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Surveys and Speculations

Persecution, pogroms and genocide: A conceptual framework and new evidence[☆]Sascha O. Becker^{a,1,*}, Sharun Mukand^{b,2}, Ivan Yotzov^{b,2}^a Monash Business School, Dandenong Road 900, East Caulfield, VIC 3145, Australia^b Department of Economics, Gibbet Hill Road, Coventry CV4 7AL, UK

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ABSTRACT

Persecution, pogroms, and genocide have plagued humanity for centuries, costing millions of lives and haunting survivors. Economists and economic historians have recently made new contributions to the understanding of these phenomena. We provide a novel conceptual framework which highlights the inter-relationship between the intensity of persecution and migration patterns across dozens of historical episodes. Using this framework as a lens, we survey the growing literature on the causes and consequences of persecution, pogroms, and genocide. Finally, we discuss gaps in the literature and take several tentative steps towards explaining the differences in survival rates of European Jews in the 20th century.

1. Introduction

Persecutions, pogroms, and genocide have played an important role in shaping the ethnic, cultural, and political geography of much of today's world. Examples include the Huguenot persecution in France, the Armenian genocide in Turkey, Jewish pogroms in Russia, and, of course, the Holocaust. Each of these episodes has been associated with significant loss of life and long-lasting consequences for survivors. Unfortunately, instances of persecution, ethnic cleansing, and genocide are not confined to distant history: events in Darfur, Bosnia, Rwanda, or Myanmar are some of the vivid recent instances. Although global societies have been witnessing persecutions and genocide throughout human history, our understanding of their causes and consequences is still incomplete. In this paper, we take stock of the existing work in this area, identify gaps in our understanding, and delineate important areas for future work.

The nature of persecution and the response to it has varied widely across time and space. In some cases, the persecution was intense and resulted in mass emigration, pogroms, and even genocide, while in other instances it resulted in milder forms of discrimination and ghettoization. To capture this wide variety of outcomes in a parsimonious way, we develop a simple conceptual framework that examines the political economy of persecution. We use this template to examine the conditions under which a political incumbent

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may respond to a negative shock, by persecuting (or not) a group of citizens on the basis of their identity. The political incumbent's response and its intensity are mediated not just by existing cultural factors and institutional constraints, but also by the availability of "exit" options of different kinds. In doing so, our framework emphasizes the link between the nature of persecution and the observed patterns of emigration and/or ghettoization of the affected community. We use this framework to discuss the existing literature. We also use the same framework to highlight aspects of the Jewish experience with Nazi persecution in Europe in the 1930s.

The systematic study of historical episodes of persecution and genocide is important for several reasons. First, the historical study of persecution has lessons for *refugee policies* today. Past episodes highlight how persecution is often twinned with emigration – be it the 17th century migration of the Puritans from England and Huguenots from France, or the Jewish emigration from Europe in the 19th and early 20th centuries. The Jewish experience with migration (and immigration restrictions) in the 1930s had existential consequences. Many Jewish people were refused entry to other countries, or unable to obtain refugee status, and as a result died in the Holocaust (Laffer, 2011 and Buggle et al., 2020). This episode has important lessons to teach us about forced migration in the 20th century (Becker and Ferrara, 2019). For instance, the Universal Declaration of Human Rights in 1948, the creation of the office of the United Nations High Commission on Refugees (UNHCR) in 1950, and the adoption of liberal values and institutions in much of the West are a direct consequence of the atrocities of the 1930s and 1940s and the refusal of many countries to open their borders to refugees. Today, emigration again plays a crucial role as a safety valve that may mitigate the intensity of a potential genocide – be it Rohingya refugees in Myanmar or the emigration of Syrian refugees to Germany.¹

Second, a systematic examination of persecution and genocide can shed new light on some cases of *extreme populism*, which at times have resulted in persecution of minorities and even genocide. Indeed, Guriev and Papaioannou (2022) argue that there is much to be learned from the Nazi experience about the conditions under which extreme forms of populism can thrive – in countries as diverse as Greece (e.g. Golden Dawn and Syriza), Hungary (Jobbik/Fidesz), Poland (the Law and Justice Party), Turkey (Erdogan's AKP), or indeed India (Modi and the BJP). For instance, there were substantial differences in the fate of the Jews across countries with different institutions and cultures.² Examining differences in the nature of Jewish persecutions across Europe in the Nazi era would shed light on the relative importance of socio-cultural norms of tolerance, institutional protections for minorities, as well as economic exigencies (such as a financial crisis) in fostering or preventing the large-scale erosion of economic, social, and political rights. Despite the potential to learn from the past, economists have rarely ventured into studying these issues: even the Holocaust has received little attention by economists compared to other disciplines.³ In part, political sensitivities and even outright denial of persecution in some countries, such as Turkey, Cambodia, or China, hampered the study of genocides and data collection. Even for more recent instances of genocide, data are often just not available, precluding the statistical analyses by empirical economists and economic historians. In view of data scarcities in many cases, more could and should be done to learn from episodes for which data are more readily available. In Section 3, the "Speculations" section of this Surveys and Speculations piece, we will take some first steps at highlighting patterns in the data that warrant further exploration.

Third, many historical cases of persecution and genocide left a cultural and institutional imprint that continues to play an important role in the political and cultural arena. Political leaders often selectively invoke a history of persecution ("*history as propaganda*") in order to stoke up the nationalist and far-right sentiment to further contemporaneous political and policy goals – as can be seen in the case of Russia's invasion of Ukraine or Victor Orbán's autocratic constitutional changes in Hungary.⁴ This selective intergenerational transmission of memory is often propagated through changes in education curricula and can leave an imprint on policies that affect immigration, assimilation, and identity. Economic historians, and historians of all stripes, are uniquely placed to pinpoint such issues and to warn policymakers and the general public about the dangers arising from any attempt to mis-use history for political purposes.

This paper focuses on instances of persecution where the erosion of economic, political, and civil rights of a group was the result of *deliberate* targeting by the state.⁵ Thus, we do not focus on prejudice and discrimination that is often a by-product of passive neglect of the state or the lack of state capacity. Accordingly, we develop a minimal framework where not only persecution of varying degrees may occur, but also where the persecuted group has a range of options, including the possibility of "exit" in one form or another. A distinctive aspect of our framework is that it throws light on the inter-relationship between the intensity of persecution and the pattern of migration. We illustrate how the possibility of emigration may, under some conditions, prove to be a safety valve that prevents the most extreme outcomes, such as genocide. Moreover, this has potentially important implications for the nature of immigration policy and global conventions that govern the movement of refugees from persecuted groups.

¹ In doing so, our study also relates to the literature on refugee migration and asylum policy (e.g. Devictor et al. 2021; Hatton 2020, 2021). Hatton (2021), in particular, emphasizes the importance of supra-national coordination for dealing with the increased refugee flows in the 2000s and preventing a 'race to the bottom' in asylum policy. This contrasts with the international experience of the 1930s, when many countries outside Europe significantly tightened border restrictions (see Section 3).

² For instance, 90% of Danish Jews survived WWII despite Nazi occupation (Goldberger, 1987).

³ On JSTOR, 6,494 publications carry the word 'Holocaust' in the title. Only 72 are classified as Economics.

⁴ This is similar in spirit to Ochsner and Roesel (2021) whose work on "Mobilizing History" describes how Austria's far-right Freedom Party (FPÖ) appealed to anti-Muslim sentiment and succeeded more in municipalities around Vienna that were besieged by Turkish troops in 1529 and 1683. Alyukov (2022) argues that the Russian regime is able to maintain public support of the ongoing invasion of Ukraine using a combination of media control and narratives which "portray Russian as a 'besieged fortress' surrounded by enemies" (p.764). For a broader discussion of modern-day 'informational autocrats', see Guriev and Treisman (2019).

⁵ This includes the case where citizens give the state the legitimacy to persecute, but also those where citizens actively participate in state-led persecution. The mirror image is grassroot resistance against persecution discussed below.

In the next section, the survey section of our paper, we provide a review of the literature on persecution, pogroms, and genocide, using our simple conceptual framework as a lens. In the third section, the “speculations” section, we highlight the link between persecution and migration by focusing on the fate of the Jews in 20th century Europe. By bringing some basic facts to the table, we would like to spur a more systematic study in economics of this harrowing episode in global history. In the final section, we conclude with what we think are important areas for future research, pointing out many unanswered questions that economists, and in particular economic historians, should be well-placed to explore.

2. Persecution, pogroms and genocide: a review of the literature

Our initial review of the literature on the causes and consequences of persecution highlighted considerable heterogeneity in the intensity of persecution as well as its long-term consequences. An important factor that determined this was the ability of the persecuted minority to escape through emigration. Accordingly, we start this section by presenting a conceptual framework that helps shed light on the intensity of persecution and its relationship to the possibility of escape through emigration. We then turn to a review of the literature.

2.1. Culture, institutions and the political economy of persecution: a framework

Why do some political leaders and their governments engage in the systematic persecution of a group of their own citizens? In this paper, we define persecution quite broadly as unequal treatment by the state of an individual (or group) due to him/her sharing an identity marker with a group, be it their tribe, religion, ethnicity, language, political affiliation, or indeed any other ascriptive marker. The previous literature has not directly addressed the issue of the political underpinnings of the degree of persecution and erosion of civil rights. Notable exceptions include [Besley and Persson \(2011\)](#), [Mukand and Rodrik \(2020\)](#), and [Johnson and Koyama \(2019\)](#).

In what follows, we adapt the framework developed by [Mukand and Rodrik \(2020\)](#) to shed light on the political economy of persecution.⁶ This framework examines the incentives facing a political incumbent to persecute citizens based on their group identity. A sudden worsening of economic conditions may make it politically attractive for the political incumbent to discriminate against a group in the allocation of group-specific public goods (see also [Padró-i-Miquel, 2007](#)). In exchange for political support, the political leader redistributes resources towards public goods that are preferred by one (possibly identity) group at the expense of the other. Persecution of one group goes hand in hand with rewarding the other.

The degree of persecution against a group can range from mild discrimination and restrictions on civil, economic, and political rights, all the way to systematic pogroms and mass killing. What accounts for heterogeneity in the intensity of this persecution? Our framework emphasizes that the key factor that determines the nature of the government's response to negative shocks (of any kind) is the anticipated impact it has on the existing political equilibrium. Cultural-institutional factors shape the political incentives of the political actors in a country and determine whether the government accommodates diversity or anticipates benefits from polarization. If there are pre-existing identity cleavages in society (e.g. a history of anti-Semitism, pre-existing caste or racial cleavages) then opportunistic political actors may find it easy to get political support to make targeted redistributive transfers in favor of one identity group and at the expense of the other – especially if there do not exist robust institutional checks and balances. For example, such redistributive transfers at the expense of Catalonia plagued much governance in Franco's Spain. Similarly, a history of anti-Semitism made Jewish businesses in Nazi Germany vulnerable to expropriation. Not surprisingly, such redistributive transfers are perceived as discriminatory and tantamount to persecution by discriminated groups.

A politically vulnerable incumbent may find it essential to make *large* transfers to remain in power – especially difficult during an economic recession. What determines the magnitude of such transfers? First, the government's state capacity in targeting and extracting resources from groups that are being *discriminated* against. Second, whether there are adequate institutional and constitutional protections for vulnerable groups. These institutional protections can limit the extent of discrimination in resource allocation that can take place – as is the case in democracies as diverse as modern-day Spain, the United States, and India. In non-democracies, such institutional protections are less common. Of course, if a negative economic shock is sufficiently severe, any transfer may not be sufficient to stave off political unrest. In this case, political actors may also find it politically expedient to target minorities and blame them for the prevailing situation ([Glaeser, 2005](#)). Not surprisingly, most instances of persecution are associated with instances of political instability and economic and social distress – due to economic shocks and political fragmentation ([Doerr et al. 2022](#), [Finley and Koyama 2018](#), [Grosfeld et al., 2020](#)) or pandemics ([Jedwab et al., 2019](#)).

We should emphasize that this redistribution of payoffs across identity groups does not have to be economic, but can be directly on the (more intangible) identity dimension itself. For instance, the government can make selective redistributive transfers on the identity dimension – by conferring honor, status, and official recognition to some identity groups and not others (see also [Johnson and](#)

⁶ Our framework, while derived from [Mukand and Rodrik \(2020\)](#), also has some overlap with the “conditional toleration” framework presented in [Johnson and Koyama \(2019\)](#), whose focus is on religious persecution and toleration. We thank a referee for pointing out the similarity between the two frameworks. The key idea of their framework is that, in history, freedom of religion was not an individual right, but accorded to groups. “Conditional toleration worked by compartmentalizing religious communities into their own separate legal and often physical spheres.” (Johnson and Koyama, p.2). “In contrast to the conditional toleration of the premodern period, modern liberal states are committed to toleration as part of a wider commitment to individual freedom. We call this form of toleration “religious liberty.”” (Johnson and Koyama, p.9). Their framework is particularly applicable to the European experience where the challenge of religious freedom was key. However, discussion of “exit” plays a lesser role in their case.

