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## Global Import Competition and Political Polarization in France

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# **Global Import Competition and Political Polarization in France**

Master Thesis

Faculty of Governance and Global Affairs

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## **Abstract**

This thesis intends to build on the existing literature regarding the electoral consequences of import shocks. Specifically, it looks at whether the rise of Chinese import competition in France from 1990 to 2007 has led to vote share gains for Marie Le Pen during the French Presidential elections of 2017. Trade and employment data are used to calculate an import shock for each department in France, before regressing the vote share of Le Pen on this import shock. Whereas previous literature found that areas facing higher import competition from China were more likely to vote for the right-wing, anti-globalist option in an election, no such connection could be found in the case of the 2017 French Presidential elections. A lack of significant coefficients for the import shock could be a result of endogeneity, or an indication that voters in France do not necessarily respond to import shocks by voting for the anti-globalist option, possibly because they feel they already get properly compensated for their (relative) welfare losses.

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## **List of Abbreviations**

ALMP	Active Labor Market Policies
INSEE	Institut National de la Statistique et des Études Économiques
NACE	Nomenclature statistique des Activités économiques dans la Communauté Européenne
NUTS	Nomenclature des Unités Territoriales Statistiques
UI	Unemployment Insurance

## Chapter I: Introduction

The prevalence of the Leave option in the Brexit referendum and the election of Donald Trump in the US presidential election in 2016 were widely regarded as rather unexpected victories for populism and unprecedented blows to globalism. Some expectations existed that globalisation could suffer a third defeat at the French elections in 2017 as the anti-EU Front National party of Marine Le Pen started to gain traction. However, in the final run-off Le Pen lost out to Emmanuel Macron of the pro-EU party En Marché, with the former getting 33.9% of the popular vote and a majority in only two districts.

Previous literature has examined and discussed the relationship between import competition and vote share gains. On the one hand, the embedded liberalism perspective posits that while trade openness can lead to net welfare gains, globalization can also lead to “losers” who need to be compensated by the government in order to maintain enough support for trade liberalization (Hays, Ehrlich & Peinhardt, 2005). On the other hand, the economic nationalism thesis includes a bargain that involves protectionism and opposition to free trade as a form of compensation for those workers threatened by globalization (Rho & Tomz, 2015). It is found that support for respectively the Leave option, Trump and Le Pen was stronger in geographic areas that are characterized by relatively poor economic performance in recent years (Colantone and Stanig, 2018; Autor, Dorn, Hanson and Majlesi, 2016; Interior Ministry of France, 2017).

Different authors have sought to study global competition as a structural driver of divergence across regions. Autor, Dorn, Hanson and Majlesi (2016) find that an increase in Chinese import penetration leads to more polarized political outcomes, with moderate politicians losing votes. Specifically, they look at the 2016 US presidential election, and find that there exists a “robust positive effect of rising import competition on Republican vote share gains.” Similarly, Colantone and Stanig (2018) look at the Brexit referendum and find that support for the Leave option was systematically higher in regions hit harder by economic globalization as measured by a shock of surging imports from China over the past three decades.

Le Pen’s platform was especially popular in geographic areas in which deindustrialization has driven high poverty and unemployment. However, prior to this thesis no research has been conducted on the connection between Chinese import competition and vote share gains for Le Pen in the 2017 French presidential elections. This case is of peculiar interest because, despite sharing many of the sentiments with those of the Brexit and Trump campaigns, it did not ultimately result in a third blow to globalisation as some had predicted. This thesis

intends to bridge this gap in the literature by determining what are the effects of import shocks on vote share gains for Le Pen, and comparing these with results from previous research in order to hopefully shed more light on what caused the differences in electoral outcomes. Do import shock effects still work in favour of the right-wing, anti-globalist candidate, and if so, are they as strong as in the case of the Brexit referendum and 2016 US presidential elections? If import shocks are present but have no discernible impact on election outcomes, it could indicate that those groups who lose out due to globalization possibly feel that they do not need to adjust their voting behaviour because they are already compensated for their (relative) welfare losses. In this case, France's welfare programs could be exemplary of how to properly deal with unequal welfare losses and gains in society caused by globalization, and in extension to maintain enough support for trade liberalization. As such, this thesis seeks to answer the following research question: *“Has the rise of Chinese import competition in France from 1990 to 2007 led to vote share gains for Marie Le Pen during the French Presidential elections of 2017?”*.

In order to capture the effect of Chinese import penetration on the election outcome, the import shock is first quantified at the regional level. Next, the vote share gains for Le Pen are regressed on the import shock and variables on the immigration share and immigration flow in the region. The results seem to suggest that there does not exist a strong and significant correlation between the import shock and vote share for Le Pen. On the one hand, the absence of such an effect might be caused by potential endogeneity arising from political leaders protecting their key constituencies from foreign competition. An instrumental variable that captures the variation in Chinese imports to another country than France would be needed to work around this. Such an approach is however beyond the scope of this thesis. On the other hand, concerns about endogeneity should be minor, and the absence of an import shock effect might be part of the explanation as to why Le Pen ultimately lost out to Macron, since a strong, positive correlation did exist for the anti-globalist options in the Brexit referendum and the US presidential election which shared similar sentiments to Le Pen's campaign. Future research would need to determine exactly why such an effect was absent.

This thesis is structured as follows. Chapter II provides an overview of the relevant theories and literature regarding the import shock effects on vote gains. Chapter III discusses the methodological approach to estimating the effect of Chinese import competition on the 2017 French presidential elections. Chapter IV presents the empirical results of the research and discusses the findings. Finally, Chapter V contains concluding remarks.

