The Anglo-European Wine Trade as a Measure of Mercantilism in the Early Modern Period

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Abstract:

This paper examines mercantilist economic policies during the Tudor and Stuart periods of English history through the lens of the Anglo-European wine trade. Previous literature on the Early Modern wine trade approaches the subject through regulatory trends and domestic consumption; I extend upon their research through a comparative study of the economic response to war and trade prohibitions in two distinct periods. Using data from the 1510-1548 and 1675-1712, I use statistical analysis techniques to understand how geopolitical policies impacted the importation of wine into London. My findings indicate that protectionist economic policies influenced the wine market, especially when considering the effect on French imports, more strongly during the late seventeenth and early eighteenth centuries.

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Introduction:

Given the confluence of diplomatic and economic policies in England during the Tudor and Stuart periods, a quantitative investigation into how diplomacy impacted trade policies and the importation of goods could clarify the implications of mercantilism, which was the predominant economic practice of the sixteenth and seventeenth centuries. In the Early Modern Europe, a convoluted mix of diplomatic relationships, military endeavors, and efforts to manipulate the balance of trade among states constituted geopolitical affairs. Kings, queens, and republican governments alike utilized all available methods to improve their state’s territorial, military, or economic position in relation to its contemporaries. This willingness to manipulate various elements of foreign affairs to increase the relative positioning of the state led to the economic concept of mercantilism, in which states used a series of “duties, prohibitions, drawbacks, bounties, treaties and the like” to position themselves advantageously in comparison to other states and create a favorable balance of trade. Historians argue that England, like other European states, used mercantilism as the dominant economic policy from 1500-1700. In my thesis, I intend to use the importation of wine into England, with an emphasis on the Port of London, as a means of quantitatively demonstrating how England’s participation in the mercantilist system impacted trade.

For numerous reasons, the wine trade presents an interesting angle through which to study mercantilism. First, England consumed but did not produce wine; therefore, in an economic system that valued exporting more goods than it imported, England could only change the balance of trade to its advantage and to the detriment of nations like France by increasing taxation, imposing quotas, or decreasing demand for foreign products. Second,

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England has descriptive records of the wine trade during this period. Tax records, such as the Patent Rolls and the Close Rolls that date to as early as the twelfth century, describe the amount of wine given to English kings as prisage, a form of customs duty. Other accounts recording the duties of tunnage and poundage further evince the value, quantity, and prevalence of wine in the period, and Port Books describe the transportation of goods into ports in English cities and towns. Third, the infrastructure that guided the English wine trade during the period was by the sixteenth century both established and productive. The authority of the Vintners’ Company, a guild that operated as a quasi-governmental authority during the period, demonstrates that the wine trade had reached a level of maturity. The group had the power to enforce standards on the storage and price of wine within shops and taverns, evincing the sophistication of the wine trade in England.

Given this economic and diplomatic climate and the prevalence of the wine trade during the period, my intention is to determine if there was a quantifiable correlation between the importation of wine into England and geopolitical determinants of trade.

Literature Review:

My research builds upon previous historical works in this field, incorporating different historical disciplines and methodologies to give a new perspective on the role of the wine trade in English history. The previous historiography, which will be summarized below, aptly considers and incorporates the multitudes of external factors influencing the contemporary wine trade and presents it within a greater socio-economic context. That being said, writings on this topic can be categorized in a few ways. First, there are the works have outlined the domestic infrastructure of the British wine trade, including governance measures and changing tastes.


Second, there are texts that discuss diplomatic relations between England and continental Europe during the Early Modern period. Third, there are texts discussing the economic history of England, both domestic and foreign. And lastly, there are the interdisciplinary texts that I most wish to emulate.

The pinnacle of the English wine historians is André L. Simon who wrote extensively on the English wine trade during his lifetime in the early twentieth century. In *The History of the Wine Trade in England, Volume 1*, he articulates the history of wine in England under each of the medieval sovereigns, along with discussing trends in trade and consumption. One element of the wine trade he describes thoroughly is the various infrastructures that had been implemented during the Middle Ages to regulate the wine trade. Simon recounts how tax collection included the role of the King’s Butler, who was frequently described as the “Taker of the King’s Wines.” This agent of the king levied a tax of two casks of wine or the equivalent monetary value from each ship that stopped in an English port. In a separate speech to the Wine Trade Club at Vintner Hall he describes the elaborate organization of vintners within London during the fourteenth and fifteenth centuries, including a Ministry of Vintners. These two disparate bodies, governmental and commercial, evince an immense effort by numerous groups to regulate and take control of the wine trade. The continuation, modification, and dissolution of these institutions in the Early Modern era considerably influence the period’s trade realities. By knowing the conditions for their creation and for their rise to prominence, a clearer understanding of how their societal roles and influence continued into the Tudor and Stuart eras can be grasped. Simon also spends some time chronicling the consumption of wine by royal and ecclesiastical figures. He indicates that a vast operation of wine transportation existed to sustain the extensive consumption of wine.

Writing about the same period and institutions as André Simon did a century earlier, Susan Rose details the bureaucratic and political mechanisms employed to regulate the wine trade. In her book, *The Wine Trade in Medieval Europe, 1000-1500*, she describes the figures who influenced wine policy and the complexity of the system. To depict the nuances of the wine trade, Rose emphasized the strict control the vintners guild had over the sale of wine in London. The guild functioned as a quasi-governmental body and was able to enact and enforce regulations regarding the storage, sale, distribution, and serving of wine within London; they also had the political power to influence the king’s foreign policy decisions about the Gascony region. Another element of the trade that needs careful probing is the overlapping jurisdictions, local, regional, and stately, and the resulting complexity in record keeping. The overarching question of who controlled the wine industry and how this information is currently known resound underneath her analysis and foreshadow my own. While Rose discusses a similar content matter to Simon, she approaches the matter from a complementary angle; she details the impact of each institution on the daily life of certain geographic areas, as opposed to the straightforward historical narrative of the founding of these institutions.

That being said, these works predominantly focus on the consumption of wine within England, ignoring the larger geopolitical context of importing wine into the kingdom. Other historians have made efforts to describe the diplomatic relations between Early Modern England and other European states. These studies synthesize a myriad of historical elements into a cohesive narrative. In *Tudor England and its Neighbors*, Susan Doran and Glenn Richardson have curated a series of essays that track the evolving alliances and adversarial relationships

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8 Rose, 51.
9 Rose, 55-56.
among European power-brokers. They take great care to include essays that discuss the social, religious, and military forces, among others, that influenced diplomatic affairs.

Other historians focus on how societal and governmental forces influence, or were in turn influenced by, economic advancements. In this vein are texts on mercantilism, along with other economic history treatises. Philip Stern and Carl Wennerlind edited a collection of essays that reexamine the theories and practices of mercantilism through a myriad of economic, social, and political lenses. Of particular note is John Shovlin’s chapter on the convergence of trade, international politics, and military conflict. In his essay, he emphasizes the distinction between going to war to benefit a state’s economic position and disrupting trade as a military tool. In examining various conflicts that historians frequently categorize as being initiated for economic gain, including the Anglo-Dutch conflicts and the War of Spanish Succession, Shovlin gives consideration to other motives, like domestic and continental power struggles. Through his discussion of how trade policies and continental conflict intermingle, Shovlin forces his readers to critically examine if economic forces caused warfare or if they were a byproduct of a broader conflict. John Nye’s book, War, Wine, and Taxes: The Political Economy of Anglo-French Trade, 1689-1900 also falls into this category of contextualized economic histories. It uses the English wine trade as a case-study for English trade policy during the eighteenth and nineteenth centuries. At the crux of his argument, Nye contends that historiography praising the laissez-faire economic policies of England, especially in comparison to France, misinterpret the past and contemporary fiscal policies of both nations.

13 Shovlin, 308-9.
policies to protect its interests by raising capital for its own ventures and to damage the efforts of their rivals by creating economic hardships. In making this argument, he gives insight into the underlying causes for these economic actions. He states that, “Officially, the struggles with France [from 1689-1815] were about preserving the Protestant monarchy and staving off the influence of popish nations, but in practice religious fervor took a backseat to more mundane issues of state influence, colonial expansion, and international power politics.” This claim emphasizes the nuanced and interlacing political, economic, and social motivations that impacted relations between states in the Early Modern period.

Lastly, there are the historians who integrate multiple disciplines to create an argument about a historical trend. One such piece of historical writing is the work of C. G. A. Clay, who describes the economic and social developments of sixteenth and seventeenth century England both domestically and in relation to other states, with a sub-focus on English trade during the period. At one point, he describes how England predominantly imported manufactured goods that the state was unable to provide on its own; textiles, metals, and wine. In this section, he not only describes the quantitative realities of the wine trade, such as the fact that wine imports in 1500 equalled more than a gallon of wine per head for the entire English population, but he also describes the qualitative factors that lend insight into the importation business, like the prevalence of the Hanseatic League, a German merchant association.

This integration of multiple disciplines is also applied specifically to the English history of wine in the works of Charles Ludington and Catherine Pitt. Ludington wrote a cultural history describing how wine was used as a symbol of power in the seventeenth, eighteenth, and nineteenth centuries. Utilizing both cultural and social historiographical techniques, Ludington

15 Nye, 23
16 Nye, 22
18 Clay, 104-5.
integrates numerical and anecdotal evidence to argue that politics impacted the English’s taste in wine.\textsuperscript{19} Although he does not focus on the wine trade, he gives context to importation numbers, which he uses to indicate the attitude of political figures toward wine as a beverage and as a political tool. He skillfully uses the numbers to tell a story about the convergence of politics and English wine preferences and their causes, which in turn has aided my understanding of why certain policies were enacted. Catherine Pitt discusses another element of English wine history. She wrote her dissertation on wine imports into Bristol, a major English port, integrating both economic data and geopolitical events. Her analysis is what I most closely hope to imitate in the following pages. Her analysis centers on four filings, or “accounts,” that she employs to track the evolution of trade within Bristol. She recounts with specificity the amount of wine, the place of origin, and the value of wine entering Bristol throughout the fifteenth and sixteenth centuries.\textsuperscript{20} At various moments in the analysis of her data, Pitt loosely connects changes in where Bristol’s wine supply originated to larger geopolitical events on the continent; she does this by taking the data trend that appears from her “accounts” and matching it to a change in English foreign relations. While her efforts focus intensely on the fluctuations in the wine trade, she spends a considerable amount of time describing factors that would have impacted the wine trade, such as smuggling and evasion of prisage, that cannot be quantified due to their circumstances. In this section of her analysis, she fully integrates determinants of trade outside of the “accounts” to illuminate how the wine trade could have been impacted. The emphasis she places on the unreliability of her data forces contemplation into the sanctity of historical sources; her analysis provokes questions about issues such as the above mentioned smuggling, barrel leakage, and corrupted wine, among others, across the entire kingdom.\textsuperscript{21} She


\textsuperscript{20} Catherine Pitt, \textit{The Wine Trade in Bristol in the Fifteenth and Sixteenth Centuries} (Bristol: University of Bristol, 2006), 38-44.