Koyama, 2019). Once again, such identity-based transfers are easier to take place in certain cultural contexts. A history of Hindu-Muslim conflict makes it much easier for Hindu nationalist politicians to pass legislation at the expense of Muslims in India (see Nielsen and Nilsen, 2021 on the Citizen Amendment Act). When governments privilege some groups over others in recognizing their language, religion, or ethnicity it often takes place at the expense of other ethnic and religious groups. This violation of civil rights takes place not just in autocracies but also in electoral democracies. For instance, in Malaysia, the majority of indigenous *Bumiputera* Malays have political and economic rights that they benefit from at the expense of the Chinese and other ethnic communities (Ravallion, 2020). Similarly, some version of ‘blood and soil’ nationalism (see Kiernan, 2007) is present in almost all of the electoral democracies in South Asia, a phenomenon that reached its apogee in Nazi Germany. Nevertheless, established democracies have better institutional protections that may limit the extent of persecution. On the one hand, this is because democracies allow for political turnover, which reduces the prospect of sustained persecution of a group. On the other hand, it is harder to establish permanent majorities in robust democracies – today’s minority group may end up being part of a political coalition tomorrow where they too enjoy some modicum of power. Furthermore, democratic institutions have the benefit of free and combative media that can play an essential role in restricting the power of propaganda.

2.1.1. Exit and the intensity of persecution

Whether persecution results in pogroms and genocide depends not only on the government and the majority population, but also on the response of the persecuted community. Throughout history, persecution that resulted in the suspension of rights (be it civil, economic, or political) has resulted in the persecuted community responding in a variety of ways that can be broadly classified as “exit” (see Hirschman, 1970 for a broader discussion). Such “exit” can be of three kinds – emigration, internal segregation, and assimilation. We describe each in turn.

First, the persecuted group may respond through emigration (external “exit”). Indeed, this is what the Protestant Huguenots did when they fled from Catholic persecution in 16th century France by emigrating to Protestant countries in Europe (see Hornung, 2014). Other prominent examples include the case of emigration of the Dalai Lama and other Tibetans from China in the 1950s as well as the (more recent) case of Rohingya Muslims who fled to Bangladesh in response to persecution by the Burmese government (see Burgess, 2012). Second, the persecuted community may choose to “exit” the broader society, through ‘keeping its head down’ and cutting off social and economic ties with the broader society (“internal segregation”). Of course, such an internal “exit” is potentially costly to the group, but has the advantage of encouraging self-sufficiency, as well as providing a safe cultural space, and the hope of greater safety in numbers. Such social and geographic segregation may result in ghettoization and make the affected group even more vulnerable to prejudicial stereotyping and discrimination (see Cutler and Glaeser, 1997). Alternatively, any such “exit” could also give rise to a pattern of internal migration that results in the community’s regional segregation. Indeed, we see such a pattern with most Kurds living in the Eastern Anatolia region of Turkey, the Hazara residing in Central Afghanistan, and Fulani herders in the Ivory Coast. Third, in response to economic discrimination and political persecution, members of a community can also “exit” through assimilation (e.g. Hertz, 2007). Such assimilation may involve the adoption of new customs, dress and rituals as well as the majority group’s language. An extreme example of such assimilation occurs when in the face of severe persecution, individuals belonging to a religious minority find it prudent to convert, as has occurred with Jewish minorities in Europe (see e.g. Carlebach, 2001 and Yovel, 2009) or Christians in the Ottoman Empire and parts of the Middle East (see e.g. Morris and Ze’Evi, 2021). Saleh and Tirole (2021) develop a conceptual framework as well as provide evidence that demonstrates how economic persecution (in the form of a tax on an individual’s religious identity) of Coptic Christians in Egypt by the early Arab Caliphate from the 7th century onward, resulted in conversion to Islam.

The persecuted group may also respond in a very different way. It may choose to not “exit”, but instead retain its identity and directly engage in the political process by exercising its “voice” – either through public protest, armed rebellion, private lobbying or the strategic formation of political coalitions. Of course, the way in which the persecuted group chooses to exercise its “voice” depends on the social and institutional constraints that limit the intensity of government persecution – for example, whether the country is a liberal or electoral democracy or the nature of the non-democratic institutions. Different manifestations of “voice” include the Civil Rights Movement in the US, the protests and insurgency in Indian Kashmir, as well as the strategic political alliance between the White minority and the Zulus in post-apartheid South Africa. More broadly, the response of the persecuted minority (i.e. the nature of “exit” or “voice” exercised by the group), depends on the prevailing political equilibrium within the country, the economic and legal barriers to international migration, and the ease of assimilation. Indeed, a key implication of our framework is that the pattern of observed persecution cannot be understood independent of the menu of options (i.e. form of “exit”) available to the persecuted group.

We illustrate a *subset* of the various possibilities in a particularly parsimonious way in Table 1 that captures a payoff matrix. We restrict this to a two-by-two payoff matrix, where the two columns capture the intensity of persecution in a binary form – either persecution is relatively more intense or relatively less so. For simplicity, the rows capture, also in a binary way, whether “exit” is relatively easier to undertake or much more difficult. This gives rise to four possibilities that can capture a rich variety of scenarios.⁷ In addition, this table also incorporates scenarios where “exit” takes place through internal migration that may result in either regional

⁷ We should emphasize that many of the episodes that are briefly mentioned in the payoff matrix are difficult to neatly classify into one or the other box. This is not just because of the overall paucity of scholarship in the case of many of these episodes. It is also because in the case of many of these episodes it is difficult to sharply delineate boundaries. Compounding this challenge is that many of these incidents of persecution evolve over time in response to shifts in the domestic political equilibrium as well as outside options for mobility. As a result, a country may find itself in two or more boxes at different times.

Table 1

Persecution and escape: a conceptual framework.

	Persecution (High Intensity)	Persecution (Lower Intensity)
External exit feasible (No restrictions on emigration and/or immigration, low cost of economic mobility)	A. Emigration: Escape through emigration, population displacement across borders. High Survival. <ul style="list-style-type: none"> Huguenot persecution in 17th Century France Jewish persecution in Nazi Germany 1933-39 South Asians in Uganda (Idi Amin) Zoroastrians under the Sunni Samanids in 10th C Iran Anabaptists flee Phillip II of Spain to Germany, England in 1566 Bahais in Islamic Republic of Iran 1979 onwards 	C.(i) Emigration: Some refugees, asylum and temporary migration. Heterogeneity in emigration. Prejudice and discrimination. Sporadic and isolated pogroms. High survival. <ul style="list-style-type: none"> Jewish persecution in 19th C Russia, Germany Jewish emigration during the inter-war period in Poland High-skilled Coptic Christians from Egypt in 20th C Emigration of liberals and/or high-skilled from Hungary, Russia and Turkey in 21st C (ii) Internal Segregation <ul style="list-style-type: none"> Catholics and Protestants in Northern Ireland
External exit difficult (Restrictions on emigration and/or immigration, high cost of economic mobility)	B.(i) Systematic pogroms that may result in Genocide. <ul style="list-style-type: none"> Rwanda in 1994 1939-1945 Nazi Germany and Occupied Europe Pol Pot in Cambodia Armenian Genocide and Ottoman Empire during 1915-17. Croatian Ustasha persecution of Serbs in WW 2. Darfur in Sudan (Masalit ethnic minority persecuted) (ii) Internal segregation (regional): <ul style="list-style-type: none"> Refugees in West Darfur in Sudan. Kurds in North Kurdistan in Turkey. 	D.(i) Internal segregation: <ul style="list-style-type: none"> African American migration from the American South to the North. Ethnic Chinese in Indonesia and Malaysia. Ahmadiyyas in Rabwah region of Pakistan Bantustans in apartheid era South Africa Rhodesia (1965 land apportionment) Muslim minority in India & Hindu/Christian minorities in Pakistan. Indigenous populations in Australia and North America during early 20th century. (ii) Assimilation. <ul style="list-style-type: none"> Coptic Christians in Egypt Christians in the Ottoman Empire

segregation and/or ghettoization as described above as well as the prospect of assimilation. **Box A** captures the possibility that a group may face fairly intense persecution, but its effects may be mitigated by the fact that external exit is feasible for a substantial fraction of the population. Indeed, in many of these instances, the *aim* of the high degree of persecution is to drive the persecuted group out of the country – so restrictions on emigration are likely non-existent. This includes the case of Protestant Huguenots fleeing Catholic persecution in 17th century France. Similarly, the 1972 expulsion of Asians from Idi Amin's Uganda resulted in large-scale emigration to the United Kingdom. Perhaps, the most prominent example is the persecution of Jews in Germany during the inter-war period, especially during the first phase of the Nazi regime (i.e. 1933-39). Of course, this scenario includes many other instances such as the more recent case of the persecution of Tamils in Sri Lanka or Cuban political refugees into the US – but in each of these cases, the level of *immigration* restrictions in destination countries has been much more severe. In general, the possibility of exit resulted in much higher survival rates for the persecuted group than would have been feasible otherwise.⁸

On the other hand, **Box B** describes the case when external exit is especially difficult, either due emigration or immigration restrictions, geographical barriers, or the intensity and speed of the persecution (e.g. Rwanda in 1994). Under these conditions, persecution can even result in genocide, which is defined as the systematic attempt to kill a whole group on the basis of their ethnicity, religion, or some other identity marker. The canonical case for the latter is the persecution of Jews in Nazi Germany and territories under Nazi occupation during the second phase of the Nazi regime, during the period 1939-45.

In other instances, poverty and ignorance may constrain the mobility of the persecuted and they may end up segregating internally. For instance, ethnic Darfuri refugees congregated in camps in some areas of West Darfur (see [Alix-Garcia et al, 2011](#)). Of course, when the persecution is especially intense, a fraction of the population may still be able to flee – even if it means extreme hardship in overcoming the substantial barriers to exit. For instance, despite the genocide and legal barriers to immigration, a fraction of Tutsis managed to escape from Rwanda into neighboring Tanzania ([Maystadt and Verwimp, 2014](#)) and also the DRC and Burundi.

When persecution is of lower intensity and exit remains possible, we classify an episode in **Box C**. The persecuted group (often a religious or ethnic minority) reacts to the discrimination in a variety of ways. Some “exit” by emigrating from the country, despite the high cultural and economic costs of such emigration. This was the case with Jews in Eastern Europe and Russia who responded to

⁸ In other contexts, the persecuted may not have time to consider where to go. What matters to them is they can flee the country. Some flee and die in their journey to a new country. Some manage to arrive in a new country, are welcomed, but face persecution once again when the receiving population grows weary of refugees. A recent example is that of Rohingya refugees from Myanmar to Malaysia, who were initially welcomed, but many later were persecuted or even deported from Malaysia despite the fact that the majority of Malaysians are Muslim as are the Rohingya. Still, without an option to exit, survival chances may be even slimmer.

sporadic pogroms during the late 19th century by emigrating elsewhere in Europe as well as the United States (Spitzer, 2021). Some of the emigration of Polish Jews before 1939 to Palestine, South America, and to the extent possible, North America, can also be classified here. In contrast, others “exit” from the mainstream society through internal segregation that may result in either regional segregation or ghettoization. Such geographic separation between the Nationalists and Unionists is seen in Northern Ireland.

However, when exit becomes much more difficult, the response to low-intensity persecution is varied and is captured by **Box D**. In some countries this resulted in internal migration towards more tolerant regions,⁹ while in others it may have resulted in the persecuted group becoming socially (and economically) isolated and congregating in ghettos. It also covers the case of reservations where indigenous populations were ghettoized (see Becker (2022) for references to the treatment of indigenous populations). In this case, there is widespread discrimination that only occasionally descends into scattered instances of lynchings and pogroms. Given the widespread use of immigration restrictions in today’s world, this scenario encompasses a wide variety of cases of contemporary illiberalism, such as the persecution of liberals in Erdogan’s Turkey, the Muslim minority in parts of India (see Jha (2013, 2018)), and the discrimination and segregation during the apartheid in South Africa that resulted in Bantustans and ghettoized townships such as Soweto. If low-intensity persecution persists for long enough, some individuals might find ways to emigrate. For instance, Coptic Christians have gradually emigrated to the West from Egypt over the course of the past half-century.¹⁰ Assimilation, for instance via religious conversion, is another option. In the Middle Ages, some Coptic Christians in Egypt converted to Islam (see Saleh and Tirole 2021). Conversion of Christians also occurred in the Ottoman Empire.

