

A comparative study of Franco-German film markets and cross-border film transmissions

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I. Introduction

Film and television is one of the most popular forms of entertainment, with Europeans spending an average of 219 minutes per day in front of the TV¹. As cultural products, movies therefore play an important part in conveying a culture's imagination, norms and values. They can also help in building common identities and feelings of belonging internal and between cultures.

As such, transnational film is an important tool to increasing pan-European cultural exchange and fostering a shared public sphere². To better encourage pan-European film circulation, it is however crucial to first (1) identify characteristics in national film markets and production industries and (2) identify the factors of trans-border transmission.

This paper therefore focuses on these two aspects. Due to scope, the analysis will be restricted to Franco-German film markets. To add to the literature presented in II., the paper focuses on identifying trends in cross-border movie transmissions between France and Germany and their cross-border transmission time-lag as a function of Franco-German co-operations.

II. Literature review

Similar research by Alaveras, Gomez-Herrera and Martens (2018)³ explored cross-border circulation of film in the EU. A key pattern they identified was that US films penetrated all EU markets alongside domestic productions, yet intra-EU film circulation was severely limited. Overall intra-EU cross-border movie availability was 15% only. It was also observed that success in the home market correlated positively with chance of export, yet there is a time-lag between domestic release and export, as the movie first needs to prove successful. This time lag was however not quantified, and no differences in time lag between national and international co-productions were explored.

Martin Kanzler (2015)⁴ refines this impression with a perspective of extra-European export markets. Here, France (48%) and the UK (39%) made up the near totality of international EU movie exports in 2015, which may pinpoint to their movie industries' higher exportability as compared to Germany, whose productions made up just 4% of international EU movie exports. Nevertheless, the top five movies (four of which produced by France) in 2015 were all English-language, which shows the importance of language in exportability. In light of this highly divergent export success, this paper's analysis will therefore also consider exportability as a function of culture.

¹ <https://www.statista.com/statistics/422719/tv-daily-viewing-time-europe/>, accessed 12.10.21.

² https://www.europarl.europa.eu/doceo/document/A-8-2015-0123_EN.html?redirect, accessed 12.10.21.

³ Alaveras, Georgios and Gomez-Herrera, Estrella and Martens, Bertin, Cross-Border Circulation of Films and Cultural Diversity in the EU (November 1, 2018). *Journal of Cultural Economics*, 42:645–676 (2018), Available at SSRN: <https://ssrn.com/abstract=3342022>

⁴ <https://rm.coe.int/16807835b7>, accessed 12.10.21.

III. Data and Methodology

The data was obtained from the European Audiovisual Observatory's Lumière Database, which aggregates national EU film market databases in cooperation with the EU's MEDIA program. The database covers almost the entirety of movies produced and co-produced in the EU, as well as their yearly admissions (meaning number of unique cinema visits) in each EU country they ran in.

Four separate queries were downloaded their website's search function⁵: (1) German movies with production years 2000-2020, minority co-productions included, (2) German movies with production years 2000-2020, minority co-productions excluded, (3) French movies with production years 2000-2020, minority co-productions included, (4) French movies with production years 2000-2020, minority co-productions excluded. Due to licensing restrictions, the analysis was limited to the top 200 movies of each category, by number of total EU admissions. For each query, four separate CSV files corresponding to an overview of 50 movies each were downloaded via the 'Export CSV' function. Subsequently, for each of the four queries, 200 detailed datasets for each film were manually downloaded by the 'Export CSV' function in the detailed movie overview.

Please note for the scope of this analysis that *Majority producing country* and *Co-Producing Country* are defined by the Lumière database due to lack of international standards. A *Majority Producing country* can be considered the country of origin and is for the most part determined by the nationality of the director and subsidiarity of the cultural content of the film^{6 7}. A *Minority Producing Country* is a co-producer in a movie with a different country of origin.

The analysis of data was performed with Python, using the libraries Pandas, Matplotlib, NumPy and Seaborn⁸.

⁵ <https://lumiere.obs.coe.int/web/search/>

⁶ <https://lumiere.obs.coe.int/web/sources/astuces.html>, accessed 12.10.21.

⁷ <https://rm.coe.int/16807835b7>, accessed 12.10.21.

