ORIGINAL PAPER

Conflict-induced migration of composers: an individual-level study

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Abstract   Research on the causes of conflict-induced migration is hindered by the lack of adequately disaggregated data. The underlying study overcomes this problem through the use of historical data on 164 prominent classical composers born after 1800. I analyze the impact of war on the probability to emigrate of composers, investigate the associated dynamics and shed light on the choice of a destination country in times of war. I find that the incidence of inter-state wars increases composers' probability to emigrate by around 7 % and the incidence of intra-state wars by roughly 19 %. The results imply that conflict impacts the migration intensity with a lag of approximately 1 year. Furthermore, the choice of a destination country is significantly affected by the incidence of war and less efficient from a career's point of view during war. Finally, I find heterogeneous responses to war based on individual's quality. While the better composers are more likely to emigrate in times of peace, it is not so anymore if a war breaks out. In times of war, all artists are affected by war and are prone to emigrate.

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1 Introduction

The costs of war are manifold. One of the most disastrous aspects of war is conflict-induced displacements of populations. Millions of people have left their homes for fear of violence and politically motivated harm and seek as refugee asylum abroad. Such decisions to move are based on individual motivations. Little is, however, known about the decision-making process of the conflict-induced migrant. It is also not clear what are the dynamics of conflict-induced migration and the determinants for choice of a destination country. The lack of such knowledge is particularly problematic as political responses and the design of efficient policies for interventionism or delivery of efficient support for conflict-induced migrants becomes impossible.

The research on the causes and consequences of conflict-induced migration is hindered by the lack of adequately disaggregated data. The usually employed data sets are available only for whole refugee communities and contain the caveat of over-aggregation. Therefore, research on micro-motivations and incentives of conflict-induced migrants are mostly out of scope (Salehyan 2007). There are no individual-level data sets available, because it is not feasible or secure to, for example, conduct representative surveys on migrants in regions where war takes place. In this article, this problem is overcome by using historical data on prominent classical composers. It is the first attempt to identify the determinants of displacement at the individual level using rigorous statistical analysis.

The focus of this study is on conflict-induced migration—that is, migration that occurs during, possibly due to, the incident of a war, as opposed to forced migration in general. Other forms of forced migration could be a result of politically motivated repressions, such as the dismissal of scientist in Nazi Germany (see Waldinger 2010, 2012), or natural disasters. Arguably, it might be sometimes difficult to separate those two types of migration in the pursued research setting.[1] In extreme cases, the individual might not have any choice and is indeed *forced* to emigrate. The expulsion of a group of population from a country might be one example where the refugee could lack agency. In such extreme cases, the migrant's decision-making would be limited possibly to the timing and choice of destination country. Refraining from such extreme instances, refugees usually have some degree of choice, even if it is very constrained. It can be observed that as a result of war, some individuals decide to emigrate, while others do not leave the country. Undoubtedly, each citizen aims at 'limiting harm to one's health and life' (Salehyan 2007), but some will be better off if they emigrate, others if they stay. This variation will be exploited in this study in order to shed some light on the determinants of migration in times of war.

The data set employed in this research is extracted from large, comprehensive music dictionaries, and it covers individual information for a global sample of 164

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[1] For example, if a group of people becomes expelled from a country during the incidence of war, the specification might not pick up that the migration was indeed *forced* as opposed to *chosen*. In some robustness specifications, countries that have seen expulsions are dropped and consistent results are found. Such tests might, however, not pick up the whole extent of forced migration. If this was the case, the estimates should be viewed as the upper bound of conflict-induced migration rates.

prominent classical composers born between 1800 and 1949. The composer database is linked with a thorough war data set—the Correlates of War (Sarkees 2000)—through the country of composers' residence and the region where combat occurred. The disclosed relationship between composers' probability to emigrate and the occurrence of wars in the region of the artists' residence is positive. I find that the incidence of civil war amplifies the propensity to emigrate by roughly 19 %. The incidence of an international conflict, that involves combat in the region of composers' residence, increases their probability to emigrate by around 7 %. No such effect of inter-state wars is found if combats occur in remote regions. I further shed light on the dynamics associated with conflict-induced migration and find some evidence that conflict impacts migration intensity with a lag of approximately 1 year. The results tentatively indicate that while in times of peace, the best composers are more likely to emigrate, in times of war, this ceases to be the case and all covered artists are equally likely to emigrate. I also investigate the choice of a destination country and find that in times of war composers emigrate to countries that they already know and are familiar with, rather than, as it occurs in times of peace, to countries that have potentially larger demand and a greater number of peers, and would be thus presumably beneficial for their musical career.

Of particular relevance to this research is an article by Borowiecki (2012) who models the aggregate stock of classical composers in a country during times of war and peace. The aggregate approach allows to conduct a comparison with the total population and can therefore provide insights on the relative propensity of creative individuals to emigrate from a region involved in warfare. The results disclosed by Borowiecki (2012) indicate that periods of war correspond negatively with the aggregate number of artists and that the war-effect is much greater for classical composers than for the overall population. However, using an aggregated data set, little can be said on individual's heterogeneous response to war.

The underlying article fills the gap and provides on *individual level* an investigation on the association between the incidence of war and composers' probability to emigrate from a country involved in war. The underlying study is based on a new data set that contains basic background information on each of the covered composers. This allows to explore which individuals are most likely to emigrate in times of war, what are the factors determining the choice of a destination country in times of war, as well as what are the dynamics of conflict-induced migration. The article provides therefore an exploration of new research questions which are complementary to the aforementioned article of Borowiecki (2012).

The rest of the study proceeds as follows. In the next section, I present related literature. In the third section, the data sources are introduced. In the fourth section, I present and discuss the empirical analysis, and in the last section, I provide concluding remarks.

2 Literature

The decision to emigrate is based on *individual* motivations and characteristics (e.g. Sjaastad 1962; Becker 1975; Todaro 1976). There are many personal factors that

facilitate or impede migration, such as individual's planning horizon and thus her age (Plane 1993), educational attainment (Greenwood 1997) or personal contacts and access to information at the destination (Yap 1977).[2] Despite the role of personal determinants in explaining migration, little is known on individual motives when it comes to conflict-induced migration. Within conflict economics, there exists a large amount of influential research on the economic and political causes and consequences of conflict-induced migration. However, the data sets employed in this literature strand are usually available only at the macro level and face the problem of over-aggregation. The data are available only for whole refugee communities and does not allow for studies of micro-motivations and incentives that theorists emphasize (Salehyan 2007).

Studies using household-level data are very rare within the conflict economics research strand. Engel and Ibanez (2007) conducted in 2000 a survey in three main Colombian receptor cities and covered 376 households who decided to leave their area of origin due to the reasons of violence. While randomness and legitimate representation of those surveys might be debatable, the authors provide an interesting analysis of the factors affecting displacement. Ibanez and Moya (2010) use data from surveys of Colombian displaced households and provide evidence on vulnerability of refugees. Conflicts are found to impose a heavy burden on the displaced population and lead to drops of community's overall welfare.

It is established that both the type of conflict and the associated violence level determine migration flows. Civil wars have generated the highest migration rates, followed by wars between states (e.g. Schmeidl 1997). Government violence or dissident violence is found to be important determinants, while measures of economic conditions (e.g. GNP) are mostly insignificant (e.g. Moore and Shellman 2004). It is, however, widely acknowledged that refugees have a negative influence on the security conditions of the source and host country as well as on relations between the two (e.g. Zolberg et al. 1989). Murdoch and Sandler (2002) have disclosed a series of external effects of conflicts in one country leading to lower economic growth and welfare. Negative spillover effects are found also with relation to poor health in neighbouring states (e.g. Hazem et al. 2003). Benefits arising from forced migration are hardly ever disclosed.

Migration flows depend also on the political environment of the origin country. Epstein et al. (1999) develop a locational model of rent-seeking to determine incentives to emigrate. It is argued that in countries with easy contest for privileged income redistribution, that is, when skills are of low importance in obtaining higher income, the best individuals will emigrate first. Whereas when contests are difficult and higher income depends on a person's ability, the lesser skilled are more prone to leave the country first. A possible determinant of the difficulty of contest for privileged income redistribution might be the incidence of war. One could thus expect that in times of peace (if the contest was easy), the best are more prone to emigrate, whereas in times of war (during difficult contest), the worst would be expected to emigrate.