2.2. Causes of persecution

A rich empirical literature in economics and economic history, and the social sciences more broadly, studies factors that influence persecution. Persecution can take a variety of forms that we briefly described in the previous section and can even result in mass killings and genocide.

Our framework delineated in the previous section suggested that governments have more of a political incentive to engage in persecution during times of political and economic upheaval. Of course, while the shocks are often a catalyst for persecution, they often take place in a social and cultural context where prejudice may be much more deep-rooted – such as anti-Semitism that has persisted in some regions over several centuries. While our conceptual framework allows for these long-term social and cultural underpinnings of prejudice and persecution, the focus is on more short-run triggers – be it due to weather shocks, food shocks, pandemics, conflict, or an economic recession. Indeed, the modest empirical literature that exists also emphasizes these proximate factors (such as natural disasters or economic shocks) within the broader, socio-cultural context that increase the incentives for majorities in some societies to persecute a minority.

Consider, for instance, the literature that studies the persecution of Jews over the past several centuries, including the Holocaust. Much of this literature focuses on the impact of economic crises as triggers for persecution. For example, in examining the institutional determinants of persecution, Finley and Koyama (2018) argue that Jews were especially vulnerable to persecution during times of economic crises, due to the competition for the rents generated by Jewish moneylending. These effects were exacerbated by political fragmentation. Jedwab et al. (2019) associate Black Death pogroms against Jews with economic motives. Using known mortality rates at the city level, they show that, while negative shocks increase the likelihood that minorities are persecuted at severe shock levels, the persecution probability decreases if there are economic complementarities between majority and minority groups, thus making the effects of shocks on persecutions overall ambiguous. Going beyond the Black Death pogroms, Anderson et al. (2017) look at the role of weather shocks and state capacity as drivers of pogroms in European cities between 1100 and 1800. These factors are also echoed in work by Grosfeld et al. (2020) on anti-Jewish pogroms in the context of the Russian empire. They empirically demonstrate how a deterioration in local economic conditions and contemporaneous political turmoil had a role in triggering anti-Jewish pogroms. Naturally, given the severity of the Holocaust, the literature has analyzed the rise of the Nazis and the persecution of Jews in the Nazi era. Satyanath et al. (2017) highlight the dark side of social capital. Cities with a higher association density, equivalent to denser social networks, were associated with faster entry into the Nazi Party, which in turn predicts electoral success. Others have highlighted an important role of government-controlled media: Pro-Nazi radio broadcasts, following Hitler’s appointment as chancellor in 1933, helped the Nazis gain votes in the last competitive election in March 1933, and enroll further members in areas with access to radio (Adena et al. 2015). After the Nazis came to power, radio propaganda incited anti-Semitic acts and denunciations of Jews to authorities by ordinary citizens.

Similarly, most work on persecution in other contexts is concerned with short-run factors. André and Platteau (1998) show that rising competition for land in Rwanda leads to increased social tension and violence. Verpoorten (2012) shows that this “Malthusian pressure on land” (proxied by population density) predicts the intensity of the Rwandan genocide. McDoom (2013) studies the role

⁹ There is, obviously, a vast and active literature on slavery, lynchings and massacres (e.g. Albright et al. 2021), and more generally discrimination against Black Americans and the Great Migration. Recent work in economics has found that the Great Migration increased residential segregation (Boustan, 2010) and lowered the economic and social mobility of African Americans in the long run (Derenoncourt, 2022). At the same time, the Great Migration increased support for civil rights not only in the Black electorate but was also shared by segments of the white population (Calderon et al., 2022). Interestingly, in the *economic history* literature, there seems to be little work (e.g. Allen, 2015) on cross-border migration of Black Americans: the so-called “underground railroad”, which helped slaves escape the U.S. South, also helped fugitive slaves escape to Canada (Tyler, 1972) and Mexico (e.g. Cornell 2013; Baumgartner 2020). The foundation of the West African country of Liberia in 1824, which was founded by free people of color from the United States (Shick, 1980), has also received little attention in the economic history literature.

¹⁰ For emigration of Christians in response to discrimination and low-intensity persecution across the Middle East, see Williams (2016).

of individual agency versus social interaction in participation in genocide. Participation (or not) is influenced by what neighbors and family members think, say, and do. The social dimension is also highlighted by [Brehm \(2017\)](#). She proxies higher community cohesion and social control by a) higher rates of marriage, b) higher rates of formal employment, c) fewer young men, d) more interethnic marriage, and/or e) low mobility, and shows that indicators of low community cohesion and social control are associated with comparatively more violence.¹¹ The role of government-controlled media has also been studied in the Rwandan context. [Yanagizawa-Drott \(2014\)](#) estimates the impact of a popular radio station that encouraged violence against the Tutsi minority population on the participation of Hutus in the Rwandan genocide and shows that radio was an important driver in inciting hatred and violence.¹² Studying the interaction of political/military elites and civilians, [Rogall \(2021\)](#) shows that civilians are drawn into the genocide if more armed-group members operate in the local area. Further evidence on group dynamics comes from [Bonnier et al. \(2020\)](#) who analyze a Rwandan community program that required citizens to participate in community work and political meetings every Saturday in the years before the 1994 genocide. These meetings helped local elites spread propaganda and bring people together.¹³ This finding seems similar in spirit to the dark side of social capital paper by [Satyanath et al. \(2017\)](#) in the German context.

Also in the Rwandan context, there is work focusing on efforts to slow down or stop the genocide. [Fox and Brehm \(2018\)](#) show that rescue efforts (of the persecuted Tutsi minority) by Hutus that opposed the genocide were the result of a combination of biographical availability (such as a job or children), socialization (internalized norms resulting from upbringing, and life experiences), and situational contexts (specific spatial and temporal factors affording an individual the chance to act).

In contrast to the focus on short-term and medium-term factors, there is a smaller literature that is concerned with the long-run determinants of anti-Semitism. [Voigtländer and Voth \(2012a\)](#) trace the roots of anti-Semitism in 20th century Germany to anti-Semitic pogroms during the Black Death period in the middle of the 14th century. The persistence over several centuries suggests a deeply rooted anti-Semitic culture in some places because many cities with Jewish citizens during the 20th century did not have Jewish communities over extended periods after the extinction of Jewish life in the wake of the Black Death pogroms. Not contesting cultural explanations, but complementing them with an economic explanation, [Becker and Pascali \(2019\)](#) use the Protestant Reformation in 1517 as a watershed moment for Jewish life in Germany. In pre-Reformation Germany, Jews occupied a niche in moneylending, because Catholic teaching did not permit Christians to lend at interest to each other. However, the advent of Protestantism introduced competition in moneylending and other high-skill occupations for Jews, leading to a geographic shift in anti-Semitism towards Protestant areas, which persists over time. As a result, even at the end of the 19th century, Jews are more likely to be engaged in banking in Catholic areas. Consistent with this, [Spenskuch and Tillmann \(2018\)](#) show that Protestantism is by far the single most important predictor of Nazi voting. Finally, [Heldring \(2020\)](#) shows that Jewish deportations after 1933 were much higher in (formerly) Prussian municipalities of Germany. He argues that the historically high bureaucratization of Prussian areas was a key reason for their effectiveness in implementing anti-Jewish policies.

There is little research on factors facilitating persecution of Jews in countries *occupied* by the Nazis, with [Tammes \(2019\)](#) being an exception. He shows that deportation risks for Jews were higher in Dutch municipalities with more collaborating policemen, that possessed a stronger segregation mentality (measured by the degree of religiously homogeneous marriages among non-Jews), and in places with less employment in agriculture. In line with the pattern found in Germany, a higher percentage of Catholics reduced the deportation chance of Jews.

There is relatively little work on the *long-run determinants* of persecution and genocide outside the context of the persecution of Jews. [Heldring \(2021\)](#) shows that the intensity of violence in Rwanda's recent past can be traced back to the initial establishment of its *pre-colonial* state. Areas with a longer history of a centralized state are more easily activated by the Rwandan government, for good or bad, as these areas have a more deeply rooted culture of obedience to authority. [Blouin \(2022\)](#) demonstrates how the 'divide and rule' policies of the Belgians over the 40-year period 1922-62 helped exacerbate the Hutu-Tutsi divide in the African Great Lakes region (modern-day Rwanda and Burundi).

Several papers have taken an international perspective to identify predictors of persecution that vary across countries. The focus at the cross-country level is on macro factors, such as GDP per capita, political regime, trade openness, and internal conflicts over the past two centuries (see [Easterly et al., 2006](#)).¹⁴ This literature is dominated by those working on political economy at the intersection of economics and political science. This literature suggests that mass killings are more likely at intermediate levels of country-level income, countries with large natural resource rents, polarization, and further suggest that the probability of mass killings is non-monotonic in income. At the same time, a high degree of democracy is associated with fewer mass killings (see [Harff \(2003\)](#), [Goldsmith et al., \(2013\)](#), and [Esteban et al. \(2015\)](#)).

¹¹ Complementing this work, [Verwimp \(2005, 2006\)](#) studies the *individual* characteristics of perpetrators in the Rwandan genocide, as well as the means of killings via the use of machetes (more common in individual attacks) or firearms (mass killings).

¹² The role of mass media in conflicts has also been analyzed by [Durante and Zhuravskaya \(2018\)](#). They show that Israeli attacks on Palestinians are more likely to occur when US media is focused on unrelated, non-conflict topics.

¹³ The role of government "framing" is the focus of work by [Hagan and Raymond-Richmond \(2008\)](#). The Sudanese government used a crisis framing to justify its efforts to dehumanize black Africans in the genocide in Darfur.

¹⁴ They deliberately avoid the term genocide, but still follow [Charny's \(1999, p.7\)](#) definition of genocide to select their sample of mass killings: "Genocide ...is the mass killing of substantial numbers of human beings, when not in the course of military action against the military forces of an avowed enemy, under conditions of the essential defenselessness and helplessness of the victims."

2.3. Consequences of genocide and persecution

2.3.1. Economic consequences

The high human cost of persecution and genocide usually leads to lasting economic losses. Direct economic losses result from the expulsion of high-skilled individuals and the destruction of physical capital. In the long-run, damage to human capital, social capital, institution quality, and the population structure can leave lasting scars. Nevertheless, positive short-term effects of conflict on the economy and *per capita* outcomes are also possible. The literature has found evidence of both positive and negative effects, which we summarize in this section.

Several papers have demonstrated the economic impacts of the Holocaust. [Acemoglu et al. \(2011\)](#) proxy Holocaust intensity in Russia by the pre-war Jewish population and whether a city was occupied. Using a difference-in-differences estimation, they show that higher intensity of the Holocaust leads to lower city growth and GDP per capita more than 50 years later. The authors highlight the decline of the middle class and the negative impact on human capital formation as key mechanisms explaining their findings. These effects are not only present in the long run. In a recent paper, [Huber et al. \(2021\)](#) show that Nazi persecution of Jewish individuals had immediate economic effects on firm performance. Using a dataset of senior management positions in firms listed on the Berlin stock exchange in the 1930s, they find that the dismissal of Jewish managers after 1933 had significant negative effects on stock prices, dividends, and returns on assets in affected firms. This paper speaks to the wider literature, which has assessed the multidimensional effects of dismissals of high-skilled individuals. For example, [Moser et al. \(2014\)](#) highlight the *positive* effects of dismissals of German-Jewish scientists on *receiving* countries of emigrants. Using patent data, the authors show that chemical innovations in the US increased substantially in the research fields of German Jewish emigres after 1933. By shifting the stock of human capital overseas, the persecution of Jewish people helped boost the US into a scientific powerhouse in the post-WWII period. But not all high-skilled Europeans received the same welcome in the US. [Moser and San \(2020\)](#) study the US quota acts of the 1920s which targeted “undesirable” nationalities in Eastern and Southern Europe (ESE). While primarily aimed at reducing low-skilled immigration from these countries, the quota acts also closed the door to high-skilled individuals, many of whom, such as Jews, were trying to flee from persecution. Closing the door to the latter, the quotas damaged US science and invention well into the 1960s. Tragically, the closed doors cost many lives (see [Buggle et al., 2020](#)). At the same time, among ESE-born immigrant scientists who escaped, many went to Palestine and helped build major universities and research centers that are centers of innovation in Israel today.

