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ECONOMIC HISTORY

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This chapter surveys the economic history of Jewish people in a historiographical context. To do this, it is useful to define economic history and briefly describe its emergence as a distinct academic subfield. Many chapters in Adam Smith's *The Wealth of Nations* (1776) comprise what we would recognize as economic history. Economic history as a distinct academic discipline, however, has its origins in the late nineteenth century with the work of scholars such as Arnold Toynbee and William Ashley in England and Gustav Schmoller, and the Historical School in Germany. Today, economic history is an important and flourishing field of study in economics in the United States, Europe, and East Asia.¹ While economic history, at least in the United States, resides largely in economics rather than history departments, as a subject matter (if not as a discipline) it has also come back in vogue among historians in recent years, after decades of comparative neglect.²

Economists and historians have both contributed to the economic history of the Jewish people. Historians in particular have long been concerned with the economic role played by Jews through postdiaspora history. The main aim of this chapter, however, is to draw attention to recent work done by economists and economic historians. By presenting a concise summary of the contributions economic historians have made to the study of Jewish history, I hope to encourage interdisciplinary cross-fertilization.

The chapter is organized as follows. I start by selectively surveying the most important early work in Jewish economic history, focusing on the writings of Max Weber, Werner Sombart, Salo Baron, and Simon Kuznets. I go on to focus on research that has led the way in integrating more sophisticated approaches from modern economics into the study of Jewish economic history. In particular, I draw attention to recent work that has pioneered the study of Jewish economic history in mainstream economic research into institutions, growth, and development, including work by Avner Greif, Maristella Botticini, and Zvi Eckstein, among others.³ This scholarship has shed new light on the economic role of Jews in medieval and early

modern Europe, on the causes and consequences of antisemitic violence, and on the relationship between culture, economic development, and religious change (see Chapters 13 and 17).

A selective survey of Jewish economic history c. 1900–2017

1900–1930: Origins—Weber and Sombart

I begin with the influence of the work of Max Weber and Werner Sombart on scholarship in the earlier twentieth century. Both of these thinkers were concerned with the cultural and institutional origins of modern economic growth (the term they used was *Kapitalismus*, but this is no longer in favor among economic historians). It was through this lens that they viewed the role of Judaism and Jews in economic history.

Weber is celebrated today for the argument that Calvinism indirectly led to the formation of capitalist values in the premodern period. In fact, Weber developed a deep interest in several religious traditions and noted a close connection between Jewish values and the types of Puritan values he saw as giving rise to the spirit of capitalism. In his essay *The Protestant Ethic and the Spirit of Capitalism*, however, Weber concluded by dismissing the role of Jews in the early modern economy on the grounds that their activities were restricted to what he called “pariah capitalism.”⁴

This argument attracted the criticism of the German historical school economist Werner Sombart, who, in *The Jews and Modern Capitalism*, argued that the role played by Jews in the early stages of modern capitalism was crucial.⁵ Sombart claimed that Jewish traders pioneered a range of financial instruments and were critical in building long-distance trading networks. Moreover, Sombart argued that the cultural values that Weber associated with Puritans were in fact first developed, and most fully expressed, within Europe’s Jewish communities. Beginning his career as a Marxian (see Chapter 40) and a socialist, Sombart notoriously became a National Socialist in his old age, and more than a tinge of antisemitism can be detected in his writings (Harris, 1942). As history, it is flawed: Sombart exaggerated the role Jewish traders played in inventing credit instruments and was guilty of other factual errors in his analysis. His work is nonetheless of considerable importance, both because it placed the history of the Jews at the center of debates about the rise of capitalism in the West and because of its subsequent influence on historical writing and on the social sciences.⁶

Despite its flaws, Sombart’s book was a compelling piece of economic history, which supported his hypothesis with historical arguments and evidence. It developed several arguments that have recently found favor in works of economic history. First, Sombart stressed the importance of the late medieval and early modern periods in laying the foundations for subsequent economic growth. This argument was opposed and dismissed by economic historians who identified the Industrial Revolution as the decisive breakpoint in European history, but it has recently come back into favor.⁷ Second, Sombart argued that commerce and trade were crucial to the rise of modern economic growth. This made his work unappealing to subsequent economic historians and development economists, such as Rostow (1960), who stressed the

importance of manufacturing and industrialization, but it is in keeping with the view of many recent scholars, including North (1990) and Greif (2006). Third, Sombart placed great importance on cultural values as drivers of economic growth. This emphasis on culture has, as we will see, been revived in recent years.⁸

Weber and Sombart put religion and, in the case of the latter, the study of the Jewish people at the center of the debate surrounding the rise of the West. But in the postwar period, such grand theorizing became less fashionable in the social sciences. Economists, in particular, focused on narrower issues, including technical models of capital accumulation and economic growth, rather than on institutions, religion, or culture. As a result, these topics became marginalized. With the rise of formal models of economic growth, culture came to be seen as merely comprising part of the residual that could not be explained in neoclassical growth models. Worse, attempts to study the role of culture in economic development were deemed unscientific. As a result, the relevance of the Jewish historical experience greatly diminished in the minds of economists working in areas such as economic history, growth, and development.

Baron and Kuznets

While Weber and Sombart were placing Jewish history at the heart of debates concerning the rise of Europe, a new generation of empirically minded scholars came to maturity in the United States. Salo Baron and Simon Kuznets were both European emigrés—Baron from Galicia via Vienna, and Kuznets from the Russian Empire and Soviet Union. Baron would become the doyen of Jewish history in the United States; he was a historian, but in comparison to previous scholars of Jewish history he was also a more careful student of the economic situation of the Jewish people throughout the post-diaspora period.⁹

Kuznets, in contrast, was an economist, celebrated for his role in creating national income accounts and for his emphasis on careful empirical analysis. Kuznets's main contribution to Jewish economic history was his careful documentation of the skill levels of Jewish immigrants into the United States at the turn of the twentieth century.¹⁰ This style of analysis was also developed by Acadius Kahan at the University of Chicago.¹¹ Kuznets's work influenced several empirically minded economists interested in the social and economic status of Jews in America, among them Barry and Carmel Chiswick.¹² This work integrated themes from Jewish economic history into the careful, detailed, empirical studies that are the bedrock of modern economic history and which typify publications in journals like *The Journal of Economic History* and *Explorations in Economic History*.

In the American context, the economic history of Jewish immigrants paralleled that of Italian, Irish, and later Asian immigrants (see Chapter 17). It was a story of fleeing poverty, hardship, and persecution; of working hard in unskilled and low-paid jobs in textiles and other industries before ascending the ladder of mobility and eventually entering the middle class. But, unlike in Europe, they were not subject to a specific set of discriminatory laws and regulations, nor were they victims of widespread persecution and violence. Hence, this aspect of Jewish history has perhaps attracted less attention than the Jewish experience in Europe.

Institutions, culture, and long-run growth

From the 1980s onwards, new developments brought Jewish history into greater prominence within economic history. One major reason for this is that, in recent decades, the focus of economic historians has increasingly shifted back in time to focus on the pre-industrial European economy.

The most important contribution to the economic history of European Jewry in the early modern period was Jonathan Israel's *European Jewry in the Age of Mercantilism* (1985) (see Chapter 13). This was not just a study in economic history, but also a wide-ranging account of Jewish cultural, intellectual, and political history between 1500 and 1750. Israel argued that the period after 1570 saw the reintegration of Jewish merchants and entrepreneurs into the European economy. Jewish financial and trading networks were integral to central Europe's recovery from the devastation caused by the Thirty Years' War (1618–48). Israel, however, saw the period after 1713 as one of decline in the relative economic importance of Western European Jewry. Israel's book had a major impact among historians due to its ambitious scope and wide-ranging claims. It does not appear to have had a major impact on economic history in general, however.

The first generation of cliometric economic historians concentrated on studying topics in American and British economic history that naturally lent themselves to quantification. The classic work of the first generation of cliometric historians focuses on topics such as the determinants of slave prices in nineteenth-century America, the impact of the railway on American economic development, or the productivity of cotton textiles in Britain during the Industrial Revolution. From the 1970s onwards, however, Douglass North, one of the early pioneers of cliometrics, was arguing for economic historians to focus on the origins of sustained economic growth. This led him to study the rise of the European economy during the Middle Ages.¹³ Under North's influence, many economic historians became increasingly interested in the beginnings of sustained economic growth before 1800.¹⁴ And, as a long-lasting, well-documented, literate, commercially oriented community, Jewish history offers unique insights into the early development of market economies.

