



University of California
Agricultural Issues Center

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



Trade Weighted U.S. Dollar Index: Broad



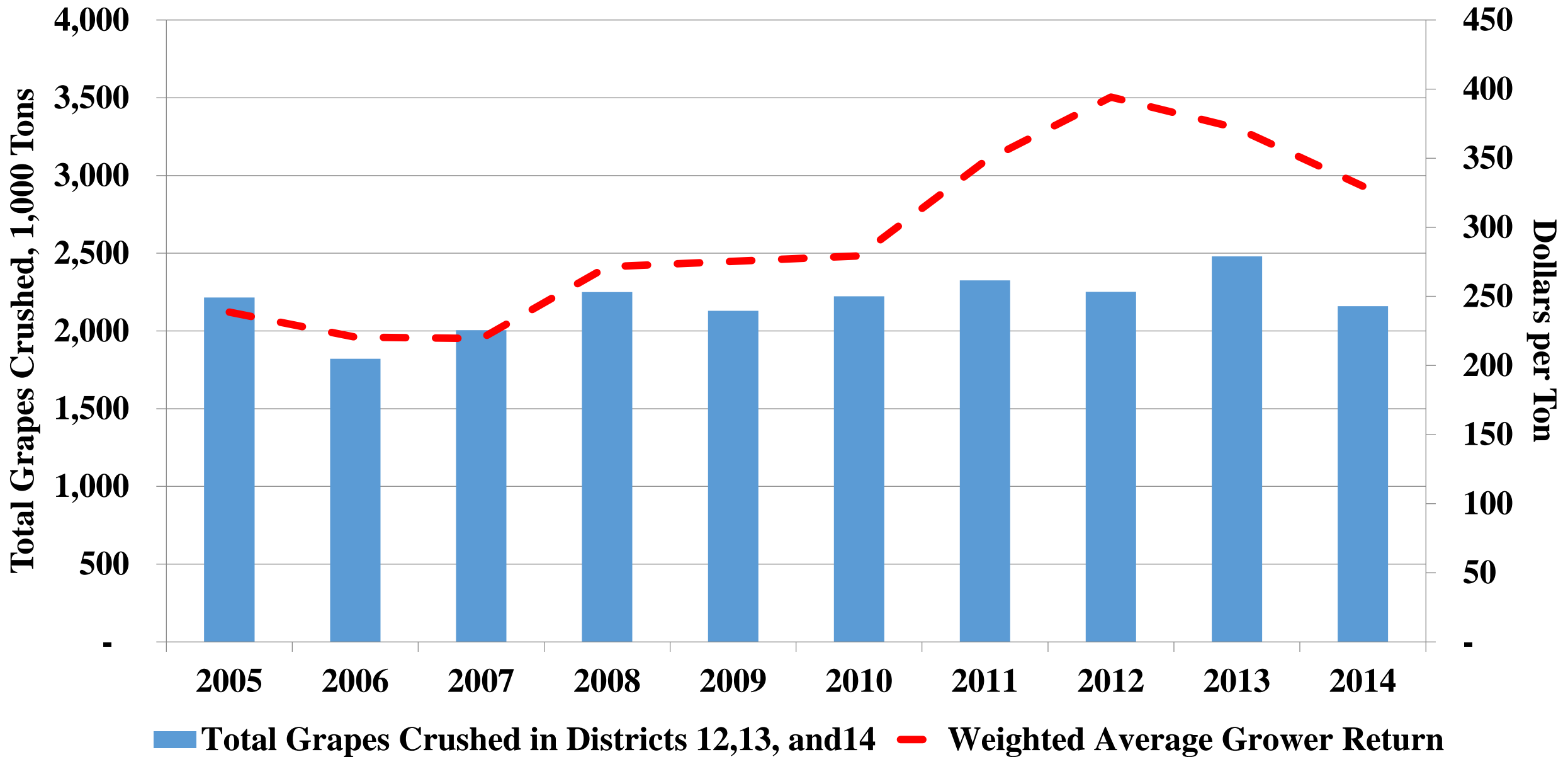
Source: Board of Governors of the Federal Reserve System (US)
Shaded areas indicate US recessions - 2015 research.stlouisfed.org