## Chapter II: Literature Review

This chapter discusses the relevant literature on the effects of import shocks on vote share gains. First, it covers Heckscher-Ohlin trade theory which resonates quite well with the findings of different studies on the impact of import shocks on firms and workers in the West. Next, it looks at two contrasting theses from political science and political economy literature on globalization and trade openness: Embedded Liberalism and Economic Nationalism. Finally, it discusses studies that have sought to estimate the electoral consequences of import competition, with special attention being paid to the 2016 presidential election in the US and the 2016 Brexit referendum in the UK.

### 2.1 Heckscher-Ohlin Trade Theory

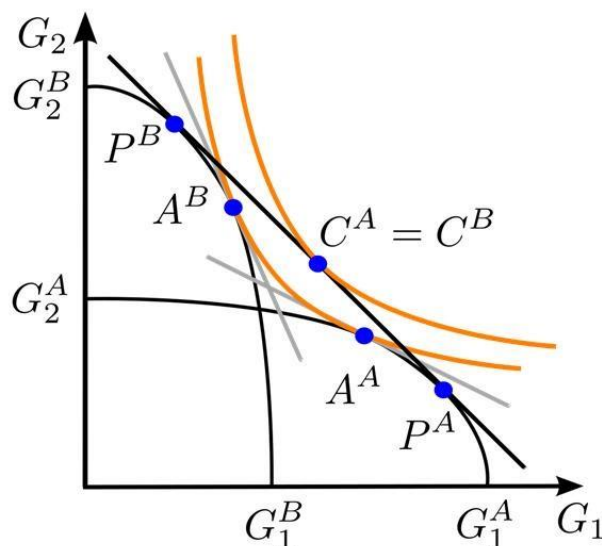
Heckscher-Ohlin trade theory was formulated by the Swedish economist Eli Heckscher (1919) and put into a mathematical model by his student Bertil Ohlin (1924). However, the modern formulation of the theory is largely credited to Paul Samuelson, leading to some people referring to it as the Heckscher-Ohlin-Samuelson theory (Schmitz, 2018). The Heckscher-Ohlin model builds on Ricardian trade theory. In 1817, David Ricardo posited that countries should import high-cost goods and export low-cost goods. However, rather than focusing only on resource costs, he argued that opportunity costs should be considered. Opportunity costs depend on relative productivities (“comparative advantage”) rather than on absolute productivities (“absolute advantage”), and when countries specialized according to comparative advantage, they could always gain from trade (Ricardo, 2014).

Heckscher-Ohlin trade theory is based on the same fundamentals as Ricardian trade theory, except that differences in costs do not come from differences in productivity, but from differences in factor endowments. Figure 1 provides an illustration of the theory. Two identical countries A and B have different factor endowments, with country A having an endowment that allows it to produce good G1 more efficiently, whereas country B has an endowment that allows it to produce good G2 more efficiently. In a state of autarky in which countries are completely self-sufficient, countries A and B produce respectively bundles  $A^A$  and  $A^B$  and no trade ensues. Hence, each country’s production is equal to its consumption. Once trade is possible, each country increases the production of goods in which it has a comparative advantage. This leads



to the emergence of prices  $P^A$  and  $P^B$  at which goods are traded. Both countries will consume the same  $C^A = C^B$  (Samuelson, 1949).

**Figure 1: The Heckscher-Ohlin model**



Source: Schmitz, 2018

The Heckscher-Ohlin model predicts that the rise in trade with developing countries (with large populations, but a small percentage of high-skilled workers) since the 1980s increases the returns to relatively scarce factors in developed countries (such as high-skill workers) and decreases the returns to relatively abundant factors (such as low-skilled workers). However, during the late 1990s, many economists argued that international trade did not have much to do with the increase in wage inequality. Low-skilled workers' wages actually fell with respect to high-skilled workers' wages even in developing countries, while they should rise according to Heckscher-Ohlin theory. Moreover, Heckscher-Ohlin theory suggested that in developing countries, high-skill intensive industries should expand, while low-skilled intensive industries should contract, yet this did not happen (Schmitz, 2018). Many economists therefore focused on "skill-biased technological change": newly introduced computers and ICT technologies were more useful for skilled workers, and therefore firms increased their demand for them. However, this consensus changed. In 2007, Paul Krugman wrote that "it's no longer safe to assert, as we could a dozen years ago, that the effects of trade on income distribution in wealthy countries are fairly minor. There's now a good case that they are quite big, and getting bigger." The patterns of world trade changed rapidly during the late 1990s and 2000s with two major

developments: the rise of offshoring, and the rise of China. Since the 1990s, China's economy has been growing at extraordinary high rates, especially in the manufacturing sectors. Indeed, China's share in world manufacturing exports increased from 2% in 1991 to 19% in 2012. These developments had important effects on wages, employment and inequality (Autor, Dorn and Hanson, 2016).

Autor, Dorn and Hanson (2013) analyse the effect of rising Chinese import competition on US local labor markets between 1990 and 2007. They do so by treating local labor markets as subeconomies subject to differential trade shocks according to initial local industrial composition. This allows them to test the hypothesis that there is a unique, integrated national market for all production factors, and that these production factors are homogeneous. In this case, there should be no observable regional differences. For example: all low-skilled workers should earn the same wage, irrespective of their exact job, whether they live in regions importing a lot or little from China, and whether they work in firms exposed to Chinese competition or not. If a worker loses their job in one region and another region offers job opportunities, the worker should quickly move. Hence, assuming that the US labour market is perfectly integrated, and workers are mobile, no regional differences should be observed in response of wages and employment to trade.