\textsuperscript{21} Pitt, 83, 86.
sets a robust precedent of being skeptical of the data set and her consideration of events
tangential to the wine trade, such as diplomatic relations.22

**Wine and the Wine Trade in the Sixteenth and Seventeenth Centuries:**

Wine played a robust societal role in sixteenth and seventeenth century England, both
culturally and economically. The revelry of Henry VIII’s court, the religious importance of wine
before and after the Protestant Reformation, Shakespeare’s adoration for sack, and the
Whiggish “Kit-cat” drinking club all evince wine’s deep cultural significance across the Tudor and
Stuart periods.23 Despite being an important beverage across the period, English consumption
habits changed, reflecting new consumer tastes and societal developments. In his discussion of
the convergence of politics and wine Charles Ludington indicates the importance of this type of
background to quantitative analysis, stating that although import figures bespeak broader tastes,
“aggregate amounts do not account for individual preferences, for the differing qualities of the
same type of wine, or for more general class, regional or other group-based tastes.”24 Thus,
although this paper analyzes the quantitative fluctuations in the wine trade over the course of
the Tudor and Stuart periods, this section is meant to illustrate the history of wine consumption
in Early Modern England to give context to the changes in the wine trade.

Throughout the Early Modern period, wine was consumed in accordance with three
major Early Modern institutions: the court, the church, and the tavern, and the consumption of
wine evolved alongside these English societal centers. As depicted in popular culture, the
elaborate lifestyle of the English court required vast quantities of wine. The king received his
supply through his right of prisage, a form of tax in which he took a cask from each side of the

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22 Pitt, 50.
24 Ludington, xi.
mast, and in many instances, he claimed considerably more barrels of wine than that. The monarch then shared his bounty with his court; wine constituted a considerable portion of courtly food expenditures. This lifestyle persisted across most of the period, even during the later years of the Interregnum. Wine historian A.D. Francis describes that despite a cultural decline in conspicuous consumption, Protector Cromwell’s court maintained some of the lavishness of the Tudors; he writes, “Cromwell’s court was run modestly, but it was modeled on that of a king. In the early months of 1654 it was provided with prize and other French wines to a total of 135 tuns.” With the Restoration, a traditional monarchical court along with its culture were reinstated. Thus, throughout the period, court life maintained a constant culture of wine appreciation.

Another Tudor institution that required significant wine consumption was the Church. The Church doctrine of transubstantiation required the drinking of wine at mass to honor Christ’s decree of “host est enim corpus meum (for this is my body).” Despite the upheaval caused by the Protestant Reformation, wine continued to play a significant religious role in English society, as the tenets of Anglicanism did not stray far from Catholic ritual. While the doctrine behind consuming the wine and the wafer varied based on the sitting monarch and his or her advisors, English churches performed the mass throughout the period. Furthermore, most religious sects tolerated wine consumption. While Protestants more harshly criticized societal drunkenness, the religious doctrines of Catholics and Protestants both allowed for wine consumption and believed it part of a healthy lifestyle. This was even the case during the English Civil War, in which the rigidity of the puritan code of conduct dominated English culture. Andre Simon describes it as a

28 Edward Muir, “Reformation and Rebellion.” A lecture delivered at Northwestern University, 1/30/17, Evanston.
29 Philips, 88
“common error” to believe that the wave of puritanism brought on by Cromwell’s government hindered the English from drinking wine.\(^{30}\) This is significant because it demonstrates that despite the religious fluctuations in England across the Tudor and Stuart periods, wine consumption maintained its status as meaningful for religious reasons and socially acceptable.

The other major institution in which the English consumed wine was the tavern. These establishments were strictly regulated by the Vintners’ Guild and were forced to adhere to a series of rules dictating wine storage, price, serving containers, etc.\(^{31}\) John Stowe, an Englishman living in the sixteenth century, wrote about the limitations placed on what taverns could sell. He noted that during the reigns of Henry VIII and Edward VI, “Vinteners and Taverners houses were not in any such measure, maner, nor plenteous store and variety of wines of all Nations in any one man’s house, … for in those days whosoever drew White, Claret, and red Wine, sold no more kindes of Wine.”\(^{32}\) His remarks illuminate a crucial aspect of how taverns operated during the early Tudor period; wines of different varietals or places of origin could neither be stored nor sold side by side. Stowe also illustrates how the rigorous nature of these regulations eventually declined; he notes that this practice contrasted to his contemporary era by highlighting that the practice occurred “in those days.” Other restrictions, such as limits on the quantity of taverns, who could frequent them, and who could supply their wines dissolved during the Tudor period as a wealthy, merchant class established itself.\(^{33}\) Without these regulations constraining taverns to certain standards and patrons, taverns became a “social institution.”\(^{34}\) The rise of the tavern was so prolific that by 1577, there was a tavern for every 142


\(^{31}\) Rose, 51.


\(^{33}\) Francis, 36.

\(^{34}\) Francis, 61.
English citizens, a number that rose to a tavern per 100 people within fifty years.\textsuperscript{35} These neighborhood centers propagated a culture of camaraderie and alcoholic consumption.

This cultural preference for alcohol was in part due to societal standards that warned against the consumption of water, because poor sewage systems polluted the water supply and because contemporary medical knowledge advocated for the benefits of alcoholic beverages, especially in England “where (according to prevailing medical opinion) the damp, cold climate demanded that people consume foods and beverages that contributed dryness and warmth.”\textsuperscript{36} This belief in the restorative powers of alcohol persisted beyond the mid-eighteenth century, at which time an English military doctor stated that wine and other spirits prevented disease, thus benefitting the welfare of the soldiers.\textsuperscript{37} Furthermore, alcohol preferences varied given the point in time, one’s level of wealth, and his or her societal status. Originally the drink of the elite, wine gained popularity throughout the Tudor and Stuart period as economic and trade conditions allowed for its consumption by larger populations. The same factors that catalyzed the rise of the tavern as a social institution accounted for some of wine’s new popularity, a trend which was amplified during the second half of the seventeenth century. Historian A.D. Francis attests that “This commercialization [of wine] had nothing to do with the Restoration or the court but was the result of the gradual growth of the middle class and of the decline of feudal hospitality.”\textsuperscript{38} As the discretionary income of the middling sort, to use the more historically accurate term, rose, so did their ability to partake in the conspicuous consumption of wine, leading to the growth of the wine market.

Concurrent to the rise of the middling class, consumer tastes shifted, both toward new varietals of wine and toward other alcoholic beverages. Traditionally, claret, the ubiquitous name

\textsuperscript{35} Philips, 106.
\textsuperscript{36} Philips, 93-4
\textsuperscript{38} Francis, 60.
for Bordeaux wine, was the most popular wine in England.\(^{39}\) As of 1587, William Harrison, an English historian living in the sixteenth century, accounts for “fittie six sorts” of French wine, “according to the number of regions from whence they come: but also of the thirtie kinds of Italian, Grecian, Spanish, Canarian, &c.” being available for purchase.\(^{40}\) Thus, by Harrison’s testimony, the Elizabethan wine market included a robust variety of wine types to satisfy all tastes. One type of wine that quickly gained popularity was sweet wines. During the reign of her father, Henry VIII, sweet wines like Malmsey were already imported in small, yet notable quantities. Unsurprisingly the popularity of sweet wines grew under a monarch notorious for her rotting teeth, a condition caused by her preference for sweets.\(^{41}\) One manifestation of this desire for sweet wine was the trend of mixing of sugar into wine to make it sweeter. In his travel diary, Fynes Morrison recounts that “Gentlemen garrawse [carouse] onely in Wine, with which many mixe sugar… And because the taste of the English is thus delighted with sweetenesse, the Wines in Tauernes [taverns]… are commonly mixed at the filling thereof, to make them pleasant.\(^{42}\) Alcohol historian Rod Philips postulates that this effort to make traditional wine more palatable could have catalyzed a second fermentation, creating the first instance of a bubbly champagne-like beverage.\(^{43}\) Another new type of wine gained popularity during the seventeenth century. Port, which was purportedly first made in the 1670s, attracted English

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\(^{40}\) William Harrison, et. al. The first and second volumes of Chronicles comprising 1 The description and historie of England, 2 The description and historie of Ireland, 3 The description and historie of Scotland: first collected and published by Raphael Holinshed, William Harrison, and others: now newlie augmented and continued (with manifold matters of singular note and worthie memorie) to the yeare 1586. by John Hooker aliä Vowell Gent and others. With conuenient tables at the end of these volumes. (London: Henry Denham, 1587), 167. Digitized by Early English Books Online.


\(^{42}\) Fynes Moryson, “Part III: Containeth a discourse vpon severall heads, through all the saidseverall dominions” in An Itinerary containing his Ten Yeeres Travel through the Twelve Dominions of Germany, Bohmerland, Sweitzerland, Netherland, Denmarke, Poland, Italy, Turky, France, England, Scotland, Ireland (London: John Beale, 1617), 152 (Image 387). Digitized by Early English Books Online.

\(^{43}\) Philips, 99.
consumers for a few of reasons. First, as a fortified wine, it had a considerably longer shelf-life than traditional wine. Second, as the brandy was added to the grape juice prior to fermentation, the sugars are not entirely consumed by the yeast before it is killed by the alcohol; this results in a sweeter beverage, which was attractive to the English palate. Lastly, Portugal and England were at conflict less frequently than France and England, especially after Lord Methuen’s Treaty in 1704; therefore, port was less susceptible to trade policies imposed on rival states. While wines of all varieties became more accessible to the middling sort, its price continued to prevent many Englishman from partaking in its expanded popularity. According to Francis, beer, and later other spirits, also gained favor with the lower and middling ranks during the period, especially in times when the price of wine became prohibitive. In his discussion of English trade during the sixteenth centuries, N.J. Williams wrote, “This alteration in taste [toward beer] was not a little due to the high prices at which Gascon wines were retailed in England — a phenomenon which the government in 1572 attributed jointly to bad vintages and civil war in France.” Williams highlights two points of significance. First, he supports A.D. Francis’s claims that the beer served as a rival for wine, especially among the middling sort. Second and more importantly, he indicates that determinants of trade like the weather and continental strife impacted the wine trade. Using the aforementioned 1572 as an example, the high prices curbed wine sales that year and the use of beer as a substitute for wine changed changing consumer tastes long term. That being said, the average quantity of wine imports into London during the reign of William III was almost triple the amount of similar imports during the reign of Henry VIII.