Construction of Broad Dollar Index

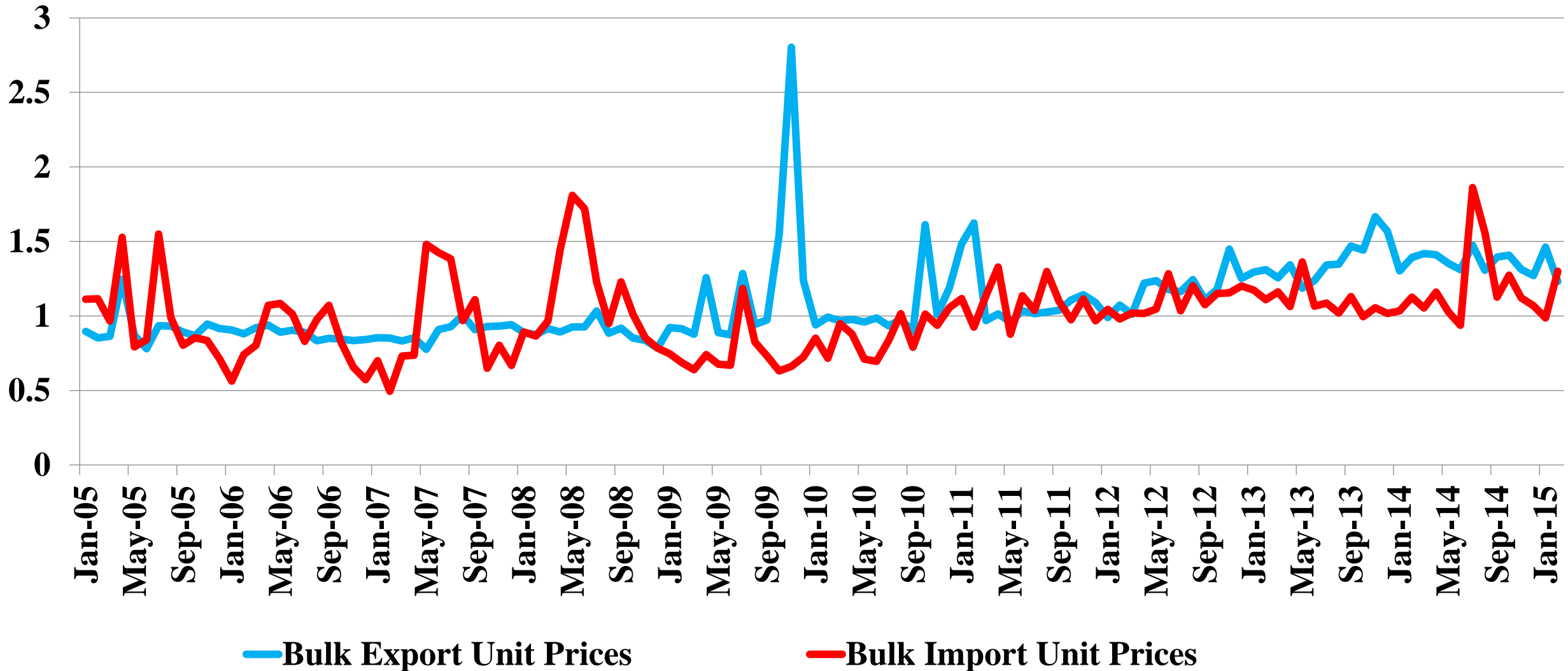
- **Weight of each country = bilateral trade in all goods with the U.S. (both imports and exports) divided by total U.S. trade**
- **Sum of these weights are equal to one**
- **Real exchange rate index = Nominal exchange rate index * (the CPI of U.S. / the CPI of a specific country)**
- **Broad Dollar Index is the weighted average of real exchange rates**

Wine Economics of a Strong Dollar

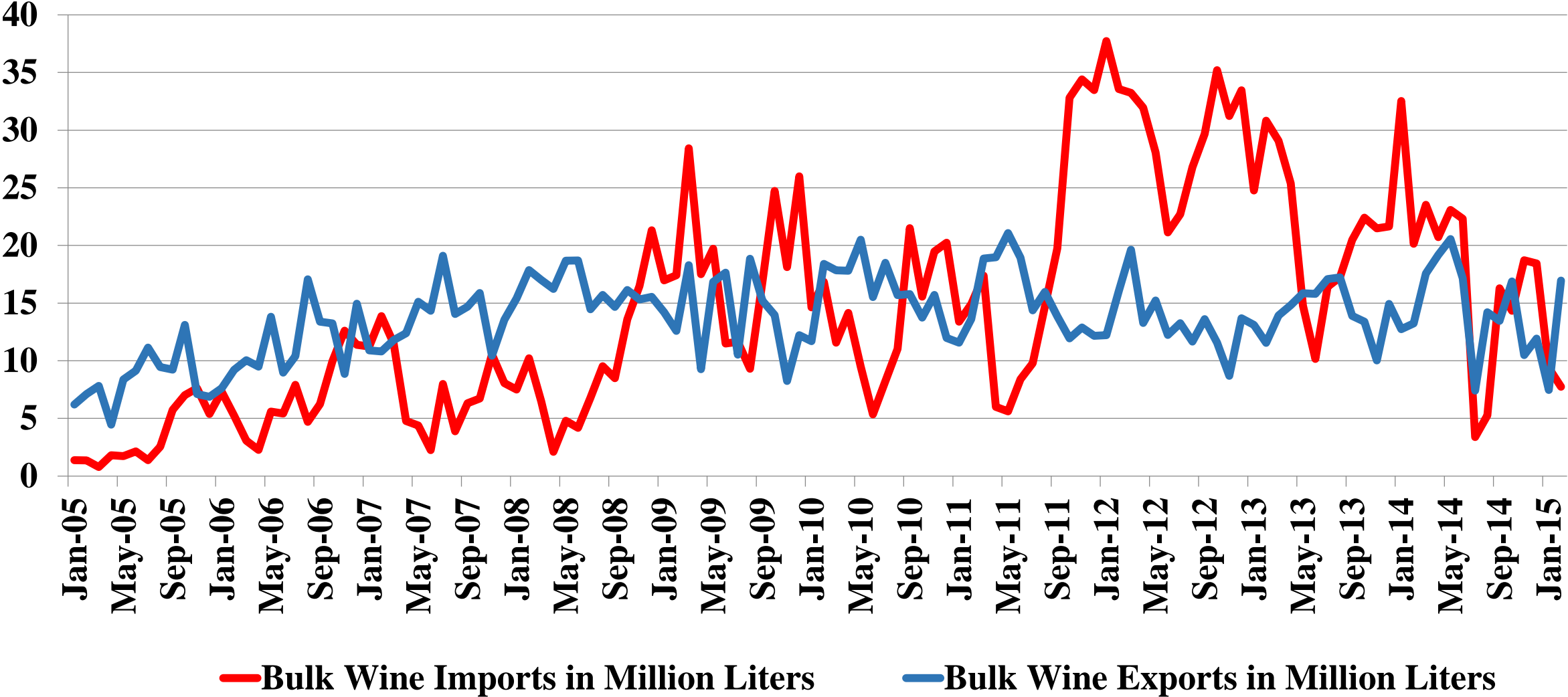
- **Imports become relatively cheap in the U.S. market**
- **U.S. produced wine becomes relatively expensive in the export market**
- **U.S. wine exports become expensive relative to wine from other source countries in export destinations**