⁸ For more detail, please see the .ipynb file notebook

IV. Results*

A. Average total admissions by movie category

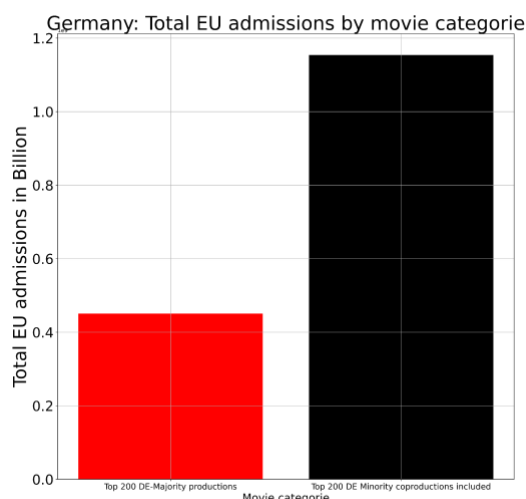


Figure 1.1.

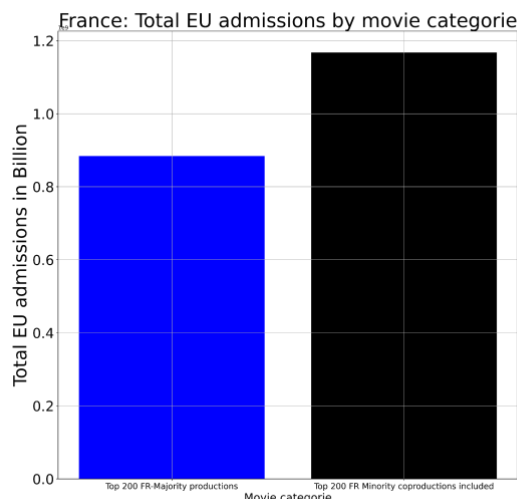


Figure 1.2.

Figures 1.1. and 1.2. show the total EU admissions of Germany's and France's top 200 most successful films by movie category. The left graphic addresses German movies, while the right graphic addresses French movies. In each graphic, there are two bars. While the total EU admissions (in billions) from one country in majority production are shown in colour, the total admissions in majority production with minority co-production included are shown in black.

Total admissions for Germany's and France's top 200 movies with minority co-production included are similar: 1,154,099,494 for Germany and 1,167,777,527 for France. This number includes both movies that were primarily produced by either Germany or France ("majority production") and movies partly produced by either country ("minority production").

However, when only comparing the majority productions (minority production excluded) of France and Germany, we get a different picture. As Figure 1.1 and 1.2. demonstrate, France's total admissions (blue bar in graphic 1.1.) are about twice as high as that of Germany (red bar in graphic 1.2.): 884,223,417 for France versus 450,640,320 for Germany.

This total EU admissions overview suggests (1) that while German co-produced movies can compete with French co-produced movies, (2) German-majority productions perform worse than French-majority productions. This implies either a weaker domestic film industry in Germany or a higher market saturation by foreign films. This aggregated EU admission figures however do not yet allow to reflect on exportability. We also need to keep in mind that these numbers and figures only account for the top 200 most successful movies in each country and not for the whole film industry and thus, are only of limited representativity.

*** For all detailed numbers please consult the complementary spreadsheet**

B. Average admissions in other country by movie category

Germany

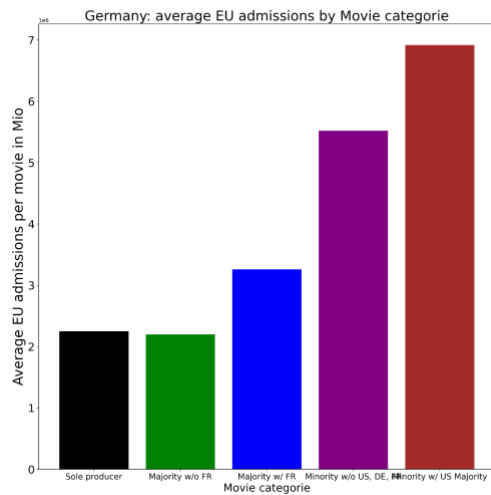


Figure 2.1.1.