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44 Philips, 99.
45 Braudel, 163.
46 Francis, 61.
and the wine market greatly expanded to include more varietals, reflecting changes in consumer preferences and allowing for substitute products during trade shortages.\textsuperscript{48}

According to C.G.A. Clay, “In normal circumstances during the sixteenth or seventeenth centuries wines comprised at least ten percent of total imports by value, and at the beginning of the period they undoubtedly formed a much larger proportion;” at one point, totals reached as much as one-third of the total imports into England.\textsuperscript{49} Although these figures pale in comparison to the imports from Gascon and Guienne during their English occupation, these numbers indicate the great importance of the wine trade to the English economy.\textsuperscript{50} The infrastructure for importing wine was comprised of both the merchants who physically transported the wines and the policy makers who influenced the import and sale of wine. The demographic composition of the merchants in the English wine trade was unique amongst the various industries that imported goods into England. Generally, Hanseatic and Italian merchants dominated the importation business, but with the wine trade, native merchants handled the majority of the imports.\textsuperscript{51} The English dominance of the domestic wine trade protected the industry from the diplomatic strife that resulted from Henry VIII’s attempts to balance the influx of foreign goods from foreign ships and his attempts at mercantilist protections for English merchants.\textsuperscript{52} The prevalence of native merchants also allowed for collusion amongst merchants and port officials. N.J. Williams acknowledged the presence of smuggling operations in his trade discourse. He wrote that “the bulk of this uncustomed trade was carried on with the connivance and sometimes the active assistance of the very officials whose business it was to prevent it.”\textsuperscript{53}

\begin{footnotes}
\item[48] Calculated based on Schanz and National Archives of the UK data discussed below.
\item[49] Clay, 104.
\item[51] Clay, 106.
\item[53] Williams, 25-6.
\end{footnotes}
While this corruption was most prevalent in smaller ports, it is emblematic of ways greed influenced trading operations. Piracy was another instance in which the potential for personal (or national) gain disrupted trading operations. During the reigns of Henry VIII’s children, the less savory profession of privateering rose in popularity. Predominantly attacking French and Spanish merchant ships, royal and privately owned English ships “[acquired] a reputation for that superior swiftness and daring skill which laid the foundation of a commercial supremacy.” The efforts of these privateers gave English merchants an advantage over their foreign counterparts, as they were able to more safely arrive in English ports.

While these unsavory efforts were mostly undertaken on a ship by ship basis, the national significance of the wine trade made it an attractive political and economic institution to manipulate for the benefit of individuals and the sovereign alike. To curry political favor and immediately received large sums of money, Queen Elizabeth I and the Stuart Kings granted farming and import monopolies; to make the most out of their investment, the individuals who were granted these monopolies began selling poorer quality wine for greater prices. This adversely impacted consumers’ access to wine. The crown also instituted price discrimination to discourage the importation of wine from certain states. For example, King William III raised the import tax on wine in 1693 and instituted different rates depending on the country of origin. In 1693, French wine was taxed at a rate of £22 2s. 10d. per ton whereas Spanish and Portuguese wines had a duty of £17 13s. 3. per ton. Four years later these duties were increased to fund Continental warfare; the duty on French wine was more than doubled to £47 2s. 10d. per ton while Spanish and Portuguese rates were nominally raised to £21 12s. 5d. per ton. As will be

54 Williamson, 53-4.
discussed below, these instances of diplomatic strife deeply impacted the size of the wine trade and the distribution of where the wine came from.

While consumer preferences and institutional factors combined to influence what types of wines were sold on the English market and their quantities, the market adjusted yearly to its new demands and constraints. The wine market operated on an annual basis as the supply of wine did not stay drinkable over time. For most of this period, wine production lacked modern sophistication. Wine was not purified, bottled or corked; instead, wine was shipped in and served from wood barrels.\textsuperscript{58} While fortified wines like port and sherry did not spoil as quickly, the majority of the wine supply could not last until the following year. This temporality is what allows me to claim significance to my analysis. As wine could not be saved for future consumption, if wine were to be consumed in any given year, it must have been imported regardless of the geopolitical circumstances. Thus, the events I am analyzing, namely the occurrence of war and trade prohibitions, alter the importation and consumption of wine almost immediately, resulting in the data sets discussed below.

Data:

My analysis integrates data from archival sources and from prior research done by historians. I am focusing on the wine trade through the Port of London. Given its central location, its influential status as the capital of England, its proximity to royal and wealthy residences, and its large population, the trade ramifications of geopolitical events would resonate in the city in a way that proxies the impact on trade throughout England. Tory economist Charles Davenant, who provided some of the data described below, believed that nearly seventy-five percent of all imported wine entered London, which further demonstrates its suitability to be analyzed as a substitute for the totality of England.\textsuperscript{59} Initially, I had desired to

\textsuperscript{58} Braudel, 164.
\textsuperscript{59} Ludington, 33.
incorporate data from across the entirety of the Tudor and Stuart periods; however, given the limitations of Early Modern records, the data that is analyzed below is both telling and incomplete. Through the amalgamation of three sources, of varying reliability, I have compiled a piecemeal data set that describes the reign of Henry VIII and the late Stuart period in detail and provides some insight into the early Stuart period. As can be assumed, data from the late seventeenth and early eighteenth centuries is organized differently than information from the early sixteenth century. My analysis is dependent upon the organizational structure of data from an eighteenth century Exchequer report, which is structured very differently than an earlier source. Thus, for simplicity in describing my data sources as they relate to the analysis recounted below, I have listed them in reverse chronological order. This is meant to facilitate an easier understanding of the sources, how they relate, and how they were manipulated.

1675-1712:

During a trip to The National Archives of the UK in Kew (TNA), I encountered a couple of accounts within HM Treasury department’s filings on wine, spirits, grain, corn, and salted meat in the corn and provisional trade returns files that provide an account of the English wine trade during the late seventeenth and early eighteenth century. These records summarized the importation of wine, brandy, and other products into the Port of London and into England more broadly. Within this collection of records, documents T 64/274/111 and T 64/274/113 are of particular interest. Compiled in 1713 and submitted to Parliament by Charles Davenant, the inspector general of customs, these documents give insight into the wine imported from France,


61 The National Archives of the UK (TNA): T 64/274/113 Treasury: Miscellaneous Records: Trade Returns: Corn and Provisions: Wine and Spirits.: “Date of Return: 1713 May 18 Quantities of wines imported annually into (a) London (b) outports.”
Portugal, Spain, Italy, and the Rhine over the years 1675-1696 and 1696-1712 respectively. Davenant summarized the London port books, describing the imports by tons, gallons, and hogsheads, which I simplified into tons. The one complication that arose with this data is the difference in time periods amongst and between the data sets. T 64/274/111, which covers 1675-1696, considers each calendar year. Dissimilarly, T 64/274/113 begins by describing Michaelmas 1696- Michaelmas 1697. As Michaelmas occurs at the end of September, I needed to transform this unit of time into a proxy for a calendar year. Thus to calculate 1697, I subtracted a quarter of the imports from 1696, so that those values were not counted twice, and added a quarter of the Michaelmas 1697- Michaelmas 1698 imports to complete the year. At the end of 1698, Davenant switches to describing years Christmas to Christmas, and he included a separate line for the three months between Michaelmas and Christmas 1698. Therefore, to calculate 1698, I added the Michaelmas to Christmas 1698 values to the Michaelmas 1697- Michaelmas 1698 values and then subtracted twenty-five percent of the calculated 1697 value. As Christmas is practically the new year, I did not transform the remained of the years, which were denoted as Christmas to Christmas. Furthermore, A.D. Francis calls into doubt the veracity of data in these reports given smuggling trends during the period, and I will discuss the implications of his commentary later. However, this data gives great insight the quantity of wine imported into London during the reigns of Charles II, James II, William III (and Mary), and Anne. As these sources cover the end of my period of analysis, I will be supplementing this data with information collected by other historians.

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62 Francis, 93.
1600-1641:

In his chapter on wine imports into Devon, England, W.B. Stephens touches upon the wine trade in London during the first half of the sixteenth century.\textsuperscript{63} In the appendix to the chapter, he provides a table, which is recreated in my appendix, that delineates between French and Spanish wine imports from 1600-1641. Admittedly, this data has flaws; the most notable issues are that it is missing data for some years while other entries have incomplete information. That being said, all data of this type from this era is inherently flawed, and Stephens’ data set gives a reasonable, if imprecise, understanding of the yearly variations in wine imports during this period.

1510-1548:

German Historian Georg Schanz wrote extensively on English trade during the reigns of Henry VII and Henry VIII. In his immense and prolific treatise, \textit{Englische Handelspolitik Gegen Ende Des Mittelalters Mit Besonderer Berücksichtigung Des Zeitalters Der Beiden Ersten Tudors Heinrich VII. Und Heinrich Viii}, Schanz includes data on the importation of wine into England. In the second volume, a chart describing the importation of wine during Henry VIII’s reign indicates the amount of wine imported into various English cities. My analysis focuses on the two pages devoted to London.\textsuperscript{64} Schanz’s chart specifies the amount of non-sweet, sweet, and Malmsey wine imported into London during the 38 years Henry sat on the throne.

While this data source is robust, it presents an issue for use in this paper. The crux of my analysis is a discussion on how events like war and/or trade prohibitions impact the quantity of


wine imported from a given state, namely France, but Schanz does not indicate the country of origin for any of the wines. Unlike Davenant's summarization of the late seventeenth century which indicates each country that imported wine into London, Schanz delineates the imports by the type of merchant who imported the wine, “Einheimischen” (naturals) and “Fremden” (foreigners). Due to this classification of the data, I cannot use the numbers Schanz published in my analysis, as they are not comparable to the Davenant figures. However, given the state of the wine trade during King Henry VIII’s reign, I made certain assumptions that allowed me to transform Schanz’s data into a form that is more compatible with my analysis. To begin, I grouped all of the wine that could not have come to France. Malmsey, one of the most popular wines during the Tudor period, was a sweet wine from Candia, Chios, Lesbos, and other Mediterranean areas, so regardless of who imported the wine, it could not have come from France. According to A.D. Francis, sweet wines of varietals other than Malmsey came from the Levants, Spain, Portugal, and Italy, so those quantities were added to sum of Malmseys. The non-sweet wines present a conundrum as they incorporated French wines as well as non-sweet varieties from other states. Luckily, due to tensions between France and England, there was a restriction on how French wine could be imported into England. Henry VII declared,

> No manner of person of what degree or condition that he be of, buy or sell within this said realm [of England], Ireland, Wales, Calais or Berwick, from the feast of Michelmas next coming (1486), any manner of wines of the growing of the Duchy of Guinne or of Gascony, but such wines as shall be adventured and brought in an English, Irish, or Welsh-man’s ship or ships.

