

The impacts of TTIP and TPP on Brazil

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SUMMARY

SUMMARY AND CONCLUSIONS	4
I. MODELING ISSUES	9
II. DATA BASE	9
III. RESULTS OF THE SIMULATIONS	10
Simulation 1 – Impacts of the TTIP on Brazil	10
Simulation 2 – Impacts of the participation of Brazil on the TTIP	13
Simulation 3 – Impacts of TPP on Brazil	15
References	17
SIMULATIONS	18
1. Simulation 1 – Impacts of TTIP on Brazil –.....	18
2. Simulation 2 – Impacts of the participation of Brazil on the TTIP	28
3. Simulation 3 – Impacts of TPP on Brazil	38
GTAP Data Bases: Detailed Sectorial List.....	48

SUMMARY AND CONCLUSIONS

The World is facing a significant transformation process supported by new paradigms: revolutionary innovations in all fronts, new information technologies, huge and speedy mobility of capital, invention of risky financial tools, and globalization of production. The impacts of these phenomena on trade and trade activities are strong and drastic, leaving no much time for the postponement of decisions.

The trading system is facing serious challenges caused by these transformations: a mounting difficulty in concluding a 15 years old multilateral negotiation at the WTO, the multiplication of preferential agreements (PTAs), and the necessity to re-invent trade rules used to support global value chains.

With the difficulties encountered in the Doha Round to adapt the old trade rules to the new reality, the US and the EU decided to launch a new profile of PTAs, the mega-trade agreements, based in the TTIP (Transatlantic Trade and Investment Partnership) and the TPP (Trans-Pacific Partnership), enclosing half of World trade.

More than the reduction of tariffs, these mega-agreements aim to define a new structure and modalities for all kinds of non-tariff barriers to trade, along with new rules for important trade related issues such as investment, competition and new concerns as environment, climate, labor, food scarcity, animal welfare, private standards and a mounting consumer pressure.

Brazil, as a global but relatively small international trader, has opted for giving priority to the multilateral track, where it assumed it could influence the game and better defend its interests. However, the conclusion of the Doha Round is more difficult to achieve than expected.

In contrast, the majority of countries chose to pursue an alternative track: to increase their trade through negotiations of PTAs. This strategy, in one hand, creates new market opportunities, but in the other, results in the fragmentation of international trade regulation, creating conflicts and lack of transparency.

There is a new reality that must be confronted. The EU is changing its priorities from WTO and smaller PTAs to opt for a new challenge – a negotiation with its most controversial trade partner – the US. The US had already launched another initiative of mega-agreement, the TPP, encompassing several countries in the pacific region. The creation of the TTIP and TPP are revolutionary initiatives to the trading system. They will surely benefit its parts but, at the same time, will create an uncertain scenario for all other trade partners, because, due to their size, they will establish a new system of rules, probably in conflict with WTO because it will discriminate parts-in from parts-out of these PTA. New rules will occur in areas expanding WTO rules (WTO plus) as service and intellectual property, but also, with rules in new areas as environment, climate change, labor, investment and competition (WTO extra rules).

The Project

The objective of this project is to analyze the effects for Brazil of the conclusion of TTIP and TPP. This is approached under different hypotheses. The simulations consider reduction of both tariffs and non-tariff barriers. In the TTIP, an audacious alternative is

assumed: a hypothetical participation of Brazil in the TTIP. Regarding the TPP an eventual adhesion of China to the agreement is considered.

The methodology used to estimate non-tariff barriers was presented in the Ecorys Project (2009) developed by Berden e Francois to the European Commission.