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[2] While costly or imperfect information can reduce migration (e.g. Dustmann 1997), information about economic and social opportunities at the destination may stimulate migration flows (Fischer et al. 1997). See also Sharp and Weisdorf (2012) for an interesting discussion of factors that have led to the emergence of a civil war—the French Revolution.

The direction of the migration flows is not necessary directed at richer countries. Pedersen et al. (2008) find that welfare is not a significant factor in explaining immigration flows.[3] This could be explained, as argued by the authors, by the fact that refugees are constrained in the choice of country by logistics or restrictive immigration policies. Asylum seekers might not act as income maximizers but rather try to maximize the chance of being admitted as a refugee (see also Nannestad 2007).

Given the underlying sample of outstanding creative individuals, this research relates also to the literature strand on the migration of elites (see Commander et al. 2004, for review). The emigration of skilled individuals is in general regarded to be costly for the sending country, because of lost investment in education, high fiscal costs and labour market distortions. However, there are also several advantages arising due to migration of the elites. One of the most obvious benefits is the apparently large private benefits of the migrants, who possibly experience higher productivity in their new locations (e.g. Hunter et al. 2009).

All in all this paper contributes also to the cultural economics literature. O'Hagan and Hellmanzik (2008) have demonstrated a marked migration and geographic clustering activity for visual artists and O'Hagan and Borowiecki (2010) for classical composers. The authors provide qualitative arguments and suggest that war could bring an artistic cluster to an end and shift it to another location. It is observed, for example, that the role of Paris as a meaningful hub location for classical composers has remarkably dropped during the Second World War. At the same time, the importance of New York increased considerably. As such, the underlying analysis provides empirical evidence on the impact of war-related activity on location choice and migration intensity of artists. The weight of this contribution is further enforced by the fact that geographic clustering is conducive to productivity. Composers who worked in Paris before World War Two have been significantly more productive in terms of artistic output due to the positive externalities associated with a geographic cluster (Borowiecki 2013). The presence of artists is, however, also meaningful for the attractiveness and economic development of a region. Nussbaum and Sen (1993) posit that the presence of cultural talent allows for higher quality of life. An established arts and cultural sector is likely to attract entrepreneurs and creative individuals from other disciplines stimulating so economic development (Andersson and Andersson 2006).

3 Data

The selection of the composers covered by this study is based on Murray (2003) who provided a considerable and recognized survey of outstanding contributions to the arts and sciences from ancient times to the mid-twentieth century. The study of human accomplishment is conducted for several fields, including classical music. For each outstanding individual in every discipline, an index score is provided by Murray (2003), based on the amount of space allocated to the creative individual in

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[3] This is somewhat in contrary to early theories of migration that emphasized differences in salary levels as the primary cause of migration (e.g. Borjas 1987).

the reference works. Since composers mentioned in a greater number of reference works or with longer biographical entries are supposedly of better quality, the Murray's Index Score reflects an artist's lifetime achievements. The index score is normalized for all individuals listed in each discipline so that the lowest score is 1 and the highest score is 100. Since Murray's work is based on numerous international references, there exists hardly a risk of a bias towards the country where a reference work has been published or marketed.[4]

The focus of this analysis is put on individuals born after 1800, since the population, GDP and especially war data sets are available from that period onwards. There are several implicit advantages of the selected time period of the nineteenth and twentieth century. First, classical composers in this period were found to be extraordinary mobile individuals (O'Hagan and Borowiecki 2010). As a result, sensible migration analyzes become possible, especially as the geographic spread of composers is very high. Second, music composition became an entrepreneurial activity: classical works developed into a product which had a market price and the composer became a producer who faced diverse incentives to 'produce' in certain cities and countries (Scherer 2001).[5] Next, data on the lives of composers are available and relatively reliable, as opposed to, for example, artists of earlier periods. Furthermore, the period chosen covers wars that significantly shaped most recent history and encompasses many of the most influential composers of all time. Finally, the period under consideration covers only deceased composers hence an analysis of whole life periods becomes possible.

I use Grove Music Online (2009), the leading online source for music research, for the extraction of background information and migration patterns for the composers encompassed in this article. This large multivolume dictionary contains detailed biographies of all composers encompassed by this study, and it is "a critically organized repository of historically significant information" (Grove 2009, Preface); therefore, it is an ideal source for the purposes of this article.[6]

The focus of this analysis is directed only at the life periods of a composer in which music-related work dominated, that is, when the composer was composing, giving tours, conducting philharmonic orchestras, teaching at music schools, managing music institutions or simply travelling in search of inspiration. Due to such restriction, it is achieved that the encompassed individuals are much more comparable. Obviously, a music student or an individual engaged only in non-music-related activities would face very different migration propensities than a composer and, if for any reason such individuals would experience, for example, consistently more often war, the results might be driven by such heterogeneity, as opposed to reflect the real influence of war on individuals behaviour. Therefore,

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[4] See O'Hagan and Borowiecki (2010) for a discussion and an example of country- or marketing-bias in some recognised reference works.

[5] See also Borowiecki (2012) for a summary of composers' conditions in the analyzed time period.

[6] Note that the biographies included in the Grove Music Dictionary provide primarily music-related information (e.g. music-related parental background or duration of music training); any other records such as duration of general education are not consistently available. Note also that from now on with each reference to composer, I mean' *prominent* composer, the focus of this study. As the data encompasses only male composers, I use the male form.

by excluding the childhood, education and retirement life periods as well as periods in which only other professions were practiced, it is ensured that the individual from the sample was in fact a composer and hence more homogeneous. The location changes are recorded from the first year a composer becomes involved in a music-related activity other than learning, for example, the artist composes his first work.

The data on wars are taken from the Correlates of War (COW), as introduced in Sarkees (2000). The employed database covers military conflicts that occurred between 1816 and 1997 and provides records that allow to disaggregate them into inter-state war (i.e. war fought with an other state) and in intra-state war (i.e. war fought within state borders between government and non-government forces). The COW data set provides further a number of records for each war, for example, information in which region of the world the war occurred, the number of battle-related deaths sustained by the participants' armed forces and the size of the pre-war population. The war data set is linked with the composer database if the country of composers' residence has been involved in a conflict in a given year. Furthermore, using the records on the "region(s) where combat involving the state occurred" (i.e. the *WhereFought* variable), it is possible to control for wars that occurred in different parts of the world.[7] In order to concentrate on wars that had, if at all, a direct effect on composers' migration decisions, wars fought in remote regions are excluded from the main specifications. This restriction is motivated by the ample difference between wars that occurred in the region as opposed to wars that occurred say on a different continent. Wars that are fought in remote regions (e.g. colonial wars) would be often fought by wealthy states with a high international prestige, and hence, such wars could rather indicate the countries' overall economic and social welfare rather than the incidence of a conflict.[8] Furthermore, geographically remote wars should not have a detrimental effect to, for example, the cognition of security. Supposedly, people do not feel to be at risk of being harmed during wars that take place in remote regions. As a result, it might be expected that remote wars have a very different effect on composers' migration patterns.[9]

The analyzed time period coincides with several changes in the political structure of countries, and hence, the following adjustments have to be made. As the authors of the conflict database aggregate the wars for Germany before the unification in 1871 and for Italy for the period during the nineteenth century, I similarly aggregate composers for both states. For the years 1816–1918, during the existence of the

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[7] The COW database provides records whether combat occurred in any of the following regions: Western Hemisphere, Europe, Africa, Middle East, Asia or Oceania.

[8] This is less true for remote wars fought in the second half of the twentieth century. The results would, however, remain consistent if those conflicts were excluded (not reported).

[9] The impact of wars that occurred for example on a different continent might be indirect at the best and is not the prime focus in this article. It must be also noted that as the available war data sets do not provide any details on the exact micro location of wars (for instance on city-level), I am unable to differentiate between situations when a composer indeed witnessed a war. The further presented results must be interpreted in light of this caveat. From now on, I use the term 'international war' to denote wars that had combats occurring in the region of composers' country of residence.