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67 Francis, 24.
With this decree, only Englishman could import Bordeaux wine; this restriction was not repealed until 1534, over twenty years into Henry VIII’s reign. According to A.D. Francis, “Bordeaux supplied about three-quarters of the total imports”; thus, I am attributing seventy-five percent of the non-sweet wine imports by English merchants to France.\textsuperscript{69} Despite this prohibition of foreign merchants importing French wine, there were instances where the king granted licenses and privileges to foreigners to import wines. Considering that it is probable that some of these licenses allowed for foreigners to import French wine, I needed to attribute some of the “Fremden” imported non-sweet wine as having a French origin. As most of the foreign trade probably consisted of merchants transporting wines from their own states to England or Dutch merchants transporting a variety of types, the share of French wine brought into England from non-English merchants was probably minimal. For that reason I used the assumption that 10\% of foreign transported non-sweet wine was French wine. Through these considerations, I transformed Schanz’s published importation data into two concentric categories: the total market for wines imported into London the French share of that market. While this does not convert the data into the same format as Davenant’s, it allows the two data sets to be compared equivalently. Less significantly, Schanz uses “tonnes, pipes, punch, hogsh., tierce, awn” to describe the amount imported into London; these units of volume are more nuanced than those used in Davenant’s chart.\textsuperscript{70} To rectify that, I consolidated all values to tons using the conversion rates included in the headings of the Schanz chart.

\textit{Independent Variables:}

Given the scarcity of data during this period, I was limited in the types of independent variables I could use. For the majority of my regressions, I chose to use dummy variables indicating the occurrence of a geopolitical event. Year by year, I noted English involvement in

\textsuperscript{69} Francis, 29.
\textsuperscript{70} Schanz, 128-9.
wars and the implementation of trade prohibitions against France; if the event occurred during a
given year, it was noted by a one. While dummy variables do not allow for the most
sophisticated of statistical regressions, they are the most straightforward manner in which to
quantify events.

Results:

Trade and War:

Without performing any rigorous testing of the data, it becomes evident that geopolitical
conflicts influenced the wine trade. This is easily seen when examining how the French wine
imports varied with the fluctuations in Anglo-French relations during each respective period.
Beginning with the reign of Henry VIII, the wine trade clearly decreases during times of war.
Chart 1, included below, indicates how the importation of French wine, derived from Schanz's
publication, varies in conjunction with the total wine trade and with Anglo-French war. The trend
lines indicate the total amount imported, the importations from France, and all other wine
imports, whereas the vertical lines indicate that the English and French were at war during the
year.
Both the general wine imports and the market for French wine diminish during times of war. In alliance with the Holy Roman Empire and Spain, England went to war with France, including an attempted invasion in 1513. The England’s involvement in the War of the Holy League ended despite some military success because England had insufficient funds and alliances to continue fighting, leading to a treaty in 1514. The chart demonstrates how in 1513, the year England invaded the French mainland, imports declined; similarly, less wine was imported into London during the Anglo-French War of 1522-1525.

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71 Schanz, 128-9.
72 Doran, 46.
74 Doran, 48.
Chart 2: Percent of Wine Market Imported from France, 1510-1535

Chart 2 shares two crucial pieces of information. First, during the reign of Henry VIII, French wine comprised around forty percent of the total wine market of sweet and non-sweet wines. The chart also visually demonstrates how the French share of the market fluctuated. During the two periods of war, 1512-1514 and 1522-25, France’s market share decreased; whereas during the late 1520s, French culture was in vogue in the English court, which possibly drove a renewed interest in the importation of French wines.\footnote{Doran, 51-2.}

\footnote{Doran, 51-2.}
While the inconsistency of data makes it difficult to demonstrate the relationship between geopolitical events and trade during the early Stuart period, the downturn at the end of the 1620s most likely provides an example of how war impacted trade during the reign of Charles I. The quantity of wine imported from France in 1628 is approximately 4,000 tons less than the recorded values for 1624 and for 1630. While it is difficult to determine an exact causation given the lack of information for 1625-7 and 1629, it is probable that decrease in wine imports is due to English and French involvement in the Thirty Years War during 1627-9.

Similar trends are seen when examining the period from 1675-1712. Wine imports ceased during a disagreement over tariffs between French Finance Minister Colbert and the English government; during the period of 1679-1685, French wines were not allowed to be imported into England. At the end of this conflict, French wine sales skyrocketed, indicating that it was the prohibition of trade and not consumer tastes that impacted the importation numbers. As claret was reintroduced to the English market, wine historian and expert Hugh Johnson notes that “in 1687 more barrels were shipped than in any year between the 14th and

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76 Stephens, 167.
20th centuries.”78 These record import figures indicate the mass popularity of claret in England. Johnson continues that trade flourished, “only to be slammed shut again three years later by the Glorious Revolution and the arrival of William III, whose whole thrust was anti-French.”79 As seen in Chart 4, the Exchequer recorded immense quantities of French wine imports during that four year respite from conflict, but upon the start of the War of the Grand Alliance, French wine imports plummet to a halt within three years. During both the War of the Grand Alliance from 1689-1697 and the War of Spanish Succession from 1702-1712, there is a sudden and drastic decrease in the amount of wine imported from France into London, if not a complete halt in trade. During both of these conflicts, Parliament instated trade embargoes with France, although the dates of the trade prohibitions did not align exactly with the duration of war.80

Chart 4: Wines Imported into London, 1675-171281

Looking at this trend through the perspective of market share confirms the resurgence of French wine in the sparse periods without conflict. Chart 4 demonstrates that the quantity of

78 Johnson, 204.
79 Johnson, 204.
80 Ludington, 35, 64.
81 TNA: T 64/274/111,113.
French wine increased, but it also indicates that the general market increased during times of peace. As seen in Chart 5, the French share of the market dropped considerably during the trade embargo of 1679-1685 and then rose to new heights during the brief period before the War of the Grand Alliance. During the War of the Grand Alliance, the market share dropped again, and it did not recover by the end of the Stuart period. Chart 5 includes Spanish import figures as a point of comparison, demonstrating how other states benefited from the changes in Anglo-French trade relations.

Chart 5: Market Share of Wine Imports into London, 1675-1712

The impact of diplomatic relations can also be seen in the comparative sales of the Anglo-French and Anglo-Spanish wine trades in relation to geopolitical events. T 64/274/111 covers the end of the Franco-Dutch War of 1672-8; during this war England and France were allied against the Dutch, who were later joined by the Spanish. Importation of French wine into England exceeds that of Spanish wine until the last year of the conflict when England removed itself from the fighting and joined what would become the Grand Alliance.82 At this point,

Spanish imports began to exceed French imports. Similarly, when England fought in a coalition opposite a Franco-Spanish alliance during the War of Spanish Succession at the start of the eighteenth century, the importation of wine from both states sharply decreases and remains minimal for the duration of the war.

Statistical Analysis:

It is when comparing these import trends over time that the greatest insight into the development of international trade can be seen. Given the relatively simple variables, continuous time frame, and single period analyzed in each regression, I utilized the basic Ordinary Least Squares regression technique to perform my analysis. Because of the scarcity of population, weather, or other unaffected and continuous data sources, I have not included any control variables to temper the correlation between war and imports. I readily admit that these excluded variables exist and impacted Anglo-French relations as well as the wine trade; however, as my regressions are consistent across both data sets, comparisons between the two periods should still give insight into the wine trade despite the exclusion of these lurking variables. What follows below is a series of mainly simple linear regressions, in which I primarily examine the impact of Anglo-French war on various aspects of trade.

To begin, I regressed the sum of all imports into London in a given year upon a dummy variable detailing if England and France were at war during that year. The results, seen in Table 1, indicate a sizable decrease in the amount of wine brought into London. As the regression just used a dummy variable where the occurrence of war was indicated with a one, the coefficients in each regression indicate the average change in wine imported into London due to an Anglo-French War; the coefficients in each regression are deemed statistically significant by their p-values. With both the 1510-1548 and the 1675-1712 regressions, the coefficients indicate a
multi-thousand ton decrease in the average imports of wine into London from all sources during times of Anglo-French war.

Table 1: Impact of Anglo-French War on Total Imports

| Year     | Coefficient | Stand. Er. | P>|t| | R-Squared |
|----------|-------------|------------|-----|------------|
| 1510-1548| -2231.77    | 585.5968   | 0.001 | 0.2993    |
| 1675-1712| -3463.535   | 1281.463   | 0.01  | 0.1687    |

Initially, these results seem both intuitive and inaccurate as the wine trade never decreased by exactly 2,232 or 3,464, although it trended generally lower in times of war. Yet, when thinking about this calculation in other terms, it becomes quite logical. The -2,232 is the difference in tons between the average imports while England and France were at peace and the average imports while they were at war. Furthermore, this result is motivated by a decrease from 10,543 tons to 3,343 tons in 1542-3 that does not appear in Chart 1, as French imports cannot be delineated in this period. While understanding the regression is crucial, understanding the implications of its results is equally important.

As seen in Table 1, in the seventeenth and eighteenth centuries, the wine trade decreased by nearly 3,500 tons, which was a magnitude of almost fifty percent more than in the sixteenth century. At first glance, Anglo-French war seemingly impacted the wine market more in the late Stuart period than during the reign of Henry VIII because of the difference in values. This would indicate that Anglo-French stability is significant to all trade relationships, especially those later in history. When placing these numbers in context, however, these coefficients are interpreted differently. Average total wine imports from 1510 to 1548 was 5,499 tons of wine; in 1675 to 1712, the average was 14,233 tons. In this perspective, both periods experienced a decrease of around twenty percent of the average imports over the entire period as the wine trade in the seventeenth and eighteenth centuries was more robust. While this makes the
impact of war upon the wine trade seem similar across both periods, the averages of imports across these periods include the downturns, of which there were more of during the Stuart era. Another potential way to determine the impact on trade is to find the difference between the year before a war and the year the war began; however, fluctuations in trade mean that the -2,232 tons, as in the case of the sixteenth century, isn't a single year decrease, but the average difference in trade. Thus, a true comparison on how war impacted the magnitude of the wine trade is difficult to determine. I attempted to quantify this by regressing year over year growth of the wine market of all wines upon the dummy variable indicating Anglo-French war, as seen in Table 2.