Monthly Bulk Wine Import and Export Unit Prices, Jan 2005 – Feb 2015



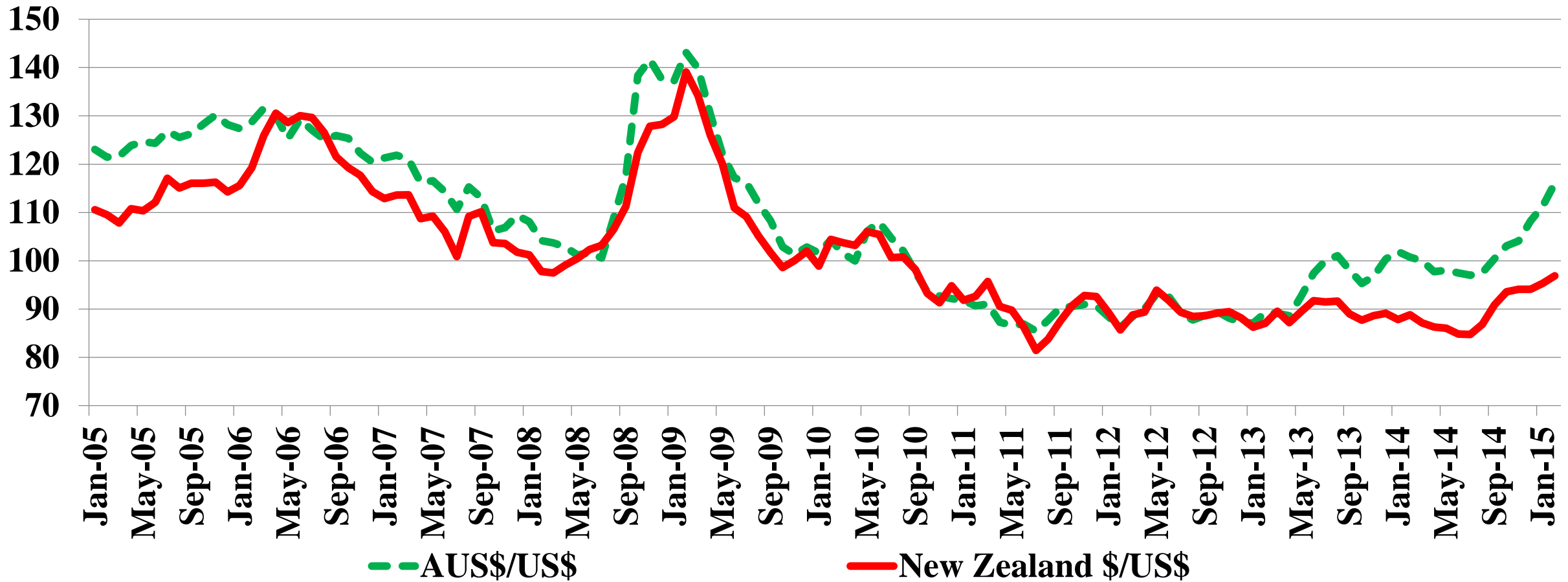
Monthly U.S. Bulk Wine Imports and Exports in Million Liters, Jan 2005 – Feb 2015