Austria-Hungary Union, the composers as well the wars in Austria, Hungary or
Czech Republic are aggregated. As all composers in Czechoslovakia (state existing
from 1918 to 1993) were located within the boarder of Czech Republic, the
contemporary name is used. Furthermore, in order to study the extent of war-related
emigration from a country, the data set needs to be revised for composers who left
the country in order to serve the army, sustained a conflict-related death, or were
imprisoned abroad in forced labour camps. Consequently, a total of seven
composers are excluded from the sample and as a result this study encompasses
164 prominent composers.[10]

The population and GDP per capita records are obtained from Madisson (2006).
The used statistics on world population contains annual data from 1820 until 2006
for a majority of world countries. For a few missing years, the population and GDP
per capita series were linearly interpolated. Population is measured in thousands at
mid-year, and GDP per capita is measured in 1990 USD.

4 Empirics

This section describes and discusses the empirical analysis of this article. First, the
econometric estimation framework is presented. Second, summary statistics are
reported. Third, the relationship between war and migration intensity is presented
and discussed. Fourth, light is shed on how this relationship varies depending on
individual's quality, and finally, it is investigated what determines the choice of a
particular destination country.

4.1 Methodology

I propose a model that estimates the probability to emigrate based on a specification
at the individual year level:

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\begin{aligned}
P(\text{Emigrate}_{itc} = 1) = {} & \beta_0 + \beta_1 \text{War}_{tc} + \beta_2 \text{Age}_{itc} + \beta_3 \text{Age}_{itc}^2 + \beta_4 \text{Composer}_i \\
& + \beta_5 \text{Year}_t + \beta_6 \text{Country}_c + \beta_7 \text{GDP}_{tc} + \beta_8 \text{Population}_{tc} + \varepsilon_{itc}
\end{aligned}
$$

$$(1)$$

The dependent variable (Emigrate_{itc}) is an indicator function that takes the value one
for the composer i in the year t if he emigrated from the country c. We are primarily
interested how the probability to emigrate is influenced by the incidence of war
(War_{tc}), which is measured with an indicator function that takes the value one if a
war occurred in year t in country c. Therefore, of main interest is the coefficient β_1.
In order to assure a robust estimation of the war impact, I introduce a number of
control variables. I control for composer-age effects with a quadratic age polyno-
mial (Age_{itc} and Age_{itc}^2). In order to take account of unobservable composers'
heterogeneity, the specification contains further indicator functions that take the

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[10] I exclude the following composers: Alban Berg, Henry Cowell, Olivier Messiaen, Nikolay
Myaskovsky, Carl Orff, Richard Wagner and Ralph Vaughan Williams.

value one for each single composer (and zero otherwise).[11] The set of dummy variables takes account of any individual heterogeneity other than that which is controlled for by the individual-level variables that have been included in some specification. I also include dummy variables for each single year to deal with unobserved time heterogeneity. The introduction of country controls accounts for difference between countries.[12] I account for demand-specific factors by introducing control variables for logged population size and logged GDP per capita. In some specifications, I further control for some of composers' characteristics that could potentially influence the decision to migrate (e.g. duration of musical education). In additional estimations, I account for the duration and intensity of the observed wars. The standard errors (ε_{it}) are clustered at the composer level, allowing for correlations between observations of a single composer (within individual i), but remaining independent between composers (i.e. individual i and j do not have correlated errors). As the dependent variable is binary I estimate a maximum-likelihood probit model and report the marginal effects, that is, the discrete change in the probability for the dependent variable for an infinitesimal change in each explanatory variable. In this research design, reverse causality is not an issue. The causal relationship between migration and war appears to be clear: war influences composers' migration intensity, not the other way round.[13]

4.2 Data inspection

A summary of composer's characteristics is presented in Table 1. The data set encompasses individuals who were engaged in music-related work during most of their lives (around 46 out of 69 years).[14] One-third of the composers had a father who was involved in a music-related activity (e.g. played piano, acted as conductor), the mother was engaged in music in around 26 % of the cases, and in 22 %, there was any other family member of the composer involved in a music-related activity. The mean Murray's Index Score is 7.3 with a marked right skewed distribution. Nearly, one-third of the composers were born in the first half of nineteenth century, a half was born in the second part of nineteenth century and the remaining artists were born in the twentieth century. In more than 7 % of the yearly observations, composers migrated, which indicates that they moved between countries on average around 3.2 times during their lives. In the last panel of Table 1, it can be observed that composers' country of residence was involved during 6.7 years in international

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[11] The inclusion of a set of indicator functions for each composer is necessary, as estimation of a conditional fixed-effects probit model is not possible. This is so as there does not exist a sufficient statistic allowing the fixed effects to be conditioned out of the likelihood.

[12] As proposed by Vaubel (2005), a high degree of political fragmentation could significantly lower the migration cost between neighbouring jurisdictions. The employed country control variables account for this type of differences.

[13] One would not expect the effect to be reverse, that is, a war would not be expected to break as a result to emigration of composers. Conflict-induced migration could, however, occur in anticipation of war. Section 4.3 Migration and War provides an analysis on the temporal dynamics and discloses the extent of migration in expectation as well as in consequence of wars.

[14] See Appendix 1 for an extended list and essential background information of composers included in this study.

Table 1 Composer statistics

	Mean	SD
A. Background information		
Life span (in years)	69.17	15.28
Duration of career (in years)	45.74	15.24
Music-related engagement of father	0.33	0.47
Music-related engagement of mother	0.26	0.44
Music-related engagement of any other family member	0.22	0.42
Murray's Index Score	7.26	9.44
B. Birth cohort		
Birth cohort 1800–1849	0.34	0.47
Birth cohort 1850–1899	0.53	0.50
Birth cohort 1900–1949	0.13	0.34
C. Migration		
Migration (per annum)	0.07	0.26
Migration (per composer)	3.17	3.25
D. Wars that the country of residence of the composer participated in		
International wars (in years)	6.67	2.88
Civil wars (in years)	0.87	1.88
Duration of international wars (in years)	3.54	2.14
Duration of civil wars (in years)	2.39	3.33
Number of composers who experienced international war	119	–
Number of composers who experienced civil war	52	–

Source: Data on composers are obtained from Grove Music Online (2009) and Murray (2003). War data is employed from the correlates of war dataset (Sarkees 2000)

wars and 0.87 years in civil wars. The duration of inter-state wars is 3.5 years and is higher than the duration of intra-state wars that lasted around 2.4 years. A total of 119 composer lived at some stage during his life in a country engaged in an international war and 52 out of the studied individuals lived in a country involved in an intra-state conflict.

The list of wars that are encompassed in this article along with their duration is provided in Table 2. The average intra-state war occurred in a country where 3.8 composers were located and inter-state wars engaged countries with 14.5 artists. The composer was located in a country involved in civil war on average during 1.6 years before he emigrated or the war ceased. International wars lasted for 1.8 years before the conflict finished or the composer left the country.

A total of 28 countries have been visited by the composers covered in this study. A summary of the countries that played some role as the place of residence of classical composers, in particular, where the average composers stayed at least 0.1 years, is presented in Table 3. It can be viewed that France was the predominant country of residence for composers of the analyzed time period (visited by 73 artists and the average composer spent there 12.5 years). France is followed by United States (64 visits, 6.8 years), Germany (58 visits, 5 years) and Italy (31 visits,

Table 2 War statistics

Name of war	Duration		Number of composers residing in country engaged in war	Duration of composer's stay in country if it is engaged in war
	From	To		
Civil wars				
Russia versus Circassians	1829	1840	3	5.0
Austria-Hungary versus Magyars	1848	1849	1	1.0
Austria-Hungary versus Viennese	1848	1848	2	1.0
France versus Republicans	1848	1848	10	1.0
Two Sicilies versus Liberals	1848	1848	1	2.0
France versus Royalists	1851	1851	10	1.0
Untied States of America versus Confederacy	1861	1865	1	3.0
Russia versus Poles of 1863	1863	1864	4	1.8
France versus Communards	1871	1871	17	1.0
Spain versus Carlists of 1872	1872	1876	1	1.0
Untied States of America versus Sioux India	1876	1876	1	1.0
Russia versus Workers/Peasants	1905	1906	9	1.8
Russia versus Kirghiz and Kazables	1916	1917	4	2.0
Russia versus Anti-Bolsheviks	1917	1921	5	2.2
Finland versus Communists	1918	1918	1	1.0
Hungary versus Anti-Communists	1919	1920	2	2.0
Mexico versus Huerta Led Rebels	1923	1924	1	1.0
Mexico versus Cristeros	1926	1930	1	3.0
Russia versus Central Asian Rebels	1931	1934	4	3.3
Brazil versus Paolistas	1932	1932	1	1.0
Austria versus Socialists	1934	1934	5	1.0
Spain versus Asturian Miners	1934	1934	2	1.0
Spain versus Fascists	1936	1939	2	3.5
Average			3.83	1.60
International wars				
Mexican-American	1846	1848	1	1.0
Austro-Sardinian	1848	1848	3	1.7
First Schleswig-Holstein	1848	1848	8	1.8
Roman Republic	1849	1849	11	1.0
Crimean	1853	1856	18	2.6
Italian Unification	1859	1859	16	1.0
Italo-Sicilian	1860	1861	1	1.0
Second Schleswig-Holstein	1864	1864	8	1.0
Seven weeks	1866	1866	9	1.0
Franco-Prussian	1870	1871	21	2.0
Russo-Turkish	1877	1878	5	2.0