Of particular importance here is the work of Avner Greif.¹⁵ Greif's original work centered on interpreting the economic significance of evidence found in Geniza documents (see Chapter 28). Discovered in Cairo in the late nineteenth century and studied intensively by Shelomo Dov Goitein, these documents revealed a flourishing world of long-distance trade in the eleventh and twelfth-century Mediterranean (see Chapter 9). Long-distance trade required traders to trust both one another and the agents that they employed. Such trust would seem unlikely in an environment in which formal courts were either absent or costly to use. Greif argued that the Maghribi traders were able to engage in long-distance trade because they shared information about merchants or agents who broke their word, stole, or otherwise "defected" from their commitments. Using the tools of game theory, he showed that such a "multilateral punishment strategy" could be much more effective in deterring cheating than any mechanism, such as personal reputation or reprisals, that relied on bilateral punishment strategies.¹⁶

In later work, Greif showed how this fairly effective system of multilateral punishment nonetheless impeded the Maghribi merchants from developing other forms of

enforcing agreements, such as the family firm, which was developed by the Genoese merchants who eventually drove the Maghribi traders from the Mediterranean.¹⁷ Together with other work, Greif's analysis helped to prompt a general reappraisal of the importance of the commercial revolution in Europe and the rise of credit instruments and other financial institutions in aiding the development of more extensive markets and impersonal trade.¹⁸ The techniques used by the Maghribi traders appear to have been similar to those used by Jewish traders in later periods. Together with other work, this helped to set in motion a new trend toward studying topics, such as culture and religion, traditionally outside the purview of economics.

The most ambitious and wide-ranging recent work in Jewish economic history is *The Chosen Few* by Botticini and Eckstein (2012). This book traces the economic history of the Jewish people from antiquity until 1492. It provides an immensely valuable survey of Jewish history from the late Roman period to the end of the Middle Ages. *The Chosen Few* also presents a novel theory to account for demographic and economic trends in Jewish history over this time period. Brenner and Kiefer's article "Economics of the Diaspora" (1981) argued that Jews invested in human capital because they feared persecution and human capital was more portable than physical capital. Botticini and Eckstein marshal a tremendous amount of evidence to argue against this hypothesis. Instead, they trace human capital back to the shift in the content of Judaism following the destruction of the Temple in 70 CE (see Chapter 6).

Botticini and Eckstein provide a human capital-driven account of the patterns of Jewish economic history. Underlying their analysis is a simple model of the costs and benefits of acquiring literacy. This model predicts that a religion that mandates literacy will survive in an urban economy where there is also an economic return to literacy, but will lose members and struggle to survive in a purely agrarian economy. According to this argument, the emergence of rabbinical Judaism thus led to the Jews becoming an urban and literate economic elite. Jews in the Middle East who had previously been farmers gradually left the religion and converted to Christianity or Islam. The size of the Jewish community in Western Europe also shrank with the collapse of the Western Roman Empire, before a revival in the high Middle Ages.

By combining economic theory and a wide array of evidence from secondary and primary sources as well as an ambitious historical scope, Botticini and Eckstein argue convincingly that restrictions on Jewish economic activities were not a sufficient condition for why Jews in medieval Europe came to specialize in trade and money-lending, as such restrictions were absent in the Islamic Middle East (see Chapter 9). Instead, they argue that the comparative advantage Jews had, as a literate and numerate minority who were able to benefit from diffuse information networks, can explain why Jews came to be moneylenders par excellence by the late twelfth century.¹⁹

In addition to this work by economic historians, numerous other historians have studied the role played by Jews in the medieval economy. The work of Emery (1959) in Perpignan and Lipman (1967) in Norwich provided detailed micro-level studies of Jewish moneylending in the Middle Ages (see Chapter 9). Through newer archival research, historians have provided more detailed information and evidence concerning how Jewish moneylenders operated in England,²⁰ France,²¹ and Italy.²² German scholars have conducted extensive and large-scale investigations into the

conditions of Jewish life in German-speaking parts of central Europe from the Middle Ages through to the early modern period (see Chapter 13).²³ Scholars have conducted numerous studies of the economic conditions of Eastern European Jews, including demographic studies that have quantified trends in Jewish populations.²⁴

The economic contribution of Jewish communities in medieval and early modern Europe

A major innovation in the study of economic history in recent years has been the focus on empirical identification. Observational studies in the social sciences have long struggled to go beyond establishing empirical regularities or correlations to making credible claims about causality. This is because, unlike experimental studies, they typically lack a source of exogenous variation and cannot rule out the possibility of omitted variables or reverse causality generating bias. Recent research in economics has made considerable progress in better identifying effects that are plausibly causal.²⁵ Economic historians have benefited from this credibility revolution and have successfully applied these techniques to historical settings in exciting and innovative ways. This is evident, for instance, in recent work by Pascali (2016), who argues that the presence of Jewish moneylenders in turn stimulated the development of Catholic moneylending institutions known as *Monte di Pietà*, which left a legacy of greater financial development through to today. This suggests that the legacy of Renaissance Jewish communities in financial development in Italy has outlived the presence of these communities themselves (see Chapter 13).

To find a source of exogenous variation in the Jewish presence, Pascali studies the expulsion from Jews from the Kingdom of Naples between 1504 and 1541. In the Kingdom of Naples, he finds that there was no difference between communities that had Jewish communities and those that did not. Outside the Kingdom of Naples, cities that formerly hosted Jewish communities currently have larger per capita GDP (and higher credit-to-GDP ratios). This analysis suggests that expulsion of the Jews from Southern Italy had a permanent negative effect on economic development there, whereas in other parts of Italy, the presence of Jews had a beneficial long-run impact on financial development.

In another recent paper, Johnson and Koyama (2017) studied the relationship between the presence of a Jewish communities and city population growth across Europe from the Middle Ages to the industrial revolution (see Chapters 12 and 17). They found a positive relationship between the presence of a Jewish community and city growth rates. This positive association between the presence of a Jewish community and city growth was driven by the period after 1600. There was little discernible impact of a Jewish community on city growth in the Middle Ages but in the early modern period, cities with Jews grew decidedly faster than cities without Jews. This is depicted in Figure 41.1.

To try to ascertain whether or not this relationship was causal, Johnson and Koyama modeled the network of Jewish communities using the fact that Jewish communities spread out along trade routes, Roman roads, and rivers. Using geo-spatial software, they recreated the network of Jewish community weighed by travel cost. The idea was that, all else being equal, cities that were better connected to other

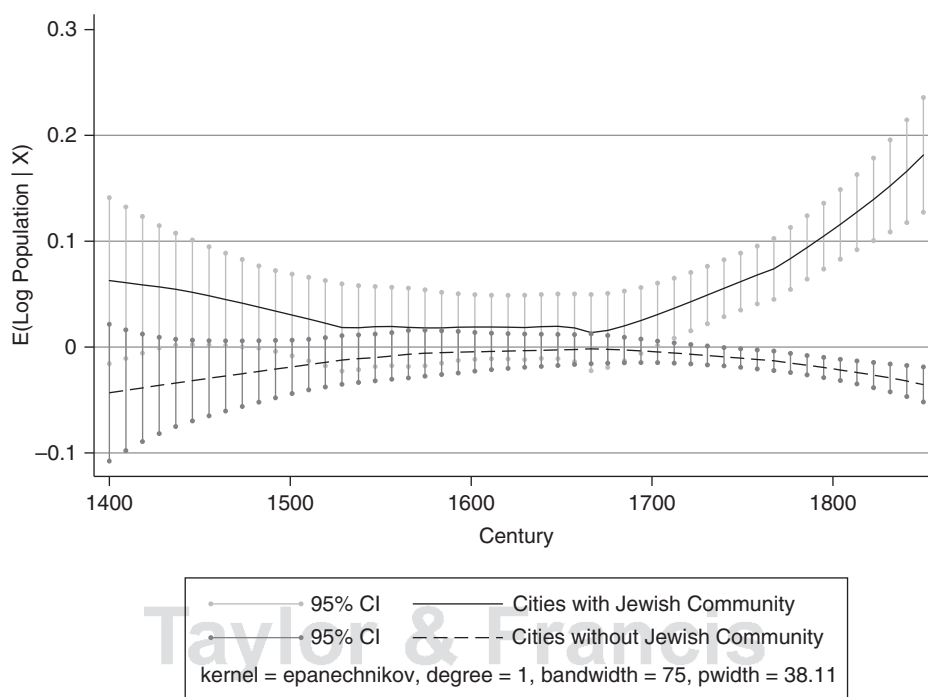


Figure 41.1 The relationship between city distribution growth and the presence of a Jewish community.

Source: Johnson and Koyama (2017).

cities with Jewish communities were more likely to acquire a Jewish community. Johnson and Koyama use this variable of access to the network of Jewish communities to construct two instrumental variables that can generate a source of exogenous variation in Jewish presence. Their instrumental variable estimates suggest that the positive effect of a Jewish community which they found are not spurious but in fact reflect a genuinely positive causal effect of Jewish presence of city growth.

Turning to consider the economic mechanisms that might be responsible for this relationship, Johnson and Koyama considered the role of Jewish human capital and institutions, the level of cultural interactions between Jews and Christians, and the prominent role Jews played in knitting together the commercial economy of Europe in the early modern period. The pattern Johnson and Koyama observed over time was not consistent with a simple human capital story. Jews had higher human capital than their Christian counterparts throughout the Middle Ages, but this did not result in notably faster economic growth. Instead, this analysis suggests that institutional changes after 1600 were responsible for allowing Jews to contribute to the wider economy. In line with this, the authors found that cities that emancipated their Jewish communities benefited disproportionately from the presence of a Jewish community, as did cities with greater market access. This is consistent with the recent focus in economics on the importance of inclusive or open-access institutions.²⁶ Johnson and Koyama also found that cities with greater levels of market integration

benefited more from the presence of a Jewish community, suggesting that market access is another important mechanism that can account for the relationship observed in the data.