The economic consequences of the Rwandan genocide have also received substantial attention in the literature. [Hodler \(2019\)](#) uses a synthetic control methodology to compare the economic performance of Rwanda to similar sub-Saharan African countries. He finds that GDP (per capita) decreased by 58% (31%) in 1994 relative to the counterfactual. This was followed by a slow recovery lasting over 15 years. This result corroborates earlier work by [Lopez and Wodon \(2005\)](#) and [Serneels and Verpoorten \(2015\)](#), who show similar results on GDP per capita and household consumption, respectively.¹⁵

The studies on the economic consequences of genocide and ethnic conflict have not been limited to Nazi Germany and Rwanda. [Mercier et al. \(2020\)](#) examine the effects of the civil war in Burundi on poverty rates using a household-level panel dataset. They find a higher likelihood of poverty for households in locations with war-related casualties, and a lower likelihood of remaining out of poverty over time. Turning to Asia, China’s Anti-Rightist Campaign (ARC) of 1957–58 had lasting GDP losses as late as 2000 ([Zeng and Eisenman, 2018](#)). The ARC was a systematic purge of intellectuals and teachers which affected more than 500,000 people. [Toews and Vézina \(2022\)](#) study the forced resettlement of ‘enemies of the people’, often elite and well-educated individuals, to labor camps by the Soviet Union. Firms in areas receiving more ‘enemies of the people’ have higher wages and profits per employee in 2018. The authors argue that intergenerational human capital transmission is an important channel in explaining their results.

At the same time, results supporting the Malthusian hypothesis have also been found. [Chaney and Hornbeck \(2016\)](#) analyze the expulsions of Moriscos (Muslims converted to Catholicism) in 1609 by the Kingdom of Valencia. This event was a large population shock, as the kingdom lost 1/3 of its population. In turn, Chaney and Hornbeck find persistently higher *per capita* output in areas left by Moriscos, with differences lasting over 150 years. The authors claim this divergence is likely a cause of institutional and cultural differences between the Moriscos and natives who remained in the kingdom.

2.3.2. Political/social consequences

A growing literature has shown that genocides and episodes of mass persecution have lasting consequences on political and social attitudes. These effects are not limited to the targeted groups, but almost always influence the whole of society. In this section, we review the key findings from this field.

One group of studies considers the effects of genocide on political participation and voting behavior. By disrupting the level of human/social capital, the level of trust, and the societal composition of different regions, the political behavior of individuals can be significantly altered. [Akbulut-Yuksel et al. \(2020\)](#) study the political participation of individuals who were children or young adults during the Jewish persecutions in Nazi Germany. Using regional variation in the 1933 Jewish population and variation across cohorts, the authors show that people in ‘impressionable ages’ during the 1930s exhibited lower levels of political engagement nearly 50 years later. [Acemoglu et al. \(2011\)](#) and [Grosfeld et al. \(2013\)](#) both find similar effects of the Holocaust on political outcomes in the Soviet Union. [Acemoglu et al. \(2011\)](#) show that regions more heavily impacted by Jewish persecutions showed stronger support for

¹⁵ In contrast to these studies, [Rogall and Yanagizawa-Drott \(2014\)](#) find evidence of positive effects of genocide violence on the short-run *per capita* performance in Rwanda and interpret their results as evidence of Malthusian dynamics in the post-genocide period.

the USSR in the 1990s. Grosfeld et al. (2013) find stronger anti-market and socialist attitudes persisting in regions of former Jewish settlements. The authors use the Pale of Settlement – a region of the Russian Empire where Jewish people were allowed to reside – in a discontinuity design to estimate the effects on voting behavior. Additional work includes Charnysh and Finkel (2017), who examine proximity to concentration camps and voting behavior.¹⁶ Thus, we learn that the dramatic effects of genocide still cast a long shadow on the political attitudes in affected regions throughout Europe.

Another group of studies examines the consequences of genocide on social attitudes and familial relations. Voigtländer and Voth (2013) find that rates of marriage between Jewish people and gentiles in Nazi Germany predict intermarriage attitudes in the 21st century. Voigtländer and Voth (2015) show that Germans who grew up under the Nazi regime are much more anti-Semitic than those born before or after that period. La Mattina (2017) and Rogall and Zárate-Barrera (2020) both examine the effects of the Rwandan genocide on domestic violence and female decision-making in the household. In her paper, Giulia La Mattina presents evidence that in couples who married after the genocide, women faced higher rates of domestic violence and a lower final say in household decisions. In contrast, Rogall and Zárate-Barrera (2020) use a different identification strategy to reach a contradictory conclusion. The authors argue that violence by external militia groups – which targeted predominantly adult males – left power vacuums in villages and resulted in stronger female empowerment. However, local violence, which was indiscriminate with respect to gender, had no lasting effects on domestic violence and female decision-making power. In sum, the evidence on female empowerment of genocide is mixed and likely depends on specific circumstances, even within conflicts.

Finally, several papers consider the legacy of persecution and genocide on levels of trust in society. Nunn and Wantchékon (2011) study the long-term effects of the African slave trade on levels of trust in the 2000s. By controlling for confounding factors and using an instrumental variable estimation strategy, the authors show that ethnic groups who suffered more from the slave trade have lower levels of trust in their communities and governments. This persistence is explained by changing the cultural norms of affected groups. Nikolova et al. (2022) analyze the lasting consequences of forced labor camps (gulags) in the former Soviet Union on current levels of trust. They find lower levels of trust in 2016 for individuals living close to a former camp and attribute this to the intergenerational transmission of norms. On the other hand, Blouin and Mukand (2019) show that not only are inter-ethnic trust and attitudes malleable, but so is ethnic identity, even in the aftermath of a genocide. Exposure to radio propaganda aimed at nation-building in Rwanda successfully reduced the salience of ethnicity and increased the levels of trust after the 1994 genocide.

2.3.3. Human capital consequences

Episodes of mass persecution and genocide have left an indelible mark on the human capital of societies. Numerous studies have shown that exposure to conflict is distinctly related to lower educational outcomes. Potential mechanisms for the observed effects include the dismissals of teachers and professors, destruction of schools, financial difficulties forcing children out of education, and orphanhood. As educational attainment is a well-established determinant of a nation's economic prosperity (Barro, 2001), the impact of persecution can have long-term consequences for affected countries.

The forced dismissal of teachers, professors, and academics is one of the key mechanisms through which conflict can reduce educational attainment. There is no clearer example of this than Nazi Germany. In 1933, shortly after coming to power, the government passed the “Law for Restoration of the Professional Civil Service”, which dismissed Jewish persons working as professors, teachers, judges, or related positions. Around 15% of highly skilled individuals were removed from their positions (Akbulut-Yuksel and Yuksel, 2015). Waldinger (2010) uses the dismissal of professors to study the effects of university quality on PhD student outcomes and long-term career success. Using the dismissal of Jewish mathematics professors as an exogenous source of variation in university quality, he shows that the loss of top-notch Jewish professors had strong negative effects on PhD students in Germany, both in the short-term and long-term. Similarly, Akbulut-Yuksel and Yuksel (2015) examine the consequences of Jewish teacher dismissals on the educational attainment of school-aged children. They show that in regions with larger Jewish populations, being school-aged during 1933 is associated with fewer years of schooling completed, and a lower likelihood of finishing school. Such mass dismissals were not an episode unique to 1930s Nazi Germany. Zeng and Eisenman (2018) study the persecution of intellectuals in China during the Anti-Rightist Campaign of 1957-58, during which more than half a million educated people were targeted and repressed. Using regional data on the intensity of this campaign, they show negative effects on educational attainment lasting into the 21st century.

Ethnic conflicts and genocide can have negative effects on schooling even without the overt dismissal of teachers and academics. Akresh and de Walque (2008) study the effects of the 1994 Rwandan genocide on primary school completion rates. Young children (6-15 years old) who lived during the genocide are shown to have 0.5 fewer completed years of schooling. Swee (2015) provides a similar analysis in the context of the 1992-95 civil war in Bosnia and Herzegovina. Using regional variation in conflict intensity and variation across birth cohorts, Swee (2015) shows that the violence had strong negative effects on the likelihood of completing secondary education. Overall, the consistent negative effects on human capital accumulation across different conflicts and using different methodologies highlight how damaging such conflicts are for societies as a whole.

2.3.4. Consequences for fertility/early-age development

The effects of exposure to ethnic persecution and genocide on fertility, child mortality, and early-age development have been studied in many historical contexts. Methodologically, studies in this literature typically use survey data from post-conflict periods to compare fertility rates and related outcomes for different measures of exposure to violence. Much like human capital formation,

¹⁶ In the context of the 1975-79 Cambodian genocide under the Khmer Rouge, Iwanowsky and Madestam (2019) show that communities experiencing higher violence displayed higher political competition and support for pluralism, as well as more reserved interactions within the community.

disruptions to the fertility rates and the health of young individuals can lead to lasting disruptions in the development path and economic prosperity of countries.

Several studies analyze the long-term consequences of the 1994 Rwandan genocide on fertility and child mortality. Ciani and Giannelli (2013) estimate a survival model to determine the effects of the genocide on child and infant mortality. Their results suggest a higher incidence of mortality for children who experienced the conflict, even if only *in utero*. Kraehnert et al. (2019) find that experiencing the death of a child during the genocide decreases the duration for having another child in the following five years, a finding suggestive of a child replacement effect. Finally, Rogall and Yanagizawa-Drott (2014) find that women exposed to genocide (instrumented by radio coverage) experience higher fertility in the subsequent years. Overall, by affecting fertility patterns and mortality rates of children, the evidence from these studies suggests the Rwandan genocide influenced society over multiple generations.

The effects of persecution and genocide on fertility and early-age development have also been analyzed in the Cambodian case. De Walque (2006) studies the lasting effects of the Khmer Rouge period in Cambodia (1975-79) on fertility rates and finds that, while fertility was low during the Khmer Rouge, it increased significantly in the aftermath of the persecutions.

2.3.5. Human displacement/emigration

As highlighted in our conceptual framework, during episodes of severe persecution and genocide, emigration offers the possibility for an escape to many. Nevertheless, the *decision* to emigrate depends on multiple considerations, including local conditions, immigration restrictions, conditions in receiving countries, and the presence of community/professional networks. Economists have analyzed the importance of these determinants of the *decision* to emigrate during episodes of violent conflict.¹⁷ Patterns of Jewish immigration in the late 19th and early 20th centuries have received a significant amount of attention, perhaps due to data availability as well as due to the historical waves of persecution this group has faced. In this section, we summarize some of the most influential studies in this strand of the literature.

Boustan (2007) and Spitzer (2021) both analyze Jewish immigration from the Russian Empire to the US from the late 19th century until the outbreak of WWI. This was a period of mass migration to the US, with around 1.5 million Russian Jews making the journey overseas. This period was also characterized by episodes of anti-Jewish violence and pogroms across Russia. Boustan (2007) uses aggregate data on migration flows to evaluate their determinants, and in particular, whether pogrom years significantly influenced the decision to leave Russia. She finds that (i) economic conditions in the US, (ii) the size of the Jewish population in the US, and (iii) pogrom years all have explanatory power in determining out-migration. Spitzer (2021) analyses the same period using individual-level data on millions of Russian passengers to the US as well as data on the specific location of pogroms during the 1881-1914 period. He finds strong evidence that networks were instrumental in facilitating emigration, and these networks diffused throughout Russia during this period. In addition, Spitzer shows that the first wave of pogroms (1881-82) did not have a significant effect on migration, whereas the second wave (1903-06) did. Thus, he argues that migration networks were not established during the early episodes of violence, therefore Jewish people could not escape despite the threats they faced. In sum, both of these studies show that emigration was a difficult process even in extreme situations and highlight the importance of ties to the receiving country in facilitating this journey.

After World War I, persecution against Jewish people rapidly spread throughout Europe, in particular after the rise of the Nazis. In this context, Buggle et al. (2020) study the role of community networks in the emigration decisions of German Jews. The authors use individual-level data for 300,000 German Jews to assess how networks were responsible for (i) communicating the threat of persecution and (ii) facilitating emigration abroad. They find evidence for both of these mechanisms, complementing the work of Spitzer (2021), and confirming the importance of the Jewish community during this period. In related work, Becker et al. (2021) study this period by considering the universe of German academics with Jewish heritage. They show that academic networks were particularly important in facilitating emigration. Having ties to a professor who emigrated early after the dismissals (an ‘early émigré’) significantly increased the likelihood of emigration to the same destination. In doing so, Becker et al. (2021) complement the work of Buggle et al. (2020) by showing the importance of *academic* networks in the emigration of high-skilled individuals, for whom family and community networks do not seem to matter at all.¹⁸

3. Persecution, genocide, and displacement: insights from 20th century Jewish history

In this section, we will document the murder, escape, and survival of Europe’s largest minority at the beginning of the 20th century. A better understanding of the fate of the Jewish people in Nazi Germany and other European countries sheds important light on the conditions under which extremist populism may thrive, as well as the factors that catalyze or prevent genocide across

¹⁷ Note that our survey is concerned with the situation where those being persecuted have some agency in the decision to emigrate. This is different from the case of wholesale expulsion, such as in the wake of WW II when European borders were redrawn. In the case of wholesale expulsion, the focus is on the consequences of forced migration on either sending populations, or on receiving populations, or on the forced migrants themselves. But to the extent that expulsions are wholesale there is not a really a choice to migrate or not, as in the cases discussed in this section.