Table 2 continued

Name of war	Duration		Number of composers residing in country engaged in war	Duration of composer's stay in country if it is engaged in war
	From	To		
World War I	1914	1918	65	3.8
Russo-Polish	1919	1920	3	1.7
Hungarian-Allies	1919	1919	5	1.0
World War II	1939	1945	64	5.0
Russo-Finnish	1939	1940	5	2.0
Russo-Hungarian	1956	1956	4	1.0
Average			14.53	1.83

Source: see Table 1

4.1 years). Russia and Austria were visited by around 25 composers each, where the average artist spent 3.5 and 2.4 years of his life, respectively. The average country was engaged in 2.7 inter-state wars with a total duration of 7.2 years and in around one intra-state war with a total duration of 2.7 years.

Preliminary evidence for higher emigration rates in times of war can be gathered in Table 4 where I summarize for all analyzed life periods of the encompassed composers the mean migration rates depending on the presence or absence of a conflict in the country of the artists' residence. It can be observed that around 8.5 % of all composers emigrate in the absence of an international war. The share of migrant artists increases to 11.5 % in times of international conflict. The rise indicates that emigration rates were by around 3 % points higher during inter-state wars than during peace.

The emerging difference between times of peace and warfare is even greater for the case of intra-state wars. During civil wars, the emigration rate is almost twice as high as in times of peace. All discussed differences are significantly different from zero at the usual confidence intervals.

4.3 Migration and war

Table 5 summarizes the results based on the proposed Model (1). In the regression reported in Column (1), it can be observed that inter-state wars correspond with a marked increase of the emigration rate. Composers were 6.6 % more likely to depart from their country of residence during an international conflict. The impact of intra-state wars is also positive albeit small in size and statistically undistinguishable from zero. The specification also contains controls for demand-related factors: logged population size (an approximation for the size of potential demand) and logged GDP per capita (a proxy for individual wealth). The point estimates on both variables have a negative sign (albeit only the coefficient on GDP per capita is significant), providing some indication on composers' lower probability to emigrate from countries with larger population size or higher GDP per capita.

Table 3 Country statistics

Country	Number of composers that visited country	Average duration of stay (in years)	International wars		Civil wars	
			Number (count)	Total duration (in years)	Number (count)	Total duration (in years)
Austria	24	2.4	6	17	3	3
Czech Republic	11	1.6	1	1	0	0
Denmark	4	0.5	1	2	0	0
Finland	2	0.4	2	8	1	1
France	73	12.5	6	17	3	3
Germany	58	5	6	13	0	0
Hungary	5	0.6	3	7	1	2
Italy	31	4.1	6	16	1	2
Netherlands	7	0.8	1	1	0	0
Poland	1	0.1	1	1	0	0
Russia	27	3.5	7	17	6	27
Spain	5	0.5	0	0	3	10
Sweden	3	0.1	0	0	0	0
Switzerland	14	1.2	0	0	0	0
United Kingdom	25	3.2	2	12	0	0
United States	64	6.8	1	3	2	6
Average	15.78	1.92	2.69	7.19	0.96	2.7

Source: see Table 1

Reported are only countries where the average composers stayed at least 0.1 years

Table 4 Migration and war. Descriptive evidence

	Emigration if war absent (1)	Emigration if war present (2)	Difference (2) − (1)
Inter-state wars	0.0850*	0.1147*	0.0296*
	(0.0026)	(0.0216)	(0.0191)
Intra-state war	0.0851*	0.1579*	0.0728*
	(0.0026)	(0.0421)	(0.0322)

Standard errors are in parentheses

* Coefficients that are different from zero at the 10 % confidence interval

An arising question concerns the dynamics of the war impact. It is important to understand whether higher emigration occurs in anticipation or as consequence of the war. Therefore, I study the lags and leads of the war variables and report the results in Column (2). The impact of international wars remains high and significant in the year of the conflict and carries somewhat over to the next year. The influence of intra-state wars remains positive in the year the war occurs and rises considerably in the year afterwards. The importance of intra-state wars becomes visible with a

Table 5 Migration and war

	Emigrate	Emigrate	Emigrate (short wars only)	Emigrate	Immigrate
	(1)	(2)	(3)	(4)	(5)
Inter-state war $(t-2)$		0.0218	0.0161		
		(0.0339)	(0.0368)		
Intra-state war $(t-2)$		−0.0283	−0.0318		
		(0.0286)	(0.0274)		
Inter-state war $(t-1)$		0.0437	0.0701		
		(0.0397)	(0.0544)		
Intra-state war $(t-1)$		0.201***	0.186***		
		(0.0884)	(0.0920)		
Inter-state war (t)	0.0660***	0.0674***	−0.0116		−0.0182
	(0.0283)	(0.0297)	(0.0385)		(0.0154)
Intra-state war (t)	0.0179	0.0251	0.0894		0.00658
	(0.0304)	(0.0331)	(0.0914)		(0.0282)
Inter-state war $(t+1)$		−0.0211	−0.0371*		
		(0.0165)	(0.0153)		
Intra-state war $(t+1)$		0.00955	0.0676		
		(0.0433)	(0.0860)		
Remote war				−0.0277**	
				(0.0110)	
Log (Population)	−0.0601	−0.0556	−0.0976*	−0.0541	0.0161*
	(0.0480)	(0.0477)	(0.0527)	(0.0479)	(0.00847)
Log (GDP pc)	−0.00868*	−0.00905**	−0.00698	−0.00650	0.00278
	(0.00464)	(0.00460)	(0.00676)	(0.00476)	(0.00380)
Composer-age controls	Yes	Yes	Yes	Yes	Yes
Composer controls	Yes	Yes	Yes	Yes	Yes
year controls	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	Yes	Yes	Yes	Yes
Observations	5,258	5,258	4,105	5,258	5,258
R^2	0.191	0.196	0.212	0.189	0.227

Probit estimation techniques are employed. Marginal effects and pseudo R^2 terms are reported. Standard errors are clustered at the composer level and reported in parentheses. All variables are estimated at year t, unless stated otherwise. I do not report composer-age controls (estimated with a quadratic age polynomial), composer controls (estimated with dummy variables equal to one for each composer), year controls (estimated with dummy variables equal to one for each year), nor country controls (estimated with dummy variables equal to one for each country). The third column reports estimates for a restricted sample of wars that lasted only 1 year or less

***/**/* Estimates that are significantly different from zero at 99/95/90 % confidence

delay of one year and the estimated coefficient indicates that composers were 20 % more likely to emigrate if a civil war occurred in the previous year. Those effects disappear 2 years after the incidence of each conflict. There is also no significant relationship between wars and the probability to emigrate before the occurrence of

the war. The estimated magnitude of the coefficients for intra-state wars is greater than the coefficient for inter-state wars, implying that civil wars lead to greater migration flows in each year a conflict lasted. The results are consistent with previous literature that found intra-state wars causing higher emigration rates than international conflicts.