In order to measure the effect of Chinese imports on a US region, Autor, Dorn and Hanson use a region's industry specialization in the year 1990 and interact this with the change in Chinese imports to the United States between 2007 and 1990. They find that an increase of \$1000 in Chinese import competition per production worker decreases the fraction of the working age population active in the manufacturing sector by 0.6% and does not lead to an increase in employment in the non-manufacturing sector. Furthermore, there is no evidence of outmigration, hence this disproves the notion that workers in the US are highly mobile. However, their results show differences between regions, but do not identify absolute effects on the national level. In other words, it shows that manufacturing employment in regions more exposed to Chinese import competition decrease more/increased less than in less affected regions, but not whether the employment effect of Chinese import competition was positive or negative on a national level.

In regions in which Chinese import competition increased the most, wages fell considerably. A \$1000 increase in Chinese import competition resulted in a \$550 fall in regional wages. Here once again, these results only speak to differences between regions. Hence, if there are gains, they are unequally distributed, with increasing inequality between the most and the

least affected regions. In order to deal with these unequal effects of trade, governments can redistribute resources from the people who gain the most from trade to the ones who gain less or lose. This is the starting point of the embedded liberalism thesis.

## **2.2 Embedded Liberalism**

The embedded liberalism thesis poses that governments which are committed to free trade need to manage public support for economic openness. While trade openness can lead to net welfare gains, globalization also leads to “losers” such as workers at firms that shut down due to import competition, or regions that face high adjustment costs due to their sectoral specialization. Governments therefore need to provide insurance and other transfers to compensate those workers who economically lose out from trade expansion. This is done to maintain public support for trade openness. Welfare programs such as Unemployment Insurance (UI) and Active Labor Market Policies (ALMP) are expanded to strike a bargain in which individuals harmed by trade openness are compensated for their losses in return for their public support for free trade (Hays, Ehrlich & Peinhardt, 2005).

The term ‘embedded liberalism’ was first coined by Ruggie (1982) who sought to explain the phenomenon of trade openness being associated with higher state spending. Ruggie discusses how the American welfare state expanded after WW2 following the government’s choice to liberalize trade. However, the government realized it had to compensate market losers for the dislocations trade liberalization generated. In this perspective, trade causes economic dislocations and exposes workers to greater risks. As such, it generates political opposition to economic openness. According to Ruggie, states are able to pursue higher trade openness by striking a bargain or compromise in which workers are compensated for the losses they suffered through redistribution and social security.

Rodrik (1998) shows that there exists a positive correlation between an economy’s openness to international trade, measured by the share of trade in GDP, and the size of its government, measured by the share of government expenditure in GDP. Government spending seems to play a risk-reducing role in economies exposed to significant amounts of external risk. By increasing the share of domestic output they consume, governments can mitigate the exposure to risk.

Iversen & Cusack (2000) oppose the embedded liberalism thesis, arguing instead that the post-WW2 growth of the welfare state is a product of deindustrialization rather than

globalization. According to Iversen & Cusack, most of the risks generated in modern industrialized countries are the result of technologically induced structural transformations inside national labor markets. Increases in productivity, changes in consumption patterns, and a saturated demand for products from traditional sectors of the economy are the main forces of change which lead to demands for state compensation and risk sharing. As industry and agriculture decline and the service sector grows, workers who wish to move from the former employment structures to the latter need to cross significant skill boundaries or risk unemployment or early retirement. The uncertainty this change brings creates a demand for higher government spending.

Hays, Ehrlich & Peinhardt (2005) raise two critiques with regard to previous research. First off, they argue that a distinction should be made between imports and exports, as these should have an opposite effect on government spending. Second, the way in which trade flows impact government spending depends on the underlying structure of the economy, in particular the number of workers employed in threatened sectors. Hays, Ehrlich & Peinhardt show that individuals who are employed in high import industries are more likely to support tariffs which protect the economy than individuals employed in either high export or non-tradeable industries. Furthermore, individuals with higher levels of education and income are less likely to support protectionism. They also find that the movement of workers from tradeable to nontradeable industries will increase support for trade. Hence, globalization and deindustrialization should have interdependent effects on government spending. These results show that there is empirical evidence for the embedded liberalism thesis.

### **2.3 Economic Nationalism**

While the embedded liberalism thesis poses that the ‘losers’ of globalization can be compensated through redistribution in the forms of welfare programs, Rodrik (1997) also highlighted that such compensation can become increasingly difficult to sustain as globalization progresses and capital becomes more mobile across countries, heading toward low-taxation settings. Redistribution is costly, and capital mobility constrains the ability of national governments to raise the necessary tax revenues (Burgoon, 2001). Moreover, since the 1990s there have been stronger globalization shocks, including the rise of China, which demands higher compensation while the financial capacity of national governments to do so comes increasingly under strain. This results in the insufficient compensation of the losers of

globalization, and the loss of credibility of the embedded liberalism thesis (Hays, 2009). As such, the demand for protection emerges as an alternative: economic nationalism.

In the case of economic nationalism, the bargain involves protectionism and opposition to free trade as a form of compensation for those workers threatened by globalization. Since globalization shocks will be less severe, the welfare state can be reduced in size and generosity. As such, protectionism can be coupled with a promise of lower taxes in order to appeal to middle-class voters. Economic nationalism follows a general narrative in which authoritarian nationalism and national self-sufficiency is emphasized. Such a narrative is important because trade policy is a rather technical topic which might be too obscure for many voters. Nationalist sentiments are therefore an effective rhetorical tool for politicians who want to convey a message of “taking back control”. Literature also shows that people experiencing economic hardship become more authoritarian and opposed to minority groups (Rho & Tomz, 2015).