¹⁸ Additional research in this literature includes Blum and Rei (2018), who use passenger data to show evidence of positive selection in Jewish refugees who emigrated to the US between 1940 and 1942. Likewise, recent work by Abramitzky et al. (2022) finds evidence for positive self-selection of emigrants from the Communist bloc motivated by persecution in the late 1980s and early 1990s. In contrast to studies of inter-continental emigration, Tamme (2007) analyses the chances of survival for Jews in the Netherlands. He finds that foreign-born Jews had higher probability of survival than Dutch-born Jews. The former group likely realized the threat to their lives sooner and were better prepared to avoid persecution.

the globe – be it in Armenia, Cambodia, China, Rwanda, or Yugoslavia. At the same time, we focus on the success (and failure) of emigration and immigration restrictions in facilitating and hindering the escape of the European Jewry. The Jewish experience with immigration (and dealing with immigration restrictions) had existential consequences. This case study will highlight how the interaction between persecution intensity and emigration opportunities relate to Jewish survival rates, as outlined in our conceptual framework in [Section 2.1](#). We think that this case study is of importance in and of itself, but also might serve as a reference point for the study of other experiences of persecution that are hitherto under-researched.

3.1. Mass murder and migration

As late as the 1930s, Jews constituted arguably Europe's largest ethnic minority, with 9.5 million Jews spread across the continent.¹⁹ By this time, Jews had some measure of political and civic equality in many countries in Europe and were also prominently represented in many walks of life.²⁰ Nevertheless, anti-Semitism was rife across much of Europe. Not only were Jews often discriminated against socially, excluded from certain occupations, and many lived in isolated Jewish quarters and neighborhoods, but there were also sporadic pogroms ([Cesarani, 2016](#)). So, the Jewish experience across countries in Europe was diverse and heterogeneous – in terms of their occupations, religiosity, income, influence, and degree of social integration in a conational life ([Carvalho et al., 2017](#); [Voigtländer and Voth, 2013](#)). By 1945, the landscape had completely changed with only one out of every three European Jews surviving. Furthermore, the community's persecution, expulsion, and migration had resulted in the complete decimation of Jewish economic, social, and cultural life in Europe. As a result, communities of Jewish refugees emerged in the US, the UK, Argentina, China, Australia, and many other countries. Eventually, the state of Israel, which gained independence in 1948, became the most significant haven for Jewish emigrants.²¹

A key turning point for the European Jewry was the rise of the Nazi Party in Germany in 1933. Although anti-Jewish policies were adopted almost immediately, the intensity of persecution increased gradually over the following years. It is useful to divide up the Jewish experience between 1933 and 1945 into two phases. The first phase is before the outbreak of systematic persecution of Jews on the continent, i.e. the period 1933-39. The second phase is after the outbreak of WWII, following the Nazi invasion of Poland, i.e. the period 1939-45. Across these two phases, there were dramatic differences in the nature of Nazi persecution as well as the options available to the European Jewry to escape. During the first phase, while there was a sharp increase in the persecution of the Jews, it was largely restricted to Nazi Germany. Furthermore, during this phase, Jewish emigration from Europe (including Germany) was largely unrestricted. This period is characterized in Box A in our conceptual framework. During the second phase, Nazi policy towards Jews shifted dramatically and culminated in the Final Solution and the Holocaust. Escape from persecution and murder was much more difficult during this phase and was affected by differences in the reach of the state across Europe, the attitude of the local governments as well as the help by 'righteous' citizens. This period is described by Box B of our framework.

[Table 2](#) presents estimates for the number of Jews killed in the Holocaust for selected countries. The first column displays the losses in absolute numbers. These data are taken from [Dawidowicz \(1977\)](#), and, where unavailable, from the United States Holocaust Memorial Museum. The third column shows the number of Jews killed as a percent of the Jewish population in the beginning of the 1930s, with population data taken from the American Jewish Yearbooks. The most striking aspect of the figure is that relative to 1933, the survival rate of German Jews was *higher* than in many other European countries, such as Czechoslovakia or Poland. This is despite the fact that the Nazi party came to power in Germany and the German state had very high state capacity – so it was much easier to identify and pursue a person of Jewish origin than in many other European countries. What accounted for the relatively higher survival rates of German Jews? To see this, consider columns 4 and 5 of [Table 2](#), which shows the impact of the rise of the Nazi party on Jewish emigration out of Germany. These numbers illustrate the paradox of the early rise of the Nazis to power in Germany. Germany's Jews were subject to ever-increasing restrictions and persecutions for many years *before* the Holocaust started. Over 130,000 Jews emigrated from Germany/Austria to the British Mandate for Palestine and the US over this period.²² In contrast, Jews in many neighboring countries felt safer and the sharp uptick in Jewish emigration was much more muted – especially in Phase 1. However, when the Nazis invaded those countries in Phase 2, with the onset of WWII, deportations to concentration camps followed quickly. Thus, Jews in these other countries had much less time to escape. The Jewish experience with persecution at different periods in Nazi occupied Europe once again illustrates the key role of emigration as a safety valve.

¹⁹ The number of Jews across Europe in 1933 varied significantly, from several thousand in Norway, to over three million in Poland. Ethnic Germans in Eastern Europe also constituted many millions (more than 2 million in the Russian Empire alone), but their exact number outside the boundaries of the German Empire (as of 1933) is less well established.

²⁰ Léon Blum was Prime Minister of France, Albert Einstein was well-established as the first celebrity scientist of the 20th century, and the Rothschild family held perhaps the most prominent business network across Europe.

²¹ Between 1948 and 1951, over 600,000 Jews emigrated to Israel, more than doubling the country's population in 1948 ([Hacohen, 2003](#)).

²² It is important to note that the US and Palestine Mandate were not the only destinations for Jewish immigrants during this period. Canada, Brazil, Argentina, Uruguay, South Africa, and Cuba were also common destinations outside Europe, although they combined for a much smaller percentage of total Jewish immigration compared with the US and Palestine Mandate. Based on the American Jewish Yearbooks, around three-fourths of total Jewish immigration to these eight countries during the 1930s was to the US and Palestine Mandate. Unfortunately, the yearbooks provide a breakdown of Jewish immigration by country of last residence only for the US and Palestine Mandate, therefore we are not able to provide similar statistics as in [Table 2](#), columns 4 and 5 for the remaining countries.

Table 2

Jewish losses in the Holocaust.

Country	(1) Jewish Deaths in the Holocaust	(2) Pre-1933 Jewish population	(3) % of pre-1933 Jewish population killed	(4) Jewish immigration to the US, 1933-1943	(5) Jewish immigration to Palestine Mandate, 1933-1941
Poland	3,000,000	3,113,900	96	9,282	79,939
Ukraine	900,000	1,574,428	57	*	*
Romania	300,000	728,115	41	1526	11,462
Hungary	297,621	444,567	67	4050	*
Czechoslovakia	260,000	356,768	73	4064	6351
Belorussia	245,000	407,059	60	*	*
Germany	165,200	499,682	33	82,014 ^a	48,666 ^b
Lithuania	130,000	155,125	84	989	6418
Netherlands	105,000	156,817	67	3437	328
Latvia	70,000	94,388	74	747	2697
Austria	65,459	191,408	34	507 ^a	2470 ^b
Greece	65,000	72,791	89	64	5365
Yugoslavia	60,000	68,405	88	430	*
France	55,000	220,000	25	10,597	857
Italy	8000	47,435	17	1860	*

Notes: Estimates for the Jewish deaths in the Holocaust are taken from Dawidowicz (1977), and, where unavailable, from the United States Holocaust Memorial Museum. Data on the pre-1933 Jewish population and immigration to the US and Palestine Mandate are taken from the American Jewish Yearbooks. Where available, we use data from the period 1930-1933. For some countries, there is no population estimate during this period; in those cases, we use the closest available year. * Data not available.

^a Immigration data for Germany includes Austria for the years 1938-1943; Immigration data for Austria only up to 1937.

^b Immigration data for Germany includes Austria for the year 1938-41; Immigration data for Austria only up to 1937.

3.2. The role of immigration restrictions

The decision to emigrate was by no means a trivial one, as many countries had immigration restrictions. In the 1920s, for example, the US considerably cut immigration quotas. In addition to the significantly tighter immigration restrictions (which remained in place until the end of WWII), the new quotas introduced substantial variation across source countries. For instance, Poland had more than six times as many Jews than Germany, but the new immigration quota for Poles of any religion/ethnicity was less than one sixth (!) of the German immigration quota. Not surprisingly, few Polish Jews were able to emigrate to the US, whereas the US was a prime destination for those German Jews that managed to escape the Nazis (Table 2, column 4).²³ The US immigration restrictions also changed the composition of destination countries, with Mandatory Palestine becoming a leading destination of Jewish migration, and particularly for Polish Jews (Table 2, column 5).

Fig. 1 presents immigration patterns during the 1920s and 1930s for five major destination countries outside Europe.²⁴ It is striking to see that immigration numbers fell by orders of magnitude in almost all of these countries and did not recover before the end of WWII.²⁵ Indeed, each country imposed some type of restrictions during this period in order to limit immigration. In Canada, immigration restrictions were tightened following the Great Depression; this was accompanied by strong anti-Jewish attitudes by the officials in charge (Abella and Troper, 2012). In Argentina, a similar tightening of entry requirements after the economic crisis saw visa fees increase by 1,100%, and potential immigrants were also required to show proof of ability to work in Argentina (Rein, 2010). Following a revolution in Brazil in 1930, new immigration laws were also passed with the aim of protecting native workers (Lesser 1995). Even British rule in the Mandate for Palestine – which was a main destination for Jewish immigrants from Europe – tried hard to limit newcomers after the peak in 1935 (Hacohen, 2001; Kochavi, 1998). These attempts culminated in the infamous 1939 White Paper, which placed a quota of 75,000 Jewish immigrants over five years in Mandatory Palestine.

Overall, Fig. 1 illustrates the importance of immigration restrictions in preventing European Jews from escaping before the onset of widespread hostilities on the continent. Of course, immigration restrictions were not the only factor: the ability of Jews to emigrate during this period also depended on local conditions in the place of origin, easy access to ports, or connections to a Jewish diaspora in host countries. However, with the onset of widespread hostilities, things changed – since emigration became much more constricted in all countries and forbidden in others.²⁶

²³ Of course, it is important to emphasize that the degree of persecution of Jews in Poland prior to 1939 was not comparable to Germany. Nevertheless, data from the American Jewish yearbooks show that Jewish immigration to Mandatory Palestine from Poland increased significantly following 1933, suggesting that the demand to escape Europe was present following the rise of the Nazi party in Germany.

²⁴ Although only five countries are presented in Figure 1, these represented the largest Jewish communities outside Europe at the end of WWII. Based on population estimates in the American Jewish Year Books, in 1946, 83% of the world's Jewish population outside Europe resided in one of these five destinations: United States, Palestine, Argentina, Canada, or Brazil.

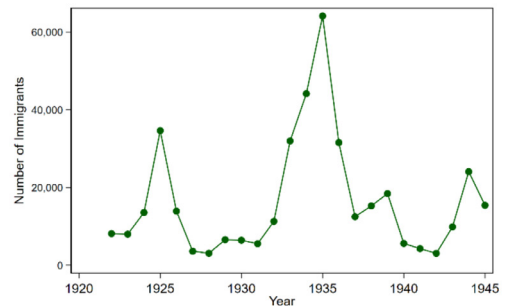
²⁵ Based on data from the American Jewish Yearbooks, the dynamics of Jewish migration to these countries was very similar to that of total migration during this period. For this reason, we present only the patterns of total migration in Figure 1.