Next, I turn over to the question of the timing of conflict-induced migration. It is interesting to observe that intra-state-war-induced migration occurs with a lag of approximately 1 year. One possibility for such disparity in the timing could be a consistent difference in the duration of international wars and civil wars. Inter-state wars last usually longer than intra-state wars, and hence, a composer has more time to respond to the conflict and to emigrate. To explore the possibility of a lagged response to war, I exclude all wars that lasted longer than 1 year. The findings for the restricted sample are thus based on eight inter-state wars (i.e. Austro-Sardinian, First Schleswig–Holstein, Roman Republic, Italian Unification, Second Schleswig–Holstein, Seven Weeks, Hungarian-Allies and Russo-Hungarian) and nine intra-state wars (Austria vs. Socialists, Austria-Hungary vs. Viennese, Brazil vs. Paolistas, Finland vs. Communists, France vs. Republicans, France vs. Royalists, Spain vs. Asturian Miners, Two Sicilies vs. Liberals and United States of America vs. Sioux Indians) that lasted 1 year or less. This is a very demanding exercise as a large number of observations are lost. We are left with 139 annual observations when an international war lasted and 34 for civil wars. The results are presented in Column (3). I find that the estimated coefficients for both types of war are much more comparable in their timing: international inter-state wars and intra-state wars have the greatest effect on composers' emigration rates with an annual delay. Civil wars lead to a highly significant increase of the emigration rate in the following year by around 18.6 %. The effect of international wars is now also lagged by one year and implies an increased probability to emigrate by around 7 %. The coefficient on the inter-state wars has, however, a p value of 0.108 and lies thus outside the usual statistical confidence intervals.

The estimated specifications consider so far only wars that involved combat in the region where the composer resided. An arising question is whether the observed war-effect would prevail if one considered remote wars that involved combats only in other countries or continents than the state where the composer is residing. It is unlikely that such wars would convey the same effect on composers' emigration rates from the country involved in warfare. Wars fought on a different continent might not have, for example, any detrimental effect on the cognition of security. Furthermore, many of the covered conflicts fought on other continents have been colonial wars and involved usually wealthy states with a high international prestige. The presence of an effect of remote wars on composers' emigration is analyzed in a specification that is reported in Column (4). The point estimate is negative and indicates a 2.8 % decrease in the emigration intensity of composers. The result implies that the probability to emigrate decreases during the incidence of remote wars. One possible explanation is that engagement in colonial wars was usually associated with wealth accumulation and gain of prestige by the involved country, which might have disincentivized composers' emigration.

In the last specification [reported in Column (5)], I analyze the impact of wars on composers' immigration probabilities. An investigation is provided of the association between the incidence of war in the destination country and the probability to immigrate to that country. The employed data set records in which year a composer has immigrated to a country, and the probability to immigrate variable (i.e. Immigrate$_{itc}$) is modelled as a function of the participation of that country in war. The estimated coefficients on the war impact on immigration are marginal in size and not significant. It is reassuring that while the war-influence has a positive impact on the emigration rate, no such effect can be observed on the immigration rate. In other words, composers' probability to immigrate to a country is independent from the incidence of war. This result confirms that the analyzed wars have a clear negative impact on the number of composers located in a country, rather than simply an impact on the overall migration intensity. It is also encouraging to observe that the coefficients on the demand-specific variables have now a positive sign and have an increasing influence on composers' probability to immigrate to a country.

Each war is unique, and capturing the incidence of a war with a dummy variable might not adequately account for its heterogeneity. In particular, the varying level of war-related violence, as suggested by recent research, might have a strong impact on migration rates. Therefore, I further take account of the varying intensities of conflict. I introduce a variable that measures the number of battle-related deaths sustained by the armed forces of composer's country of residence.[15] In order to adjust the variable for differences in size between countries, as well as inter-temporal differences in country size, I express the battle-related deaths in relation to the pre-war population size of the country where the composer resided. Further account is taken of varying durations of wars and expresses the term per year of duration of a conflict.

The results are reported in Table 10 in Appendix 2. The estimated point estimates for the war-related deaths per population size are positive and statistically significant for both types of war. An annual battle-related loss of 1 % of population during an international conflict would increase composers' probability to emigrate by over 10 % and during civil war by around 16 %. It is encouraging that the results are consistent with the results discussed above as well as with findings from previous research: migration intensities increase with rising war-related violence and intra-state wars cause higher emigration rates. Next, I account for composers' migration history. For this reason, I count all moves that occurred during a composer's life and introduce that measure as an additional control variable. The results are presented in column (3) in Appendix 2. As one would expect, the migration history variable has a positive association with the probability to emigrate. The main results remain, however, very stable.[16]

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[15] For intra-state wars the number of deaths covers the total battle deaths of all participants, i.e., of the government and non-government forces. Both variables are obtained from the COW database.

[16] The results are also robust to a number of additional tests. Dropping countries with extreme characteristics (e.g. Russia) does not alter the findings. Neither does the inclusion of the life period when a composer has been in education. The results remain stable also if the years after World War II or either of the world wars was excluded. All results from the robustness estimations are available upon request.

4.4 Individual's quality and migration

The differences in the emigration rates depending on the quality of the individual are analyzed further. I distinguish between composers quality based on Murray's Index Score (MIS). In addition, I approximate composers' quality with the presence of a music-related engagement of the composer's family members (e.g. mother played piano, father acted as conductor). Since the Grove Dictionary lists musical engagement of family members only if those are of considerable importance, the proposed indicator functions could possibly approximate composers inherited skills and provide some rough indication on his inborn quality.[17] Furthermore, family members involved in a music-related activity could also contribute to a superior training of a young composer, as "musical development continues beyond the age of 7 or so only in an environment that provides some sort of tutelage" (Gardner 1997, p. 253). Therefore, it is likely that there exists a positive association between composers' quality and music-involvement of his family members.[18] In particular, I differentiate between artists whose either father, mother or any other family member was involved in a music-related activity.

The variations in the war-effect on composer's emigration probability depending on his quality are reported in Table 6. Column (1) summarizes the baseline results that is a specification that includes inter-state war at year t and intra-state war at $t -$ 1. In column (2), I investigate which individual characteristics correspond with higher emigration rates and include MIS, as an approximation of composers' quality, and an indicator function for the presence of any music-related engagement of composers' father, mother or any family member. I find that composers with higher MIS are more likely to emigrate: ten points more on MIS result in an increase of the probability to emigrate by around 1.8 %. Composers whose family members are engaged in a music-related activity are more likely to emigrate. The increase in the emigration propensity is the highest if composer's mother or any other family member had music background. In a further specification, I combine the war variables and the individual controls. The results are reported in column (3). The main results can be confirmed: inclusion of the additional individual controls does not alter the war-effect on emigration. I also observe that the point estimates for the measures of composers' characteristics remain consistent.

Next, interaction terms are introduced in order to study how the war impact differs depending on individual's traits. In Column (4), I introduce interaction terms between the conflict variables and MIS. I find consistent, positive and significant estimates for both war terms which provide further reassurance with regard to the robustness of the main results. It is also disclosed that the coefficients for the interaction terms are insignificant and negative. This indicates that with a higher

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[17] See Howe (1999) for a review of the relationship between individual's early family background conditions and mature attainments of creative people.

[18] An alternative mechanism is that composers with family members involved in a music profession can possibly avail of their network and have better access to demand and related supply industries. If this was the case, the introduced proxy of intrinsic ability would be potentially biased by the presence of social network. The further presented estimates on the indicators for music background of family members have to be thus interpreted as an upper bound of inborn ability.

Table 6 Individual's quality and migration

	Emigrate (1)	Emigrate (2)	Emigrate (3)	Emigrate (4)	Emigrate (5)	Emigrate (6)	Emigrate (7)
Inter-state war (t)	0.0650**		0.0650**	0.0731**	0.0439	0.0623*	0.0639**
	(0.0286)		(0.0286)	(0.0340)	(0.0285)	(0.0327)	(0.0311)
Intra-state war ($t - 1$)	0.211**		0.211**	0.342***	0.232**	0.119	0.213**
	(0.0884)		(0.0884)	(0.124)	(0.108)	(0.0847)	(0.103)
Murray's Index Score (MIS)		0.00176**	0.00202**	−0.00180			
		(0.000812)	(0.000818)	(0.00179)			
Music-related engagement of father (Father)		0.0151	0.0204		0.0404		
		(0.0313)	(0.0321)		(0.112)		
Music-related engagement of mother (Mother)		0.397***	0.428***			0.00144	
		(0.151)	(0.155)			(0.0801)	
Music-related engagement of any other family member (Family)		0.280***	0.287***				0.00322
		(0.0822)	(0.0837)				(0.0811)
Inter-state war* MIS				−0.00059			
				(0.00126)			
Intra-state war* MIS				−0.00550			
				(0.00415)			
Inter-state war* Father					0.0538		
					(0.0378)		
Intra-state war* Father					−0.0243		
					(0.0360)		
Inter-state war* Mother						0.00461	
						(0.0279)	
Intra-state war* Mother						0.0941	
						(0.102)	
Inter-state war* Family							0.00242
							(0.0307)