Radical-right parties employ a strategy of economic nationalism by combining domestic conservative policies with international isolationism. Conservative economic policies are not in principle beneficial to those constituencies who find the radical-right most appealing, such as low-skilled workers and the unemployed. Such constituencies generally voted for labor and social-democrat parties in the past. It was therefore difficult to make sense as to why these segments of society would suddenly start supporting conservative, pro-market positions. However, once globalization has passed a certain threshold, these constituencies might not find the promise of redistribution appealing anymore, and the embedded liberalism thesis loses its credibility. Instead, they would rather vote for parties that propose limitations to free trade and reductions of the welfare state which is increasingly perceived to be ineffective (Colantone and Stanig, 2018A).

Recent literature on (radical) right-wing parties has focused on the central role that opposition to immigration often takes in their proposals. Such anti-immigration sentiments also played an important role in the Trump, Brexit and Le Pen campaigns. Colantone and Stanig (2018A) note that there are three main mechanisms that might link import shock and immigration concerns. First, increased scarcity of employment opportunities caused by the crisis of traditional manufacturing due to globalization. This can trigger concerns about increased competition from immigrants. Even if immigration might have little real effect on native employment rates or wages, voters will act in a way they believe will protect their employment prospects. Second, anti-immigrant sentiments are systemically associated with high unemployment and the presence of a radical right party. This would be involved in shifting

blame for unemployment towards immigrants. Third, globalization has increased the reliance on the existing welfare state. This might spur concerns about how immigration poses fiscal pressures and threats to solidarity that can dampen the enthusiasm for welfare compensation and sparks calls for welfare retrenchment.

## **2.4 Import Shocks and Electoral Consequences**

Autor, Dorn, Hanson and Majlesi (2017) analyse whether rising import competition has led to polarization of U.S. politics. They look at the 2002 and 2010 congressional elections and the 2000, 2008 and 2016 presidential elections, and find that an ideological realignment took place centred in trade-exposed labor markets. Specifically, they employ the specification of local trade exposure derived by Autor, Dorn and Hanson (2013) to measure the import shock by local labor markets, and classify legislator ideologies by congressional voting records. They find that congressional districts experiencing stronger import shocks disproportionately removed moderate representatives from office. Trade-exposed districts with an initial majority white population or initially in Republican hands became substantially more likely to elect a conservative Republican. At the same time, trade-exposed districts with an initial majority minority population or initially in Democratic hands became more likely to elect a liberal Democrat.

With respect to presidential elections, counties that experienced greater trade exposure were more likely to shift towards the Republican candidate. In a note to their paper, Autor et al. specifically look at the 2016 US presidential election. They find that there is *“a robust positive effect of rising import competition on Republican vote share gains. The magnitude of the Republican gains is non-trivial. A counterfactual study of closely contested states suggests that Michigan, Wisconsin, Pennsylvania and North Carolina would have elected the Democrat instead of the Republican candidate if, ceteris paribus, the growth of Chinese import penetration had been 50 percent lower than the actual growth during the period of analysis. The Democrat candidate would also have obtained a majority in the electoral college in this counterfactual scenario.”*

Colantone and Stanig (2018A) perform a study similar to that of Autor et al. (2016) by looking at the link between import competition and voting behavior in 15 Western European countries. They calculate the same region-specific measure of exposure to Chinese imports, based on the historical industry specialization of each region. They also employ both official

election results at the district level and individual-level data, regressing the import shock on each of them. District-level data covers 76 elections in 15 countries over the period 1988-2007. To determine the ideological leaning of a district in an election, the election results are linked with ideology scores for each party in each election. For the individual-level data, a survey is used to ask respondents whether they voted in the last election, and which party they voted for. This information is then matched with party ideology to obtain individual-level scores based on party choice. They find that at the district level, a stronger import shock leads to 1) an increase in support for nationalist and isolationist parties, 2) an increase in support for radicalright parties, and 3) a general shift to the right in the electorate. These results are backed up by the analysis of individual-level vote choices

Colantone and Stanig (2018 B) use the same theoretical framework to estimate the effect of import competition from China over the past three decades on support for the Leave option in the Brexit referendum. They find that support for the Leave option was systematically higher in regions hit harder by economic globalization. Here too they take a two-step approach in which they first analyse regional level data before taking a closer look at individual level data. In the regional level analysis, the authors utilize Autor, Dorn and Hanson's theoretical model once more to determine the effect of surging imports from China on the divergence in economic performance across U.K. regions. The percentage of Leave votes in a given region is then regressed on the previously calculated import shock, the share and arrival of immigrants in the region in the year prior to the referendum. They find that support for the Leave option was systematically higher in regions which have been more exposed to the surge in Chinese imports due to their historical sectoral specialization. In the second part of their study, they analyse the vote choice of individual voters, and find that individuals living in regions more affected by Chinese import competition were more likely to vote for the Leave option. These results extend across the population, and voters seem to not only respond to the economy on the national level, but also on the local level. Moreover, they find no evidence that higher immigration is associated with more support for the Leave option. Worsened attitudes towards immigration largely reflect economic distress driven by import competition.

## **2.5 Hypothesis**

As discussed above, previous research has found that a higher import shock is correlated with a higher vote share for the right-wing, anti-globalist option in an election. This was the case in

the research of Autor, Dorn and Hanson (2017) who studied the US presidential elections of 2016, and in the work of Colantone and Stanig (2018) who studied both the Brexit referendum and elections in several Western European countries. Following these, the French presidential elections of 2017 took place in which similar sentiments existed similar to that of the Brexit and Trump campaigns, with a clear distinction in support for globalization between the two options: Emmanuel Macron of the pro-EU En Marche party running against Marie Le Pen of the Eurosceptic Front Nationale party. Based on the findings from previous literature discussed above, it would be expected that a higher import shock would be associated with a higher vote share for the candidate with the anti-globalist platform. As such, a hypothesis can be formulated.