Alongside this work on the relationship between the presence of Jewish communities and economic growth in the preindustrial world, there has been interest in the relationship between the economic role played by Jewish communities and antisemitic violence (see Chapters 13 and 14). At the same time, as Jews were subject to antisemitism and hostility from non-Jews throughout history, Jewish history also provides an important forum for the study of interethnic or religious violence. This is part of a more general trend that has seen economic analysis, models, and empirical techniques being applied to study violence, war, and persecution.²⁷

Jewish history is, of course, marked by violence, persecutions, and periodic expulsions. Historians have been influenced by Baron's arguments against the then prevailing lachrymose view of Jewish history, which emphasized the history of diaspora Jews as one of suffering. But these subjects are still deserving of scholarly attention and history. And economic historians have made important contributions to our understanding of how economic factors interacted with a prevailing culture of antisemitism in such a way so as to generate violence against Jews.

Focusing on the expulsion of Jews from medieval England, Veitch (1986) and Barzel (1992) argued that the rise of Italian bankers enabled English monarchs to dispense with the services of Jewish lenders. Drawing on historical accounts developed by Stacey (1997) and Mundill (1998), Koyama (2010) contested this explanation, detailing instead the important role which Jewish moneylending had come to play in the fiscal system of the English monarchy (see Chapter 9). Restrictions on lending money at interest made Jewish moneylending a lucrative source of rents for rulers. However, it also exposed Jewish lenders to resentment on the part of debtors who were unwilling or unable to repay and left them vulnerable to the demands of rapacious rulers. Koyama argues that it was the demise of this system and the rise of parliamentary taxation that led to the expulsion of the Jews from England.

In addition to these large-scale royally orchestrated persecutions, attention has been directed to the numerous local-level expulsions and persecutions that befell Jewish communities. Anderson, Johnson, and Koyama show that supply shocks as measured by colder periods of temperature made Jewish communities more vulnerable to antisemitic violence. They collect data from the *Encyclopedia Judaica* on Jewish persecutions between 1100 and 1800 (depicted in Figure 41.2) and match these to a highly disaggregated dataset of reconstructed temperature data (Figure 41.3). Anderson et al. (2017) find that a decrease of one standard deviation in the temperature increased the probability of persecution by between approximately 50 percent (by 1 and 1.5 percentage points relative to a baseline of 2 percent). This effect was strongest in cities with poor-quality soil and weaker states.

In a parallel vein, Finley and Koyama (2016) and Jedwab, Johnson, and Koyama (2017) focus on the Black Death-era persecutions. The Black Death saw the worst persecutions in medieval European history, as Jews were blamed for the spreading the epidemic and local communities used the disruption and shock of the plague as an opportunity to plunder and expropriate communities that had long been subject to antisemitic hostility (see Chapter 9).²⁸

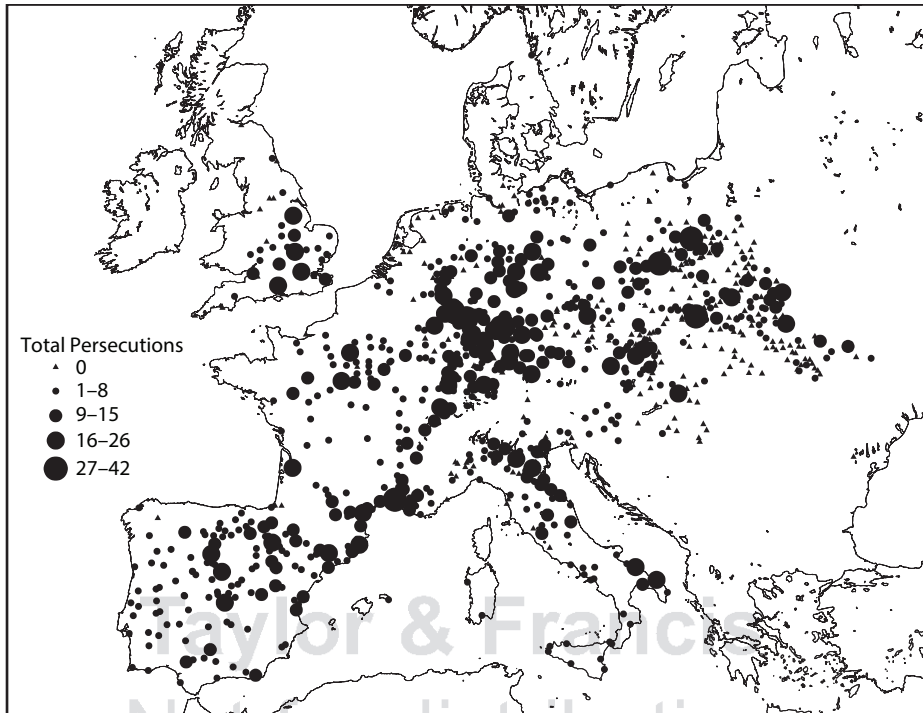


Figure 41.2 Circles represent Jewish communities that experienced at least one persecution.

Source: Anderson et al (2017), based on data collected from the *Encyclopedia Judaica*.

Jedwab et al. (2017) collect data on the intensity of the Black Death and match it to data collected from *Encyclopedia Judaica*. They show that while the Black Death period was associated with an intensification of antisemitic violence, the severity of the plague as measured by city-level estimates of mortality was inversely correlated with the probability of persecution. More severely affected towns were less likely to persecute their Jewish communities.

Jha (2013) argues that a minority group is more likely to enjoy toleration if it provides non-replicable and non-expropriable economic services, whereas minorities who either directly compete with the majority group or provide easily substitutable economic services are more likely to be expropriated. Becker and Pascali (2016) show that in post-Reformation Germany, antisemitic persecutions were more likely in Protestant than in Catholic areas (see Chapters 13 and 14). Building on Jha's theory, they argue that in the former there were individuals who could substitute for the economic role that Jews had previously played. Similarly, Jedwab et al. build on Jha to argue that interethnic economic complementarities played a crucial role in countervailing the desire to scapegoat and blame the Jews for the plague and help to explain why some communities were destroyed while others survived.

The data in Jedwab et al. allows for a Europe-wide study of the impact of the Black Death on Jewish communities. In contrast, Finley and Koyama (2016) focus on the

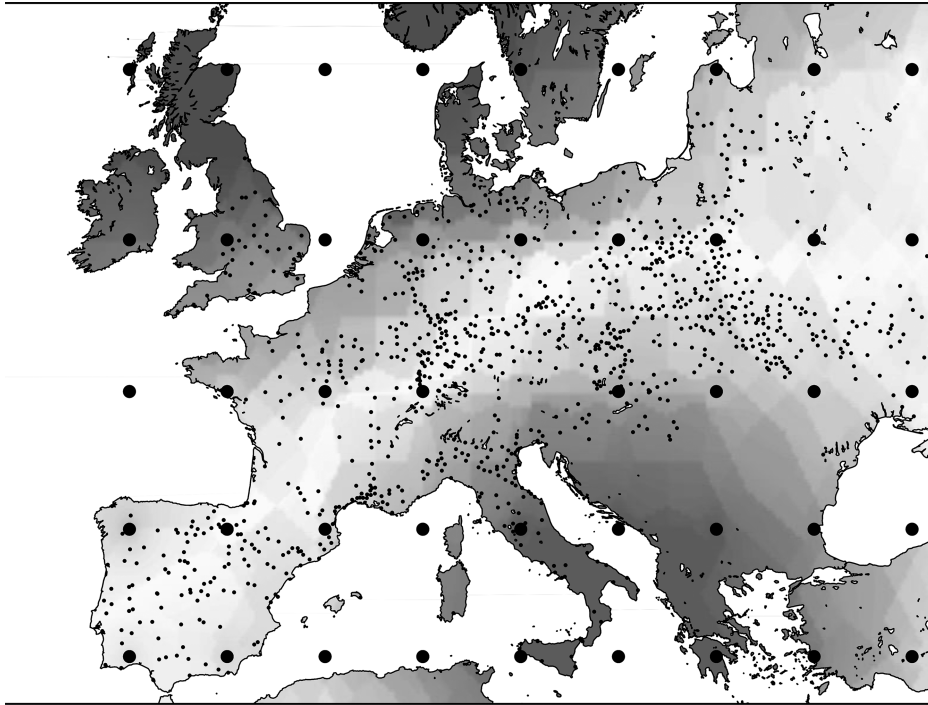


Figure 41.3 The distribution of Jewish communities overlaid with the corresponding heat map of average temperature during the growing season.

Source: Anderson et al (2017).

Holy Roman Empire. Studying the plague's impact on a single polity enables them to focus on the institutional determinants of persecution. They show that the persecution of Jews was more violent in communities governed by bishoprics, archbishoprics, and imperial free cities, while Jews were less vulnerable in territories ruled either by the emperor or by one of the major secular electors. These findings are highly consistent with historical accounts of the fragile status of Jews across medieval Europe.