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??**

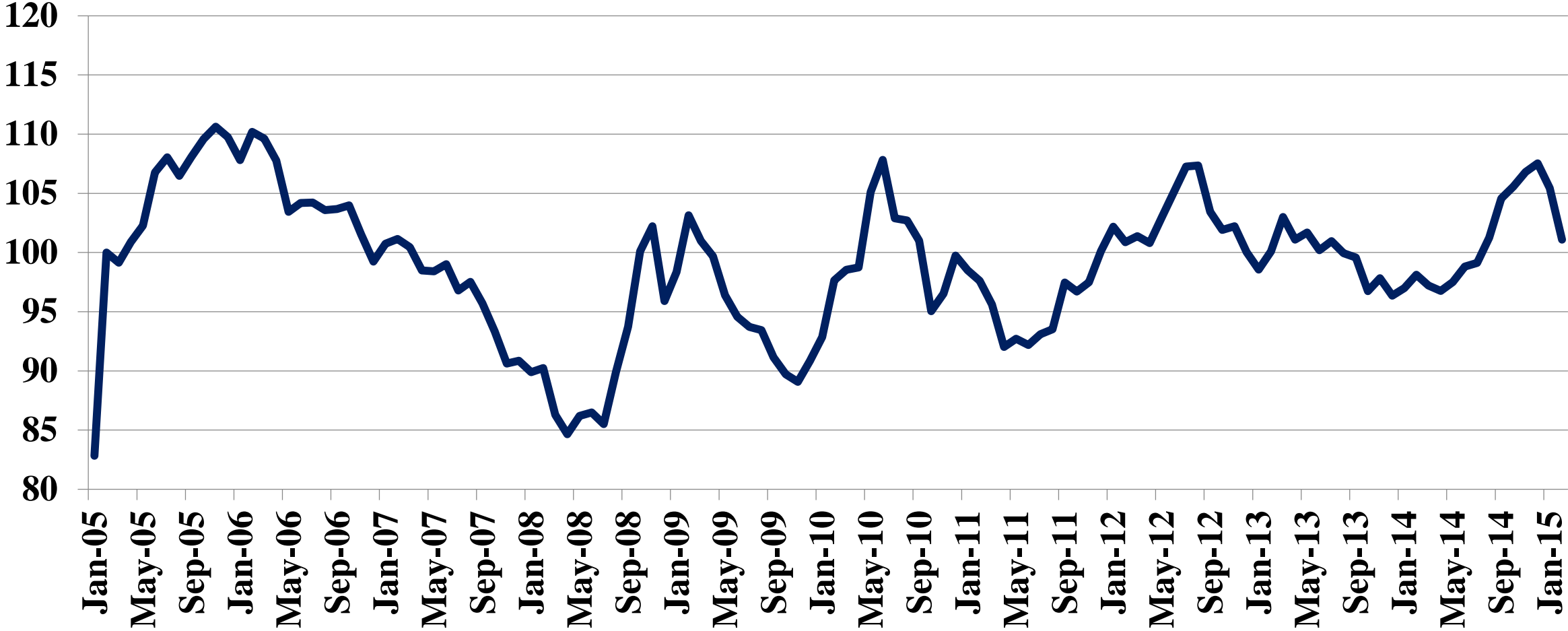
Monthly Real Exchange Rate Indices of Australian and New Zealand Dollar to U.S. Dollar, Ave. 2010 = 100



2014 Australian average share of U.S. bulk imports 19%, share of bottled imports 14%

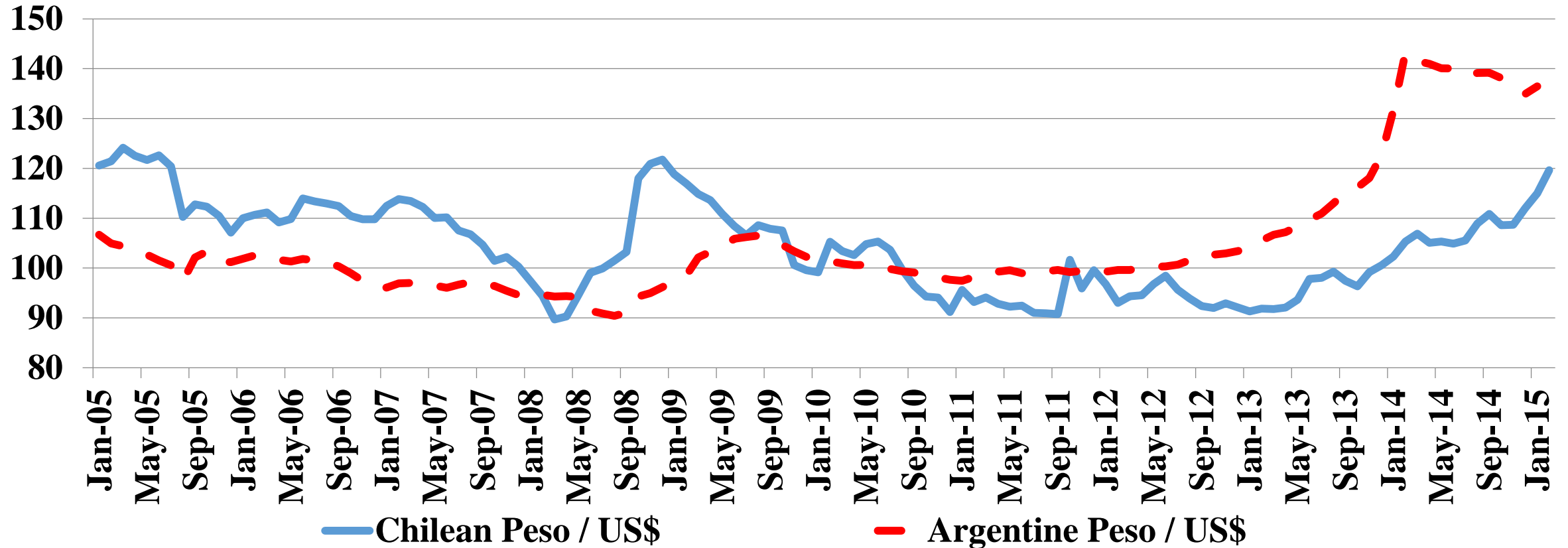
2014 New Zealand average share of U.S. bulk imports 29 %, share of bottled imports 5%

