EXECUTIVE SUMMARY

In July 2013 the European Union (EU) and the United States (US) started the negotiations to establish the Transatlantic Trade and Investment Partnership (TTIP). The TTIP is established upon three major pillars: market access, regulatory aspects and a set of general rules.

This report explores the impact of the TTIP on the Spanish economy with the aim to quantify the potential effects of the agreement on different variables and sectors. The study takes into consideration the bilateral trade and investment flows between the EU and the US as well as trade barriers.

To quantify the impact we have used a Computable General Equilibrium (CGE) model including the inter-relationship between a large number of micro and macroeconomic variables. The model includes sectors with imperfect competition and economies of scale. This has been usual in the studies that have been carried out in other countries to analyze the impact of TTIP (Ireland, Portugal, France, Sweden, Austria and United Kingdom, among others).

One has to keep in mind that the TTIP is still being negotiated and in general economists, not knowing the content of the final agreement, have to work with what we call "ambitious" settings, i.e., reductions in non-tariff barriers, NTBs, by 25% of what we estimate that exist, or rather "modest" ones (reductions of 10%). Whether in the ambitious or modest scenarios tariffs are eliminated entirely. The report presents the short term results (1 or 2 years) as "static" settings in contrast to "dynamic" settings which offer the long term impact (between 3 to 5 years). The short and long term settings could happen for modest or ambitious reductions in barriers. If the EU reaches its objectives in the negotiations, we would probably move along a dynamic ambitious scenario.

Consequently, we study four scenarios: "static modest", "static ambitious", "dynamic modest" and "dynamic ambitious". In Figure 1, the percentage indicates how much

0,80 0,70 0,60 0,50 0,40 0,30 0,20 0,10 0,00 NTBs **Tariffs** FDI **EU** Trade **EU FDI Total** Ambitious static Modest static Ambitious dynamic Modest dynamic

FIGURE 1

IMPACT ON GDP

(% annual average change with respect to the initial level in the different scenarios)

Source: Authors' estimations.

Spain's GDP would grow annually after the final agreement is reached and as an exclusive result of the agreement itself.

The specific elements of the study are reductions in Non-Trade Barriers ("NTBs"), in Tariffs ("Tariffs"), in barriers to Foreign Direct Investment ("FDI"), and two harmonization scenarios related to the reductions in barriers to trade or to Foreign Direct Investment within the EU, labelled "trade EU" and "FDI EU", respectively. These two latter scenarios offer a novelty compared to other studies about TTIP and allow to identify in which way TTIP could contribute to a larger integration of the European internal market for services.

A further novelty consists in modelling Foreign Direct Investment. Thus we have identified the potential impact of this agreement which has not been analyzed so far and is not included, in general, in CGEs Models. We also include in this study a specification of labor market taking into account unemployment, also a new characteristic which does not appear in most studies about TTIP.

The study concludes that the main effect of TTIP would be to facilitate access to new export markets for Spanish firms, which would raise their exports, production and employment. All the economic forces which the agreement puts into place could push the Spanish GDP to a 0,74% additional annual growth rate as a result of the long-term

ambitious scenario ("dynamic ambitious"). Let us put these outcomes in perspective: the Spanish economy grew 3,8% in real terms (discounting inflation, as all the results in this report are presented) in the year previous to the economic crisis (2007), according to the Spanish National Accounts. The TTIP could yield, by itself and each year, 20% (0,74%/3,8%) of the total growth of a year of strong GDP growth. This would be an important figure. In the short term an ambitious scenario could yield a 0,36% additional annual GDP growth. In the short run -with a modest reduction of NTB's at both sides of the Atlantic-, the GDP would grow at an additional annual rate of 0,14% (less probable setting). In the scenario "dynamic modest" the GDP would go up by 0,30%. EU GDP would increase by an additional 0,85% per year, while the US would grow an additional 0,72% per year in the long term ambitious scenario.

In the long term ambitious scenario, which would occur about three or five years after the agreement (which we assume would take effect in 2020), GDP could increase its growth, pushed by TTIP, by an additional amount of 9.230,7 million € annually, and in the ambitious short term scenario, that is one or two years after the agreement, it could add 4.525,6 million € annually.