Table 2: Impact of Anglo-French War on Size of Wine Market

| Year      | Coefficient | Stand. Er. | p>|t| | R-Squared |
|-----------|-------------|------------|-----|-----------|
| 1510-1548 | -32.70%     | 17.67%     | 0.073 | 0.0941    |
| 1675-1712 | -11.48%     | 11.39%     | 0.321 | 0.0282    |

Given the general decrease in wine imports in times of war, year over year shrinkages of the wine market occurred. Based on this calculation, the market shrunk more, on average, during the King Henry VIII’s reign. Comparing -32.7% and -11.5% indicates that the size of the wine market decreased substantially more during the early sixteenth century as a result of war. Considering the standard errors, it is possible yet unlikely for the market to have decreased by a larger amount on average during the Stuart period than Henry’s. That being said, neither value meets the traditionally accepted p-value of 0.05, indicating that these results are not statistically significant, and the low R-squared values indicate that the regressions themselves were not a good fit for the data.

Another factor I considered was the impact of if the two states were at war the previous year. To look into this, I regressed the amount of wine imported into London upon the war
dummy variable, which I lagged by one year. The results, Table 3 below, are interesting, especially in comparison to those seen in Table 1. The value for 1510-1548 is slightly more positive with the lagged variable than when regressing upon warfare in the current year. This nearly 200 ton difference is logical considering that the occurrence of war the prior year includes years where war has continued into the current year as well as years in which peace was recently restored. In the latter situation, it would be expected that trade would go up, thus mitigating the impact of war on wine importation. Contrarily, the seventeenth and eighteenth century data indicates that the average decrease in the wine trade is more substantial when England and France had already been at war the previous year. However, this data set is skewed as it ends in 1712, before the end of the War of Spanish Succession; thus, the first peace year is not included to temper the results.

Table 3: Impact of Anglo-French War the Previous Year on Total Wine Imports

| Year       | Coefficient | Stand. Er. | p>|t| | R-Squared |
|------------|-------------|------------|-----|------------|
| 1510-1548  | -2039.146   | 598.5702   | 0.002 | 0.2602     |
| 1675-1712  | -4808.145   | 1137.503   | 0.0  | 0.3317     |

These results also beg the question of if trade prohibitions with France altered the general size of the wine market. Surprisingly, the answer is not particularly. For the sixteenth century results, the coefficient for the Anglo-French war dummy variable is consistent with the simple linear regression seen in Table 1, and the coefficient for the trade prohibition is both negligible in magnitude and statistically insignificant. In the seventeenth century, the impact of war is slightly mitigated. The impact of trade prohibitions is ambiguous; the coefficient derived from the regression indicates that on average French trade embargoes decrease the total amount of wine entering London, but the standard error and R-squared terms bring this result into question. This signifies that in both periods, the market was more or less able to
compensate for trade prohibitions with wine from other states, thus negating the impact of the trade prohibition on the general market.

Table 4: Impact of Anglo-French War and Trade Prohibitions on Total Wine Imports

| Year     | Variable             | Coefficient | Stand. Er. | p>|t| | R-Squared |
|----------|----------------------|-------------|------------|-----|-----------|
| 1510-1548| Anglo-French War     | -2224.6     | 605.04     | 0.001| 0.2994    |
|          | Trade Prohibition    | 62.17       | 980.51     | 0.950|           |
| 1675-1712| Anglo-French War     | -3125.9     | 1321.6     | 0.024| 0.1932    |
|          | Trade Prohibition    | -1338.9     | 1299.2     | 0.310|           |

Another way to look at the impact of Anglo-French war on the wine trade is through the analysis of imports from France specifically. As discussed earlier, I calculated the quantities of wine imported from France during the reign of Henry VIII based on assumptions that no longer applied after 1534; thus, the following analysis is limited to that earlier period in Henry's reign. When examining the impact of Anglo-French conflict on the importation of wine from France into London, the trends mirror that of the total wine trade. On average, French imports were 1,144 tons lower in times of war during the time of Henry VIII; this indicates that during times of Anglo-French warfare, around half of the shrinkage in the market came from a decrease in trade from France. This signifies that the general wine market was significantly impacted by war independently of the effect on the market for French wines. That being said, the coefficient calculated from this regression may be lower in magnitude than it should be in comparison to the results in Table 1 because this regression excluded peacetime imports from 1535-1548 which were among the highest during Henry's reign. Assuming that French wine maintained a consistent portion of the market during these years, the inclusion of 1535-1548 would have increased the non-war average, thus increasing the average difference between times of war.
and times of peace. If this were the case, it would indicate the impact of Anglo-French warfare upon the wine trade could be more largely attributed to decreases in Anglo-French trade.

Table 5: Impact of Anglo-French War on French Wine Imports

| Year     | Coefficient | Stand. Er. | p>|t| | R-Squared |
|----------|-------------|------------|-----|-----------|
| 1510-1534| -1144.39    | 424.066    | 0.013 | 0.2405    |
| 1675-1712| -2774.40    | 1474.987   | 0.068 | 0.0895    |

Seventeenth century trade indicates a slightly different narrative. Although the coefficient for the 1675-1712 regression does not have a p-value less than 0.05, indicating that the value is not statistically significant, the coefficient of -2,774 demonstrates an interesting trend in trade relations. This value represents a considerably higher percentage of the average decrease in the total wine imports during Anglo-French war. According to this result, 80% of the wine that the London market forwent in a time of war would have come from France. This demonstrates that while the overall market may be equally or less intensely impacted in the late Stuart period than in the time of Henry, Anglo-French trade was impacted more severely. In other words, the wine trade experienced less collateral damage during the Stuart reigns; trade with France was more substantially altered by the outbreak of war.

Similar to the impact of excluding 1535-1548 from the 1510-1534 regression, data quirks could have minimized the impact of war upon French trade in the Stuart period. During the period of 1679 to 1685, an English prohibition on trade with France eliminated the Anglo-French wine trade.\textsuperscript{83} As this was the result of a “tariff squabble” between England and France during this period and not a war, the values of this period lower the average quantity of French wine imports during a time of peace, thus interfering with the regression.\textsuperscript{84} To compensate for this situation, I added a second dummy variable to the regression that considers the occurrence of a

\textsuperscript{83} Francis, 81.

\textsuperscript{84} Johnson, 204.
trade prohibition. This new regression better fits the fluctuations in the French wine trade, which saw record peaks and complete halts during the period.

Table 6: Impact of Anglo-French War and Anglo-French Trade Prohibitions on French Wine Imports

| Year       | Variable       | Coefficient | Stand. Er. | p>|t| | R-Squared |
|------------|----------------|-------------|------------|-----|-----------|
| 1510-1534  | Anglo-French War | -1197.496  | 442.85     | 0.13 | 0.2497    |
|            | Trade Prohibition | -318.636  | 611.89     | 0.608|           |
| 1675-1712  | Anglo-French War | -1815.897  | 1398.974   | 0.203| 0.2526    |
|            | Trade Prohibition | -3800.973 | 1375.261   | 0.009|           |

As seen in Table 6, the average decrease in seventeenth and eighteenth century French wine imports during a time of war shrinks in magnitude when the trade prohibition is included in the regression. In this new model, the average decrease in French wine imports during Anglo-French war is -1,815, almost 900 tons less of a hit to the market. That being said, the p-value for this coefficient cannot be described as statistically significant and the standard error term indicates a wide range of potential other decreases to the market. Alternatively, Parliament enacted a trade prohibition during the years of the War of the Grand Alliance and the War of Spanish Succession, and this regression better captures the combined impact on the market of those embargoes and the earlier peacetime trade prohibition. According to the results above, the average decrease in quantity of French wine when there is both war and a trade prohibition is approximately -5,600 tons. The majority of that shrinkage of French imports is attributed to Parliament prohibiting trade with France. This signifies that market behavior was receptive to political and economic posturing between states, a crucial component of mercantilism. This impact was not seen during the time of Henry VIII. The coefficient for an Anglo-French trade prohibition during 1510-1534 is both small and statistically insignificant, which indicates that the
King’s decision to bar trade for diplomatic reasons probably did not impact merchant’s behavior as much as desired.

The more important result comes from comparing the impact of war and trade prohibitions on the total wine market and on French wine imports. In the seventeenth and eighteenth centuries, this more substantial decrease in average French wine imports during times of both war and trade embargo is telling about market trends during the period. As the average quantity by which French wine imports decrease during wartime with embargoes is greater than the shrinkage in the total market, it indicates that wine from other states could be substituted for French wine to meet the demand of the London wine market. This was not the case in the sixteenth century when French wine dominated the import market. During the time of Henry VIII, decreases in French imports were less than the shrinkage of the total market, indicating that wines from other states were either unavailable or that consumers preferred French wine and were thus unwilling to supplement their consumption with alternative varieties.

This analysis is confirmed when examining the market through another perspective. Table 7 demonstrates how France’s share of the market reacted to Anglo-French war and trade prohibitions. Although the values are not statistically significant, the coefficients from the sixteenth century regression signal that the French market share was impervious to conflict. Contrarily, the later period indicates that the market was more reactive to trade disturbances. The French share of the wine market decreased by an average of 11% and 22% during Anglo-French warfare and trade prohibitions respectively with a greater combined effect. This bespeaks a market that is integrated into the state apparatus and alters its behavior according to current geopolitical relations.
I also regressed the amount of wine imported from France upon the lagged variable for Anglo-French warfare. The coefficients indicate that the occurrence of war the previous year decreases the wine trade by an average value greater than if the war is considered in the current year. The results in both periods indicate that when England and France are at war, the market will take time to realize the full negative impact of the conflict on French imports. Furthermore, as this regression includes the first year after the conflict, it demonstrates that the market does not rebound quickly the year after a war.

### Table 7: Impact of Anglo-French War and Anglo-French Trade Prohibitions on Percent of Wine Imports from France

| Year     | Variable          | Coefficient | Stand. Er. | p>|t|   | R-Squared |
|----------|-------------------|-------------|------------|-------|-----------|
| 1510-1534| Anglo-French War  | -5.71%      | 5.10%      | 0.275 | 0.0679    |
|          | Trade Prohibition | -5.87%      | 7.04%      | 0.414 |           |
| 1675-1712| Anglo-French War  | -11.27%     | 7.81%      | 0.158 | 0.2772    |
|          | Trade Prohibition | -22.31%     | 7.68%      | 0.006 |           |

I also tried testing how all three independent variables would interrelate in a single regression. While most of the results outlined in the table below are mostly not statistically significant at a p-level of 0.05, I found that they tell an interesting narrative about the French wine market.

