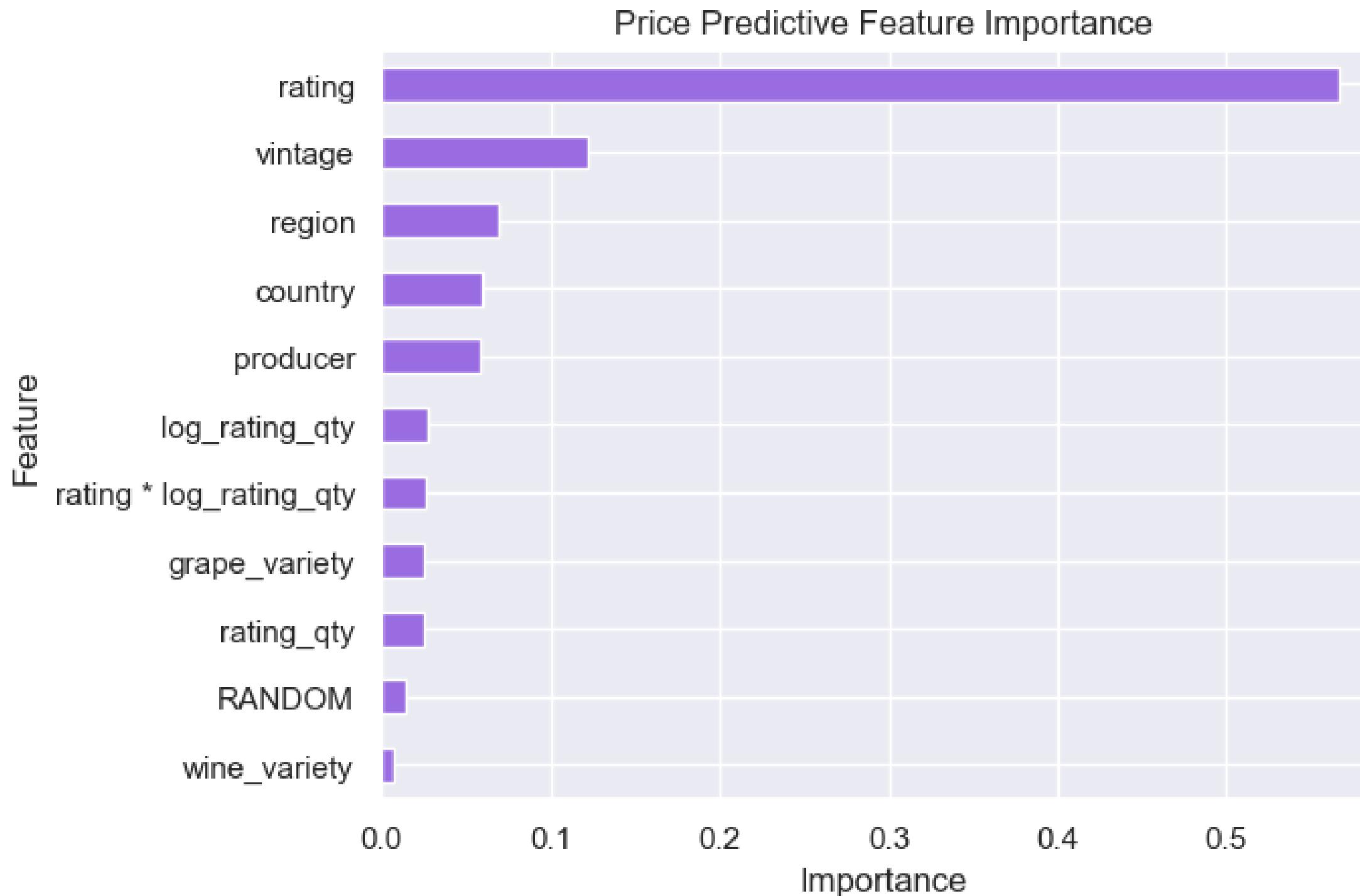
Best Models

Why is this important to Gary?





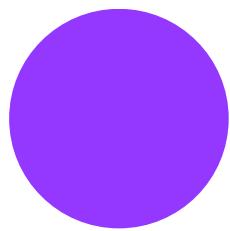
Feature Importance



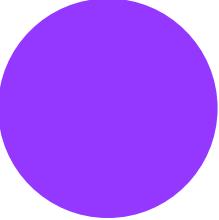
The background features several large, semi-transparent purple circles of varying sizes scattered across the white space. A single small, solid yellow circle is positioned near the center-left.