²⁶ The reluctance of most nations to open their borders to Jewish refugees was evident at the Evian conference of July 1938 (Laffer, 2011). With the exception of the Dominican Republic, no other nation present at the conference (including France, Great Britain, Canada, and the US) ultimately

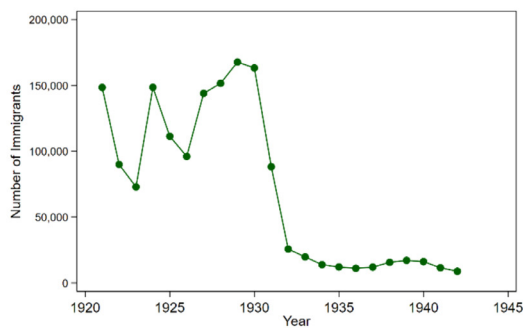
Panel A United States



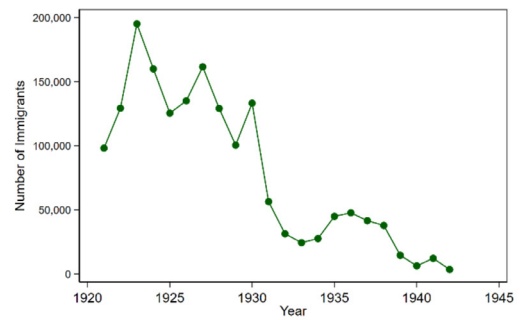
Panel B Palestine Mandate



Panel C Canada



Panel D Argentina



Panel E Brazil

**Fig. 1.** Total immigration to selected destination countries.

Notes: Data on total immigration to the US, Palestine, Canada, Argentina, and Brazil are taken from the American Jewish Year Books.

3.3. Institutions, culture and the survival of European Jews in the 20th century

Beyond immigration restrictions affecting the ability to escape Europe, there was considerable divergence across countries in the survival of their local Jewish populations. As described in Section 2.1, part of the cross-country differences in the Jewish experience can be explained by national differences in institutions and culture. In the first instance, our framework applies directly to the case of Germany which during the Weimar years was a young democracy with relatively weak democratic traditions as it was just emerging from the shadow of the first world war. Moreover, in 1931 the German economy was rocked by a financial crisis caused by failures in the banking sector that were compounded by the lingering effects of the Great Depression (see Doerr et al, 2022). Given Germany's history of anti-Semitism, it is less surprising that the Nazi Party under Adolf Hitler blamed Jews for the country's ongoing economic

increased their quotas for Jewish refugees. The voyage of the *St. Louis* liner in May-June 1939 is also a key event which demonstrates the reluctance of countries to admit Jewish refugees (Gellman, 1971). The ship, which traveled from Hamburg to Havana, with over 900 Jewish refugees, was forced to return to Europe, after most passengers were not admitted into either Cuba or the US.

difficulties and paved the way for their subsequent persecution. In other words, in the German case, negative economic shocks in the presence of weak institutions and a history of anti-Semitism made the country vulnerable to the persecution that followed. While such anti-Semitism was rife in other parts of Europe, there was nevertheless an important additional wrinkle – namely, the nature of the relationship between Nazi Germany and the government in the occupied country. While historians and scholars of the Holocaust have thrown light on many of these in countless books and articles, the importance of these factors has not been empirically analyzed in a comprehensive way – with very few important exceptions.²⁷ Here, we merely *speculate* about some possibilities.²⁸

On the institutional side, Jewish citizens were particularly vulnerable in those countries where the Nazis *directly occupied* the seat of government: murder rates were especially high in the Netherlands, Germany, Greece, Belgium, the Czech protectorate, and Poland (see [Hayes, 2017](#)).²⁹ In contrast, survival rates of Jews were higher in those countries where the Nazis had to deal with collaborating governments under their indirect control – such as Bulgaria, France, Italy, and Hungary.³⁰ More recently, the historian [Snyder \(2015\)](#) highlighted the very low survival rates in parts of Eastern Europe such as Ukraine, Belarus, and the Baltic States where he argues that the complete destruction of the state was responsible for the very high death rates of Jews. However, an empirical examination of the role of direct versus indirect Nazi control, state capacity, occupation, and collaboration, is still missing and should be a focus of future work.

While institutions mattered, so did culture in the form of a history of anti-Semitism. The sociologist Robert [Braun \(2019\)](#) has suggested that in the Netherlands, the minority Catholics were more likely to rescue and hide Jews – in part out of a sense of identification with another minority. Similarly, countries that were historically wary of and culturally distinct from Germany, were much more likely to support Jews in their midst, almost as a sign of native resistance. Jewish survival rates were also possibly higher in those societies where Jews were economically and culturally integrated with the local population. Complementing this evidence, a number of studies have focused on factors helping the *rescue* of Jews.³¹ Research has highlighted the positive effect of rescuers' income on the likelihood of rescue ([Hoffman 2011](#)), the minority position of rescuers facilitating mobilization ([Braun 2016, 2018](#)), as well as the simple act of being asked to help ([Varese and Yaish 2000](#)) in predicting where rescue attempts occurred. However, the role of culture and institutions has still received too little attention among economic historians of the Holocaust.

4. What we don't know: directions for future research

Our survey suggests that while there has been considerable work on aspects of persecutions and genocides, there are also important gaps. This should not be surprising, given that information on the persecuted – often a minority who are considered less than full citizens – is not just missing, but often not recorded in the first place. In the case of the study of genocides, informational data are often more extreme, having often been destroyed and deliberately erased. At the same time, these episodes of persecution and genocide reverberate through history – imprinting themselves in the folklore and mythologies, cultural and historical memory of people as well as the evolution of institutions. This suggests that some research can only be indirect – by examining the impact on contemporary culture, economic development, ethnic (mis)trust, and institutional evolution. In other instances, the study may require greater involvement of historians and sociologists to collate information.

For instance, some major episodes of persecution, pogroms, and even genocide have been extensively researched by economic historians in the recent past. These include the Holocaust and the Rwandan genocide and – to a lesser extent – the near-extinction of native Americans. But what is noticeable is the scarcity, if not the complete absence, of work on other major genocides, such as the Cambodian genocide (1975-1979), the Circassian genocide (1864-1867) in the Russian Empire, and the Armenian (1915-1922) and Greek (1914-1922) genocides in the Ottoman Empire, to name but some of the largest ones.³² Nevertheless, the cultural and institutional imprint of these episodes continues to play an important role in the political and cultural arena of some of these countries.

A history of persecution, genocide, and conflict plays an important role in the collective memory and identity of affected groups. In every society, this collective memory is transmitted through films, books, and songs, as well as more systematically through textbooks and enshrined in commemorative rituals. However, this transmission of collective memory is often selective and is sometimes deliberately shaped.³³ This selective intergenerational transmission of memory matters since it has the potential to affect nation-building and the kind of institutions (including protections for civil rights and minorities) that a country sets up. For instance, the collective

²⁷ [Cagé et al \(2021\)](#) empirically demonstrate the role of charismatic leadership under Marshal Petain helped form a dedicated cadre of followers who were active Vichy collaborators of the Nazis - including in facilitating Jewish deportations.

²⁸ After all, this is a paper written for the surveys and *speculations* section of *Explorations in Economic History*.

²⁹ Differences in bureaucratic efficiency also led to differences in Jewish persecution at the sub-national level ([Heldring, 2020](#)).

³⁰ A comparison of Germany and Italy would be fruitful because also Italy was ruled by a fascist regime.

³¹ It is useful to keep in mind that there were real risks in helping Jews hide and escape from Nazi-occupied Europe. In some parts of Europe, the mere act of rescuing and concealing Jews could have resulted in being sent to a concentration camp, while in other regions (mainly in Eastern Europe) this act could have resulted in the execution of the entire family.

³² In addition to being under-researched (on the Armenian genocide, see [Arbatli and Gokmen, 2022](#)), these episodes of genocide are also slow to gain international recognition. For example, the Armenian genocide received official recognition by the US government as late as 2019.

³³ [Anderson \(1983\)](#) explicitly rejects the notion that there is anything natural or inevitable about a nation as a political unit. Furthermore, he emphasized that the nation is an “imagined community”, in part because most citizens will never meet each other and yet consider themselves part of the same political community, with shared origins and common interests. Indeed, the nation is conceived by Anderson as an imagined community that is socially constructed. Such an exercise may involve myth-building through the selective retention, construction and indoctrination of national myths. For instance, [Zerubavel \(1995\)](#) points out how Palestinian Jews resurrected the idea of a heroic ancient Jewish past in antiquity by rediscovering and propagating the story of resistance in Masada. Similarly, the American myth of Founding Fathers emphasized the role of

memory of Jewish persecution and the Holocaust differs in important ways across Austria and Germany. Likewise, in Poland and much of Eastern Europe, there is cultural amnesia when it comes to their historical oppressive treatment of the Jewish minority.³⁴ Also in Western Europe, there is some degree of cultural amnesia regarding the Holocaust in Austria and cooperation with the Vichy regime in France (Rousso, 1991). Similarly, even within Germany, there are important differences in the degree to which there has been a historical reckoning with the Holocaust across East and West Germany – possibly due to differences in their respective textbooks (von Borries, 2003).

The selective intergenerational transmission of collective memory has been understudied. Nevertheless, it is often crucial for a better understanding of contemporary policymaking, politics, and conflict. For instance, Angela Merkel's decision to open the doors to hundreds of thousands of Syrian refugees in 2015 with the words "We can do it" ("Wir schaffen das") was partly shaped by her sense of moral obligation given Germany's dark history (Washington Post, 2021). This willingness to confront the past in parts of Germany is unusual, though it is essential to the building of a liberal democratic polity.³⁵ Seen in this light, the attempts to nation-build (e.g. Blouin and Mukand, 2019) and to educate nations about past atrocities (see e.g. Voigtländer and Voth (2012b) on denazification) deserve more widespread attention.

In sharp contrast, the norm for most countries is quite different. Selective recall of history and a sense of victimhood have arguably played a role in the rise of far-right parties in countries such as Poland, Hungary, France, and much of the developing world. Given these instances, it may be useful to examine the countries engaged in a systematic reckoning and education about persecution in the past, with the rise of populism and the erosion of liberal democratic institutions in countries across the world.

Furthermore, our survey suggests that there are important gaps in our understanding even of episodes that have been relatively well-studied. For instance, we still do not have a good understanding of the conditions under which local persecution or pogroms turn into large-scale genocide. Clearly, state capacity must be a key factor in the intensity of genocide and its geographic reach.³⁶ Naturally, this moves the focus to nation-level actors, bringing us closer to the empirical need to run country-level regressions if we want to understand patterns. We also think that additional theoretical work may further enlighten the trajectory from localized and sporadic persecution to organized, large-scale persecution. In addition, resistance to persecution and genocide also seems to be an under-researched area, particularly outside the context of the Holocaust. Resistance may take many forms, including uprisings of persecuted groups or rescue by third parties. Beyond an academic interest, a better understanding of what works against a machinery of oppression and persecution may save lives, or ideally slow down or even stop the pathway to genocide. Lastly, in the context of the Holocaust, leadership by some heads of state (e.g. Denmark or Bulgaria) seems to have been a key factor in sheltering Jews. More work on the role of leaders, for good or bad, in these contexts might be fruitful, as other literatures have found leaders to be crucial (e.g. Jones and Olken, 2005).

As our survey of the literature has shown, there is considerably more work by economic historians on the consequences of persecution and genocide. One reason may be the profession's current focus on causal identification: in the context of genocide, for example, many studies have used local (and arguably exogenous) variation in persecution to study the effects on various outcomes (as discussed in Section 2.3). In terms of outcomes considered, the field would benefit from more work focusing on institutional change: Under what conditions does persecution/genocide result in constitutional change that protects minorities from future persecution? Of equal importance seems to be the need for a deeper understanding of the co-evolution of institutions and cultural norms regarding the adoption of civil and human rights. Clearly, the Geneva convention on refugees and the foundation of the UNHCR to protect refugees are a direct result of the atrocities of the Holocaust.³⁷ But how did this convention affect norms in different countries, depending on their own experience of persecution and genocide?

More broadly, we believe that there is more work to be done in tracing the long-term economic consequences of persecution and genocide. This can be through a closer examination of the impact of emigration on persecuted groups, the ethnic homogenization of countries due to ethnic cleansing, as well as its imprint on nation-building. Consider, for instance, immigration policy. In 1930,

the English Pilgrims and minimized the role of violence and the treatment of Native Americans. Anderson further argues that historically, the expansion of print (newspapers and textbooks) played a crucial role in inculcating and diffusing nationalism and the idea of a nation. Recent work by Cantoni et al. (2017) accords with this idea and empirically shows how educational reforms in China helped shape ideology and homogenize views on the political system. Alesina, Reich and Giuliano (2021) detail several instances where educational policy was used to help nation build in countries such as England, Germany, France and Italy. Cinnirella and Schüler (2018) provide evidence for Prussia that an increase in the share of central spending is positively related to the vote share for pro-nationalist parties.