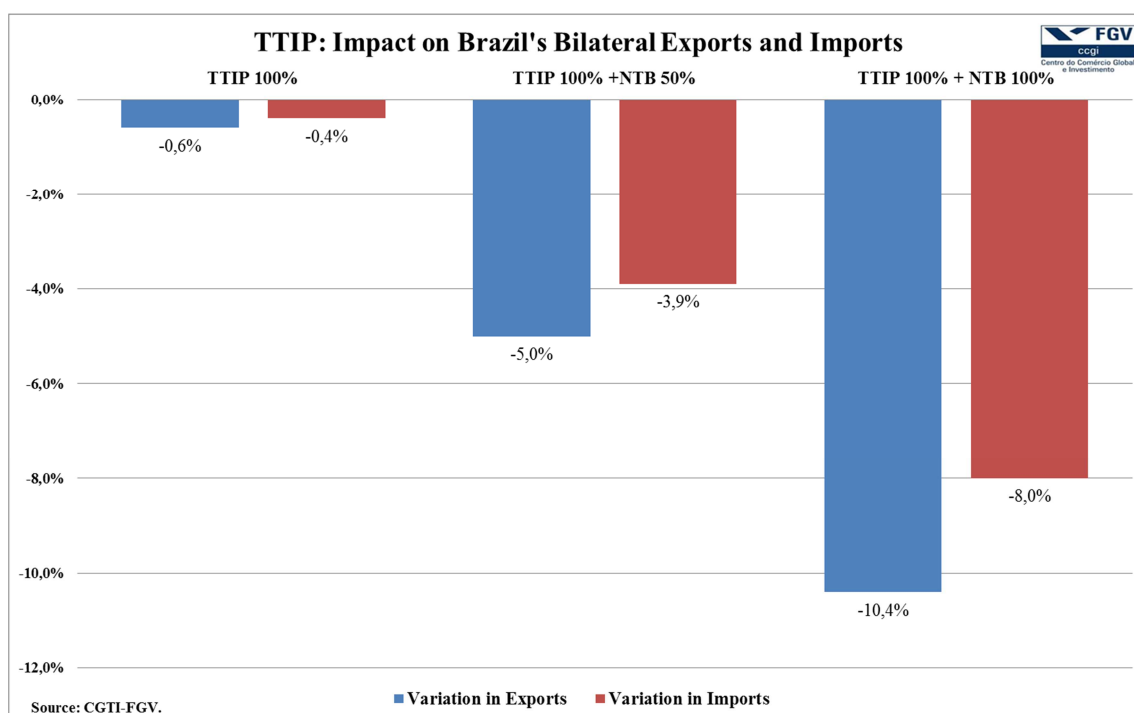
The results of the present project can be summarized in the following:

Simulation 1 – Impacts of the TTIP on Brazil

This simulation presents the impacts of the negotiation of the TTIP, between the EU and the US, to the Brazilian economy.

Three different hypotheses are proposed: (i) a full tariff reduction between US and EU; (ii) a full tariff elimination plus a 50% reduction of non-tariff barriers (NTB); and (iii) a full elimination of both tariffs and NTBs.

Results



Despite the fact that Brazil does not suffer expressive losses in its trade balance with the negotiation of TTIP between the US and the EU, considering the first round effects presented by the simulation, the comparison shows the opportunities lost by Brazil by remaining outside the integration process. Furthermore, it is possible to assume that the TTIP will result in gains of competitiveness for its partners, while Brazil, by remaining outside of the agreement, will remain in its current level, which will cause further losses in the country's trade balance.

When the elimination of non-tariff barriers between EU and US is taken into account, the negative impact to Brazil is more significant, regarding sectorial GDP and trade flows. More than tariffs, the trade gains of TTIP will be obtained through negotiations