Monthly Real Exchange Rate Index of Euro to U.S. Dollar, Ave. 2010 = 100



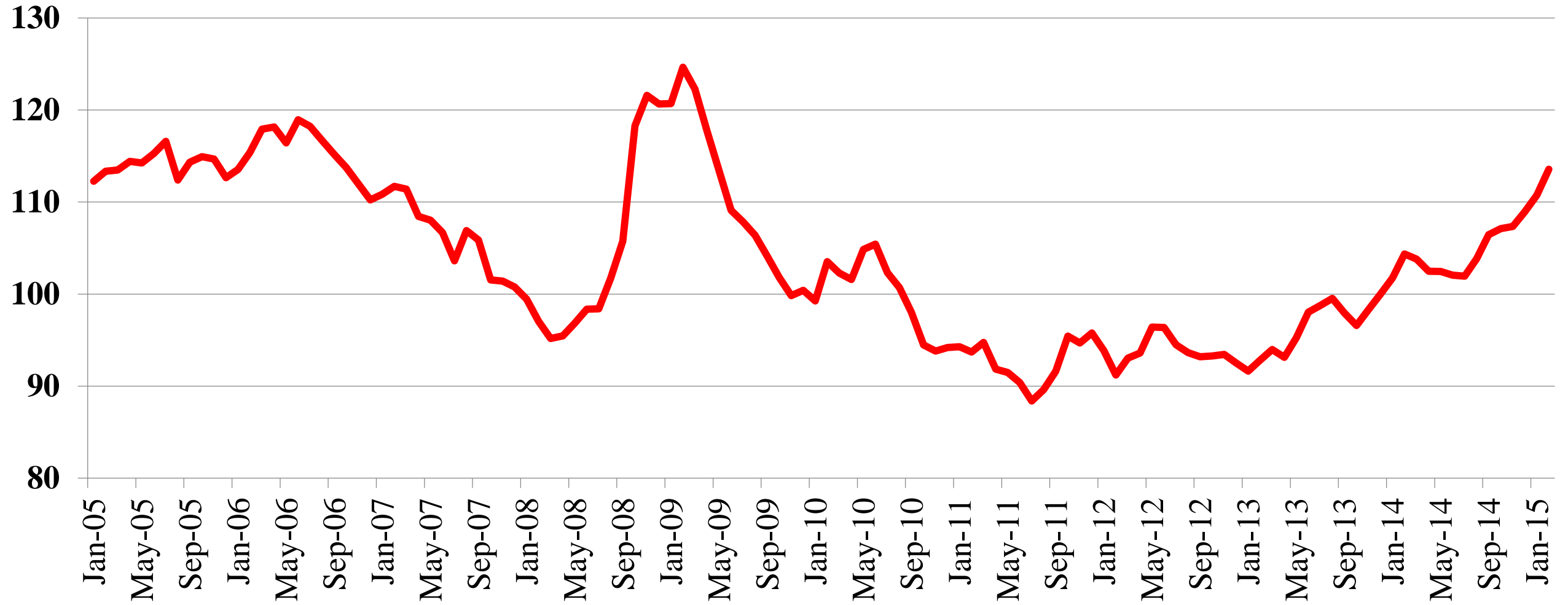
2014 Euro Zone average share of U.S. bulk imports 10%, share of bottled imports 64%

Monthly Real Exchange Rate Indices of Chilean and Argentine Peso to U.S. Dollar, Ave. 2010 = 100