³⁴ Cultural amnesia also plays a role outside Europe, e.g. in the context of Japanese atrocities in China. Campbell (2009) classifies the killing of 250,000 residents of Nanjing by Japanese soldiers in 1937 as a genocide. Yet, there continue to be denials of the massacre by public officials in Japan.

³⁵ We think that work by Oto-Peralías (2018) on street names as one marker of collective memory could be fruitful to understand how tribute to resistance movements or individuals opposing oppression, helps shape collective memories.

³⁶ Whether state capacity comes on the back of an "evil regime", or whether members of a majority ethnicity incite state actors to persecute a minority because the majority expects benefits from "neutralizing" an ethnic minority, is a different, but related matter. But without the bureaucratic capacity to engineer systematic persecution, a genocide may be less severe (see again Heldring, 2020).

³⁷ One result of the Holocaust was the 1951 Geneva Convention on refugees. However, in practice, the Geneva convention only really kicks in during what we call "phase II", with undeniable crisis at often massive scale. The question is how we (ought to) deal with early migrants in a phase I when persecution of (potential) refugees is still comparatively limited? From a policy perspective, there would be huge benefits to deal with phase I issues to even avoid a phase II. Instead, the world often ignores phase I and only acts when phase II is too big to ignore, with huge consequences for migrants (death probability shooting up) and receiving countries. Handling a "constant", but small flow of migrants in a "phase I" is easier than dealing with millions of refugees in a "phase II".

Germany was a scientific powerhouse and the world leader in Nobel prizes in the Sciences. By 1950, the global leader was the US (Becker et al., 2021). It is often argued that the escape of highly skilled Jewish scientists from Europe (18 current and future Nobel laureates amongst them) was a key catalyst that accelerated this transition of scientific leadership (Moser et al., 2014). A closer examination of this aspect of high-skilled immigration may throw light on the role of immigration and social networks on innovation and scientific leadership.

Over the past two decades, economists and economic historians have made great strides in the study of persecution and genocide, using new sources of data as well as innovative estimation methods. In this paper, we highlight the key contributions in the literature, both on the causes and consequences of persecution and genocide, before discussing potential directions for future research. Learning more from these dark episodes of human history will not only enrich our understanding, but also shed light on the prospects and real limits to any policy interventions that attempts to tackle episodes of persecution that continue to occur across the world.

References

- Abella, I, Troper, H, 2012. None Is Too Many: Canada and the Jews of Europe, 1933-1948. University of Toronto Press, Toronto.
- Abramitzky, R, Baseler, T, Sin, I, 2022. Persecution and migrant self-selection: evidence from the collapse of the Communist bloc. NBER Working Paper 30204.
- Acemoglu, D, Hassan, T A, Robinson, J A, 2011. Social structure and development: a legacy of the holocaust in Russia. *Quarterly J Econ* 126, 895-946.
- Adena, M, Enikolopov, R, Petrova, M, Santarosa, V, Zhuravskaya, E, 2015. Radio and the rise of the Nazis in Prewar Germany. *Quarterly J Econ* 130 (4), 1885-1939.
- Akbulut-Yuksel, M, Okoye, D, Yuksel, M, 2020. Social changes in impressionable years and adult political attitudes: evidence from Jewish expulsions in Nazi Germany. *Econ. Inq.* 58 (1), 184-208.
- Akbulut-Yuksel, M, Yuksel, M, 2015. The long-term direct and external effects of Jewish expulsions in Nazi Germany. *Am. Econ. J.* 7 (3), 58-85.
- Akresh, R, de Walque, D, 2008. Armed conflict and schooling: evidence from the 1994 Rwandan genocide. In: *World Bank Policy Research Working Paper*, p. 4606.
- Albright, A, Cook, J, Feigenbaum, J, Kincaide, L, Long, J, Nunn, N, 2021. After the burning: the economic effects of the 1921 Tulsa race Massacre. In: *NBER Working Paper*, p. 28985.
- Alesina, Alberto, Giuliano, Paola, Reich, Bryony, 2021. Nation-Building and Education". *Econ. J.* 131 (638), 2273-2303.
- Alix-Garcia, J., Bartlett, A., Saah, D., 2011. Displaced populations, humanitarian assistance and hosts: a framework for analyzing impacts on semi-urban households. *World Dev.* 40 (2), 373-386.
- Allen, T, 2015. The promise of freedom: fertility decisions and the escape from slavery. *Rev. Econ. Stat.* 97 (2), 472-484.
- Alyukov, M, 2022. Propaganda, authoritarianism and Russia's invasion of Ukraine. *Nature Human Behav.* 6, 763-765.
- Anderson, B, 1983. Imagined Communities: Reflections on the Origin and Spread of Nationalism. Verso Books.
- Anderson, R W, Johnson, N D, Koyama, M, 2017. Jewish persecutions and weather shocks: 1100-1800. *The Economic Journal* 127, 924-958.
- André, C, Platteau, J-P, 1998. Land relations under unbearable stress: Rwanda caught in the Malthusian trap. *J. Econ. Behav. Org.* 34, 1-47.
- Arbatli, E, Gokmen, G, 2022. Human capital transfers and sub-national development: armenian and greek legacy in post-expulsion Turkey. *J. Econ. Growth* forthcoming.
- Barro, R J, 2001. Human capital and growth. *Am. Econ. Rev.* 91 (2), 12-17.
- Baumgartner, A L, 2020. South to Freedom: Runaway Slaves to Mexico and the Road to the Civil War. Basic Books, New York.
- Becker, S O, 2022. Forced displacement in history: some recent research. *Austr. Econ. History Rev.* 62 (1), 2-25.
- Becker, S O, Ferrara, A, 2019. Consequences of forced migration: a survey of recent findings. *Labour Econ.* 59, 1-16.
- Becker, S O, Pascali, L, 2019. Religion, division of labor, and conflict: anti-semitism in Germany over 600 Years. *Am. Econ. Rev.* 109 (5), 1764-1804.
- Becker, S O, Lindenthal, V, Mukand, S, Waldinger, F, 2021. Persecution and escape: professional networks and high-skilled emigration from Nazi Germany. *Warwick Economics Research Paper*.
- Besley, T, Persson, T, 2011. Fragile states and development policy. *J. Eur. Econ. Assoc.* 9 (3), 371-398.
- Blouin, A, Mukand, S W, 2019. Erasing ethnicity? Propaganda, nation building, and identity in Rwanda. *J. Polit. Econ.* 127 (3), 1008-1062.
- Blouin, A, 2022. Culture and contracts: the historical legacy of forced labour. *Econ. J.* 132 (641), 89-105.
- Blum, M, Rei, C, 2018. Escaping Europe: health and human capital of Holocaust refugees. *Eur. Rev. Econ. History* 22, 1-27.
- Bonnier, E, Poulsen, J, Rogall, T, Stryjan, M, 2020. Preparing for genocide: quasi-experimental evidence from Rwanda. *J. Develop. Econ.* 147 (102533).
- Borries, B von, 2003. The third Reich in German history textbooks since 1945. *J. Contemp. History* 38 (1), 45-62.
- Boustan, L P, 2007. Were Jews political refugees or economic migrants? Assessing the persecution theory of Jewish emigration. In: Hatton, T J, O'Rourke, K H, Taylor, A M (Eds.), *The New Comparative Economic History*. MIT Press, Cambridge, pp. 1881-1914.
- Boustan, L P, 2010. Was postwar suburbanization "white flight"? Evidence from the black migration. *Quarterly J. Econ.* 125 (1), 417-443.
- Braun, R, 2016. Religious minorities and resistance to genocide: the collective rescue of Jews in the Netherlands during the holocaust. *Am. Politic. Sci. Rev.* 110 (1), 127-147.
- Braun, R, 2018. Minorities and the clandestine collective action dilemma: the secret protection of Jews during the holocaust. *Am. J. Sociol.* 124 (2), 263-308.
- Braun, R., 2019. *Protectors of Pluralism: Christian Protection of Jews in the Low Countries*. Cambridge University Press, Cambridge, MA.
- Brehm, H N, 2017. Subnational determinants of killing in Rwanda. *Criminology* 55 (1), 5-31.
- Buggle, J, Mayer, T, Sakalli, S O, Thoenig, M, 2020. The Refugee's Dilemma: evidence from Jewish migration out of Nazi Germany. *CEPR Discussion Paper* 15533.
- Burgess, K, 2012. Migrants, remittances, and politics: Loyalty and voice after exit. *The Fletcher Forum of World Affairs* 43-55.
- Cagé, J., Dagorret, A., Grosjean, P., Jha, S., 2021. Heroes and Villains: The Effects of Combat Heroism on Autocratic Values and Nazi Collaboration in France. *Stanford Institute for Economic Policy Research (SIEPR)*.
- Calderon, Alvaro, Fouka, Vasiliki, Tabellini, Marco, 2022. Racial diversity and racial policy preferences: the great migration and civil rights. *Rev. Econ. Stud.* forthcoming.
- Campbell, B, 2009. Genocide as social control. *Sociol. Theory* 27 (2), 150-172.
- Cantoni, Davide, Chen, Yuyu, Yang, David Y., Yuchtman, Noam, Jane Zhang, Y., 2017. Curriculum and ideology. *J. Polit. Econ.* 125 (2), 338-392.
- Carlebach, Elisheva, 2001. Divided Souls: Converts from Judaism in Germany. Yale University Press, New Haven, pp. 1500-1750.
- Carvalho, J-P, Koyama, M, Sacks, M, 2017. Education, identity, and community: lessons from Jewish emancipation. *Public Choice* 171, 119-143.
- Cesarani, David, 2016. *Final Solution: The Fate of the Jews 1933-49*. Macmillan, London.
- Chaney, E, Hornbeck, R, 2016. Economic dynamics in the malthusian era: evidence from the 1609 Spanish expulsion of the Moriscos. *Econ. J.* 126, 1404-1440.
- Charny, I, 1999. *Encyclopedia of Genocide (Vols. I and II) A B C-CLIO Incorporated*.
- Charnysh, V, Finkel, E, 2017. The death camp eldorado: political and economic effects of mass violence. *Am. Politic. Sci. Rev.* 111 (4), 801-818.
- Ciani, F, Giannelli, G C, 2013. Surviving the genocide: the impact of the rwandan genocide on child mortality. *IZA Discussion Paper* 7539.
- Cinnirella, Francesco, Schueler, Ruth, 2018. Nation building: the role of central spending in education. *Explorat. Econ. History* 67, 18-39.
- Cornell, S E, 2013. Citizens of nowhere: fugitive slaves and free African Americans in Mexico, 1833-1857. *J. Am. History* 100 (2), 351-374.
- Cutler, David M., Glaeser, Edward L., 1997. Are Ghettos good or bad? *Quarterly J. Econ.* 112 (3), 827-872.
- Dawidowicz, Lucy S., 1977. *The war against the Jews 1933-45*. Harmondsworth, Penguin.
- Derenoncourt, E., 2022. Can you move to opportunity? Evidence from the great migration. *Am. Econ. Rev.* 112 (2), 369-408.
- Devictor, X, Do, Q-T, Levchenko, A, 2021. The globalization of refugee flows. *J. Develop. Econ.* 150, 102605 article.
- De Walque, D, 2006. The socio-demographic legacy of the khmer rouge period in Cambodia. *Popul. Stud. (Camb.)* 60 (2), 223-231.
- Doerr, S, Gissler, S, Peydró, J-L, Voth, H-J, 2022. Financial crises and political radicalization: how failing banks paved Hitler's path to power. *J. Finance* forthcoming.