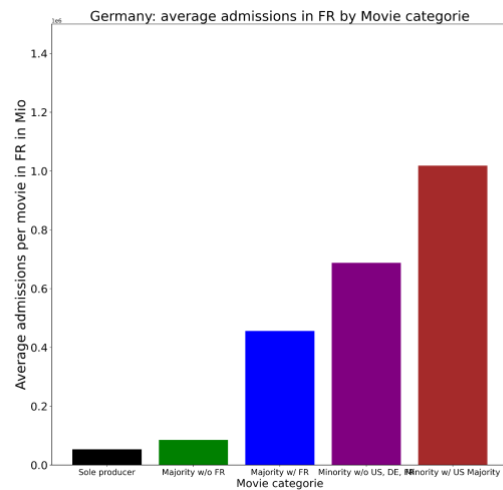


Figure 2.1.2.

Description of labels: black (sole producer), green (majority without France), blue (majority with France), purple (minority without US and France), red (minority with US majority)

Figures 2.1.1. and 2.1.2. show the average EU total admissions (Figure 2.1.1.) and average total admissions in France (Figure 2.1.2.) for movies produced or co-produced by Germany as a function of their producing-country composition.

Data shows that German-only productions as well as German majority, non-FR minority productions have on average the least admissions, both on the EU and France-only level. This might be due to a smaller target market, as these movies are predominantly produced in and for Germany (83.9% and 78.0%, respectively, of admissions are made in Germany). This is further confirmed by the filtering effect of borders, as only 2.37% of total EU admissions for German-only productions are made in France, and 3.88% for German majority, non-FR minority productions.

German majority productions involving France as a co-producer register 44.83% more admissions in the EU than solely German productions, and make 14.06% of their admissions in France. The higher success in average admissions thus, while partially explained by better reception in France, can not only be attributed to larger target markets. In fact, these movies make 43.5% of their total admissions outside of Germany and France (42.5% in Germany, 14.0% in France) - an unknown variable could either be their production language or a total higher budget, which would suggest the Franco-German motor plays an important role in the movie industry, too.

We can also observe that on average, US majority production movies with Germany as co-producer (red column) make about 6.91 million admissions on a EU-wide level, and thus are the best performing movies. The same holds for the France-only level, where the average admissions size for this category is 1.02 million. France therefore accounts for 14.71% of the average EU admissions for US majority production with Germany as minority co-producer, corresponding to France's EU population share of

14%. France thus consumes US-majority, Germany minority produced movies proportional to EU population share, which points to the high cross-border mobility of U.S. movies as demonstrated by Alaveras, Gomez-Herrera and Martens (2018).

France

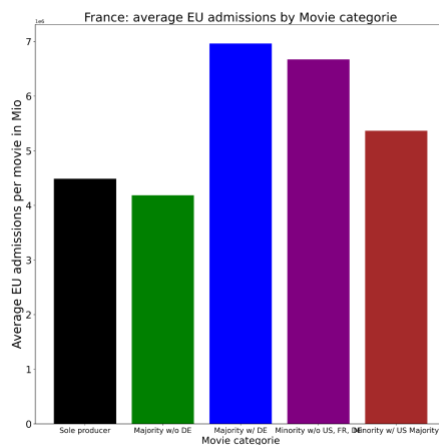


Figure 2.2.1.

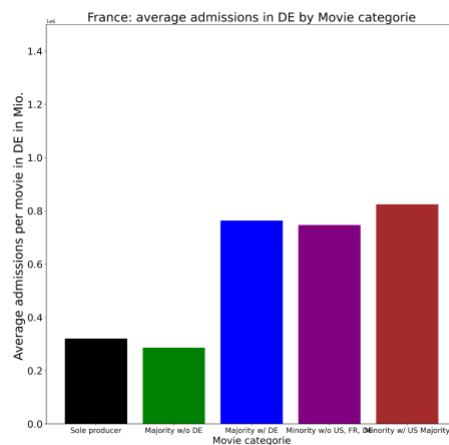


Figure 2.2.2.

Description of labels: black (sole producer), green (majority without Germany), blue (majority with Germany), purple (minority without US and Germany), red (minority with US majority)

Figures 2.2.1. and 2.2.2. show the average EU total admissions (Figure 2.2.1.) and average total admissions in Germany (Figure 2.2.2.) for movies produced or co-produced by France as a function of their producing-country composition. These figures are therefore the mirrored version of Figures 2.1.1. and 2.1.2. from the French side.

Comparing both figures, the border-selection effect seems attenuated for French movies in Germany compared to Germany movies in France: the share of total EU admissions made in Germany for French-only and French majority, non-DE minority productions (7.24% and 6.84%) is higher than their German mirrors (2.37% and 3.89%). This difference might either be due to Germans being more susceptible to French-produced movies (and by proxy, culture - see Lumière classification methodology) or French exclusionary film market policies, which would skew percentages.