Table 6 continued

	Emigrate (1)	Emigrate (2)	Emigrate (3)	Emigrate (4)	Emigrate (5)	Emigrate (6)	Emigrate (7)
Intra-state war* Family							−0.0020
							(0.0557)
Composer-age controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Composer controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
year controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demand controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,258	5,258	5,258	5,258	5,258	5,258	5,258
R^2	0.191	0.182	0.191	0.192	0.191	0.191	0.191

Probit estimation techniques are employed. Marginal effects and pseudo R^2 terms are reported. Standard errors are clustered at the composer level and reported in parentheses. I do not report composer controls (estimated with dummy variables equal to one for each composer), year controls (estimated with dummy variables equal to one for each year), country controls (estimated with dummy variables equal to one for each country), nor demand controls (i.e. logged population and logged GDP per capita)

***/**/* Estimates that are significantly different from zero at 99/95/90 % confidence

MIS, composers are not affected to a different extent by war, or in other words, the better artists are not more likely to emigrate in times of conflict. I further include interaction terms between the war variables and the indicator function for music-related background of composers' father, mother or any other family members. The findings can be viewed in Columns (5)–(7). The overall war-effect remains consistent in size and sign: composers are more prone to emigrate in times of war. Interestingly, now the coefficients for the proxies for composers' quality diminish dramatically in size and turn insignificant. This means that no additional effect can be observed for composers with family members involved in music-related activity. Also, the estimated coefficients on the interaction terms are never significant, providing tentative evidence on the lack of any difference between better and worse artists.

The emerging picture is very interesting. While the better composers are more likely to emigrate in times of peace, it is not so anymore if a war breaks out. In times of war, all artists are affected by war and are prone to emigrate to a comparable extent. This finding is somewhat in line with Epstein et al. (1999). In times of peace, when the contest for privilege is easy and skills are of little significance in obtaining higher incomes, the best individuals emigrate first. Whereas when the contest becomes difficult and skills become a meaningful determinant of income distribution, as it is presumably the case in times of war, the selection deteriorates.

4.5 Destination of migration

An important question concerns the choice of a destination country: why does the conflict-induced migrant chose a particular destination? With the data set employed in this article, it is possible to overcome data limitations of previous research and to provide new insights into the determinants of choice of the destination country. I investigate the differences between the destination country and the origin country by focusing on a number of variables. I study whether the conflict-induced migrant has been before at the destination country and whether the destination country is the individual's country of birth. Furthermore, I analyze the differences in the number of composers, population size and GDP per capita between the destination and origin countries.[19]

The results are summarized in Table 7. In Column (1), I present the frequency a move occurred to a country that has been visited previously by the migrant, whether it was a composer's birth country, as well as the mean number of composers, population size and GDP per capita at the destination. In Columns (2) and (3), I disaggregate the observations into immigrations that are triggered by war, that is, if war was present in the origin country, and moves that occurred in times of peace, that is, during absence of war in the country of origin. The differences between those observations are summarized in Column (4). It can be viewed that if the move occurred during war, composers are over 9 % more likely to immigrate to a country where they have been before. Artists are also 4 % more prone to return to their country of birth if the move is triggered by war. Furthermore, if the migration is caused by the incidence of conflict in the origin country, composers are moving to a country with 2.1 less composers, 25 million lower population size and 815 USD lower GDP per capita.

The investigation of correlation is further complemented by a regression analysis. For this reason I estimate the relationship between the previously discussed set of variables and the incidence of migration when the origin country was involved in war (as opposed to migration when origin country has been at peace).[20] The results are presented in Table 8. It can be observed that each analyzed variable on a stand-alone basis has a similar relationship in terms of sign to the results discussed previously [columns (1)–(4)]. The association between immigration in times of war and the choice of a country where one has been before or difference in GDP per capita is only marginally outside the usual significance intervals (p value is equal to 0.128 and 0.111, respectively). Column (5) combines all variables in one specification when further composer age, year and country controls are introduced.

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[19] As the focus of this analysis lies on the choice of a particular country, rather than on modelling whether immigration occurred, Model (1) cannot be used. It would be preferred to estimate a model that accounts for differences in characteristics between all possible destination countries and the origin country, i.e., a model that would also provide insights on the issue why a composer has *not* chosen a particular country. It is refrained, however, from this approach due to the lack of data on all potential destinations, i.e., all countries that could have been chosen but were not.

[20] The formal model to be estimated is given by: $P((\text{Immigrate during war}_{itc}) = 1) = \beta_0 + \beta_1(\text{Been before at destination})_{tc} + \beta_2(\text{Difference in number of composers})_{tc} + \beta_3(\text{Difference in population})_{tc} + \beta_4 k(\text{Difference in GDP pc})_{tc} + \beta_5 \text{Age}_{itc} + \beta_6 \text{Age}_{itc}^2 + \beta_7 \text{Year}_t + \beta_8 \text{Country}_c + \varepsilon_{itc}$.

Table 7 Destination of migration. Descriptive evidence

	All migration (1)	Migration during peace in origin country (2)	Migration during war in origin country (3)	Difference (3) − (2)
Been before at destination	0.559*	0.546*	0.640*	0.094*
	(0.021)	(0.023)	(0.056)	(0.062)
Destination is birth country	0.277*	0.240*	0.283*	0.043
	(0.019)	(0.050)	(0.021)	(0.056)
Difference in number of composers	0.754*	1.054*	−1.093	−2.148*
	(0.420)	(0.447)	(1.193)	(1.209)
Difference in population	−349.1	2,658.2*	−22,659.6*	−25,317.8*
	(3,583.9)	(3,682.3)	(12,425.1)	(11,012.3)
Difference in GDP pc	110.5	207.4*	−608.2	−815.6*
	(0.155)	(0.155)	(0.618)	(0.478)

Characteristics and differences to origin country

Standard errors are in parentheses. Differences are calculated between destination country and origin country

* Coefficients that are different from zero at the 10 % confidence interval

The probability of choosing a country that a composer has been before is higher by 29 % in times of war. The country with a lower number of composers and smaller population is more likely to be chosen by the conflict-induced migrant. In contrary to previous findings, the destination in times of war has a greater GDP per capita. It must be, however, noted that this specification contains possibly some noise due to multicollinearity issues, as for example, countries with larger population would have consistently more composers and often also greater wealth. Another problem with this specification is that the number of observations decreases substantially due to perfect predictability of some of the control variables. For these reasons, the specification presented in column (5) should be interpreted together with the simple estimations reported in columns (1)–(4).[21]

The disclosed patterns seem to indicate that during times of war, composers emigrate to countries where they have been before or where they have been born. It is possible that the decision to emigrate in times of war has been made under pressure and in an environment where life might be endangered and cognition of security is low. Therefore, composers' main motivation for the emigration could be simply the exit from the country engaged in war and the move to a secure region. In times of peace, however, composers migrate to countries that seem to be better for them from the perspective of their careers. The chosen destination, if there is no pressure in form of war, is a larger and wealthier country. Furthermore, it is a

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[21] The results are very similar in a robustness specification that excludes immigration to USA (not reported).

Table 8 Destination of migration. Regression results

	Immigrate during war (1)	Immigrate during war (2)	Immigrate during war (3)	Immigrate during war (4)	Immigrate during war (5)
Been before at destination	0.0448				0.289**
	(0.0290)				(0.2390)
Difference in number of composers		−0.00269*			−0.0176**
		(0.0015)			(0.0054)
Difference in population			−0.00534**		−0.0214**
			(0.0024)		(0.0105)
Difference in GDP pc				−0.00885	0.0578***
				(0.0055)	(0.0289)
Composer-age controls	No	No	No	No	Yes
year controls	No	No	No	No	Yes
Country controls	No	No	No	No	Yes
Observations	549	536	362	362	53
R^2	0.0053	0.0073	0.0188	0.0099	0.691

Characteristics and differences to origin country

Standard errors are clustered at the composer level and reported in parentheses. The dependent variable is an indicator function that takes the value one if migration coincided with war in the origin country and zero for migration in times of peace. Differences are calculated between destination country and origin country. Difference in population size is measured in 10,000 citizen

***/**/* Estimates that are significantly different from zero at 99/95/90 % confidence

country with more classical composers which presumably enables better interactions with peers and potentially leads to productivity gains (compare Borowiecki 2013). The results provide quantitative support for the explanations proposed in Nannestad (2007): conflict-induced migrating composers seem to move towards secure and relatively poorer destination countries than the average migrant. The emerging picture adds also to the arguments provided by Ibanez and Moya (2010) on the associated decrease of welfare of households that are displaced due to the incidence of war.