**How will Gary
remember all this?**

Meet Casi Our Cyber Sommelier



Suggestions for Gary



**Good value producers
identified in Spain:**

- Bodega De Bardos,
- Montecillo
- Castillo Clavijo and
- Vina Pomal.

In France if your feeling fancy:

- Chateau Destieux

Trust Wine Ratings

Bargains in Spain or Portugal

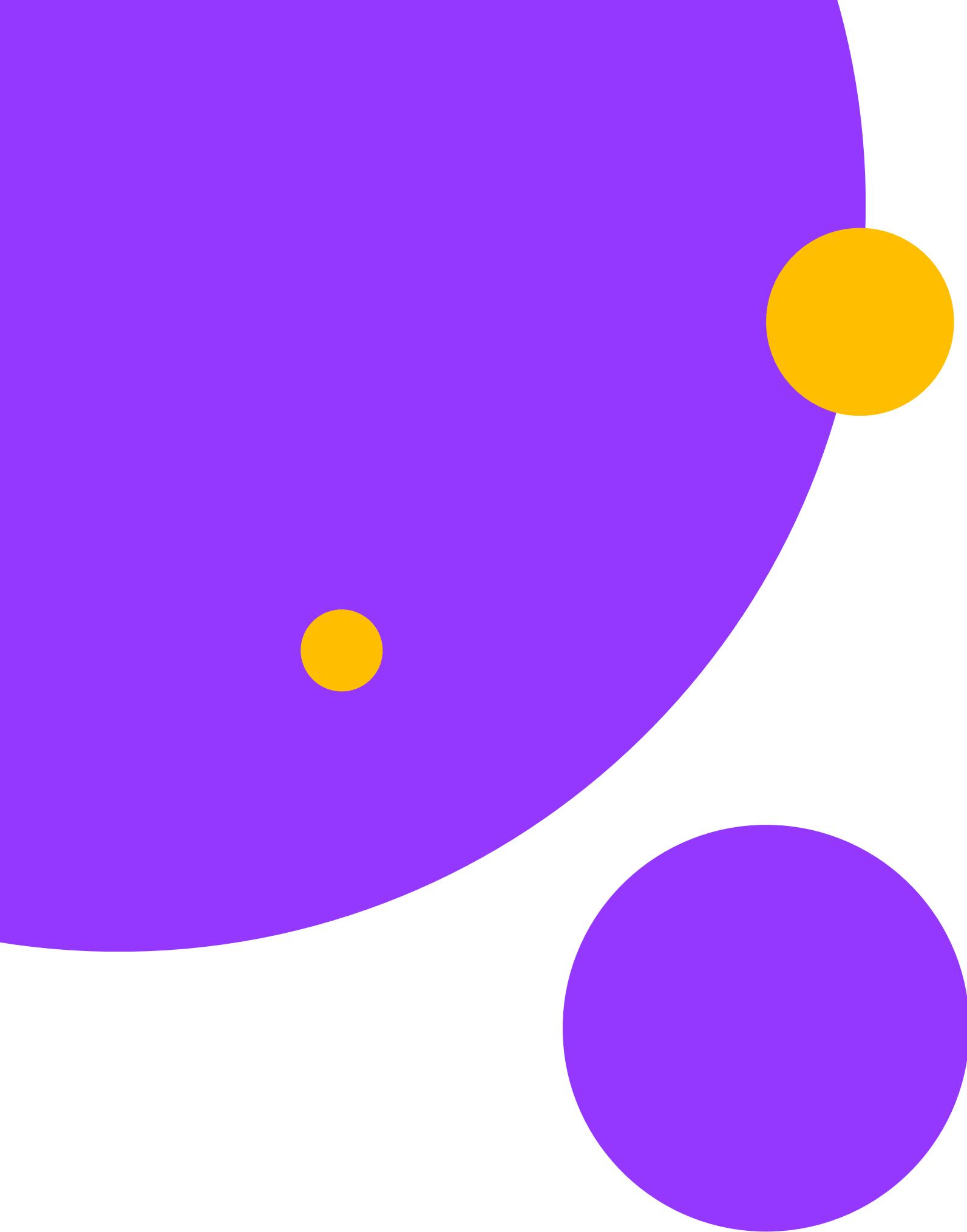
Vintages are important

Producers

Region

Country





Q & A