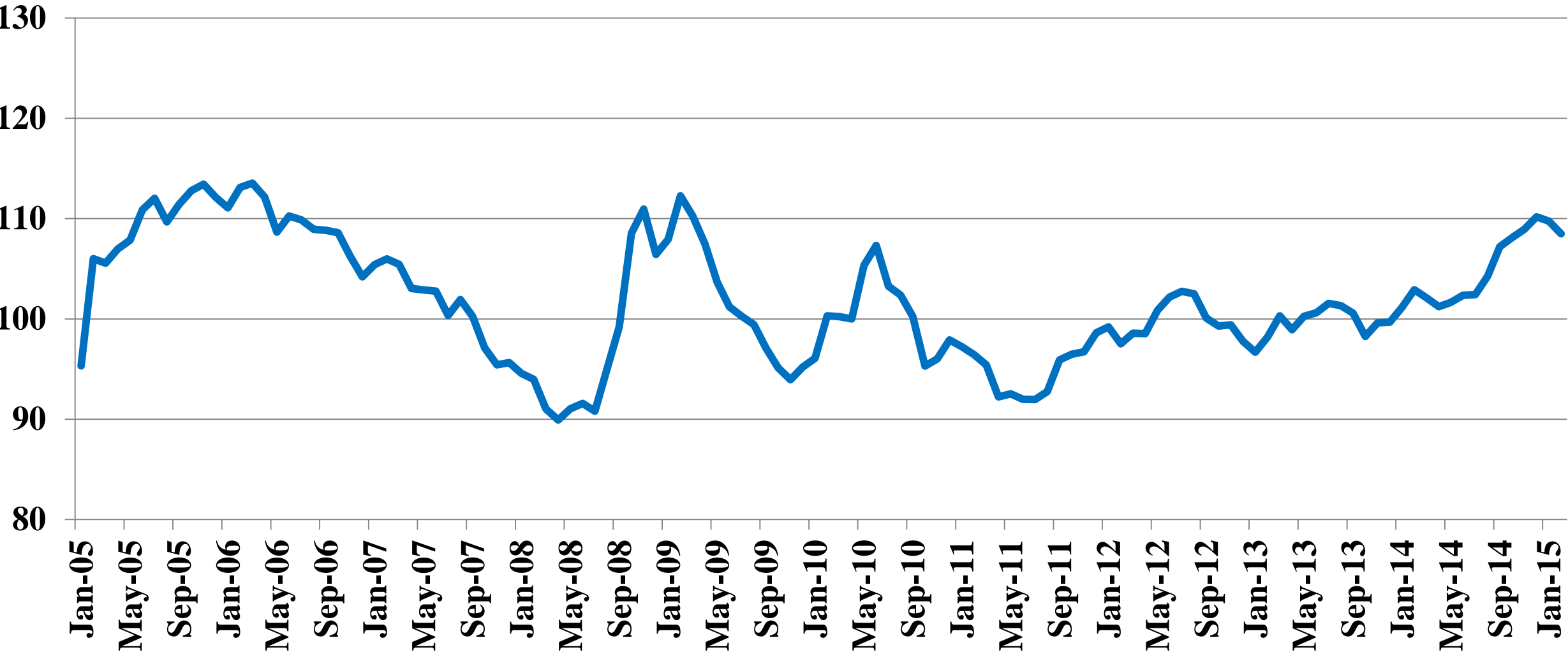
2014 Chile average share of U.S. bulk imports 27%, share of bottled imports 8%
2014 Argentina average share of U.S. bulk imports 14 %, share of bottled imports 8%