Curiously, we observe that at an EU-wide level, the most successful movie category is that of French majority productions with Germany as minority co-producer. With an average of EU-wide admissions of ca. 6.94 million, this category of movies is on average as successful as U.S. majority, German minority productions. This category's share of total EU admissions made in France is 52.2% and in Germany only 10.96%, meaning this larger success is not only due to Germany being a more important market, but also due to higher international success outside of both countries. Depending on the unknown variable (language or budget), this might be further indication that the Franco-German motor is also a productive force in film.

French minority, U.S. or other non-U.S./DE majority productions still fare comparatively better than French-only and French majority, non-DE minority productions, however, mirroring Germany. The proportions are less skewed however - which might point to both a more successful French domestic production industry or a *hostile-to-foreign* production environment, as will be explored in the V.

They also seem to have an easier time traversing the border to Germany, with U.S. majority and other non-U.S./DE, French minority productions making the highest share of their EU total revenues in Germany (15.37% and 12.40%), mirroring once more higher cross-border mobility of U.S. movies as demonstrated by Alaveras, Gomez-Herrera and Martens (2018) and perhaps the role of (English) language.

C. Correlation between total admissions and transnational admissions

Germany

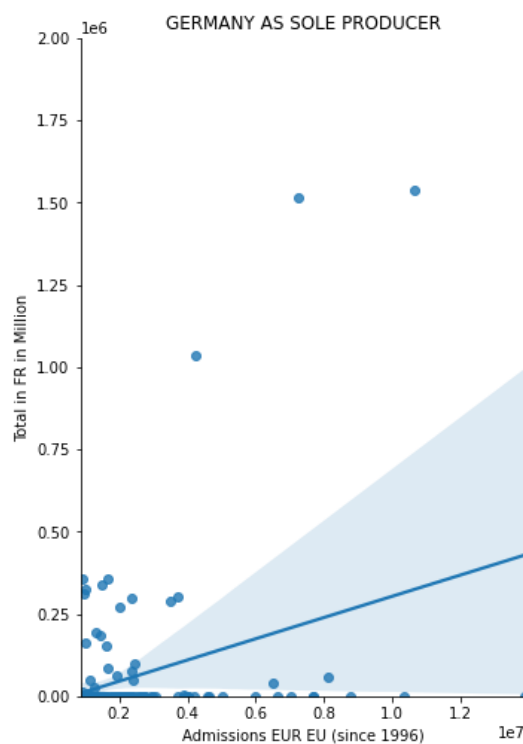


Figure 3.1.1

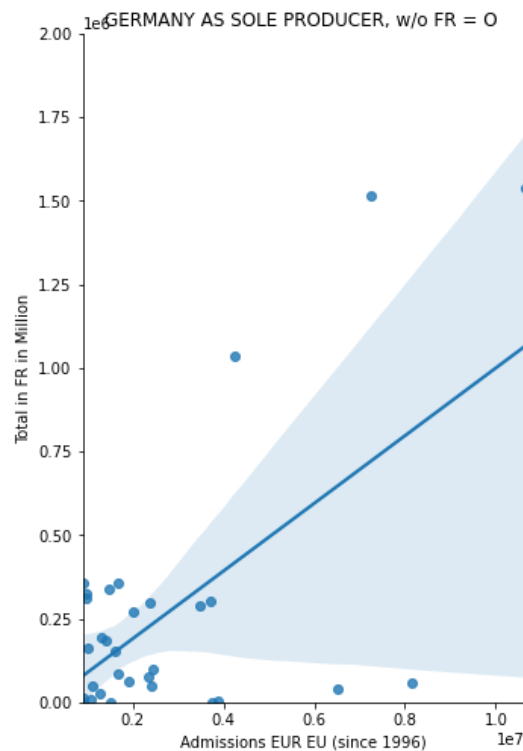


Figure 3.1.2.

The graphics 3.1.1 and 3.1.2 represent the total admissions of German-only productions in France (Y-axis) as a function of total EU admissions (X-axis). The preoccupation is to find a minimum overall success that guarantees export to France, mirroring the necessary “proof of success” before export explored by Alaveras, Gomez-Herrera and Martens (2018).