The role of Jews in Eastern European history

After the persecutions and expulsions of the late medieval and Reformation era, the majority of Jews migrated eastwards into the lands of Poland-Lithuania. There is an extensive historical literature surveying Jewish religious and social life in the Polish-Lithuanian Commonwealth.²⁹ These communities found greater tolerance and Jews came to occupy an important role in the predominantly rural economy. With the destruction of the Polish-Lithuanian Commonwealth, the Jewish communities came under Russian rule. From 1791, these communities were confined to the Pale of Settlement.

Jewish communities were not allowed to settle outside the Pale, but within the Pale they experienced rapid population growth so that by the end of the nineteenth

century almost half of world Jewry resided in the Russian Empire and the Pale of Settlement. Jews in Eastern Europe have often been characterized as an urban elite, as they were in Western Europe during medieval times. In his 2015 article “Pale in Comparison,” Spitzer provides evidence from the 1897 census to indicate that the Jews were in fact fairly evenly located across the country as they had a comparative advantage in rural commerce. Spitzer uses the concept of the Jews as a service minority who were literate and had a comparative advantage in trade. As their roles were restricted in the towns and cities, they had an incentive to move to the countryside, where their skills commanded a high premium (see Chapter 17). Spitzer thus modifies the predictions of the Botticini and Eckstein model discussed previously, to argue that in the context of nineteenth-century Eastern Europe “the comparative advantage of Jews drew them to where their skills were scarce, not only to the cities, but equally, if not more, to the countryside.”³⁰ The pattern of Jewish economic activity in America, where the Jews were concentrated as a metropolitan economic minority, thus differed substantially from their pattern of geographical specialization in Eastern Europe.

The Chmielnicki Uprising of the mid-seventeenth century saw thousands of Jews die in what is now Ukraine.³¹ Jewish communities in Eastern Europe continued to face the risk of persecution into the twentieth century. Grosfeld, Sakalli, and Zhuravskaya (2016) collected information on pogroms in the Russian Empire between 1800 and 1927. The majority of pogroms came in three major waves: 1881–82, 1903–06, and 1917–21 (see Chapter 17). Conducting their analysis at the grid cell level, they find that pogroms were most likely to occur when bad harvests coincided with political unrest. To measure bad harvests they used climate data, finding that hot springtime weather was associated with lower grain yields. The combination of an agro-climatic shock with political unrest increases the probability of a pogrom by 3.8 percentage points. These effects are considerably larger in areas where Jews specialized as moneylenders. They find that an increase of one standard deviation in the share of Jews among moneylenders raised the probability of a pogrom in areas affected by a local economic shock at times of political unrest by 7.3 percentage points.

As the Jewish communities of Eastern Europe suffered greatly during the twentieth century, North America and Israel became the largest Jewish population centers (see Chapter 17). The mass migrations of Jews from Eastern Europe to North America at the end of the nineteenth century and early twentieth century have also come under the microscope of economic historians in recent years. In an important recent study, Spitzer (“Pogroms, Networks, and Migration,” 2015) collected data on 2.33 million Russian immigrants who passed through Ellis Island, of whom more than 40 percent were Jewish. He combines with this new data on the towns from which Jews migrated. This allows him to examine the extent to which migration from the Russian empire to the United States was driven by push or pull factors.

Contrary to the dominant historiography, Spitzer finds that the pogroms of 1881 did not drive migration to the United States as the majority of migrants were not from areas directly affected by the pogroms and post-pogrom patterns of migration reflect pre-1881 trends. In contrast, the pogroms that took place in the first decades of the twentieth century did play more of a role in driving Jews to migrate to the

United States. In general, Spitzer argues that patterns of migration reflect the gradual diffusion of the information about the economic and social possibilities outside the Russian empire. In this respect, they did greatly differ from other instances of chain migration.

The consequences of Jewish emancipation

Jewish emancipation was the result of political developments in Western Europe—largely the reforms of “enlightened despots” such as Joseph II or the product of French invasion (see Chapters 16 and 17).³² As such, emancipation can be thought of as a largely exogenous shock to Europe’s Jewish communities. It opened up new industries and occupations to Jews who had previously been confined to ghettos and hemmed in by numerous restrictions on their economic and social activities.

Emancipation had a dramatic impact on Jewish economic, cultural, and social life. A large historical literature has also arisen around the topic of Jewish emancipation and the economic and social transformations that engulfed the Jews of Western Europe after the French Revolution.³³ Scholars such as Lowenstein (1980, 1981, 1984, 1997) have examined how these shocks affected Jewish religious and cultural life. Others have studied the impact of these changes on the economic status of Jews, particularly in Germany.³⁴ It is a sign of a prospering field that the literature on these topics has grown too large to survey, especially as, over the past three decades, the Jewish historical experience has increasingly been integrated into the broader European historical experience.

Economists have recently turned to Jewish emancipation as a historical laboratory for studying how economic and political changes affect religion and culture. Carvalho and Koyama (2016) develop a formal model to understand why Jewish emancipation gave birth to Reform Judaism in Western Europe but ultra-Orthodox Judaism in Hungary and Eastern Europe. They argue that when emancipation was accompanied by rapid economic growth, as was the case in Germany, there were strong incentives for religious organizations to modernize and liberalize the Jewish religion, and that this explains the transition from tradition Judaism to Reform, Conservative, and Modern Orthodox variants of the Jewish religion. In contrast, where emancipation was delayed and was implemented in a comparatively stagnant economic situation, as was the case in parts of Hungary, then movements toward liberalization also provoked a backlash and prompted the rise of stricter forms of Judaism that seek to insulate their communities from foreign and modern influences.³⁵ This can help to explain why the strictest forms of ultra-Orthodox Judaism arose in Hungary rather than in Western Europe or further east in the Russian empire, where there was no movement towards Jewish emancipation.

Carvalho, Koyama, and Sacks (2017) then turn to examine the impact of emancipation on Jews’ incentives to acquire secular education. They document that emancipation in Germany was accompanied by a surge of investment in education and human capital. Jews there “were seized with a hunger for the new education.”³⁶ Elsewhere in Europe, however, many Jews did not embrace modern secular education (see Chapters 16 and 17). In Hungary and other parts of Eastern Europe, they invested in traditional religious scholarship and shunned secular learning. As Berman

(2000) and others have documented, this desire to invest in religious education and avoid modern, secular education has only strengthened over time among ultra-Orthodox Jews in Israel, America, and the United Kingdom.

The legacy of persecution

There is also an important and growing literature concerning the consequences of antisemitic violence. In an innovative study, Voigtländer and Voth (2012) provide evidence that the antisemitic attitudes evident during the Black Death-era persecutions persisted in Germany until the twentieth century. They consider local variation between those Jewish communities that suffered persecution during the Black Death and those that did not. They find that Black Death persecutions have a strong relationship with antisemitic violence in the 1920s, votes for the Nazi party in the elections running up to 1933, letters denouncing Jews to *Der Stürmer*, and deportations to the death camps. Antisemitic values persisted most strongly in more isolated regions, while they were dissipated in areas better connected to trade and commerce. In a follow-up study, Voigtländer and Voth (2013) found that these attitudes persist even to this day: Germans in towns which killed Jews in 1348–50 were more likely to disapprove of intermarriage.

Building on the work of Voigtländer and Voth (2012), D'Acunto, Prokopczuk, and Weber (2016) explore the financial legacy of Jewish persecutions in Germany. They show that households in German counties where more Jewish persecution occurred in the Black Death period, and where there was more intensive antisemitism in the Nazi period, invest less in stocks, have lower savings in bank deposits, and are less likely to get a mortgage today. Taken together, this research shows how the study of Jewish history has led scholars to pioneer new approaches to study interethnic and religious violence and the causes and consequences of racial and religious prejudices. Grosfeld et al. (2013) show that the Pale of Settlement—where Jews were confined from 1800 to 1917—has left a legacy of a persistent anti-market culture. They employ a regression discontinuity design that compares individuals either side of the historical boundary of the Pale of Settlement. Compared to their neighbors outside of the border of the Pale, current inhabitants of what was the Pale of Settlement are less likely to vote for market liberal parties, less supportive of democracy, and less likely to be engaged in entrepreneurship, but have higher levels of trust. To explain these findings, Grosfeld et al. (2013) suggest that where Jews and non-Jews lived side by side in the Pale, non-Jews developed a bonding trust based on hostility to the market-dominant Jewish minority. This bonding trust resulted in hostility towards outgroups, greater support for communism, and hostility to the market within the Pale today, compared to otherwise identical areas outside the Pale of Settlement.

What about the wholesale destruction of Europe's Jewish communities in the mid-twentieth century? Acemoglu et al. (2011) build on the argument that Jews formed a crucial component of the middle class across Eastern Europe prior to World War II. Areas that were more severely affected by the Holocaust thus had their middle classes decimated. Acemoglu et al. show that the Holocaust had a lasting negative impact on economic development in the post-World War II period through this channel.