The study also indicates, as the majority of the studies have done, that the crucial element of the TTIP is dealing with the NTB's, while the elimination of tariffs is less important.

As far as Foreign Direct Investment (FDI) is concerned, the study concludes that if we reduce the obstacles FDI faces in the United States as well as in the EU we could see a GDP increase by 0,16% in the ambitious long-term. This is an estimate which would include the impact of the repatriation of benefits from the foreign multinationals.

Regarding the possible impact on a greater integration of the European internal market of services ("EU FDI" and "EU trade") the study concludes that the impact is very limited in the case of trade ("EU trade"), which is not surprising, since the intra-European non-tariff barriers in trade are mostly reduced before TTIP. The effects would be somewhat higher for the intra-European FDI ("EU FDI"), although barriers are also very small.

From these first results one can see a **positive impact of any of these scenarios at the aggregate level**. Benefits that increase gradually with the strength of the agreement ("ambitious scenarios") as well as the amount of time which economic agents have to make decisions and in which productive capital can be reallocated throughout the different sectors (long-term).

The majority of studies of the TTIP include scenarios related to the rest of the world outside the TTIP that would allow those countries to also adopt trade regulations similar to those of the European Union and the United States.

In other words, the model includes the idea that also the rest of the world could save costs thanks to the TTIP by beginning to export to the EU and the US by complying with laws that they would pass in common. At the same time, the US and the EU would benefit from greater trade with the rest of the world since they would be using the same standards.

We also model these same scenarios but we prefer not to include them among our central scenarios, which are the ones presented in Figure 1. Our estimates would indicate that an "inclusive" agreement could push GDP up between 0,74% to 1,16% in the ambitious long term scenario. The EU and the US would also benefit additionally, but it is Spain who benefits the most from an "inclusive" setting. Definitively, the impact of TTIP would be more positive if trade with third countries would also be facilitated.

This report shows how this agreement affects a number of micro and macroeconomic variables. The results are parallel to those of the GDP which we have just described in what relates to the strength of each of the components (NTBs, tariffs, FDIs and the EU harmonization in both trade and FDI), as well as the impact made by the different scenarios, both ambitious and modest, long-term vs. short-term.

Tables 1a and 1b show the effects on several macroeconomic indicators of the long-term "ambitious scenario" for the Spanish economy.

Private consumption could conceivably increase up to 0,98%; salaries of both qualified and unqualified workers would experience an annual increase of 0,72%. Aggregate

 $\label{thm:table 1A} \mbox{IMPACT ON MACROECONOMIC INDICATORS} \\ \mbox{(\% annual average change with respect to the initial level, dynamic ambitious, 3 to 5 years)}$

	NTBs	Tariffs	FDI	EU trade	EU FDI	Total
Private consumption	0,54	0,05	0,22	0,02	0,14	0,98
Wages	0,37	0,06	0,16	0,11	0,01	0,72
Aggregate imports	0,80	0,18	0,29	0,17	0,05	1,52
Aggregate exports	0,74	0,21	0,35	0,21	0,05	1,60
CPI	0,10	-0,02	-0,05	-0,02	0,00	-0,02

Source: Authors' estimations.

TABLE 1B

IMPACT ON EMPLOYMENT

(New jobs created annualy, dynamic ambitious, 3 to 5 years)

	NTBs	Tariffs	FDI	EU trade	EU FDI	Total
Job creation	44.108	7.591	16.083	1.822	12.406	83.514

Source: Authors' estimations.

imports would rise a 1,52% and aggregate exports slightly more (1,60%), the CPI (Consumer Price Index) would be lowered slightly (-0,2%). A total of 83.514 new jobs would be created annually.

The accumulated effect during the first five years after the agreement would mean a total increase of GDP of 36.743,3 million € and the creation of 334.836 new jobs, as the exclusive result of the agreement (Table 2).

At the sectoral level, we find that the majority of the sectors of the Spanish economy are intensely integrated according to their flows of imports and exports from and to the United States. Total bilateral imports and exports with the US across all sectors increase by 32% and 30% in the ambitious scenarios, respectively and by 16% and 14%, in the modest scenarios, respectively. These impacts are very similar in the long and short run, with a significant increase of the bilateral trade flow between Spain and the US in both cases.