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

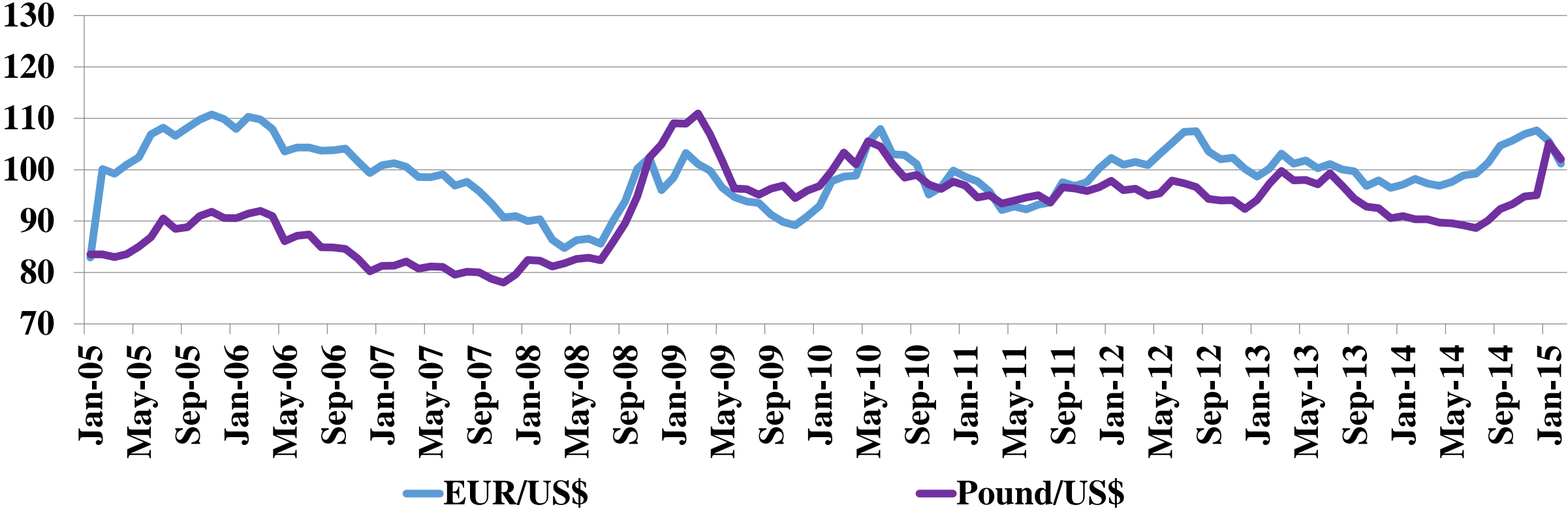


Ave. 2010 = 100 for all exchange rates and 2014 average import shares used

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??**

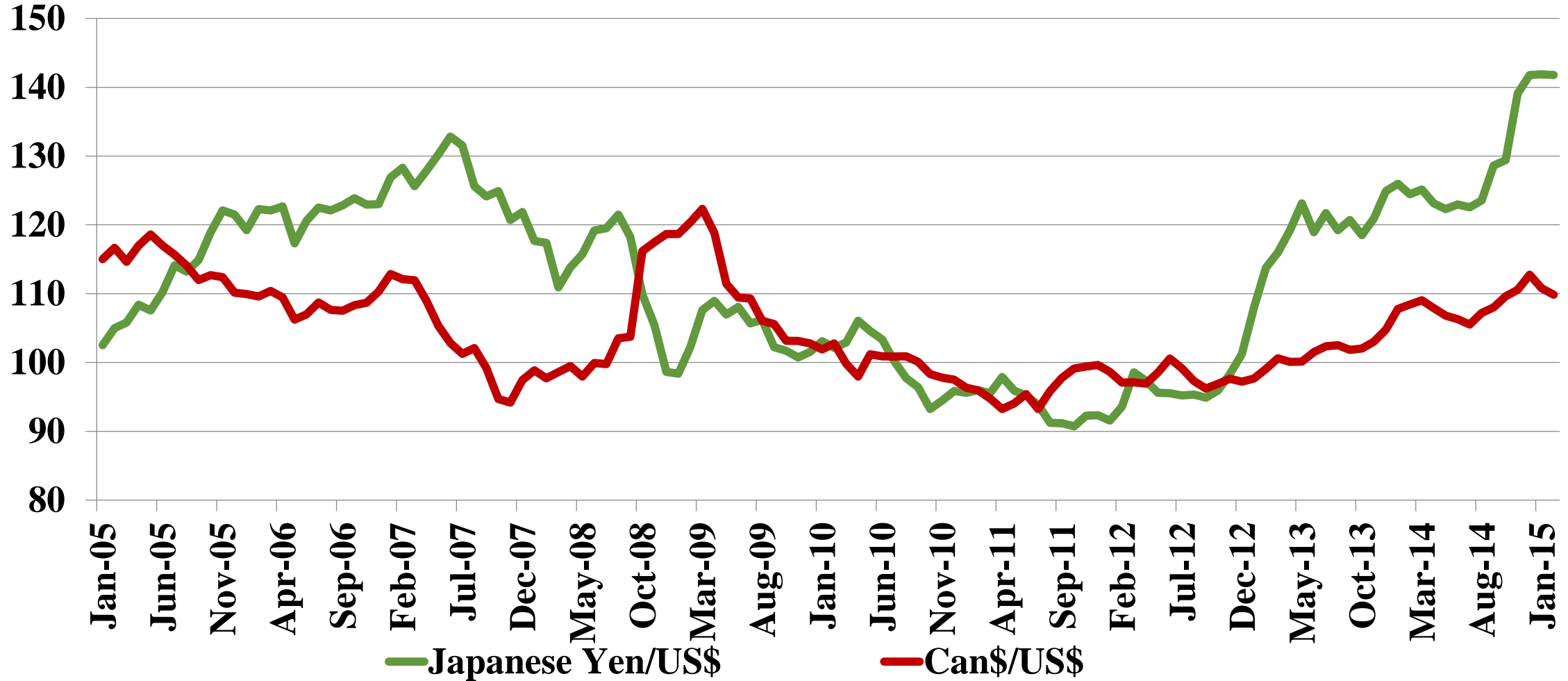
Monthly Real Exchange Rate Indices of Euro and British Pound to U.S. Dollar, Ave. 2010 = 100



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%

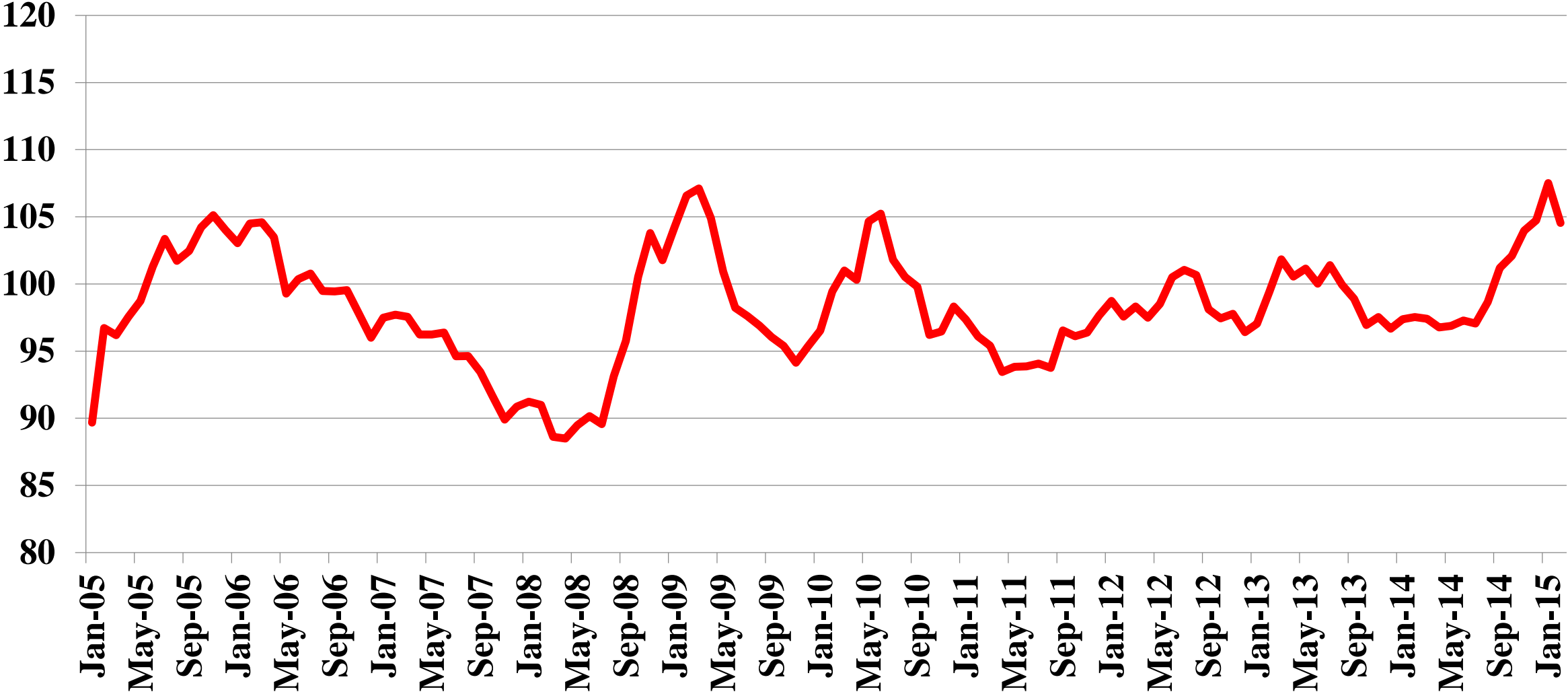
Monthly Real Exchange Rate Indices of Canadian Dollar and Japanese Yen to U.S. Dollar, Ave. 2010 = 100