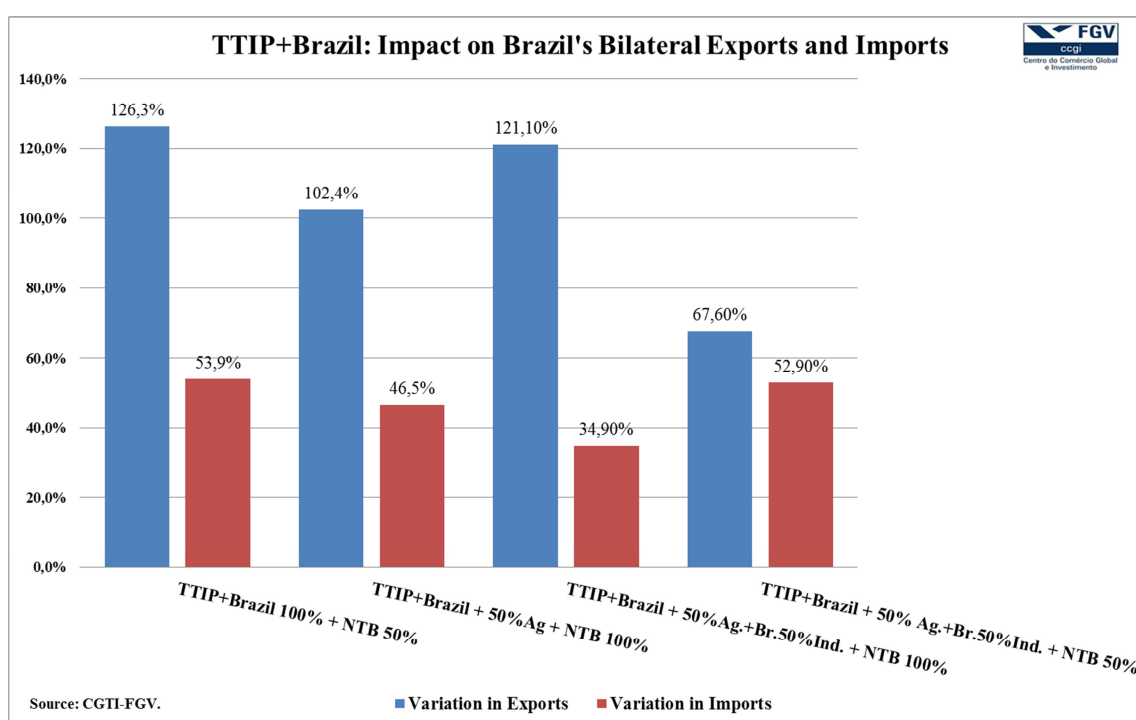
of non-tariff barriers including technical barriers, sanitary and phytosanitary measures, trade facilitation, among others, which are, nowadays, the real barriers to trade.

Simulation 2 – Impacts of the participation of Brazil on the TTIP

This simulation presents the impacts to the Brazilian economy of a hypothetical participation of the country in the negotiations of the TTIP.

The hypothesis assumed for this participation are: (i) a full liberalization of both tariff and NTBs; and (ii) a 50% reduction of tariffs in agriculture for the US and the EU and a full liberalization of all other tariffs and NTBs; (iii) a 50% liberalization of EU and US's agricultural sectors, 50% liberalization of Brazil's industry and services and a full liberalization of non-tariff barriers for all partners; and (iv) 50% liberalization of EU and US's agricultural sectors, 50% liberalization of Brazil's industry and services and a 50% reduction of non-tariff barriers for all partners.