### Table 8: Impact of Anglo-French War the Previous Year on French Wine Imports

| Year     | Coefficient | Stand. Er. | p>|t|   | R-Squared |
|----------|-------------|------------|-------|-----------|
| 1510-1534| -1476.42    | 340.081    | 0.000 | 0.4614    |
| 1675-1712| -3880.33    | 1386.952   | 0.008 | 0.1786    |
Table 9: Impact of Current and Previous Anglo-French War and Trade Prohibitions on French Wine Imports

| Year   | Variable          | Coefficient | Stand. Er. | p>|t| | R-Squared |
|--------|-------------------|-------------|------------|------|-----------|
| 1510-1534 | Current War       | -690.22     | 405.90     | 0.11 | 0.56      |
|         | War Previous Year | -1180.064   | 405.8994   | 0.009|           |
|         | Trade Prohibited  | -654.26     | 461.46     | 0.17 |           |
| 1675-1712 | Current War       | 1708.94     | 3454.32    | 0.491| 0.294     |
|         | War Previous Year | -4178.6     | 2463.63    | 0.099|           |
|         | Trade Prohibited  | -3293.34    | 1390.6     | 0.024|           |

As seen in Table 9, I regressed the French imports from each period upon the dummy variables for war in the current year, war in the previous year, and the occurrence of a trade prohibition. As all three independent variables are dummy variables, their coefficients are applicable to the analysis when the situation they indicate occurs within that year. For example, in this multivariable regression, the “Current War” and “War Previous Year” coefficients can be combined to create a net effect in years where it is neither the first nor last year of the conflict. Thus, looking at the stages of war and the activated dummy variable bespeaks the relationship between war and the wine trade. The “Current War” variable on its own should signify the average decrease in French wine imports caused by the first year of a war, as there would be no fighting the year prior to the beginning of the conflict. For the sixteenth centuries, this decrease in wine imports is smaller than it would be later in the conflict. Contrarily, the seventeenth century result indicates that the first year of a war shows an increase in the wine trade, if an embargo has yet to be enacted. This result is neither logical nor statistically significant. The combined effect of “Current War” and “War Previous Year” indicates the decrease in French imports during the later years of war, when fighting occurs but it is not the first year of the conflict. Finally, “War Previous Year” on its own should signify how the market for
French wine rebounds after war. For example, during Henry’s reign the average decrease in French wine imports due to the first year of war is -690 tons, while the average decrease in wine imports during the later years of the war is -1,870 tons. The year after the war, the market is on average -1,180 tons below the average non-war periods. As trade prohibitions are included in the regression, the model incorporates their effect upon wine trade, mitigating the impact of peacetime trade prohibitions upon the wartime coefficients and conversely incorporating the existence of embargoes during times of war. Thus, the model can be interpreted as saying that the impact of war is not immediate upon trade as the average decrease in imports has a larger magnitude after the first year of war. The market also takes time to normalize after wars, as the coefficient for “War Previous Year” in both periods has a large, negative value.

While the general manner in which war impacted trade was the same across the two periods, the markets were impacted to different degrees. First, war had a more immediate effect on French imports during the sixteenth century. When comparing the decrease in imports in the first year of war to the average decrease in imports during later years of war, 37% of the sixteenth century market shrinkage is realized in the first year. This directly contrasts the supposed market growth during the seventeenth and eighteenth centuries. This result could be caused by the longer duration of war and the simultaneous enactment of trade prohibitions during the later period, but it also signifies that trade relations didn’t require the same gradual changes during the time of Henry VIII; Henry’s wars had an immediate effect on the market that was not seen in the Stuart period. Second, trade prohibitions played a more significant role in import trends in the Stuart period than during the time of Henry VIII. This is seen by the comparative magnitudes of war and trade prohibitions in each period. During 1510-1534, trade prohibitions decreased trade by an average 35% of the magnitude of a later year in an Anglo-French war; in 1675-1712, trade prohibitions accounted for a decrease an average of 133% the magnitude of a later year in war. While this result is skewed because trade embargoes and war
were not concurrent under Henry, this indicates that trade prohibitions were significantly more effective in deterring French imports during the seventeenth and eighteenth centuries.

In another form of analysis, the rates of tunnage and poundage and other duties could be used as independent variables. This monetary deterrent of trade fluctuated not only with diplomatic relations, but also with the English government’s attempts to raise its revenues, so it should not be entirely correlated with the occurrence of war. Within Charles Ludington’s book on the convergence between politics and wine consumption, there is a table detailing the import duties on wine from 1660 onward. Delineated by country, this figures explain the amount of pounds sterling per ton that was charged as wine entered England, and later Great Britain.

Using this data set, I regressed the quantity of French wine imports and the percent of total imports from France respectively upon the Anglo-French war dummy variable, the trade prohibition dummy variable, and the schedule of duties to see how these tax rates altered the wine trade.

| Year               | Coefficient | Stand. Er. | p>|t| | R-Squared |
|--------------------|-------------|------------|-------|-----------|
| Anglo-French War   | 2166.93     | 1645.92    | 0.197 | 0.4565    |
| Trade Prohibition  | -5339.95    | 1265.55    | 0     |           |
| Duties             | -135.68     | 37.99      | 0.001 |           |

85 Ludington, 261-2.
Table 11: Impact of War, Trade Prohibition, and Duties on Percent of Wine from France
1675-1712

| Year              | Coefficient | Stand. Er. | p>|t|   | R-Squared |
|-------------------|-------------|------------|-------|-----------|
| Anglo-French War  | 11.36%      | 9.13%      | 0.222 | 0.4813    |
| Trade Prohibition | -31.06%     | 7.02%      | 0     |            |
| Duties            | -0.77%      | 0.21%      | 0.001 |            |

The results, as seen in Tables 10 and 11, refine the earlier findings. In the data set, the duties are raised at the end of the 1679-1685 trade prohibition, raised again a few years later, and then doubled at the beginning of the War of the Grand Alliance. Given the low value of the taxes during the initial, peacetime trade prohibition and the enactment of embargoes during wars, the coefficient of that dummy variable continues to indicate a large and detrimental impact on the import of French wine. These duties become more prohibitive of trade during the times of war before the enactment of a trade embargo; therefore, the magnitude of the Anglo-French war coefficient became positive to compensate for the negative effect on French imports provided by the variable designating import duties. This clarifies that while there is a strong correlation between the occurrence of war and a decrease in the importation of French wine, war did not cause the decline in imports. Thus, in the original regressions, the value of the duties acts as a lurking variable, skewing the results because of its exclusion. I could not find a comparable data set for 1510-1535, so I can only assume that the duties similarly impact the results from that period. Based on these findings, the analysis that I have completed using the war and trade prohibition dummy variables is indicative of how the wine market trended during those events, but it is probable that underlying and related events actually caused the decrease in the French wine trade during the wars and trade prohibitions.
Flaws:

As can be expected of any customs operation, importation records are tenuous and subject to the restraints of contemporary infrastructure. Considering Georg Schanz’s numbers are 500 years old, both the capacity of the port officials and the traditions of the period work against the validity of the data. The first caveat to his data is that smaller ships may have eluded the notice of customs officials and corrupt customs officials may have overlooked the presence of some ships, thus diminishing the amount of wine reported as entering the city.\(^{86\text{a}}\) That being said, in his 1601 *Treatise of Commerce*, Secretary of the Merchants Adventurers John Wheeler notes that London was less susceptible to this defraudation than lesser ports. He explains, “the Stragler Shipping his Cloth and other Commodities in covert manner, hugger-mugger, and at obscure Portes, have more advantage and meanes to defraude her Maiestie of her dueties and rightes than those which ship at London…”\(^{88}\) He continues that customs officers in the outer realms were more likely to accept bribes and ignore smuggled or counterfeit goods by foreign merchants, who Wheeler calls “underminers and maligners” of the realm.\(^{89}\) Wheeler’s account is substantiated by twentieth century historian N.J. Williams. In his discussion of trade in the outports, Williams further minimizes the plausibility of smuggling in London by writing that, “The organization of the port of London was too complex, too near the centre of administration to allow merchants to pass uncustomed goods up and down the Thames and expect to remain undetected for long.”\(^{90}\) The other issue with Schanz’s data is the potential impact of exemptions and privileges granted by Henry VIII to nobles, ambassadors, bishops, and other notable

\(^{86}\) Francis, 25.
\(^{87}\) Williams, 25-6.
\(^{88}\) John Wheeler, *A treatise of commerce*· Wherein are shewed the commodities arising by a well ordered and ruled trade, such as that of the Societie of MerchantsAdventurers is proved to be: written principally for the better information of those who doubt of the necessarinesse of the said societie in the state of the realme of England (London: Iohn Harison, 1601), 60. Accessed through Early English Books Online.
\(^{89}\) Wheeler, 61.
\(^{90}\) Williams, 26.
members of society from whom he wished to curry favor. These exemptions allowed these individuals to import wine duty free, with a quota for untaxed wine that reached as high as 1,000 tons per person in some instances. This system allows for the possibility that not all wine was tracked in the customs figures, and the potential impact of these exemptions on the magnitude of the import data could be substantial. While nothing can be done to rectify this potential flaw in the data, the possibility of faulty information necessitates that all interpretations of the data require a sense of skepticism.

In his treatise on the wine trade, A.D. Francis also calls into doubt the veracity of the numbers during the 1679-1685 trade prohibition of French imports. As seen in Chart 5, there is a major spike in Portuguese imports that is not sustainable for the duration of the period or even the entirety of the trade prohibition. Francis proposes that those imports actually came from France. He writes that exports from Oporto, Portugal “are a puzzle, for in 1682, 1683, and 1685, the three bumper years for Portuguese wine according to the London statistics, the totals in pipes are 700, 1251, and 391 pipes only.” While he admits that he cannot verify that Lisbon’s exports were similarly low, Francis notes that Bordeaux’s farmers were not exceptionally upset about the embargo that would have substantially decreased their sales and that French export statistics indicate 224 ships carrying wine and brandy left France for what would become the United Kingdom. He further draws attention atypically large shipments from Spain in 1680 and 1684, and from the Rhine in 1679, 1680, and 1681. These spikes are seen in Chart 6 below. Based on these data anomalies and Francis’s claims that records indicate that French wine was smuggled through Portugal or Spain or counterfeited as that of another state successfully until 1691, I attempted to reattribute the smuggled French wine back to France in order to determine

91 Francis, 26-7.
92 Francis, 94.
93 Francis, 94.
94 Francis, 93-4.
the potential consequences on the trade narrative.\textsuperscript{95} Before I delve into the data manipulations, it is worth noting that similar amounts of smuggling did not occur during the second and third embargoes during this period. By the time of the War of the Grand Alliance, exports from Oporto rose in conjunction with the increase in Portuguese imports.\textsuperscript{96}

**Chart 6: Wine Imports into London, 1675-1696\textsuperscript{97}**

For each year of anomalistic quantities of wine imported during the 1679-1685 trade embargo, I averaged the preceding and following years' imports to approximate a realistic level of imports from each nation. I then attributed the difference between the recorded import levels and the approximated import levels to being exports from France. For example, in 1680, both Spain and the Rhine have atypical levels of exports to London. Therefore, I averaged the Spanish imports from 1679 and 1681 and the Rhenish imports from 1678 and 1682 (as there were a few consecutive years of abnormal import levels) and used that calculated value as the true level of exports from Spain and the Rhine respectively. Then I subtracted the resulting

\textsuperscript{95} Francis, 94.
\textsuperscript{96} Ludington, 36.
\textsuperscript{97} TNA T 64/274/111.
values from the recorded quantity of imports in 1680, and I allocated those differences in value to French wine exports.