We can observe that there is no level of overall success that guarantees German-only productions to be exported to France. However, among those that were exported (Movies with $y=0$ excluded, Figure 3.1.2.), a weak correlation exists between overall success and success in France. Exploratory regressions

have shown that movies generally do follow a clear correlation between overall success and export success (once $y=0$ excluded), and Germany proves to be an outlier that has exceptionally low correlation, even among the movies that do get exported to France.

The low correlation might be an indicator of the inhibitory effect of German language or culture on export success; French exclusionary film market policy would not explain the aleatory variation of export success.

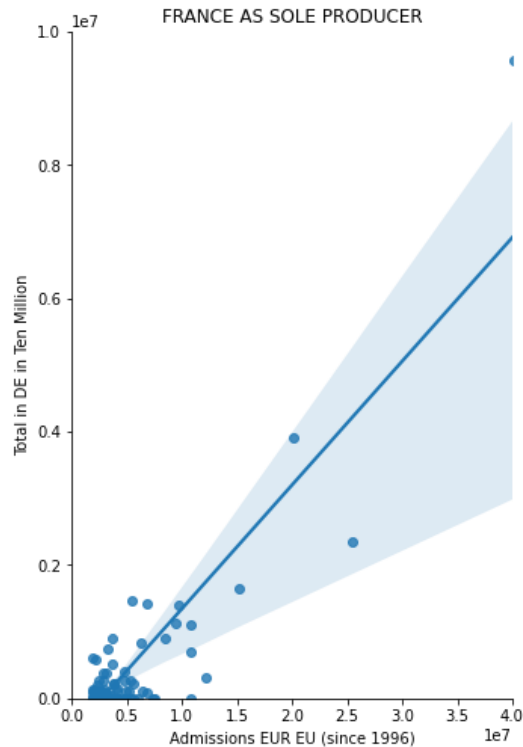


Figure 3.2.1

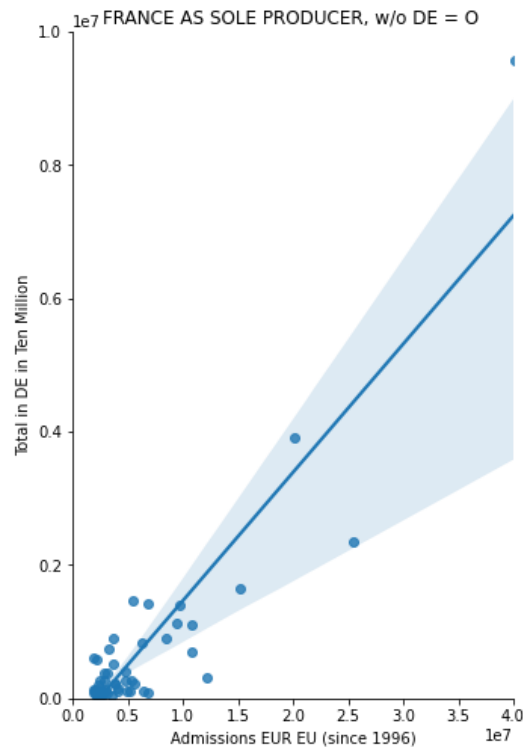


Figure 3.2.2.

The graphics 3.2.1. and 3.2.2. represent the total admissions of French-only productions in Germany (Y-axis) as a function of total EU admissions (X-axis).

In France, there seems to be a threshold of about one million total EU-wide admissions that guarantees export to Germany. In accordance with our exploratory regressions, the correlation between overall success and export success in Germany also seems quite clear, which might point to the lower inhibitory effect of French language or culture.

D. Movie transmission dynamics by ‘producing country’ composition

Based on our dataset, coproduction with either France or Germany guarantees export to the other country (% of movies exported to France for *German majority*, *French minority productions* = 100%; % of movies exported to Germany for *French majority*, *German minority productions* = 100%). The dataset used analysis in C. with movies without admissions in other country excluded ($y = 0$) however revealed, that if controlling for movies that weren’t exported, the share of total admissions made in other the country for France or Germany-only productions is identical to the share of admissions made in other country for Franco-German productions (10.9% for both French and Franco-German productions in Germany). Meaning: Franco-German productions only guarantee export, but not a higher share of total admissions made in the other country. Is the role of Franco-German productions then simply reduced to the question of organizing a higher budget? No - Franco-German productions are useful considering the time-lag needed for proving success for export, as explored by Alaveras, Gomez-Herrera and Martens (2018).