*Hypothesis: A higher import shock is correlated with a higher vote share for Le Pen.*



## Chapter III: Methodology

This chapter covers the methodological approach to estimating the effect of Chinese import competition on the 2017 French presidential election. First, the data collection and level of analysis is summarized. Then, the calculation of the import shock at the regional level is specified. Finally, the regression to estimate the effect of Chinese import competition on vote gains is discussed.

### 3.1 Data collection

Data is retrieved from various sources. Data on the composition of employment on the regional level comes from datasets on employment estimations from the Institut National de la Statistique et des Études Économiques (INSEE). These datasets contain data on the number of people employed in each sector in a given year. This employment data is disaggregated at the NAF A38 level which is a classification used to code economic activities. Data on immigration on the regional level is also retrieved from INSEE. These datasets contain estimations of the number of immigrants and non-immigrants in each department, and their type of activity (employed; unemployed; retired or pre-retirement; students, trainees or unpaid interns; homemaker; inactive). Data on imports from China to France is retrieved from EUROSTAT COMEXT. This data is based on the four-digit CPA 2008 coding which classifies products by activity. Both employment and trade data are converted to the NACE Rev. 2 classification of economic activities to make them compatible with each other for analysis. Finally, vote share data in each region for Emmanuel Macron and Marie Le Pen in the 2017 French presidential elections are retrieved from the website of the French Ministry of Interior.

Statistics are computed at the department-level which is the NUTS-3 level that is also utilized by Colantone & Stanig (2018B). The NUTS (Nomenclature of Territorial Units for Statistics) is a hierarchical system for dividing up the economic territory of the EU and the UK for the collection, development and harmonisation of European regional statistics. Whereas NUTS 1 covers major socio-economic regions and NUTS 2 covers basic regions for the application of regional policies, NUTS 3 concerns small regions for specific diagnoses.<sup>1</sup> France exists of 101 such departments at the NUTS-3 level. Due to data considerations, this thesis will only focus on France's 96 metropolitan departments, and not include its five overseas departments.

### 3.2 Import shock

This study employs the same empirical approach as Autor, Dorn and Hanson (2013) and therefore measures the trade shock at the regional level as:

$$ImportShock_{it} = \sum_k \frac{L_{ik(pre-sample)}}{L_{i(pre-sample)}} * \frac{\Delta IMPChina_{kt}}{L_{k(pre-sample)}} \quad (1)$$

where  $i$  indexes NUTS-3 regions,  $k$  industries in the manufacturing sector, and  $t$  years.  $\Delta IMPChina_{kt}$  is the change in imports to France from China over the past  $n$  years, in industry  $k$  (see Appendix A for a specification of industries). This is normalized by the total number of workers in the same industry in the France at the beginning of the sample period,  $L_{k(pre-sample)}$ . The region specific trade shock is backed out by taking the weighted sum of the change in imports per worker across industries, with the weights capturing the relative importance of each industry in a given region. Specifically, the weights are defined as the ratio of the number of workers in region  $i$  and industry  $k$ ,  $L_{ik(pre-sample)}$ , over the total number of workers in the region,  $L_{i(pre-sample)}$ , both measured at the beginning of the sample period.  $ImportShock_{it}$  is computed considering five-year changes in imports and then taking the average.

### 3.3 Vote share gains

In order to estimate the effect of the import shock on vote gains, this thesis employs a regional level analysis similar to that of Colantone and Stanig (2018). Specifically, the baseline specification is:

$$LePenVoteShare_i = a_{j(i)} + \beta_1 ImportShock_1 + \beta_2 ImmigrantShare_i + \beta_3 ImmigrantFlow_i + \varepsilon_i \quad (2)$$

Here, *Le Pen Vote Share* is the vote share for Marie Le Pen in NUTS-3 region  $i$ . *Import Shock* is the strength of the Chinese import shock at the regional level, computed between 1990 and 2007. *Immigrant Share* is the share of foreign-born residents out of the total population in 2016. *Immigrant Flow* is the change in employed and unemployed foreign-born residents from 2015 to 2016 divided by the working-age population (15-64) in 2016. Rather than *Immigrant Flow*, Colantone & Stanig use *Immigrant Arrivals* which is the inflow of immigrant workers, based on registrations to National Insurance, divided by the total workingage population of the region in any given year. In this thesis *Immigrant Flow* is used instead because data on registrations to National Insurance in France is not available. Furthermore, not only the absolute number of arrivals but also the outflow of immigrant workers in a region could arguably affect the

sentiment of the local populace towards immigrant. Hence, it may be important to consider both the inflow and outflow of immigrants. Immigrant Share and Immigrant Flow are both measured in 2016 as this is the most relevant year to measure immigration since the French presidential elections took place in May 2017. Next,  $\mathbf{a}_{j(i)}$  are fixed effects for the NUTS-1 macro region  $j$  to which NUTS-3 region  $i$  belongs. France is divided into 14 NUTS-1 regions. By including these fixed effects, confounders that affects the NUTS3 regions within a NUTS-1 regions in a similar way are controlled for. Finally,  $\varepsilon$  is an error term that covers unobserved correlation across NUTS-3 regions in the same area.