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

Bottled Wine Export Weighted Exchange Rate Index

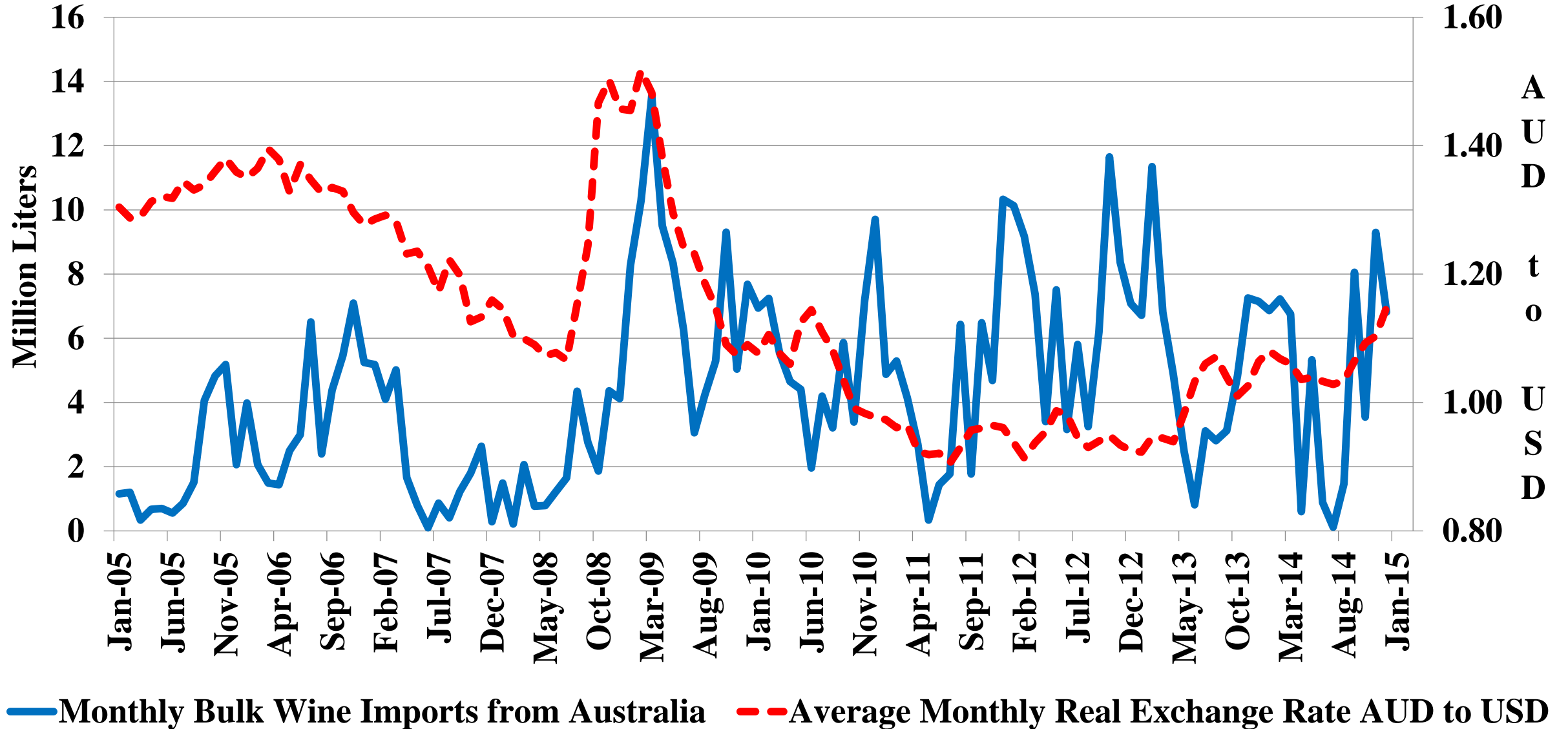


Average 2010 = 100 for all exchange rates and 2014 average export shares used

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



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



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