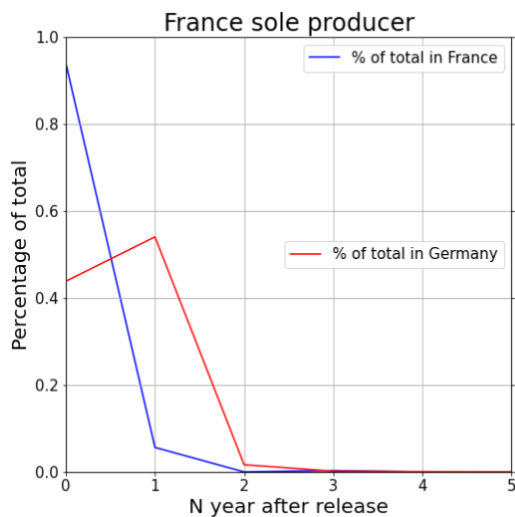


Figure 4.1.1.

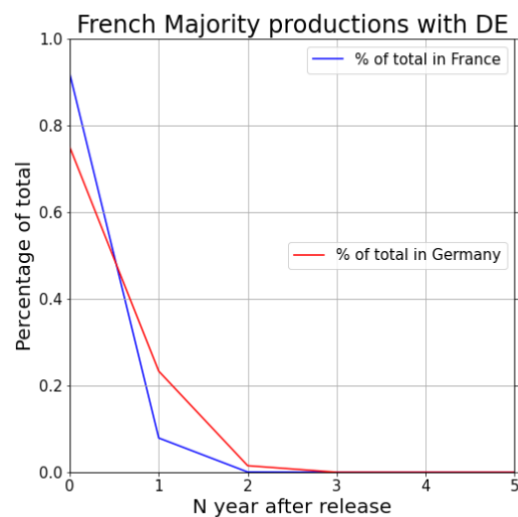


Figure 4.1.2.

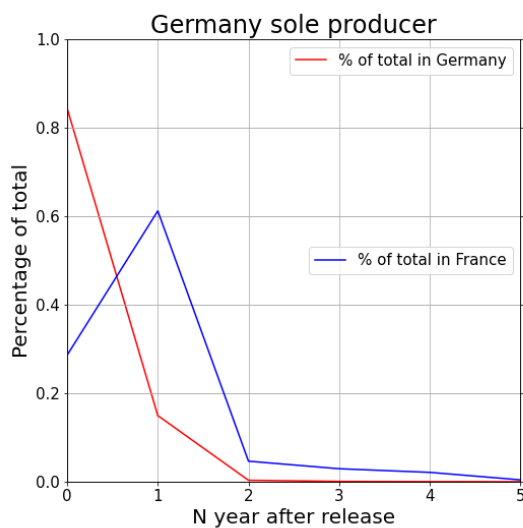


Figure 4.2.1.

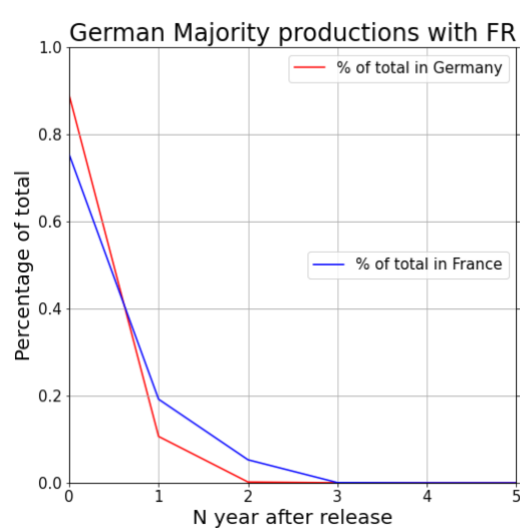


Figure 4.2.2.

These four graphics show the percentile of the total admissions made in either France or Germany (blue and red, respectively) in each year after the release. Graphic 4.1.1 depicts solely French productions and graphic 4.1.2. French majority productions with Germany as minority producer. Graphic 4.2.1. and 4.2.2. mirror this logic for solely German movies and German majority productions with French minority respectively.

Figure 4.2.1.: one can observe that Germany-only productions make the highest share of their total admissions in Germany during the first year of their release (81%), with another 17% % made in the second year. This can be attributed to the fact that audiences will not see movies twice and will have seen them shortly after release. However, a different time repartition is observed for the French market: Germany-only productions make their highest share of total French admissions in the second year (52%). A mirrored story is true for French-only productions (Figure 4.1.1.).