5 Conclusion

This article provides new insights into the decision-making process of conflict-induced migrants. The analysis is based on a unique database that records basic background information and migration patterns of 164 prominent classical composers, and links it with the occurrence of inter-state and intra-state wars for the time period 1816–1997. I find that the incidence of international war increases composers' probability to emigrate by approximately 7 % and the incidence of civil war leads to around 19 % higher emigration propensities. The findings are consistent with previous research conducted on the causes of war-related migration: wars within states lead to higher emigration rates compared with wars between

states. The results are also in coherence with previous findings of increasing refugee flows with higher war-related violence. It is further illuminated that conflict impacts individual's migration intensity with a lag of around 1 year and, based on individual's quality, tentative evidence on heterogeneous migration patterns in times of conflict and peace are disclosed. While in the absence of war the best composers are most likely to emigrate, in times of conflict, all artists, irrelevant of quality, are affected by the incidence of war and emigrate to a similar extent. I finally investigate the choice of a destination country and find that in times of war, composers are supposedly more likely to emigrate to countries that they already know and are familiar with, instead of choosing countries that would be beneficial for their career.

This research provides new insights towards the growing literature in development economics (and political sciences) on the magnitude and dynamics of migration in consequences of war. The presented results are also of relevance to the migration economics research strand, as it sheds some light on the extent of migration propensities of individuals during times of peace and war. Finally, this study tentatively adds to the understanding of the marked shifts of artistic clusters. Prominent composer exhibit high migration intensity and this mobility is even greater during times of war. As a result, it is possible that the incidence of wars have set in motion a critical mass of composers which has then contributed to the reallocation of a geographic cluster for classical music.

This research does not come without limitations. The analysis is obviously based on an extreme non-random sample and any generalization is difficult. Nonetheless, it is likely that the covered prominent composers are to some extent representative of classical composers in general. This claim is particularly realistic in the light of recent findings by Borowiecki and O'Hagan (2012), who found a large degree of similarity in migration patterns of top composers and all composers listed in the Grove Music Online Dictionary. Any deduction of the findings to other groups of creative individuals is even more difficult. It is nonetheless possible that also visual artists, writers or even entrepreneurs have responded in the past similarly to the incidence of war.

Appendix 1

See Table 9.

Table 9 Composers included in this study

Name	Year of birth	Year of death	Country of birth	Murray's index score	Migration (count)	Inter-state wars	Intra-state wars
Adam, Adolphe	1803	1856	France	3	6	4	3
Albeniz, Isaac	1860	1909	Spain	4	5	1	1
Alfano, Franco	1875	1954	Italy	1	1	14	0
Arensky, Anton Stepanovich	1861	1906	Russia	1	1	1	0
Auric, Georges	1899	1982	France	2	0	14	0
Badings, Henk	1907	1986	Netherlands	1	2	4	0
Balakirev, Mily Alekseyevich	1836	1910	Russia	6	2	7	4
Barber, Samuel	1910	1981	United States	4	2	18	0
Bartok, Bela	1881	1945	Hungary	18	9	5	2
Bax, Sir Arnold	1883	1953	England	3	2	16	0
Beck, Conrad	1901	1989	Switzerland	1	1	0	0
Bellini, Vincenzo	1801	1835	Italy	9	1	0	0
Benoit, Peter	1835	1900	Belgium	1	3	1	0
Berlin, Irving	1888	1987	Russia	1	2	15	0
Berlioz, Hector	1803	1869	France	41	5	11	2
Bizet, Georges	1838	1875	France	10	1	9	1
Blacher, Boris	1903	1974	Germany	2	0	7	0
Bliss, Sir Arthur	1891	1975	England	2	4	10	0
Bloch, Ernest	1880	1959	Switzerland	3	3	9	0
Boito, Arrigo	1842	1917	Italy	3	0	6	0
Borodin, Aleksandr	1833	1887	Russia	8	0	2	2
Brahms, Johannes	1833	1897	Germany	35	1	2	0
Bruch, Max	1838	1920	Germany	2	2	10	0
Bruckner, Anton	1824	1896	Austria	19	2	4	0
Bruneau, Alfred	1857	1933	France	2	0	12	0
Burkhard, Willy	1900	1954	Switzerland	1	0	0	0
Busoni, Ferruccio	1866	1924	Italy	8	11	1	0
Carter, Elliott	1909	2000	United States	4	8	14	0
Casella, Alfredo	1883	1947	Italy	4	6	13	0
Chabrier, Alexis	1841	1894	France	5	0	11	1
Chabrier, Emmanuel	1841	1894	France	5	4	12	1
Charpentier, Gustave	1860	1956	France	2	2	19	0
Chausson, Ernest	1855	1899	France	3	0	3	0
Chavez, Carlos	1899	1978	Mexico	2	14	2	4
Chopin, Fryderyk Franciszek	1810	1849	Poland	32	1	0	0
Copland, Aaron	1900	1990	United States	7	1	16	0
Cornelius, C. Peter	1825	1874	Germany	2	6	5	0

Table 9 continued

Name	Year of birth	Year of death	Country of birth	Murray's index score	Migration (count)	Inter-state wars	Intra-state wars
Cui, Cesar	1835	1918	Russia	3	0	10	7
Dallapiccola, Luigi	1904	1975	Croatia	7	1	7	0
Dargomizhsky, S. Aleksandr	1813	1869	Russia	3	2	4	9
David, Felicien	1810	1876	France	1	3	13	3
Debussy, Claude	1862	1918	France	45	12	6	0
Delibes, Clement	1836	1890	France	2	0	14	1
Delibes, Leo	1836	1891	France	2	0	14	1
Delius, Frederick	1862	1934	England	7	4	9	0
Dohnanyi, Ernst von	1877	1960	Hungary	2	1	12	0
Dukas, Paul	1865	1935	France	4	2	10	0
Duparc, Henri	1848	1932	France	3	1	3	1
Durey, Louis	1889	1978	France	1	1	17	0
Dvorak, Antonin	1841	1904	Czech	13	6	0	0
Elgar, Edward	1857	1934	England	8	2	6	0
Ellington, Duke	1899	1973	United States	2	0	20	0
Enesco, Georges	1881	1955	Romania	2	10	12	0
Falla, Manuel de	1876	1946	Spain	9	4	2	5
Faure, Gabriel	1845	1924	France	13	1	16	1
Fibich, Zdenek	1851	1901	Czech	2	2	0	0
Flotow, Friedrich Freiherr von	1812	1883	Germany	2	4	4	1
Flotow, Friedrich von	1812	1882	Germany	2	6	6	1
Fortner, Wolfgang	1908	1987	Germany	2	0	7	0
Foster, Stephen	1827	1863	United States	2	1	1	3
Franck, Cesar	1822	1890	France	15	0	15	3
Franz, Robert	1815	1892	Germany	1	1	6	0
Gade, Niels Wilhelm	1817	1890	Denmark	3	1	1	0
Gerhard, Roberto	1896	1970	Spain	1	3	11	4
Gershwin, George	1898	1937	United States	6	0	2	0
Glazunov, Aleksandr K.	1865	1936	Russia	4	4	9	8
Glier, Reingol'd Moritsevich	1875	1956	Russia	1	0	19	12
Glinka, Mikhail Ivanovich	1804	1857	Russia	8	7	3	8
Gottschalk, Louis	1829	1869	United States	1	2	1	0
Gounod, Charles-Francois	1818	1893	France	13	5	12	2