The evolution of production for the long-term ambitious scenario shows that the majority of sectors **expand their production levels, following the boost in exports, and even more intensely in the long run**. The expansion of production generates new jobs.

The sectors with the greatest increase in production would be: mining, food, textiles, insurance and other manufactured products. For these sectors the export share to the US is bigger than the import share from the US. The reduction of barriers facilitates competition of US imports into our country, whereas the bigger the export share to the US the greater the share of export to which cost reductions are applied.

Table 3 shows the results for all central scenarios for sectoral production in the long run and for an ambitious agreement. In the NTBs and tariffs elimination scenarios, a general expansion of production can be observed, except for agriculture and some manufacturing sectors.

The FDI and the scenarios related to harmonization reveal a pattern of general expansion, which runs in parallel and is related to the export increases for all sectors. In

TABLE 2
TOTAL IMPACT ON GDP AND JOB CREATION IN THE FIRST FIVE YEARS
AFTER THE AGREEMENT

(Values in millions of euros, static and dynamic, ambitious)

	Short term (static)		Lor				
	Agreement year + 1	Agreement year + 2	Agreement year + 3	Agreement year + 4	Agreement year + 5	Accumulated (+ 5)	
GDP	4.525,6	4.525,6	9.230,7	9.230,7	9.230,7	36.743,3	
Employment	41.319	41.805	83.514	83.903	84.295	334.836	

Source: Authors' estimations.

TABLE 3

IMPACT ON SECTORAL PRODUCTION

(% annual average change with respect to the initial level, dynamic ambitious)

	NTBs	Tariffs	FDI	EU Trade	EU FDI	Total
1. Agriculture	-0,13	-0,12	0,27	0,02	0,11	0,05
2. Mining	0,53	0,12	0,58	0,03	0,22	1,62
3. Food	1,09	-0,05	0,24	0,02	0,12	1,38
4. Textiles	0,35	0,45	0,26	0,01	0,08	1,29
5. Wood	0,35	0,11	0,19	0,02	0,14	0,84
6. Chemistry	0,14	-0,08	0,23	0,01	0,10	0,45
7. Metals	0,26	0,05	0,32	0,02	0,13	0,81
8. Automobile	0,06	-0,35	0,17	0,01	0,09	-0,12
9. Other transport	-1,87	-0,26	0,39	0,02	0,15	-1,59
10. Electronics	-0,23	0,10	0,33	0,02	0,17	0,46
11. Other machinery	0,23	0,11	0,34	0,02	0,14	0,91
12. Other manufacturing	0,41	0,25	0,24	0,02	0,13	1,11
13. Construction	0,39	0,07	0,18	0,02	0,11	0,79
14. Maritime transport	0,27	0,12	0,12	0,02	0,05	0,64
15. Air transport	0,30	0,11	0,22	0,01	0,05	0,72
16. Communications	0,43	0,08	0,17	0,02	0,13	0,85
17. Banking	0,50	0,08	0,15	0,01	0,10	0,87
18. Insurance	0,78	0,08	0,17	0,01	0,10	1,17
19. Business services	0,29	0,09	-0,02	0,02	0,17	0,56
20. Personal services	0,38	0,07	0,18	0,02	0,11	0,78
21. Other services	0,33	0,05	0,15	0,01	0,09	0,64

Source: Authors' estimations.

this table attention should be paid to NTBs and tariffs scenarios compared to the column of "total". The few sectors that reduced their production begin to grow or fall less and those which were already growing do increase more intensely.

A special attention will be devoted to the motor vehicle industry within this study, due to the important share of this sector within Spanish exports. This table does not consider the increase in the export share of last years. If the model would consider this recent increase of our export quota to the US, which was not done in the central model specification, we would see a strong growth in an ambitious scenario. Also, one has to keep in mind that the slight fall in annual production of cars would be produced only by the

effect of tariff reduction, while the remaining elements of the agreement would increase its production.

In conclusion, the effects of a negotiation of the TTIP agreement are clearly positive for the Spanish economy and its employment. The recipe for economic policy is clear. Spanish companies have to project more over the US market to benefit from the cost savings of the agreement. This would imply an expansion in exports, which would in turn rise production and boost job creation.