Chart 7: Wine Imports into London Adjusted for Smuggling, 1675-1696

Without reexamining the totality of my prior analysis, this transformed data set sheds new light of on trade relations during the period. Under these new assumptions, French trade does not desist during King Charles II’s trade prohibition. As seen in chart 7, the adjusted French imports during the trade prohibition mimic the total imports into London. Seemingly, during the first year of the trade prohibition, merchants were unable to bypass the king’s decree; however, by 1680, merchants and smugglers discovered alternative ways of transporting French wine into London. These new figures also change the implications of some of the regressions discussed above. For instance, the coefficient designating the negative impact of Anglo-French war upon French wine imports has an adjusted magnitude 4,111 tons greater than before. This is because the peacetime years of the trade prohibition now indicate substantial imports of

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98 TNA T 64/274/111.
99 AD Francis, 94.
French wine into London. The lower p-value and larger R-squared value of the coefficient and regression respectively also indicate that if A.D. Francis’ claims about the extent of smuggling are correct, this new regression is more statistically significant than the earlier version.

Table 12: Impact of Anglo-French War on French Imports with Smuggling Adjustments

| Year     | Coefficient | Stand. Er. | p>|t| | R-Squared |
|----------|-------------|------------|-----|-----------|
| 1510-1534 | -1144.39    | 424.0656   | 0.013 | 0.2405 |
| 1675-1712 | -2774.403   | 1474.987   | 0.068 | 0.0895 |
| 1675-1712 | -6885.757   | 1383.115   | 0     | 0.4077 |

A similar phenomenon occurs when regressing the adjusted percent of wine imported from France upon the dummy variables for both Anglo-French War and trade prohibitions. As with the adjusted regression seen in Table 12, the coefficient for the Anglo-French war dummy variable has a larger magnitude in the adjusted regression in Table 13. The trade prohibition variable loses its significance in the new regression, both literally and statistically, because the data adjustments mitigated the effect of the government’s decree during the 1679-1685 trade prohibition.

Table 13: Impact of Anglo-French War and Trade Prohibitions on Percent of Wine from France with Smuggling Adjustments

| Year     | Variable         | Coefficient | Stand. Er. | p>|t| | R-Squared |
|----------|------------------|-------------|------------|-----|-----------|
| 1510-1534 | Anglo-French War | -5.71%      | 5.10%      | 0.275 | 0.0679 |
|          | Trade Prohibition| -5.87%      | 7.04%      | 0.414 |          |
| 1675-1712 | Anglo-French War | -11.27%     | 7.81%      | 0.158 | 0.2772 |
|          | Trade Prohibition| -22.31%     | 7.68%      | 0.006 |          |
| 1675-1712 | Smuggling Adj.   | -37.86%     | 7.11%      | 0     | 0.491   |
|          | Anglo-French War | 6.53%       | 6.99%      | 0.357 |          |
It is impossible to know the true import quantities of these smuggling operations, if they even existed, so my data adjustments and the analysis begun above must be treated with skepticism. That being said, this exercise in counterfactual history demonstrates how the reliability of the data changes the story that it depicts. Based on the Davenant data, trade prohibitions impacted the wine market more severely than war and shifted wine imports away from French products. Adjusting the data for smuggling leads to the opposite result. Anglo-French war has a comparatively larger impact on France’s share of the wine trade, whereas trade prohibitions have a muddled impact on French imports assuming the wine still enters London through unofficial routes. Thus, A.D. Francis’s indication that smuggling occurred during the 1679-1685 trade prohibition simultaneously lends insight into how illicit imports change the dynamics of the wine trade while calling into question the legitimacy of all data sources and their analysis.

The Years Without Data:

One of the unfortunate shortcomings of my research is the lack of attention paid to the period from 1548 until 1675. While some numerical evidence exists for this period, there is not enough information to perform a substantive statistical analysis. That being said, I wanted to take a few moments to highlight how the wine trade continued to operate under a few reigns, namely those of Queen Elizabeth I, Protector Oliver Cromwell, and King Charles II. Wine trade data under Elizabeth I’s reign is difficult to acquire as the Exchequer recorded it in separate books from 1567-1594.\textsuperscript{100} From the available records, 3,062.66 tons of wine were imported from France into London in 1566-7, and 4,062.17 tons of wine were imported in 1594-5.\textsuperscript{101} Two years later, 7,374.25 tons of wine entered London from France, and in 1599-1600, 8,525.66 tons of

\textsuperscript{100} J. Richard Jones, \textit{London’s Import Trade with France During the Reign of Elizabeth} (PhD diss., University of Pennsylvania 1944), 15.

\textsuperscript{101} Jones, 17.
wine were imported. These values allude to an upward trend in the import of French wine. Perhaps more indicative of the constant and increasing quantity of French wine imports into London are the results of an annual search of London’s taverns. Each year the Vintners Guild would note how much French wine was stocked in taverns, and over Elizabeth’s reign, the quantity of wine that taverns stored in anticipation of selling to consumers increased. This demonstrates the growing popularity of wine during Elizabeth’s reign, especially in public, social settings. Furthermore, Elizabeth’s government influenced trade policy. They set maximum prices for French wine at which French wine should be sold, which were lower than the cost to import the wine. When requested to change this price dynamic, Lord Burghley replied that doing so would augment French trade “whose powers England ought not to increase”; this reaction indicates that Elizabeth’s reign ascribed power dynamics to the balance of trade.

Even during the Interregnum when Puritans ruled England and wine was seen as a symbol of royalist power, the wine trade persisted. Charles Ludington examined English customs accounts and reported that “from March 1, 1650 until August 26, 1650 show that the Commonwealth collected over £5,746 revenue on “sweet wines” and more than £5,414 on French and Rhenish wines.” Given that import duties in 1650 were probably around £6 per ton, that means over 1,800 tons of wine were imported during the six month period. The imposition of the Navigation Acts the following year and other regulations later imposed by Cromwell’s government detrimentally impacted the wine trade. In an attempt to protect English merchants, the Navigations Act denied foreign merchants to ship goods of foreign origins and raised the import duties on wines imported by the Dutch, thus impeding the import of French

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102 Jones, 18.
103 Jones, 24.
104 Ludington, 16.
105 Ludington, 19.
106 Ludington, 261.
and Spanish wine.  

A few years later, the government raised taxes and imposed a maximum price at which wine could be sold. These measures hindered the wine trade during the Interregnum, but it did not halt trade. Interestingly, Cromwell did not impose a trade embargo on any state, even in times of war, so the factors affecting the wine trade during the 1650s would not have been reflected in my analysis.

The Restoration government of Charles II had an interesting relationship with the wine trade. The Bordeaux wine claret was the most popular wine during the period, and its import resulted in important duty revenue for the state. But France presented an economic threat to England. In response to tariffs imposed by the French finance minister, Colbert, and France’s participation in the Second Anglo-Dutch War, Charles placed an embargo on French and Canary wine in 1667. He immediately undermined his own policy by granting licenses to import French wines to meet demand and raise the tax revenue. These efforts lead into the period of 1675-1712 discussed in my analysis, in which the government and the markets worked to balance international politics, economic policy, and consumer demand.

**Notes on Naval History and Smuggling:**

The rise of the English navy began at the start of the Tudor period. Under the reign of Henry VIII, the English navy grew from four ships to its best state in over a century. Both Henry and Elizabeth worked to expand the navy; as a source of revenue for the Crown, both monarchs rented naval vessels to merchants to serve as protection during trading trips. While the influx of revenue was beneficial to the Crown, this measure is demonstrative of the efforts

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107 Ludington, 19.
109 Ludington, 25.
110 Ludington, 25.
made to protect merchant ships. John Wheeler wrote that Ships “tendeth to the Safety and the preservation of the Shipping, and goods of the Subjects of the Realme, which amount to a great valew, and would help the enemie, and hurt our State very much, if it Should come into his handes.” Based on his account, there was a conscious effort by the Merchants Adventurers, the government, and other tradesmen to protect their ships to minimize risk to their profits and to the state.

While the infrastructure to protect merchant ships increased during the Tudor period, so did the threats against these ships. Concurrent to the Age of Exploration and the popularization of Atlantic and Asian trade routes was the rise of the pirate and of the smuggler. These new industries presented a clear threat to the stability of trade as they endangered shipping vessels and undermined legitimate imports. English pirates worked to the benefit of the state by attacking the ships of trading rivals, but similarly English merchants were at risk from pirates of all nationalities. To protect the English merchants, Elizabeth would sporadically send naval ships to clear out areas infested with pirates. This behavior manifests the methods used by the Crown to protect the welfare of the merchants.

Her successors, the early Stuarts, struggled to attain Parliamentary support for their naval aspirations, but under the command of Oliver Cromwell “a fleet was built powerful enough to raise England to the first rank of European powers.” With this fleet, England engaged in naval warfare that was detrimental to trade. First were the Anglo-Dutch trade wars, which were fought to assert economic supremacy. Then, William III engaged England in two continental wars in which commercial activity was hindered. During the War of the Grand Alliance and the

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116 Bourne, 20.
War of Spanish Succession, the English lost a cumulative 7250 merchant ships.\textsuperscript{118} Part of these casualties were the result of privately financed French ships that attacked English trade specifically, and entangled much of the British fleet when the navy came to protect merchant vessels.\textsuperscript{119} The attention of both the French and the English navy to the welfare of the merchant ships evinces the importance placed upon those vessels to advance the economic well-being of the state. This brief naval history is intended to show the close historical connection between merchant and crown ships. Over time, the growth of the navy augmented protections for merchants and their businesses. That being said, the differences in English naval supremacy and popularity of pirating over the course of the Tudor and Stuart reigns, make it difficult to compare the efforts made by the English government to protect commercial activity at different times.