This time lag of admissions in the other country for Germany- or France-only productions is with high likelihood due to the selection effect discussed by Alaveras, Gomez-Herrera and Martens (2018), that postulates that movies first need to prove a certain success in domestic markets before being exported. This is in line with the observations made in part C., where a threshold of around one million EU-wide admissions was identified to guarantee export success for France, and in a lesser manner also for Germany.

This time lag however can be reduced by Franco-German coproductions (Figure 4.1.2. and Figure 4.2.2.). Because movies are produced for both markets, they need not prove their domestic success first, and thus are released simultaneously. The time repartition of total admissions in both countries follows very closely the repartition for domestic markets. It can thus reasonably be inferred that Franco-German productions (while not guaranteeing for higher share of total admissions in other country) can be a valuable tool to assure same-time cinema releases and thus a more congruent cinematographic scene.

V. Discussion

The total EU admissions presented in *Section A* suggest that, while the admissions of the top 200 movies (minority-coproductions included) for Germany and France are almost equivalent in total size, total admissions for France-only productions are almost twice as high as those for Germany-only productions. While the relatively more successful French domestic industry could be analyzed through an angle of French cinema policy (See: “The French Audiovisual Policy: Impact and Compatibility with Trade negotiations”⁹) favoring domestic production, it is necessary to consider market size. Although the French population is numerically inferior to the German one, there are more cinemas in France (2046 cinemas) than in Germany (1672 cinemas). Similarly, while Germans go to the cinema an average of 1.48 times a year, the French, on average, go to the cinema almost three times as often¹⁰.

German-majority movies also enjoy relatively lower success in France than do French-majority productions in Germany. As *Section C* demonstrated, this lower export success for Germany cannot only be due to French protectionism, and thus is most likely to a large part also due to language. Alaveras, Gomez-Herrera and Martens (2018) already pointed out that a large part of the EU’s film market fragmentation is due to language and cultural barriers. This is underscored by a report of the French National Assembly n°3197 in 2001 by Roland Blum, which drew the conclusion that: “the only cinema that European spectators share in common is American cinema. Each European nation is essentially unaware of its neighbor's productions”.

The preponderance of U.S.-majority productions revealed in our analysis of 800 data points is further unscored by a survey¹¹ from the French cinematographic agency CNC: Only 23.7% of the French population declares to frequently consume domestically-produced series, a score that lowers to 22.9% in Germany. The overall market share of American films in 2016 in France was estimated to be more than half the total French box-office with 52.6%, while French productions only represent 35.3%.

While Franco-German productions did not automatically guarantee for a higher share of total admissions in the other country, they are a valid tool to decrease the export time lag. In this respect, this paper could expand the findings by Alaveras, Gomez-Herrera and Martens (2018) by adding a time series as a function of producing-country composition.

Lastly, while the eminence of French *market* protectionism is out of the scope of this analysis, it is interesting to consider French *production* protectionism - or rather barriers - as an explanation for the relatively less pronounced difference in success between French-Majority productions and U.S.-majority and other-majority (no U.S./DE) productions compared to the difference in success between German-Majority and U.S.-majority and other-majority (no U.S./FR) productions. While on the one hand, this is explained by a more successful domestic French movie industry, it might also be because foreign productions have a more difficult time setting foot in France - the French legislative framework features a special status concerning the so-called “intermittent du spectacle”, actors hired under a fixed-term employment contract. Given the frequently precarious economic conditions of actors, this special status guarantees some benefits such as unemployment insurance, employment bonus as well as

⁹ <https://d-nb.info/1196362661/34>, accessed 12.10.21

¹⁰ https://www.lemonde.fr/les-decodeurs/article/2016/05/19/en-chiffres-l-etat-du-cinema-en-france_4922637_4355770.html, accessed 12.10.21

¹¹ <https://www.cnc.fr/documents/36995/1389917/Quelles+tendances+pour+la+fiction+française+2021.pdf/546e6c94-3e5c-79a8-330e-f764b6f3b8f7?t=1631714399933>, accessed 12.10.21

maternity leave. As a consequence, international cinema companies tend to be quite reluctant to produce films within the French territory and to enter the French market in co-production since it necessitates compliance with French regulation. The apparent protectionism of France, set up in order to grant some minimum security for artists, contrasts vividly the German labour market, enabling great flexibility, and thus offering incentives for exterior productions to enter their market.