Moser et al. (2014) study the impact of Jewish émigrés during the Nazi period on subsequent US innovation. They compare changes in the number of patents in the United States in the research fields of German Jewish émigrés with changes in US patenting by US inventors in fields of other German chemists. Their baseline findings suggest that the arrival of German Jewish émigrés led to a 31 percent increase in innovation after 1933 in the research fields of German Jewish émigrés. Recent work has explored the impact of the Holocaust upon immigrants to the United States.³⁷

Concluding comments

In recent decades, economic history as a field has returned to the questions animating earlier scholars, including Adam Smith and Karl Marx, but also Max Weber, Werner Sombart, and Fernand Braudel: that is, what factors account for the economic rise of Western Europe? Landes (1998) self-consciously, and not entirely successfully, resurrected Weber's supposed answer attributing Western Europe's economic success to Protestant cultural values. Other scholars are more circumspect, but cultural arguments are seen as being of much more importance than was the case 30 years ago.³⁸ An important recent book by Joel Mokyr places culture at the center of the rise of a Republic of Letters in early modern Europe—a development which he argues was crucial for ensuring that the Industrial Revolution led to a transition to sustained and ongoing economic growth.³⁹ McCloskey (2010, 2016) similarly argues that a newfound respect for bourgeois values was responsible for the transformation of first European, then American, and more recently East Asian economies in the period after 1800.

Jewish economic history contains highly relevant insights for thinking through these issues. Jews were prominent as traders, merchants, and bankers throughout European history.⁴⁰ Many Jewish communities in cities such as Amsterdam, Bordeaux, London, Livorno, and Altona epitomized bourgeois values.⁴¹ Unlike previous generations of scholars influenced by Marxian ideas, economic historians recognize that this trade was neither necessarily exploitative nor zero-sum and that middlemen and traders played a crucial and positive role in European society. Nevertheless, despite their positive economic role, Jews were often the target of xenophobia and violence.

Economic historians have increasingly emphasized the role of institutions in providing the preconditions for sustained economic growth. The economic history of the Jews is also important for this topic. Jewish economic history provides an excellent laboratory both for the study of how long-distance trade functioned in an environment where formal market-supporting institutions were absent⁴² and for the study of the long-run effects of market-dominant minorities on economic growth.⁴³ Constitutional constraints on rulers, greater respect for merchants and trade, and greater toleration of minorities emerged together in the eighteenth and nineteenth centuries. European states became less prone to indulge in religious violence or persecutions and more willing to extend more general rights and protections to minority groups. Jews achieved first toleration and then religious freedom and civic equality. Better understanding of this process is an important agenda for future research.⁴⁴

Notes

- 1 See, for example, Ran Abramitzky, “Economics and the Modern Economic Historian,” *The Journal of Economic History* 75:4 (2015): 1240–51.
- 2 See Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014). This is most evident among historians who study the history of capitalism. Unfortunately, the rediscovery of interest in economic history by historians has not been accompanied by as great an appreciation of advances made by economic historians in collecting and systematically analyzing data (see Alan L. Olmstead and Paul W. Rhode, “The ‘New History of Capitalism’ and Slavery,” December 2015. Mimeo; *ibidem*, “Cotton, Slavery, and the New History of Capitalism,” *Explorations in Economic History*, 2018, forthcoming).
- 3 I will not touch on the work of two of the great classical economists of the nineteenth century who were Jewish by origin: David Ricardo and Karl Marx (see Chapters 37 and 40).
- 4 Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (London: Allen and Unwin, 1930). See Gary Abraham, “Max Weber on ‘Jewish Rationalism’ and the Jewish Question,” *International Journal of Politics, Culture, and Society* 1:3 (1988): 358–91. Weber later wrote extensively on the subject of ancient Judaism (Max Weber, *Ancient Judaism* (New York: Free Press, 1967)).
- 5 Werner Sombart, *The Jews and Modern Capitalism*, trans. M. Epstein (New York: Collier Books, 1962; orig., 1911).
- 6 Davis provides a balanced assessment of Sombart’s hypothesis. The English translation of the work by Mordecai Epstein edited and shortened the passages in Sombart’s work, which stressed racial factors (see Natalie Zemon Davis, “Religion and Capitalism Once Again? Jewish Merchant Culture in the Seventeenth Century,” *Representations* 59 (1997): 56–84, here at 59).
- 7 See, among others, Avner Greif, *Institutions and the Path to the Modern Economy* (Cambridge: Cambridge University Press, 2006); Jan de Vries, *The Industrious Revolution* (Cambridge: Cambridge University Press, 2008); and Jan Luiten van Zanden, *The Long Road to the Industrial Revolution: The European Economy in a Global Perspective, 1000–1800* (Leiden: Brill Publishers, 2009).
- 8 See Deirdre N. McCloskey, *Bourgeois Dignity: Why Economics Can’t Explain the Modern World* (Chicago: University of Chicago Press, 2010); Alberto Alesina and Paola Giuliano, “Culture and Institutions,” *Journal of Economic Literature* 53:4 (2015): 898–944; and, Joel Mokyr, *A Culture of Growth: The Origins of the Modern Economy* (Princeton: Princeton University Press, 2016).
- 9 Robert Liberles, *Salo Wittmayer Baron: Architect of Jewish History* (New York: New York University Press, 1995).
- 10 Simon Kuznets, “Economic Structure and Life of the Jews,” in Louis Finkelstein, ed., *The Jews: Their History, Culture, and Religion* (Philadelphia: Jewish Publication Society of America, 1960), 1597–666.
- 11 Arcadius Kahan, *Essays in Jewish Social and Economic History* (Chicago: University of Chicago Press, 1986).
- 12 Barry R. Chiswick, “The Economic Progress of American Jewry: From 18th Century Merchants to 21st Century Professionals,” *IZA Discussion Papers* (2009), 4590; *ibidem*, “Jewish Immigrant Wages in America in 1909: An Analysis of the Dillingham Commission Data,” *Explorations in Economic History* 29:3 (1992): 274–89; *ibidem*, “Jewish Immigrant Skill and Occupational Attainment at the Turn of the Century,” *Explorations in Economic History* 28:1 (1991): 64–86; *ibidem*, “The Occupational Attainment and Earnings of American Jewry, 1890 to 1990,” *Contemporary Jewry* 20:1 (2007): 68–98; and Carmel U. Chiswick, *The Economics of American Judaism* (London: Routledge, 2008).

- 13 Douglass C. North and Robert Paul Thomas, *The Rise of the Western World* (Cambridge: Cambridge University Press, 1973).
- 14 In this they were also stimulated by works such as Eric Jones, *The European Miracle*, 3rd ed. (Cambridge: Cambridge University Press, 2003; orig., 1981); Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (Oxford: Oxford University Press, 1990); David Landes, *The Wealth and Poverty of Nations* (London: Abacus, 1998); Daron Acemoglu and James A. Robinson, *Why Nations Fail* (New York: Crown Business, 2012), as well as by the interests of growth theorists who in recent years have turned to studying economic growth over the very long run (e.g., Oded Galor and David N. Weil, "Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond," *American Economic Review* 90 (2000): 806–28; Gary D. Hansen and Edward C. Prescott, "Malthus to Solow," *American Economic Review* 92:4 (2002): 1205–17; and Oded Galor, *Unified Growth Theory* (Princeton: Princeton University Press, 2011)).
- 15 Avner Greif, "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Trader's Coalition," *American Economic Review* 83:3 (1993): 525–48; *ibidem*, "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies," *Journal of Political Economy* 102:5 (1994): 912–50; *ibidem*, "Institutions and International Trade: Lessons from the Commercial Revolution," *American Economic Review* 82:2 (1992): 128–33; *ibidem*, "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders," *Journal of Economic History* 49:4 (1989): 857–82; *ibidem*, *Institutions and the Path to the Modern Economy* (Cambridge: Cambridge University Press, 2006).
- 16 More recently Goldberg has carried out a detailed analysis of the Geniza documents. See Jessica Goldberg, *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and their Business World* (Cambridge: Cambridge University Press, 2012).
- 17 Greif, "Cultural Beliefs and the Organization of Society."
- 18 See Douglass C. North, *Institutions, Institutional Change, and Economic Performance* (Cambridge: Cambridge University Press, 1990); De Long and Shleifer, "Princes and Merchants"; Avner Greif, Paul Milgrom, and Barry R. Weingast, "Coordination, Commitment, and Enforcement: The Case of the Merchant Guild," *Journal of Political Economy* 102:4 (1994): 745–76. This work has also attracted engagement and criticism from historians.
- 19 This is not to say that all their arguments are convincing in their entirety. Their account of Jewish moneylending in the medieval Europe is heavily influenced by Botticini's work on credit markets in Tuscany (e.g., Maristella Botticini, "A Tale of 'Benevolent' Governments: Private Credit Markets, Public Finance, and the Role of Jewish Lenders in Medieval and Renaissance Italy," *Journal of Economic History* 60 (2000): 164–89) and does not pay sufficient attention to the political economy considerations that led to rulers exploiting Jewish lending as a means of indirect taxation. (See Salo W. Baron, *A Social and Religious History of the Jews, Vol. XII: Economic Catalyst* (New York: Columbia University Press, 1967); Mark Koyama, "The Political Economy of Expulsion: The Regulation of Jewish Moneylending in Medieval England," *Constitutional Political Economy* 21:4 (2010): 374–406).
- 20 Robin R. Mundill, "Lumbard and Son: The Businesses and Debtors of Two Jewish Moneylenders in Late Thirteenth-Century England," *The Jewish Quarterly Review* 82 (1991): 137–70; *ibidem*, "Christian and Jewish Lending Patterns and Financial Dealings During the Twelfth and Thirteenth Centuries," in P. R. Schofield and N. J. Mayhew, eds., *Credit and Debt in Medieval England c. 1180–c.1350* (Oxford: Oxbow Books, 2002), 42–67; *ibidem*, *The King's Jews: Money, Massacre and Exodus in Medieval England* (London: Continuum, 2010).