\textit{Future Analysis:}

Further research can and should be done using both quantitative and qualitative historical methods. To begin, historians could research other exogenous variables that would have impacted the wine trade: population of London, the weather at sea and in the growing region, acres of land devoted to winemaking, income of Londoners, the rate of the Grande Coutume, etc.\textsuperscript{120} None of this information will be easy to attain, but it would give nuance to the regressions discussed earlier. Further work can also be done using duties: the rates of tunnage and poundage, import taxes, and other excise taxes. While I touched upon this type of research above, these figures could be utilized more thoroughly. Although I lucked upon Ludington’s set of data, compiling a continuous schedule of rates and connecting them to the corresponding

\textsuperscript{118} Shovlin, 312.
\textsuperscript{119} Jonathan Dull, \textit{The Age of the Ship of the Line: The British and French Navies, 1650-1815} (Lincoln: University of Nebraska Press, 2009), 32.
\textsuperscript{120} Tim Unwin, \textit{Wine and the Vine: An Historical Geography of Viticulture and the Wine Trade} (London: Routledge, 1991), 197.
type of wine for the importation figures under Henry VIII’s reign was beyond the scope of my project. Determining these rates would require research into the tax and administrative policies of the Tudors and Stuarts, probably necessitating archival research. Also in the archives in England and France, along with other wine producing states, exist records and journals detailing the wine trade shipment by shipment. Within these documents, written in languages beyond my comprehension, are numbers that can be accumulated to create new data sets. Given the age and deterioration of these documents, it would be painstaking and possibly meritless work, but it could lead to data sets that cover the Elizabethan, early Stuart, or Interregnum periods or categorize the information in different ways.

Even if these documents are not used for statistical analysis, they lend insight into the inner-workings of the wine trade. My research only touches the surface of a truly multidisciplinary field. A deeper understanding of the political, cultural, diplomatic, and military developments of the period would lead to more nuanced interpretation of the quantitative results and a better understanding of what factors impacted Early Modern trading. Furthermore, the accounts and journals of wine traders who made the annual trip to Bordeaux could illuminate the sentiment of merchants on the state of the wine trade, the impact of governmental impositions, and the quality of the wines.

Conclusions:
Through my research, I intended to show the direct impact of mercantilism on English trade policy through an examination of Early Modern wine importation. By examining English diplomacy, economic policies, and the wine trade in both a qualitative and quantitative manner, I have hopefully demonstrated that the English marketplace altered its behavior to respond to contemporary geopolitical conflicts. In comparing the responses of the market under Henry VIII and under the post-Restoration Stuarts, new insights into the development of trade can be
ascertained. The total wine market reacted more direly to outbreaks of Anglo-French war in the sixteenth century than during the late seventeenth and early eighteenth centuries. This could be because war generally disrupted trade or it could be because the merchant ships were physically involved in the naval fleet and war efforts, Contrarily, the market for wine from France was more responsive during the late Stuart period. Smuggling aside, the outbreak of war between England and France and the imposition of embargoes greatly impacted the importation of French wines into England. While these events influenced the wine trade in the early 1500s, it was not to the same extent. This trend could indicate that market was more closely integrated into the centralized government bureaucracy by the late seventeenth century or it could indicate that the availability of substitutes and changing consumer preferences allowed England to replace French wine with products from Spain and Portugal. These conclusions manifest that the wine trade became more nimble and responsive as time progressed; by the end of the Stuart period, the market could quickly react to the occurrence of war and compensate for any lessening in the supply of wine.

Looking more broadly, the utilization of trade prohibitions and increasing import duties demonstrate the “jealousy of trade” that guided mercantilist economic policies.\textsuperscript{121} According to John Nye’s research on English economic policies, “Periods of war were especially important because they reinforced the strong pressures to either eliminate or restrict imports from rival nations… [encouraging] both sides to think of commercial policy… in terms of promoting a mindset that saw trade as a clear zero-sum game.”\textsuperscript{122} Nye’s assessment is supported by discussions in the 1690s where it was commented “that war kept this damaging French trade in suspension while permitting England either to find alternative suppliers for goods formerly

\textsuperscript{122} Nye, 25.
obtained from France, or to establish homemade substitutes.”

This attitude toward trade can be seen in the results from both the early sixteenth and the turn of the eighteenth centuries. During times of war and trade embargoes with France, the import of French wine noticeably declined. Depending on the period, this decline ranged from a marked decrease in trade to a complete halt in the importation of French wine, and in most cases, the demand for wine was met with products from states allied with England. The reactivity of the market to geopolitical events in a way that damages the trade of the opposing party evinces the market acted in the mercantilist manner that historians have used to categorize the period.

123 Sholvin, 313.
### Data Sources:

T 64/274/111:

#### An Account of the Quantities of Wines Imported Annually into the Port of London from the Year 1674 to the Year 1690, Including All French, Italian and Spanish Wines, Other Countries and Re-Exports

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Total: 28,178,500 Tuns 9,048,750 Barrels

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**Account Showing Wages in 1827**

**London**

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<th>Date</th>
<th>Name</th>
<th>Hours</th>
<th>Rate</th>
<th>Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Out Ports**

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Hours</th>
<th>Rate</th>
<th>Gross</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Total**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Note**

- Hours: [Detailed description of work hours]
- Rate: [Detailed description of hourly rates]
- Gross: [Total gross earnings calculated]

---

**Signatures**

[Signatures of responsible individuals]
### Table 13: Wine into London, 1600-1641, replicated from *Tudor and Stuart Devon*\(^\text{124}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>French Wine</th>
<th>Spanish Wine</th>
<th>Total French and Spanish Wine</th>
<th>Total all wines</th>
<th>PRO reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>4,534</td>
<td>1,524</td>
<td>6,058</td>
<td>6,273</td>
<td>E356/29</td>
</tr>
<tr>
<td>1601</td>
<td>2,701</td>
<td>1,237</td>
<td>3,938</td>
<td>4,138</td>
<td>E356/29</td>
</tr>
<tr>
<td>1602</td>
<td>5,955</td>
<td>1,459</td>
<td>7,414</td>
<td>7,618</td>
<td>E356/29</td>
</tr>
<tr>
<td>1603</td>
<td>5,287</td>
<td>2,250</td>
<td>7,537</td>
<td>7,719</td>
<td>E356/29</td>
</tr>
<tr>
<td>1606</td>
<td>6,334</td>
<td>3,865</td>
<td>10,199</td>
<td>10,730</td>
<td>E190/13/1,3</td>
</tr>
<tr>
<td>1609</td>
<td>5,462</td>
<td></td>
<td>5,462</td>
<td></td>
<td>E351/895</td>
</tr>
<tr>
<td>1611</td>
<td>5,501</td>
<td></td>
<td>6,113</td>
<td>6,572</td>
<td>E351/896</td>
</tr>
<tr>
<td>1612</td>
<td>3,478</td>
<td></td>
<td>3,478</td>
<td></td>
<td>E351/897</td>
</tr>
<tr>
<td>1615</td>
<td>7,451</td>
<td>9,448</td>
<td>16,899</td>
<td>17,605</td>
<td>E190/18/2</td>
</tr>
<tr>
<td>1619</td>
<td>5,229</td>
<td>3,179</td>
<td>8,408</td>
<td>10,509</td>
<td>E190/22/4,23,5</td>
</tr>
<tr>
<td>1620</td>
<td>11,452</td>
<td>6,565</td>
<td>18,017</td>
<td>18,254</td>
<td>E190/24/3</td>
</tr>
<tr>
<td>1623</td>
<td>9,506</td>
<td>4,515</td>
<td>14,121</td>
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<td>E351/900</td>
</tr>
<tr>
<td>1624</td>
<td>9,153</td>
<td>4,079</td>
<td>13,232</td>
<td></td>
<td>E351/901</td>
</tr>
<tr>
<td>1628</td>
<td>4,385</td>
<td>3,398</td>
<td>7,783</td>
<td>8,250</td>
<td>E190/32/6,7</td>
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<tr>
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<td>8,472</td>
<td>3,092</td>
<td>11,564</td>
<td>11,633</td>
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</tr>
<tr>
<td>1632</td>
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<td>19,680</td>
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<tr>
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<td>6,142</td>
<td>16,052</td>
<td>16,778</td>
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</tr>
<tr>
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<td>16,602</td>
<td>5,349</td>
<td>21,951</td>
<td>22,042</td>
<td>E190/35/7</td>
</tr>
<tr>
<td>1637</td>
<td>11,083</td>
<td>4,813</td>
<td>15,896</td>
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<td>E351/906</td>
</tr>
<tr>
<td>1638</td>
<td>20,964</td>
<td>9,456</td>
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<td>26,668</td>
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<td>16,398</td>
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<tr>
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<td>8,245</td>
<td>10,570</td>
<td>18,815</td>
<td></td>
<td>E351/910</td>
</tr>
</tbody>
</table>

\(^{124}\) Stephens, 167.
Other notable regressions examining the impact of smuggling:

Table 14: Impact of Anglo-French War the Previous Year on French Wine Imports with Smuggling Adjustments

| Year   | Coefficient | Stand. Er. | p>|t| | R-Squared |
|--------|-------------|------------|------|-----------|
| 1510-1534 | -1476.416 | 340.0811 | 0    | 0.4614    |
| 1675-1712 | -3880.33  | 1386.952  | 0.008| 0.1786    |
| Smuggling Adj. | -7734.725 | 1226.371  | 0    | 0.5249    |

Table 15: Impact of Current and Previous Anglo-French War and Trade Prohibitions on French Wine Imports with Smuggling Adjustments

| Year   | Variable                  | Coefficient | Stand. Er. | p>|t| | R-Squared |
|--------|---------------------------|-------------|------------|------|-----------|
| 1510-1534 | Current War               | -690.22     | 405.90     | 0.11 | 0.56      |
|         | War Year Before           | -1180.064   | 405.8994   | 0.009|           |
|         | Trade Prohibited          | -654.26     | 461.46     | 0.17 |           |
| 1675-1712 | Current War               | -461.3626   | 2188.882   | 0.834| 0.4672    |
|         | War Year Before           | -6435.805   | 2123.167   | 0.005|           |
|         | Trade Prohibited          | -7835.191   | 1858.84    | 0    |           |
| Smuggling Adj. | Current War   | -1220.2     | 2363.44    | 0.609| 0.526     |
|         | War Year Before           | -6718.03    | 2372.4     | 0.008|           |
|         | Trade Prohibited          | -335.68     | 1339.11    | 0.804|           |
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