Table 9 continued

Name	Year of birth	Year of death	Country of birth	Murray's index score	Migration (count)	Inter-state wars	Intra-state wars
Grieg, Edvard Hagerup	1843	1907	Norway	11	5	0	0
Haba, Alois	1893	1973	Czech	2	3	1	0
Harris, Roy	1898	1979	United States	3	5	18	0
Hartmann, Karl	1906	1963	Germany	1	0	7	0
Hauer, Josef	1883	1959	Austria	1	0	12	1
Hindemith, Paul	1895	1963	Germany	19	6	11	0
Holst, Gustav	1874	1934	England	5	2	6	0
Honegger, Arthur	1892	1955	France	9	0	14	0
Humperdinck, Engelbert	1854	1921	Germany	3	8	5	0
Ibert, Jacques	1890	1962	France	2	3	11	0
Ives, Charles Edward	1874	1954	United States	8	0	12	0
Janacek, Leos	1854	1928	Czech	7	3	1	0
Jolivet, Andre	1906	1974	France	3	0	9	0
Kabalevsky, Dmitry Borosovich	1904	1987	Russia	2	0	9	4
Kern, Jerome	1885	1945	United States	1	2	8	0
Kjerulf, Halfdan	1816	1868	Norway	1	1	0	0
Kodaly, Zoltan	1882	1967	Hungary	7	3	7	2
Koechlin, Charles	1868	1950	France	2	0	14	0
Krenek, Ernst	1901	1991	Austria	6	4	19	1
Lalo, Edouard	1823	1892	France	3	0	15	3
Lanner, Josef	1801	1842	Austria	1	4	0	0
Lecocq, Charles	1832	1918	France	1	2	19	0
Leoncavallo, Ruggero	1857	1919	Italy	3	6	8	0
Liszt, Franz	1811	1886	Hungary	43	2	6	0
Loewe, Frederick	1901	1987	Germany	1	3	16	0
Lortzing, Albert	1802	1850	Germany	4	2	2	1
Macdowell, Edward	1860	1908	United States	3	1	1	0
Mackenzie, Alexander	1848	1934	England	1	3	6	0
Mahler, Gustav	1860	1911	Austria	23	11	0	0
Malipiero, Gian Francesco	1882	1973	Italy	5	2	13	0
Martin, Frank	1890	1974	Switzerland	3	3	0	0
Martinu, Bohuslav	1890	1959	Czech	3	12	9	0
Mascagni, Pietro	1863	1945	Italy	3	4	14	0

Table 9 continued

Name	Year of birth	Year of death	Country of birth	Murray's index score	Migration (count)	Inter-state wars	Intra-state wars
Massenet, Jules Emile Frederic	1842	1912	France	9	0	8	1
Mendelssohn, Felix	1809	1847	Germany	30	2	0	0
Milhaud, Darius	1892	1974	France	13	7	13	0
Musorgsky, Modeste Petrovich	1839	1881	Russia	16	0	2	0
Nicolai, Otto	1810	1849	Germany	2	5	2	0
Nielsen, Carl	1865	1931	Denmark	3	3	0	0
Novak, Vitezlsav	1871	1949	Czech	1	1	1	0
Offenbach, Jacques	1819	1880	Germany	6	2	13	4
Parker, Horatio	1864	1919	United States	2	0	3	0
Petrassi, Goffredo	1905	2000	Italy	2	0	9	0
Pfitzner, Hans	1869	1948	Russia	4	4	12	0
Pijper, Willem	1895	1948	Netherlands	1	0	1	0
Pizzetti, Ildebrando	1880	1968	Italy	4	0	14	0
Poulenc, Francis	1899	1963	France	8	2	14	0
Prokofiev, Sergey	1891	1953	Russia	12	12	16	3
Puccini, Giacomo	1858	1924	Italy	10	2	6	0
Rachmaninoff, Serge	1873	1943	Russia	7	6	5	1
Ravel, Maurice	1875	1937	France	23	1	5	0
Reger, Max	1873	1916	Germany	7	2	3	1
Respighi, Ottorino	1879	1936	Italy	3	1	8	0
Reyer, Ernest	1824	1908	France	1	0	17	3
Rimsky-Korsakov, Nikolay A.	1844	1908	Russia	15	2	5	2
Roussel, Albert	1869	1937	France	5	4	4	0
Ruggles, Carl	1876	1971	United States	1	0	19	0
Saint-Saens, Camille	1835	1921	France	13	6	19	1
Satie, Erik	1866	1925	France	7	1	10	0
Schaeffer, Pierre	1911	1995	France	2	1	8	0
Schmitt, Florent	1871	1958	France	4	2	17	0
Schoenberg, Arnold	1874	1951	Austria	39	8	12	0
Schreker, Franz	1878	1933	Austria	2	1	5	0
Schuman, William	1910	1992	United States	2	1	19	0
Schumann, Robert	1810	1856	Germany	42	5	2	0
Scryabin, Alexander	1872	1914	Russia	8	4	2	0
Sessions, Roger	1896	1985	United States	4	1	20	0
Shostakovich, Dmitry	1906	1975	Russia	12	6	12	7
Sibelius, Jean	1865	1957	Finland	10	14	6	1

Table 9 continued

Name	Year of birth	Year of death	Country of birth	Murray's index score	Migration (count)	Inter-state wars	Intra-state wars
Sinding, Christian	1856	1941	Norway	1	3	5	0
Smetana, Bedrich	1824	1884	Czech	12	2	0	0
Stanford, Sir Charles Villiers	1852	1924	England	3	1	7	0
Strauss, Johann (Jr.)	1825	1899	Austria	5	7	5	2
Strauss, Richard	1864	1949	Germany	26	8	6	1
Stravinsky, Igor	1882	1971	Russia	45	10	20	2
Sullivan, Sir Arthur	1842	1900	England	5	6	3	0
Szymanowski, Karol	1882	1937	Poland	4	12	2	1
Tailleferre, Germaine	1892	1983	France	2	4	20	0
Tavener, John	1944	2008	England	3	1	2	0
Tchaikovsky, Pyotr Il'yich	1840	1893	Russia	20	3	0	0
Thomas, Ambroise	1811	1896	France	3	1	16	3
Thomson, Virgil	1896	1989	United States	3	3	19	0
Tippett, Sir Michael	1905	1988	England	5	4	13	0
Verdi, Giuseppe	1813	1901	Italy	30	4	4	2
Villa-Lobos, Heitor	1887	1959	Brazil	4	10	6	1
Vogel, Wladimir	1896	1983	Russia	1	1	0	0
Walton, Sir William	1902	1983	England	3	5	0	0
Webern, Anton	1883	1945	Austria	19	7	11	0
Weill, Kurt	1900	1949	Germany	5	2	5	0
Wellesz, Egon	1886	1974	Austria	2	4	17	1
Wolf, Hugo	1860	1903	Austria	11	7	0	0
Wolf-Ferrari, Ermanno	1876	1948	Italy	2	7	7	0
Zemlinsky, Alexander von	1872	1941	Austria	1	4	2	1

Source: see Table 1

'Inter-state wars' and 'Intra-state wars' lists the number of inter-state and intra-state wars, respectively, that the country of composer's residence participated in during his life

Appendix 2

See Table 10.

Table 10 Migration, war-related violence and migration history

Explanatory variables	Emigrate (1)	Emigrate (2)	Emigrate (3)
Inter-state war	0.0650**		0.0650**
	(0.0286)		(0.0286)
Intra-state war $(t-1)$	0.211**		0.211**
	(0.0884)		(0.0884)
Inter-state war deaths adjusted by pre-war population		0.105**	
		(0.0469)	
Intra-state war deaths adjusted by pre-war population		0.164*	
		(0.0998)	
Migration history			0.0087**
			(0.0045)
Composer-age controls	Yes	Yes	Yes
Composer controls	Yes	Yes	Yes
year controls	Yes	Yes	Yes
Country controls	Yes	Yes	Yes
Observations	5,258	5,260	5,258
R^2	0.191	0.19	0.194

Probit estimation techniques are employed. Marginal effects and pseudo R^2 terms are reported. Standard errors are clustered at the composer level and reported in parentheses. All variables are estimated at year t. I do not report composer-age controls (estimated with a quadratic age polynomial), composer controls (estimated with dummy variables equal to one for each composer), year controls (estimated with dummy variables equal to one for each year), nor country controls (estimated with dummy variables equal to one for each country). Migration history measures the number of international moves of each composer (see also Panel C in Table 1)

***/**/* Estimates that are significantly different from zero at 99/95/90 % confidence

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