- 21 Norman Golb, *The Jews in Medieval Normandy* (Cambridge: Cambridge University Press, 1998); Esther Benbassa, *The Jews of France*, trans. M. B. DeBevoise (Princeton: Princeton University Press, 1999); Joseph Shatzmiller, *Shylock Reconsidered: Jews, Moneylending, and Medieval Society* (Berkeley: University of California Press, 1990).
- 22 Renata Segre, *The Jews in Piedmont, Vol. 1* (Jerusalem: The Israel Academy of Sciences and Humanities and Tel Aviv University, 1986); Robert Bonfil, “Aliens Within: The Jews and Antijudaism,” in Thomas A. Brady, Heiko A. Oberman, and James D. Tracy, eds., *Handbook of European History 1400–1600, Late Middle Ages, Renaissance and Reformation, Vol. I: Structures and Assertions* (Leiden: E.J. Brill, 1994), 263–302; Maristella Botticini, “New Evidence on Jews in Tuscany, CA. 1310–1435: The ‘Friends & Family’ Connection Again,” *Zakhor: Rivista di Storia degli Ebrei d’Italia* 1 (1997): 77–93 and “A Tale of ‘Benevolent’ Governments: Private Credit Markets, Public Finance, and the Role of Jewish Lenders in Medieval and Renaissance Italy,” *Journal of Economic History* 60 (2000): 164–89.
- 23 Alfred Haverkamp, *Geschichte der Juden im Mittelalter von der Nordsee bis zu den Sudalpen: kommentiertes Kartenwerk* (Hannover: Hahnsche Buchhandlung, 2002); “Jews in the Medieval German Kingdom.” Akademie der Wissenschaften und der Literatur | Mainz Projekt “Corpus der Quellen zur Geschichte der Juden im spätmittelalterlichen Reich,” trans. Christoph Cluse (2015). The most substantive work is the ongoing *Germania Judaica*.
- 24 Shaul Stampfer, “What Actually Happened to the Jews of Ukraine in 1648?” *Jewish History* 17:2 (2003): 207–27.
- 25 See Joshua D. Angrist and Jörn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist’s Companion* (Princeton: Princeton University Press, 2008); “The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics,” *Journal of Economic Perspectives* 24:2 (2010): 3–30.
- 26 Douglass C. North, John Joseph Wallis, and Barry R. Weingast, *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History* (Cambridge: Cambridge University Press, 2009); Daron Acemoglu and James A. Robinson, *Why Nations Fail* (New York: Crown Business, 2012).
- 27 See, inter alia, Edward L. Glaeser, “The Political Economy of Hatred,” *The Quarterly Journal of Economics* 120:1 (2005): 45–86; Edward Miguel, “Poverty and Witch Killing,” *Review of Economic Studies* 72:4 (2005): 1153–72; Christopher Blattman and Edward Miguel, “Civil War,” *Journal of Economic Literature* 48:1 (2010): 3–57; Saumitra Jha, “Trade, Institutions, and Ethnic Tolerance: Evidence from South Asia,” *American Political Science Review* 107: 4 (2013): 806–32.
- 28 See Mordechai Breuer, “The ‘Black Death’ and Antisemitism,” in Shmuel Almog, ed., *Antisemitism Through the Ages* (Oxford: Pergamum Press, 1988), 139–51; Samuel K. Cohn, “The Black Death and the Burning of Jews,” *Past & Present* 196:1 (2007): 3–36; Nico Voigtländer and Hans-Joachim Voth, “Persecution Perpetuated: The Medieval Origins of Anti-Semitic violence in Nazi Germany,” *Quarterly Journal of Economics* 127:3 (2012): 1–54.
- 29 For example, S. M. Dubnow, *History of the Jews in Russia and Poland, Vol. I*, trans. I. Friedlaender (New York: Ktav Publishing House, 1975); Bernard D. Weinryb, *The Jews of Poland* (Philadelphia: Jewish Publication Society of America, 1972); Gershon D. Hundert, “The Role of the Jews in Commerce in Early Modern Poland-Lithuania,” *The Journal of European Economic History* 16:2 (1987): 245–77; *ibidem*, ed., *Essential Papers on Hasidism* (New York: New York University Press, 1991); *ibidem*, *Jews in Poland-Lithuania in the Eighteenth Century: A Genealogy of Modernity* (Berkeley: University of California Press, 2004).
- 30 Yannay Spitzer, “Pale in Comparison: The Economic Ecology of the Jews as a Rural Service Minority,” April 2015. Mimeo, 11.

- 31 Stampfer, “What Actually Happened to the Jews of Ukraine in 1648?”
- 32 Raphael Patai, *The Jews of Hungary* (Detroit: Wayne State University Press, 1996).
- 33 Jacob Katz, *Out of the Ghetto* (Cambridge, MA: Harvard University Press, 1974); ibidem, *Jewish Emancipation and Self-Emancipation* (Philadelphia: The Jewish Publication Society, 1986); ibidem, ed., *Toward Modernity: The European Jewish Model* (New Brunswick: Transaction Books, 1987); Jay Berkovitz, “The French Revolution and the Jews: Assessing the Cultural Impact,” *AJS Review* 20:1 (1995): 25–86; Pierre Birnbaum and Ira Katznelson, eds. *Paths of Emancipation: Jews, States, and Citizenship* (Princeton: Princeton University Press, 1995).
- 34 For example, Avraham Barkai, “The German Jews at the Start of Industrialisation—Structural change and mobility 1835–1860,” in *Revolution and Evolution in German-Jewish History*, eds. Werner E. Mosse, Arnold Paucker, and Reinhard Rürup (Tübingen: J.C.B Mohr, 1981), 123–51; Monika Richarz, “Emancipation and Continuity: German Jews in the Rural Economy,” in Werner E. Mosse, Arnold Paucker, and Reinhard Rürup, eds., *Revolution and Evolution in German-Jewish History* (Tübingen: J.C.B Mohr, 1981), 95–117.
- 35 See David Ellenson, *Between Tradition and Culture* (Atlanta: Scholars Press, 1994); Michael L. Satlow, *Creating Judaism: History, Tradition, Practice* (Cambridge: Cambridge University Press, 2006).
- 36 Adolf Kober, “Jewish Communities in Germany from the Age of Enlightenment to their Destruction by the Nazis,” *Jewish Social Studies* 9:3 (1947): 195–238, 211–12.
- 37 Matthias Blum and Claudia Rei, “Escaping the Holocaust: Human and Health Capital of Refugees to the US, 1940–42,” Annual Conference 2016 (Augsburg): Demographic Change 145483, Verein für Socialpolitik/German Economic Association 2016.
- 38 See Greif, “Cultural Beliefs and the Organization of Society”; Luigi Guiso, Paola Sapienza, and Luigi Zingales, “Long-Term Persistence,” *Journal of the European Economic Association* 14:6 (2016): 1401–36; Alberto Alesina and Paola Giuliano, “Culture and Institutions,” *Journal of Economic Literature* 53:4 (2015): 898–944; Paola Giuliano and Nathan Nunn, “Understanding Cultural Persistence and Change,” NBER Working Paper No. 23617 (July 2017).
- 39 Mokyr, *A Culture of Growth: The Origins of the Modern Economy*.
- 40 Compared to the number of papers on Jewish economic history published previously, in the past decade or so there has been a flourishing of studies of the economic history of the Jewish people published in leading economics journals. The number of papers published in this field is still small, however. I found six papers in top five economics journals since 1990 that can be classified as contributing to Jewish economic history, but there has been a recent flurry of papers published in the top 20 economics journals in the past five years. Many of these papers are cited in this chapter.
- 41 Francesca Trivellato, *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period* (New Haven: Yale University Press, 2009).
- 42 Greif, *Institutions and the Path to the Modern Economy*.
- 43 As in Noel D. Johnson and Mark Koyama, “Jewish Communities and City Growth in Preindustrial Europe,” *Journal of Development Economics* 127 (2017): 339–54.
- 44 These themes are developed in greater detail in Noel D. Johnson and Mark Koyama, *Persecution & Toleration: The Long Road to Religious Freedom* (Cambridge: Cambridge University Press, 2018).

Bibliography

- Abraham, Gary. “Max Weber on ‘Jewish Rationalism’ and the Jewish Question.” *International Journal of Politics, Culture, and Society* 1:3 (1988): 358–91.