### 3.4 The model

This thesis employs a standard Ordinary Least Squares (OLS) model:

$$y = x_1 + x_2 + x_3$$

where  $y$  is LePenVoteShare,  $x_1$  is the ImportShock,  $x_2$  is the ImmigrantShare and  $x_3$  is the ImmigrantFlow. The period analysed in this thesis stretches from 1990 to 2007. Hence, the regions that are affected by the China shock are regions which were specialized in 1990 in industries in which China started exporting a lot after 1990. It is exogenous to regional economic developments after 1990, and exogenous to the China shock itself, as industry specialization was determined before it started. The end of the period marks the beginning of the global financial meltdown which deeply affected trade flows as well as GDP in ways that is very likely to be correlated across high-income countries. Hence, the import shock is calculated until 2007 at the latest to avoid picking up the complicated ramifications of the 2008 financial crisis.

A potential source of endogeneity that Colantone & Stanig (2018B) identify is the existence of industry-level shocks that are correlated with Chinese imports. This endogeneity may arise if political leaders were to protect industries that are important for their key constituencies from foreign competition, while allowing a higher amount of imports in industries which are less important. As a result, lower import shocks would be observed in regions in which voters are likely to support Macron, whereas stronger import shocks would be found in regions where people are more likely to vote for Le Pen. To account for this endogeneity, a Two Stage Least Squares (TSLS) model would have to be employed, instrumenting the growth in imports from China to another country (for example, the United

States). However, such an approach requires more data and is beyond the scope of this thesis. In addition, Colantone & Stanig (2018) employ both an OLS-model and a TSLS-model in their research, and both models yield similar, significant results. Moreover, the import shock discussed here concerns the period 1990-2007, long before the French presidential elections of 2017. In addition, trade policy is an exclusive competence of the European Union. French tariffs on Chinese goods are hence determined by EU institutions, and are the same across all EU member states. As such, potential endogeneity should not be too much of a concern.

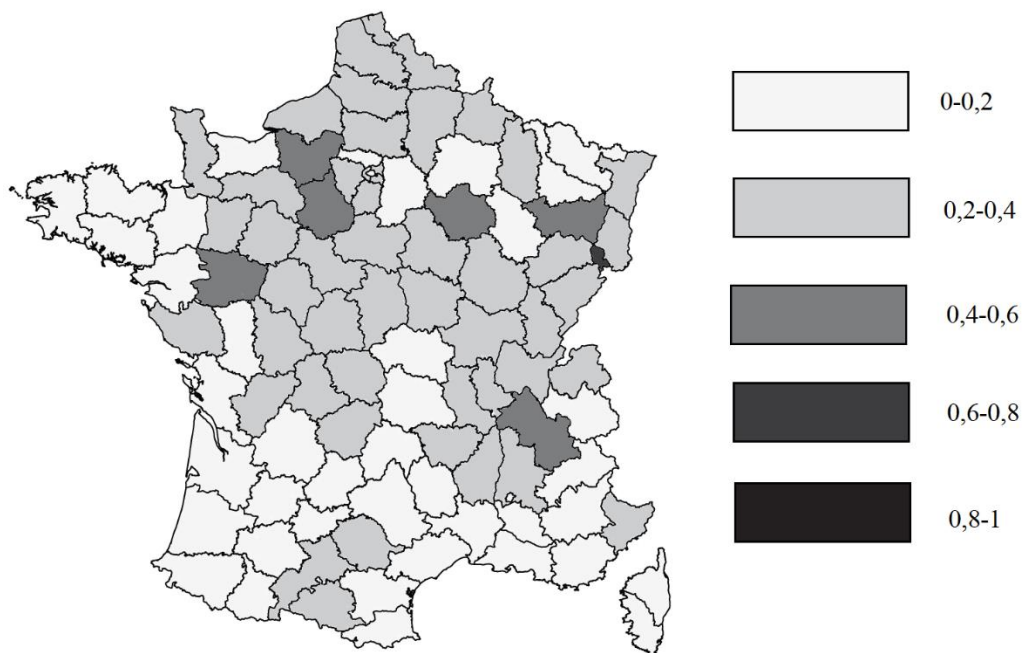
## Chapter IV: Empirical Results

This chapter presents and discusses the empirical results. First, it illustrates the strength of the import shocks across the NUTS-3 regions in France, and plots the Le Pen vote share against the Immigrant Share and import shock. Then, it presents the results of the relation between the import shock and vote share gains for Marie Le Pen during the French Presidential elections in 2017.

### 4.1 Import shocks across NUTS-3 regions in France

Figure 2 displays the strength of the import shock across the NUTS-3 regions in France. Table 1 provides further descriptive information on the variables used. The import shock has an average of 0,24, which corresponds to a growth in imports from China by 240 real euros per worker, with a standard deviation of 0,11. The region with the lowest import shock is found in Corse-du-Sud (0,02) while the largest import shock is found in Territoire de Belfort (0,66). Comparing these results to Colantone and Stanig's, they find that the import shock in the UK during the same period has an average value of 0,32, with a standard deviation of 0.14. Hence, the import shocks in France seem to be similar but somewhat lower compared to the UK.