- Durante, R, Zhuravskaya, E, 2018. Attach when the world is not watching? US news and the Israeli-Palestinian conflict. *J. Polit. Econ.* 126 (3), 1085–1133.
- Easterly, W, Gatti, R, Kurlat, S, 2006. Development, democracy, and mass killings. *J. Econ. Growth* 11 (2), 129–156.
- Esteban, J, Morelli, M, Rohner, D, 2015. Strategic Mass Killings. *J. Polit. Econ.* 123 (5), 1087–1132.
- Finley, T, Koyama, M, 2018. Plague, politics, and pogroms: the black death, the rule of law, and the persecution of Jews in the Holy Roman Empire. *J. Law Econ.* 61 (2), 253–277.
- Fox, N, Brehm, H N, 2018. 'I decided to save them': factors that shaped participation in rescue efforts during genocide in Rwanda. *Soc. Forces* 96 (4), 1625–1648.
- Gellman, I F, 1971. The 'St. Louis' tragedy. *Am. Jewish Historical Quarterly* 61 (2), 144–156.
- Glaeser, E L, 2005. The political economy of hatred. *Quarter. J. Econ.* 120 (1), 45–86.
- Goldberger, Leo, 1987. *The Rescue of the Danish Jews: Moral Courage Under Stress*. New York University Press, New York.
- Goldsmith, B E, Butcher, C R, Semenovich, D, Sowmya, A, 2013. Forecasting the onset of genocide and politicide: annual out-of-sample forecasts on a global dataset, 1988–2003. *J. Peace Res.* 50 (4), 437–452.
- Grosfeld, I, Rodnyansky, A, Zhuravskaya, E, 2013. Persistent Antimarket culture: a legacy of the pale of settlement after the holocaust. *Am. Econ. J.* 5 (3), 189–226.
- Grosfeld, I, Sakalli, S O, Zhuravskaya, E, 2020. Middleman minorities and ethnic violence: anti-Jewish pogroms in the Russian Empire. *R. Econ. Stud.* 87, 289–342.
- Guriev, S, Papaioannou, E, 2022. The political economy of populism. *J. Econ. Lit.* forthcoming.
- Guriev, S, Treisman, D, 2019. Informational autocrats. *J. Econ. Perspect.* 33 (4), 100–127.
- Hacohen, D, 2001. British immigration policy to palestine in the 1930s: implications for youth Aliyah. *Middle Eastern Stud.* 37 (4), 206–218.
- Hacohen, D, 2003. *Immigrants in Turmoil: Mass Immigration to Israel and its Repercussions in the 1950s and After*. Syracuse University Press.
- Hagan, J, Raymond-Richmond, W, 2008. The collective dynamics of racial dehumanization and genocidal victimization in Darfur. *Am. Sociol. Rev.* 73 (6), 875–902.
- Harff, B, 2003. No lessons learned from the holocaust? Assessing risks of genocide and political mass murder since 1955. *Am. Politic. Sci. Rev.* 97 (1), 57–73.
- Hatton, T J, 2020. Asylum migration to the developed world: persecution, incentives, and policy. *J. Econ. Perspect.* 34 (1), 75–93.
- Hatton, T J, 2021. Asylum recognition rates in Europe: persecution, policies, and performance. *CEPR Discussion Paper* 16709.
- Hayes, P., 2017. *Why?: Explaining the Holocaust*. WW Norton & Company.
- Heldring, L, 2020. Bureaucracy as a Tool for Politicians: Evidence from Weimar and Nazi Germany Working Paper.
- Heldring, L, 2021. The origins of violence in Rwanda. *Rev. Econ. Stud.* 88, 730–763.
- Hertz, Deborah, 2007. *How Jews Became Germans: The History of Conversion and Assimilation in Berlin*. Yale University Press, New Haven.
- Hirschman, A O, 1970. Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States. *Harvard University Press* Vol. 25.
- Hodler, R, 2019. The economic effects of genocide: evidence from Rwanda. *J. African Econ.* 28 (1), 1–17.
- Hoffman, M, 2011. Does higher income make you more altruistic? Evidence from the holocaust. In: *The Review of Economics and Statistics*, 93, pp. 876–887.
- Hornung, E, 2014. Immigration and the diffusion of technology: the huguenot diaspora in Prussia. *Am. Econ. Rev.* 104 (1), 84–122.
- Huber, K, Lindenthal, V, Waldinger, F, 2021. Discrimination, managers, and firm performance: evidence from 'Aryanizations' in Nazi Germany. *J. Polit. Econ.* 129 (9), 2455–2503.
- Iwanowsky, M, Madestam, A, 2019. *State Repression, Exit, and Voice: Living in the Shadow of Cambodia's Killing Fields* Working Paper.
- Jedwab, R, Johnson, N D, Koyama, M, 2019. Negative shocks and mass persecutions: evidence from the Black Death. *J. Econ. Growth* 24, 345–395.
- Jha, Saumitra, 2013. Trade, Institutions, and Ethnic Tolerance: Evidence from South Asia. *American Political Science Review* 107 (4), 806–832.
- Jha, Saumitra, 2018. Trading for peace. *Econ. Policy* 33 (95), 485–526.
- Johnson, N D, Koyama, M, 2019. *Persecution and Toleration: The Long Road to Religious Freedom*. Cambridge University Press.
- Jones, B F, Olken, B A, 2005. Do leaders matter? National leadership and growth since world war II. *Quarter. J. Econ.* 120 (3), 835–864.
- Kiernan, Ben, 2007. *Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur*. Yale University Press, New Haven.
- Kochavi, Arieh J., 1998. The struggle against jewish immigration to Palestine. *Middle Eastern Studies* 34 (3), 146–167.
- Kraehnert, K, Bruck, T, Di Maio, M, Nisticò, R, 2019. The effects of conflict on fertility: evidence from the genocide in Rwanda. *Demography* 56, 935–968.
- Laffer, Dennis Ross, 2011. The Jewish trail of tears: the evian conference of July 1938. *USF Tampa Graduate Theses and Dissertations*.
- La Mattina, G, 2017. Civil conflict, domestic violence and intra-household bargaining in post-genocide Rwanda. *Journal of Development Economics* 124, 168–198.
- Lesser, Jeffrey, 1995. *Welcoming the Undesirables: Brazil and the Jewish Question*. University of California Press.
- Lopez, H, Wodon, Q, 2005. The economic impact of armed conflict in Rwanda. *J. African Econ.* 14 (4), 586–602.
- Maystadt, J.-F., Verwimp, P., 2014. Winners and losers among a refugee-hosting population. *Econ. Dev. Cult. Change* 62 (4), 769–809.
- McDoom, O S, 2013. Who Killed in Rwanda's Genocide? Micro-space, social influence and individual participation in intergroup violence. *J. Peace Res.* 50 (4), 453–467.
- Mercier, M, Ngenzebuke, R L, Verwimp, P, 2020. Violence exposure and poverty: evidence from the Burundi civil war. *J. Comparat. Econ.* 48, 822–840.
- Morris, Benny, Ze'evi, Dror, 2021. *The Thirty-Year Genocide: Turkey's Destruction of Its Christian Minorities*. Harvard University Press, Cambridge, MA, pp. 1894–1924.
- Moser, Petra, Shan, Shmuel, 2020. Immigration, science, and invention. Evidence from the quota acts. *R&R at Econometrica*.
- Moser, P, Voena, A, Waldinger, F, 2014. Germany Jewish Emigres and US Invention. *Am. Econ. Rev.* 104 (10), 3222–3255.
- Mukand, S W, Rodrik, D, 2020. The political economy of liberal democracy. *Econ. J.* 130 (627), 765–792.
- Nielsen, K.B., Nilsen, A.G., 2021. Hindu nationalist statecraft and Modi's authoritarian populism. In: *Routledge Handbook of Autocratization in South Asia*, pp. 92–100 Routledge.
- Nikolova, M, Popova, O, Otrachshenko, V, 2022. Stalin and the origins of mistrust. *J. Public Econ.* 208 article 104629.
- Nunn, N, Wantchekon, L, 2011. The slave trade and the origins of mistrust in Africa. *Am. Econ. Rev.* 101, 3221–3252.
- Ochsner, C, Roesel, F, 2021. Mobilizing history. *Revised Resubmit Am. Econ. J.*
- Oto-Peralías, D, 2018. What do street names tell us? The 'city-text' as socio-cultural data. *J. Econ. Geography* 18 (1), 187–211.
- Padró-i-Miquel, G, 2007. The control of politicians in divided societies: the politics of fear. *Rev. Econ. Stud.* 74 (4), 1259–1274.
- Ravallion, Martin, 2020. Ethnic inequality and poverty in Malaysia since May 1969. Part 1: inequality. *World Dev.* 134, 105040 article.
- Rein, Raanan, 2010. *Argentine Jews or Jewish argentinenses? Essays on Ethnicity, Identity, and Diaspora*. Brill.
- Rogall, T, Yanagizawa-Drott, D, 2014. *The Legacy of Political Mass Killings: Evidence from the Rwandan Genocide* Working Paper.
- Rogall, T, 2021. Mobilizing the masses for genocide. *Am. Econ. Rev.* 111 (1), 41–72.
- Rogall, T, Zárate-Barrera, T, 2020. Yes They Can: Genocide, Political Participation, and Female Empowerment Working Paper.
- Rousso, H, 1991. *The Vichy Syndrome: History and Memory in France since 1944*. Harvard University Press.
- Satyanath, S, Voigtländer, N, Voth, H-J, 2017. Bowling for fascism: social capital and the rise of the Nazi party. *J. Polit. Econ.* 125 (2), 478–526.
- Saleh, M, Tirole, J, 2021. Taxing identity: Theory and evidence from early Islam. *Econometrica* 89 (4), 1881–1919.
- Serneels, P, Verpoorten, M, 2015. The impact of armed conflict on economic performance: evidence from Rwanda. *J. Conflict Resolut.* 59 (4), 555–592.
- Shick, Tom W., 1980. *Behold the Promised Land: A History of Afro-American Settler Society in Nineteenth-Century Liberia*. Johns Hopkins University Press, Baltimore.
- Snyder, T., 2015. *Black Earth: The Holocaust as History and Warning*. Tim Duggan Books, New York.
- Spenskuch, J L, Tillmann, P, 2018. Elite influence? Religion and the electoral success of the Nazis. *Am. J. Politic. Sci.* 62, 19–36.
- Spitzer, Y, 2021. Pogroms, networks, and migration: the Jewish migration from the Russian empire to the United States 1881–1914. In: *Hebrew University Economics Discussion Paper*, p. 21–03.
- Swee, E L, 2015. On war intensity and schooling attainment: the case of Bosnia and Herzegovina. In: *Eur. J. Politic. Econ.*, 40, pp. 158–172.
- Tammes, P, 2007. Jewish immigrants in the netherland during Nazi occupation. *J. Interdiscipl. History* 37 (4), 543–562.
- Tammes, P, 2019. Associating locality-level characteristics with surviving the holocaust: a multilevel approach to the odds of being deported and to risk of death among Jews living in Dutch municipalities. *Am. J. Epidemiol.* 188 (5), 896–906.
- Toews, G, Vézina, P-L, 2022. *Enemies of the people*. NES Working Paper w0279. New Economic School (NES).
- Tyler, R C, 1972. Fugitive slaves in Mexico. *J. Negro History* 57 (1), 1–12.
- Varese, F, Yaish, M, 2000. The importance of being asked: the rescue of Jews in Nazi Europe. *Ration. Soc.* 12 (3), 307–334.

- Verpoorten, M, 2012. Leave none to claim the land: a malthusian catastrophe in Rwanda? *J. Peace Res.* 49 (4), 547–563.
- Verwimp, P, 2005. An economic profile of peasant perpetrators of genocide: micro-level evidence from Rwanda. *J. Develop. Econ.* 77, 297–323.
- Verwimp, P, 2006. Machetes and firearms: the organization of massacres in Rwanda. *J. Peace Res.* 43 (1), 5–22.
- Voigtländer, N, Voth, H-J, 2012a. Persecution perpetuated: the medieval origins of anti-semitic violence in Nazi Germany. *Quarter. J. Econ.* 127 (3), 1339–1392.
- Voigtländer, N, Voth, H-J, 2012b. (Re-)Shaping hatred: anti-semitic attitudes in Germany, 1890-2006. In: CEPR Discussion Paper, p. 8935.
- Voigtländer, N, Voth, H-J, 2013. Married to Intolerance: attitudes toward intermarriage in Germany, 1900-2006. *Am. Econ. Rev. Papers Proc.* 103 (3), 79–85.
- Voigtländer, N, Voth, H-J, 2015. Nazi indoctrination and anti-semitic beliefs in Germany. *Proc. Natl Acad. Sci.* 112 (26), 7931–7936.
- Waldinger, F, 2010. Quality matters: the expulsion of professors and the consequences for PhD student outcomes in Nazi Germany. *J. Polit. Econ.* 118 (4), 787–831.
- Washington, Post, 2021. After 16 years, Germany's Merkel is stepping down. Here's how she built her legacy. *Washington Post* 13 September.
- Williams, Daniel, 2016. *Forsaken: The Persecution of Christians in Today's Middle East*. OR Books 2016.
- Yanagizawa-Drott, 2014. Propaganda and conflict: evidence from the Rwandan Genocide. *Quarter. J. Econ.* 129 (4), 1947–1994.
- Yovel, Yirmiyahu, 2009. *The Other Within: The Marranos: Split Identity and Emerging Modernity*. Princeton University Press, Princeton, NY.
- Zeng, Z, Eisenman, J, 2018. The price of persecution: the long-term effects of the anti-rightist campaign on economic performance in post-Mao China. *World Dev.* 109, 249–260.
- Zerubavel, Yael, 1995. *Recovered Roots: Collective Memory and the Making of Israeli National Tradition*. University of Chicago Press, Chicago.