- Abramitzky, Ran. "Economics and the Modern Economic Historian." *The Journal of Economic History* 75:4 (2015): 1240–51.
- Acemoglu, Daron, Tarek A. Hassan, and James A. Robinson. "Social Structure and Development: A Legacy of the Holocaust in Russia." *The Quarterly Journal of Economics* 126:2 (2011): 895–946.
- Acemoglu, Daron and James A. Robinson. *Why Nations Fail*. New York: Crown Business, 2012.
- Alesina, Alberto and Paola Giuliano, "Culture and Institutions." *Journal of Economic Literature* 53:4 (2015): 898–944.
- Anderson, R. Warren, Noel D. Johnson, and Mark Koyama. "Jewish Persecutions and Weather Shocks 1100–1800." *Economic Journal* 127(602) (2017): 924–58.
- Angrist, Joshua D. and Jörn-Steffen Pischke. "The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics." *Journal of Economic Perspectives* 24:2 (2010): 3–30.
- Angrist, Joshua D. and Jörn-Steffen Pischke. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton: Princeton University Press, 2008.
- Barkai, Avraham. "The German Jews at the Start of Industrialisation—Structural change and mobility 1835–1860." In Werner E. Mosse, Arnold Paucker, and Reinhard Rürup, eds., *Revolution and Evolution in German-Jewish History* (Tübingen: J.C.B Mohr, 1981), 123–51.
- Baron, Salo W. *A Social and Religious History of the Jews, Vol. XII: Economic Catalyst*. New York: Columbia University Press, 1967.
- Barzel, Yoram. "Confiscation by the Ruler: The Rise and Fall of Jewish Lending in the Middle Ages." *Journal of Law and Economics* 35 (1992): 1–13.
- Becker, Sascha O. and Luigi Pascali. "Religion, Division of Labor and Conflict: Anti-Semitism in German Regions over 600 Years." Technical Report 288, Centre for Competitive Advantage in the Global Economy, April 2016.
- Beckert, Sven. *Empire of Cotton: A Global History*. New York: Vintage Books, 2014.
- Berenbaum, M. and F. Skolnik, eds. *Encyclopedia Judaica*. 2nd ed. Cambridge: Macmillan Reference, 2007.
- Benbassa, Esther. *The Jews of France*. Trans. M. B. DeBevoise. Princeton: Princeton University Press, 1999.
- Berkovitz, Jay. "The French Revolution and the Jews: Assessing the Cultural Impact." *AJS Review* 20:1 (1995): 25–86.
- Berman, Eli. "Sect, Subsidy, and Sacrifice: An Economist's View of Ultra-Orthodox Jews." *The Quarterly Journal of Economics* 115:3 (2000): 905–53.
- Birnbaum, Pierre and Ira Katznelson, eds. *Paths of Emancipation: Jews, States, and Citizenship*. Princeton: Princeton University Press, 1995.
- Blattman, Christopher and Edward Miguel. "Civil War." *Journal of Economic Literature* 48:1 (2010): 3–57.
- Blum, Matthias and Claudia Rei. "Escaping the Holocaust: Human and Health Capital of Refugees to the US, 1940–42." Annual Conference 2016 (Augsburg): Demographic Change 145483, Verein für Socialpolitik/German Economic Association 2016.
- Bonfil, Robert. "Aliens Within: The Jews and AntiJudaism." In Thomas A. Brady, Heiko A. Oberman, and James D. Tracy, eds., *Handbook of European History 1400–1600, Late Middle Ages, Renaissance and Reformation, Vol. I: Structures and Assertions* (Leiden: E.J. Brill, 1994), 263–302.
- Botticini, Maristella. "A Tale of 'Benevolent' Governments: Private Credit Markets, Public Finance, and the Role of Jewish Lenders in Medieval and Renaissance Italy." *Journal of Economic History* 60 (2000): 164–89.
- Botticini, Maristella. "New Evidence on Jews in Tuscany, CA. 1310–1435: The 'Friends & Family' Connection Again." *Zakhor: Rivista di Storia degli Ebrei d'Italia* 1 (1997): 77–93.

- Botticini, Maristella and Zvi Eckstein. *The Chosen Few: How Education Shaped Jewish History, 70–1492*. Princeton: Princeton University Press, 2012.
- Brenner, Reuven and Nicholas M. Kiefer. “The Economics of the Diaspora: Discrimination and Occupational Structure.” *Economic Development and Cultural Change* 29:3 (1981): 517–34.
- Breuer, Mordechai. “The ‘Black Death’ and Antisemitism.” In Shmuel Almog, ed., *Antisemitism Through the Ages* (Oxford: Pergamum Press, 1988), 139–51.
- Carvalho, Jean-Paul and Mark Koyama. “Jewish Emancipation and Schism: Economic Development and Religious Change.” *Journal of Comparative Economics* 44:3 (2016): 562–84.
- Carvalho, Jean-Paul, Mark Koyama, and Michael Sacks. “Education and Community: Lessons from Jewish Emancipation.” *Public Choice* 171:1 (2017): 119–43.
- Chiswick, Barry R. “The Economic Progress of American Jewry: From 18th Century Merchants to 21st Century Professionals.” IZA Discussion Papers (2009), 4590.
- Chiswick, Barry R., “Jewish Immigrant Skill and Occupational Attainment at the Turn of the Century.” *Explorations in Economic History* 28:1 (1991): 64–86.
- Chiswick, Barry R. “Jewish Immigrant Wages in America in 1909: An Analysis of the Dillingham Commission Data.” *Explorations in Economic History* 29:3 (1992): 274–89.
- Chiswick, Barry R. “The Occupational Attainment and Earnings of American Jewry, 1890 to 1990.” *Contemporary Jewry* 20:1 (2007): 68–98.
- Chiswick, Carmel U. *The Economics of American Judaism*. London: Routledge, 2008.
- Cohn, Samuel K., “The Black Death and the Burning of Jews.” *Past & Present* 196:1 (2007): 3–36.
- D’Acunto, Francesco, Marcel Prokopczuk, and Michael Weber. “Distrust in Finance Lingers: Jewish Persecution and Households’ Investments.” June 2016. Mimeo.
- Davis, Natalie Zemon. “Religion and Capitalism Once Again? Jewish Merchant Culture in the Seventeenth Century.” *Representations* 59 (1997): 56–84.
- de Vries, Jan. *The Industrious Revolution*. Cambridge: Cambridge University Press, 2008.
- Dubnow, S. M. *History of the Jews in Russia and Poland, Vol. I*. Trans. I. Friedlaender. New York: Ktav Publishing House, 1975.
- Ellenson, David. *Between Tradition and Culture*. Atlanta: Scholars Press, 1994.
- Emery, Ricard W. *The Jews of Perpignan in the Thirteenth Century: An Economic Study Based on Notarial Records*. New York: Columbia University Press, 1959.
- Finley, Theresa and Mark Koyama. “Plague, Politics, and Pogroms: The Black Death, Rule of Law, and the persecution of Jews in the Holy Roman Empire.” March 2016. Mimeo.
- Galor, Oded. *Unified Growth Theory*. Princeton: Princeton University Press, 2011.
- Galor, Oded and David N. Weil. “Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond.” *American Economic Review* 90 (2000): 806–28.
- Giuliano, Paula and Nathan Nunn. “Understanding Cultural Persistence and Change.” NBER Working Paper No. 23617 (July 2017).
- Glaeser, Edward L. “The Political Economy of Hatred.” *The Quarterly Journal of Economics* 120:1 (2005): 45–86.
- Golb, Norman. *The Jews in Medieval Normandy*. Cambridge: Cambridge University Press, 1998.
- Goldberg, Jessica. *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and Their Business World*. Cambridge: Cambridge University Press, 2012.
- Greif, Avner. “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Trader’s Coalition.” *American Economic Review* 83:3 (1993): 525–48.
- Greif, Avner. “Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies.” *Journal of Political Economy* 102:5 (1994): 912–50.