**Figure 2: Strength of the Import Shock across NUTS-3 regions**

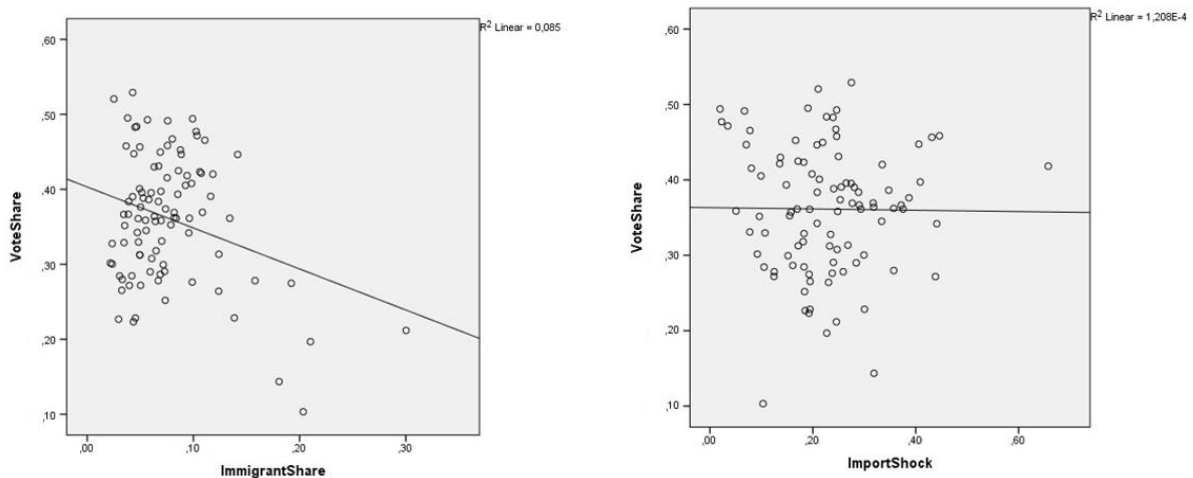


**Table 1: Descriptives**

Variables	N	Minimum	Maximum	Mean	Std. Deviation
ImportShock	96	,019	,657	,237	,107
ImmigrantShare	96	,021	,300	,076	,045
ImmigrantFlow	96	-,002	,045	,002	,005
VoteShare	96	,10	,53	,36	,085

Figure 3 plots the Le Pen vote share by NUTS-3 regions against respectively the ImmigrantShare and ImportShock. The line is the least-squares fit. The right panel shows that there is a small, negative association between VoteShare and ImportShock. The left panel shows that there is a strong, negative association between the ImmigrantShare and VoteShare. While there appear to be some outliers, excluding these regions does not seem to majorly change the least-squares fit of the sample. Hence, regions with a higher share of immigrants are more likely to vote for Macron than for Le Pen. While this might seem somewhat counterintuitive, a possible explanation could be that voters who live in areas with a high immigrant share are already more likely to vote for Macron. Indeed, people living in metropolitan areas are generally more left-wing leaning and hence less likely to vote for a platform like Le Pen's.

**Figure 3: Import shock, immigration and Le Pen vote share**



## 4.2 Import shock and vote share in France

Table 2 provides an overview of different estimates of Equation 2. Each column presents a model with different specifications and variables. Column 1 only regresses Import Shock on Le Pen Share, whereas the model in column 2 also includes NUTS-1 fixed effects. Column 3 regresses Import Shock, Immigrant Share and Immigrant Flow on Le Pen Share, while column 4 includes the same variables and also considers NUTS-1 fixed effects. All models show a negative correlation between the import shock and vote share gains. According to model 4, two regions within the same NUTS-1 macro region that differ by one standard deviation in strength of the import shock, are expected to differ by a lower support of 0,3 percentage points for Le Pen. Comparing this to Colantone and Stanig’s findings in the UK, they find that two regions that differ by one standard deviation in strength of the import shock, are expected to differ by almost 2 percentage points in support of Leave. For other Western-European countries, a one standard deviation increase in import shock leads to a higher support for the radical right by 1,7 percentage points.

**Table 2: Regional level results**

	(1)	(2)	(3)	(4)
VARIABLES	Le Pen Share	Le Pen Share	Le Pen Share	Le Pen Share
Import Shock	-,867 [8,132]	-2,908 [6,554]	-1,947 [7,803]	-2,856 [6,656]
Immigrant Share			-,527*** [1,186]	-,003 [1,243]
Immigrant Flow			-2,261 [1,816]	-,625 [1,377]
NUTS-1 Fixed Effects	N	Y	N	Y
Observations	96	96	96	96
R-Squared	,000	,583	,101	,584

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

The correlation of the import shock with the vote share being so small and negative seems to contrast with findings from previous literature. However, none of the coefficients of the import shock turn out to be significant in any of the models. Immigrant Share and Immigrant Flow both show a negative coefficient in each model. However, only the Immigrant Share in column

4 turns out to be significant. Including more control variables could possibly yield more precise results. In addition to considering more variables on immigration, variables concerning technological advancement might be worth to include. Indeed, as was argued by Iversen & Cusack (2000), the post-WW2 growth of the welfare state might be a product of deindustrialization rather than globalization. They oppose the embedded liberalism thesis, and state that most of the risks generated in modern industrialized countries are the result of technologically induced structural transformations inside national labor markets.

The issue of endogeneity might also explain the outcomes in this thesis. As has been argued in the previous chapter, taking an approach that deals with any possible endogeneity of the import shock might provide different, more insightful results. The import shock would therefore have to be instrumented using the growth in imports from China to another appropriate country (such as the United States). However, the import shock is measured over the period 1990-2007, long before the French presidential elections of 2017, and trade policy is set by the European Union and is the same across all EU member states. Moreover, controlling for any possible endogeneity would more likely result in higher import shocks to be observed in regions in which voters are likely to support Macron, whereas less strong import shocks would be found in regions where people are more likely to vote for Le Pen. As such, if there is any endogeneity, controlling for it would more likely decrease the correlation between the Import Shock and Le Pen Vote Share even further rather than increase it. On the one hand, Colantone and Stanig use a very similar model for their Brexit research and find significant results for their OLS model that are similar to the results from their IV model. On the other hand, they employ a more extensive model for their research on Western-European countries, and find that all IV estimates of the import shock coefficient are systematically higher than the OLS ones.

