Introduction to Wine Trade
Weighted Exchange Rates

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Introduction to Exchange Rates

• The exchange rate is the price of a nation’s currency in terms of another currency
• There are about 180 legal currencies in the world
• We will define exchange rate as
  “The price of U.S. dollar expressed in terms of foreign currency”

For Example,
1 U.S. dollar = 0.92 Euros, 1 U.S. dollar = 0.66 British Pounds
1 U.S. dollar = 119 Japanese Yen…
Broad Dollar Index: Trade-Weighted Effective Exchange Rate

Source: Board of Governors of the Federal Reserve System (US)
Shaded areas indicate US recessions - 2015 research.stlouisfed.org
Construction of Broad Dollar Index

• Weight of each country = bilateral trade in all goods with the U.S. (both imports and exports) divided by total U.S. trade

• Sum of these weights are equal to one

• Real exchange rate index = Nominal exchange rate index *(the CPI of U.S. / the CPI of a specific country)

• Broad Dollar Index is the weighted average of real exchange rates
Wine Economics of a Strong Dollar

• Imports become relatively cheap in the U.S. market

• U.S. produced wine becomes relatively expensive in the export market

• U.S. wine exports become expensive relative to wine from other source countries in export destinations
Total Grapes Crushed, 1,000 Tons

- Weighted Average Grower Return

Dollars per Ton

- Total Grapes Crushed in Districts 12, 13, and 14
Monthly Bulk Wine Import and Export Unit Prices, Jan 2005 – Feb 2015

Bulk Export Unit Prices

Bulk Import Unit Prices
Monthly U.S. Bulk Wine Imports and Exports in Million Liters, Jan 2005 – Feb 2015
Importance of Exchange Rates for Imported Wine

• Both bottled and bulk wine are imported from the same set of countries: Australia, Argentina, Chile, South Africa, Euro Zone countries, New Zealand

• However, the import shares vary, thus the importance of each individual exchange rate varies by bulk and bottled imports

• When the dollar strengthens what happens??
Monthly Real Exchange Rate Indices of Australian and New Zealand Dollar to U.S. Dollar, Ave. 2010 = 100

2014 Australian average share of U.S. bulk imports 19%, share of bottled imports 14%
2014 New Zealand average share of U.S. bulk imports 29 %, share of bottled imports 5%
Monthly Real Exchange Rate Index of Euro to U.S. Dollar, Ave. 2010 = 100

2014 Euro Zone average share of U.S. bulk imports 10%, share of bottled imports 64%
Monthly Real Exchange Rate Indices of Chilean and Argentine Peso to U.S. Dollar, Ave. 2010 = 100

2014 Chile average share of U.S. bulk imports 27%, share of bottled imports 8%
2014 Argentina average share of U.S. bulk imports 14 %, share of bottled imports 8%
Bulk Wine Import Weighted Exchange Rate Index

Ave. 2010 = 100 for all exchange rates and 2014 average import shares used
Bottled Wine Import Weighted Exchange Rate Index

Ave. 2010 = 100 for all exchange rates and 2014 average import shares used
Importance of Exchange Rates for California Wine Exports

• Major Export Destinations: Canada, United Kingdom, Euro Zone (Germany), Japan, China, and Hong Kong

• However, the export shares vary, thus the importance of each individual exchange rate varies by bulk and bottled exports

• When the dollar strengthens what happens??
Monthly Real Exchange Rate Indices of Euro and British Pound to U.S. Dollar, Ave. 2010 = 100

2014 Euro Zone average share of U.S. bulk exports 34%, share of bottled exports 12%
2014 British average share of U.S. bulk exports 32%, share of bottled exports 13%
Monthly Real Exchange Rate Indices of Canadian Dollar and Japanese Yen to U.S. Dollar, Ave. 2010 = 100

2014 Japanese average share of U.S. bulk exports 7%, share of bottled exports 9%
2014 Canadian average share of U.S. bulk exports 7%, share of bottled exports 37%
Bulk Wine Export Weighted Exchange Rate Index

Average 2010 = 100 for all exchange rates and 2014 average export shares used
Average 2010 = 100 for all exchange rates and 2014 average export shares used
The Case of Australian Imports of Bulk Wine

• U.S. Dollar appreciated against Australian Dollar over 20% since 2011

• In 2014, a quarter of U.S. bulk wine imports came from Australia

• Did Australia increase exports of bulk wine into the U.S. since 2011?
Real Exchange Rate of Australian Dollar and Imports of Bulk Wine

![Graph showing the real exchange rate of Australian Dollar (AUD) to USD and monthly bulk wine imports from Australia over the years from Jan-05 to Jan-15. The graph includes two lines: one representing the monthly bulk wine imports from Australia, and the other showing the average monthly real exchange rate AUD to USD. The x-axis represents the months from Jan-05 to Jan-15, and the y-axis represents the quantity in million liters for wine imports and the exchange rate in AUD to USD. The graph highlights significant fluctuations in both the exchange rate and bulk wine imports over the years.]
Conclusion

• Strong dollar hurts the California wine grape and wine industry three ways

• From this preliminary analysis there is no evidence that the exchange rates dominate the bulk wine trade

• There are other things that influence the wine trade: yields, demand changes, policy (duty drawbacks)
Thank you