- Greif, Avner. "Institutions and International Trade: Lessons from the Commercial Revolution." *American Economic Review* 82:2 (1992): 128–33.
- Greif, Avner. *Institutions and the Path to the Modern Economy*. Cambridge: Cambridge University Press, 2006.
- Greif, Avner. "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders." *Journal of Economic History* 49:4 (1989): 857–82.
- Greif, Avner, Paul Milgrom, and Barry R. Weingast. "Coordination, Commitment, and Enforcement: The Case of the Merchant Guild." *Journal of Political Economy* 102:4 (1994): 745–76.
- Grosfeld, Irena, Alexander Rodnyansky, and Ekaterina Zhuravskaya. "Persistent Anti-Market Culture: A Legacy of the Pale of Settlement after the Holocaust." *American Economic Journal: Economic Policy* 5:3 (2013): 189–226.
- Grosfeld, Irena, Seyhun Orcan Sakalli, and Ekaterina Zhuravskaya. "Middleman Minorities and Ethnic Conflict: Evidence from Pogroms." 2016. Mimeo.
- Guiot, Joel and Christopher Corona. "Growing Season Temperature in Europe and Climate Forcings over the Past 1400 Years." *Plos One* 5:4 (2010): 1–15.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales. "Long-Term Persistence." *Journal of the European Economic Association* 14:6 (2016): 1401–36.
- Hansen, Gary D. and Edward C. Prescott. "Malthus to Solow." *American Economic Review* 92:4 (2002): 1205–17.
- Haverkamp, Alfred. *Geschichte der Juden im Mittelalter von der Nordsee bis zu den Sudalpen: kommentiertes Kartenwerk*. Hannover: Hahnsche Buchhandlung, 2002.
- Haverkamp, Alfred, "Jews in the Medieval German Kingdom." Akademie der Wissenschaften und der Literatur | Mainz Projekt "Corpus der Quellen zur Geschichte der Juden im spätmittelalterlichen Reich." Trans. Christoph Cluse. 2015.
- Hundert, Gershon D. "The Role of the Jews in Commerce in Early Modern Poland-Lithuania." *The Journal of European Economic History* 16:2 (1987): 245–77.
- Hundert, Gershon David. *Jews in Poland-Lithuania in the Eighteenth Century: A Genealogy of Modernity*. Berkeley: University of California Press, 2004.
- Hundert, Gershon David, ed. *Essential Papers on Hasidism*. New York: New York University Press, 1991.
- Jedwab, Remi, Noel D. Johnson, and Mark Koyama. "Economic Shocks, Inter-Ethnic Complementarities and the Persecution of Minorities: Evidence from the Black Death." November 2017. Mimeo.
- Jha, Saumitra. "Trade, Institutions, and Ethnic Tolerance: Evidence from South Asia." *American Political Science Review* 107:4 (2013): 806–32.
- Johnson, Noel D. and Mark Koyama. "Jewish Communities and City Growth in Preindustrial Europe." *Journal of Development Economics* 127 (2017): 339–54.
- Jones, Eric. *The European Miracle*. 3rd edition. Cambridge: Cambridge University Press, 2003, orig., 1981.
- Kahan, Arcadius. *Essays in Jewish Social and Economic History*. Chicago: University of Chicago Press, 1986.
- Katz, Jacob. *Jewish Emancipation and Self-Emancipation*. Philadelphia: The Jewish Publication Society, 1986.
- Katz, Jacob. *Out of the Ghetto*. Cambridge, MA: Harvard University Press, 1974.
- Katz, Jacob, ed. *Toward Modernity: The European Jewish Model*. New Brunswick: Transaction Books, 1987.
- Kober, Adolf. "Jewish Communities in Germany from the Age of Enlightenment to Their Destruction by the Nazis." *Jewish Social Studies* 9:3 (1947): 195–238.
- Koyama, Mark. "The Political Economy of Expulsion: The Regulation of Jewish Money-lending in Medieval England." *Constitutional Political Economy* 21:4 (2010): 374–406.

- Kuznets, Simon. "Economic Structure and Life of the Jews." In Louis Finkelstein, ed., *The Jews: Their History, Culture, and Religion* (Philadelphia: Jewish Publication Society of America, 1960), 1597–666.
- Landes, David. *The Wealth and Poverty of Nations*. London: Abacus, 1998.
- Liberles, Robert. *Salo Wittmayer Baron: Architect of Jewish History*. New York: New York University Press, 1995.
- Lipman, V. D. *The Jews of Medieval Norwich*. London: Jewish Historical Society of England, 1967.
- Long, J. Bradford De and Andrei Shleifer. "Princes and Merchants: European City Growth before the Industrial Revolution." *Journal of Law & Economics* 36:2 (1993): 671–702.
- Lowenstein, Steven M. "The Rural Community and the Urbanization of German Jewry." *Central European History* 13:3 (1980): 218–36.
- Lowenstein, Steven M. "The 1840s and the Creation of the German-Jewish Religious Reform Movement." In Werner E. Mosse, Arnold Paucker, and Reinhard Rürup, eds., *Revolution and Evolution in German-Jewish History* (Tübingen: J.C.B. Mohr, 1981), 255–98.
- Lowenstein, Steven M. "Governmental Jewish Policies in Early Nineteenth-Century Germany and Russia: A Comparison." *Jewish Social Studies* 46:3/4 (1984): 303–20.
- Lowenstein, Steven M. "The Shifting Boundary between Eastern and Western Jewry." *Jewish Social Studies* 4:1 (1997): 60–78.
- McCloskey, Deirdre N. *Bourgeois Equality: How Ideas, Not Capital or Institutions, Enriched the World*. Chicago: Chicago University Press, 2016.
- McCloskey, Deirdre N. *Bourgeois Dignity: Why Economics Can't Explain the Modern World*. Chicago: University of Chicago Press, 2010.
- Miguel, Edward. "Poverty and Witch Killing." *Review of Economic Studies* 72:4 (2005): 1153–72.
- Mokyr, Joel. *A Culture of Growth: The Origins of the Modern Economy*. Princeton: Princeton University Press, 2016.
- Mokyr, Joel. *The Lever of Riches: Technological Creativity and Economic Progress*. Oxford: Oxford University Press, 1990.
- Moser, Petra, Alessandra Voena, and Fabian Waldinger. "German Jewish Émigrés and US Invention." *The American Economic Review* 104:10 (2014): 3222–55.
- Mundill, Robin R. "Christian and Jewish Lending Patterns and Financial Dealings During the Twelfth and Thirteenth Centuries." In P. R. Schofield and N. J. Mayhew, eds., *Credit and Debt in Medieval England c. 1180–c. 1350* (Oxford: Oxbow Books, 2002), 42–67.
- Mundill, Robin R. *England's Jewish Solution: Experiment and Expulsion, 1262–1290*. Cambridge: Cambridge University Press, 1998.
- Mundill, Robin R. *The King's Jews: Money, Massacre and Exodus in Medieval England*. London: Continuum, 2010.
- Mundill, Robin R. "Lumbard and Son: The Businesses and Debtors of Two Jewish Money-lenders in Late Thirteenth-Century England." *The Jewish Quarterly Review* 82 (1991): 137–70.
- Noel D. Johnson and Mark Koyama. *Persecution & Toleration: The Long Road to Religious Freedom*. Cambridge: Cambridge University Press, 2018.
- North, Douglass C. *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press, 1990.
- North, Douglass C. and Robert Paul Thomas. *The Rise of the Western World*. Cambridge: Cambridge University Press, 1973.
- North, Douglass C., John Joseph Wallis, and Barry R. Weingast. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge: Cambridge University Press, 2009.

- Olmstead, Alan L. and Paul W. Rhode. "Cotton, Slavery, and the New History of Capitalism." October 2016. Mimeo.
- Olmstead, Alan L. and Paul W. Rhode. "The 'New History of Capitalism' and Slavery." December 2015. Mimeo.
- Pascali, Luigi. "Banks and Development: Jewish Communities in the Italian Renaissance and Current Economic Performance." *Review of Economics and Statistics* 98:1 (2016): 140–58.
- Patai, Raphael. *The Jews of Hungary*. Detroit: Wayne State University Press, 1996.
- Richarz, Monika. "Emancipation and Continuity: German Jews in the Rural Economy." In Werner E. Mosse, Arnold Paucker, and Reinhard Rürup, eds., *Revolution and Evolution in German-Jewish History* (Tübingen: J.C.B Mohr, 1981), 95–117.
- Rostow, Walt W. *The Stages of Economic Growth: A Non-Communist Manifesto*. Cambridge: Cambridge University Press, 1960.
- Satlow, Michael L. *Creating Judaism: History, Tradition, Practice*. Cambridge: Cambridge University Press, 2006.
- Segre, Renata. *The Jews in Piedmont, Vol. 1*. Jerusalem: The Israel Academy of Sciences and Humanities and Tel Aviv University, 1986.
- Shatzmiller, Joseph. *Shylock Reconsidered: Jews, Moneylending, and Medieval Society*. Berkeley: University of California Press, 1990.
- Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Oxford: Clarendon Press, 1776.
- Sombart, Werner. *The Jews and Modern Capitalism*. Trans. M. Epstein. New York: Collier Books, 1962; orig., 1911.
- Spitzer, Yannay. "Pale in Comparison: The Economic Ecology of the Jews as a Rural Service Minority." April 2015. Mimeo.
- Spitzer, Yannay. "Pogroms, Networks, and Migration: The Jewish Migration from the Russian Empire to the United States 1881–1914." May 2015. Mimeo.
- Stacey, Robert C. "Parliamentary Negotiation and the Expulsion of the Jews from England." *Thirteenth Century England VI* (1997): 77–103.
- Stampfer, Shaul. "What Actually Happened to the Jews of Ukraine in 1648?" *Jewish History* 17:2 (2003): 207–27.
- Trivellato, Francesca. *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period*. New Haven: Yale University Press, 2009.
- van Zanden, Jan Luiten. *The Long Road to the Industrial Revolution: The European Economy in a Global Perspective, 1000–1800*. Leiden: Brill Publishers, 2009.
- Veitch, John M. "Repudiations and Confiscations by the Medieval State." *Journal of Economic History* 46 (1986): 31–36.
- Voigtländer, Nico and Hans-Joachim Voth. "Married to Intolerance: Attitudes toward Inter-marriage in Germany, 1900–2006." *American Economic Review* 103:3 (2013): 79–85.
- Voigtländer, Nico and Hans-Joachim Voth. "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany." *Quarterly Journal of Economics* 127:3 (2012): 1–54.
- Weber, Max. *The Protestant Ethic and the Spirit of Capitalism*. London: Allen and Unwin, 1930.
- Weber, Max. *Ancient Judaism*. New York: Free Press, 1967.
- Weinryb, Bernard D. *The Jews of Poland*. Philadelphia: Jewish Publication Society of America, 1972.