The absence of a strong, positive and significant coefficient of the Import Shock (at least in this model) may be part of the explanation of why Le Pen ultimately lost out to Macron. A positive and significant coefficient for the Import Shock was found for both the Leave option in the Brexit Referendum and for the Republican Candidate in the US Presidential Elections in 2016. With all three of these campaigns arguably sharing similar sentiments, the absence of a strong effect of the Import Shock from China in the French presidential elections of 2017 may (partly) account for the differences in outcome. While import shocks are present in France, albeit weaker than for example in the UK, they do not seem to be correlated with a higher vote share for Le Pen. To more precisely determine how voters exactly respond to an import shock, an additional individual data-level approach could be performed similar to the one carried out



by Colantone and Stanig (2018B). This could shed more light upon how individuals are affected and respond to import shocks. Whereas in the US and UK voters seemingly behave in a manner that reinforces the economic nationalism thesis, perhaps French voters feel that they are adequately compensated for their (relative) welfare decrease through redistribution. Moreover, not only would this provide information on whether individuals behave in a sociotropic way or are more concerned with their specific condition, but it would also shed more light on the effect of immigration on the election outcome, which might have been a topic more important to Le Pen's voters. Such an analysis however requires other data that was not utilized here and is beyond the scope of this study.

## Chapter V: Conclusion

This thesis has intended to contribute to the literature regarding the political consequences of import competition. Specifically, it has looked at whether there exist any vote share gains for Marie Le Pen during the French Presidential elections of 2017 that were correlated with Chinese import shocks from 1990 to 2007. Growing import competition can domestically lead to a division of winners and losers of globalization. In order to capture enough votes and continue a liberalization of trade, politicians can offer to compensate the losers of globalisation through social welfare policies. Alternatively, politicians can also run on a platform of ‘taking back control’ which opposes globalisation and reduces the welfare state’s size and generosity. Such a platform was clearly present in the Brexit referendum, US presidential election and French presidential elections. Previous research has shown that in the former two campaigns, a significant, positive correlation between the import shock and the vote share for the right-wing, anti-globalisation option existed.

To determine whether a similar effect was present for Le Pen in the French presidential elections, this thesis has first calculated the import shock for each region of France using data on imports and employment in each manufacturing industry. For each industry, the change of imports to France from China over the period of 1990-2007 is normalized by the total number of workers in the same industry in France at the beginning of the sample period. The region-specific trade shock is then backed out by taking the weighted sum of the change in imports per worker across industries, with the weights capturing the relative importance of each industry in a given region. Finally, it regressed the Vote Share gains for Marie Le Pen on the Import Shock, Immigrant Share and Immigrant Flow.

Using this methodology, this thesis has attempted to answer the following research question: *“How is the rise of Chinese import competition in France from 1990 to 2007 related to the vote share of Marie Le Pen during the French Presidential elections of 2017?”*. The import shocks turned out to be somewhat smaller in strength compared to those found in the UK by Colantone and Stanig (2018), with the former having an average of 0,24 and a standard deviation of 0,11, and the latter having an average of 0,32 and a standard deviation of 0,14. However, it turned out that no significant correlations could be found between the import shock and vote share gains for Le Pen. Hence, the hypothesis *‘A higher import shock is correlated with a higher vote share for Le Pen’* needs to be rejected. However, this conclusion does require a few caveats to be kept in mind.

Due to data considerations, this thesis uses an OLS-model rather than a TSLS-model with an instrumental variable. It could be the case that endogeneity exists that needs to be controlled for, which would require the latter model to be employed. Moreover, the current model is limited in that it only uses two control variables concerning immigration and does not consider factors such as technological advancement. A more advanced model would therefore be required to determine whether solving these limitations would yield different, significant results, or to confirm that there is indeed no clear relation between the import shock and vote share gains for Le Pen. In the latter case, this would mean that import shocks do not lead to vote share gains for right-wing platforms like Le Pen's in France as they do in other cases such as in the US with the 2016 presidential elections and in the UK with the Brexit campaign. This would provide part of the explanation as to why Le Pen lost despite sharing similar sentiments to the Trump and Leave campaigns which ultimately did end up being victorious. This could imply that whereas in the Trump and Leave campaigns the economic nationalism thesis seems to have been more dominant, the embedded liberalism thesis is the more appropriate lens through which to view the French presidential elections of 2017. Perhaps those who initially lose out from globalisation might feel that they are already properly compensated for their (relative) welfare losses, and are therefore less inclined to vote for Le Pen. France's welfare programs could then be exemplary of how to properly deal with unequal welfare losses and gains in society caused by globalization, and in extension to maintain enough support for trade liberalization.

## Literature Overview

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## Appendix A: NACE subsections

Table A

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CA	Manufacture of food products, beverages and tobacco products
CB	Manufacture of textiles, clothes, leather and footwear
CC	Manufacture of wood, paper and printing
CD	Manufacture of coke, refined petroleum products
CE	Manufacture of chemicals
CF	Manufacture of pharmaceutical products
CG	Manufacture of rubber, plastic and other non-metallic minerals
CH	Manufacture of metals except machinery and equipment
CI	Manufacture of computers, electronics and optical products
CJ	Manufacture of electrical equipment
CK	Manufacture of machinery and equipment n.e.c.
CL	Manufacture of transport equipment
CM	Manufacturing n.e.c.

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