Results



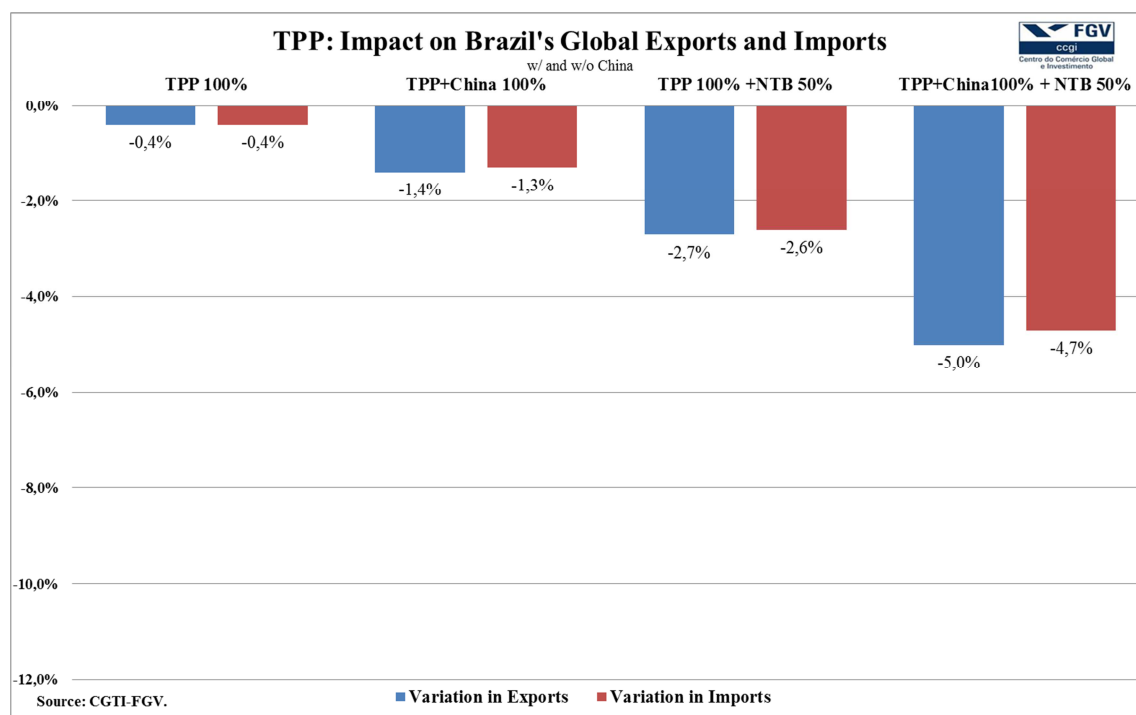
When Brazil adheres to the TTIP, its exports present a significant increase. There are highly expressive gains for the majority of agricultural sectors in all three scenarios. This presents the greatest costs of opportunity of Brazil remaining outside the Trans-Atlantic integration process. For the industry, when Brazil participates in the TTIP, there are losses and gains for the industrial sectors, explained by the valorization of the Brazilian real, caused by the growth of agricultural exports.

The audacious hypothesis of including Brazil as a part of the TTIP presents a substantial gain for agriculture, but as expected, losses for several industrial sectors due to the overvaluation of exchange rates and the consequent increase on industrial imports. To make this hypothesis viable, two important tasks are needed: the Brazilian industry must face an arduous work to improve its competitiveness, and the Brazilian Government should also play its role through active economic policies.

Simulation 3 – Impacts of the TPP on Brazil

The simulation presents the impacts of TPP to the Brazilian economy, considering: (i) a full tariff liberalization amongst TPP members; (ii) a full tariff liberalization plus a 50% reduction of non-tariff barriers (NTB) amongst TPP members; (iii) the adhesion of China to the agreement and a full tariff liberalization; and (iv) the adhesion of China to the TPP, with a full tariff liberalization plus a 50% reduction of NTBs.

Results



As the TTIP, the TPP shall present negative impacts for the Brazilian economy, already in the first round effects. These impacts can be more significant with the gains of competitiveness of the TPP partners, result of the agreement.

The losses for the Brazilian economy become more expressive when China accedes to the agreement and, most of all, when non-tariff barriers are reduced, showing, once more, the importance of the negotiation of rules in PTAs, which have direct impact on market access.

In summary

The conclusion of TTIP and TPP will represent a serious threat to Brazil. Not only it will lose international market, but will be left behind in the negotiations of international trade rules, losing its present role as relevant global rule maker, accepting a secondary role of passive rule taker.

In a time of global value chains, the integration of Brazil with major economies is fundamental to the survival of the industry.

The present research shows clearly that the negotiation of an agreement between Brazil and the EU, now in its final phase, is an important step forward and should be concluded rapidly, before the finalization of the TTIP negotiation.

But a second step should also be considered seriously – that of an agreement with the US. There is no “trade logic” of an agreement with the EU without an agreement with the US in the case of a successful TTIP.

With the TTIP and TPP, a new opportunity is open to Brazil. It is time to review the priorities and to re-evaluate losses and gains. The costs of Brazil’s isolation in the World because of the difficulties of Mercosul should be re-examined with care.

It is time for action!

Simulations on the impacts of TTIP and TPP for Brazil.

In this Section the construction of different scenarios are simulated, considering the following sectors: agriculture, industry and services.

The idea is to estimate opportunity costs for Brazil of not participating in the TTIP and the TPP. The hypotheses are: partial and full liberalization of tariff and non-tariff barriers. The audacious scenario of Brazil participating in the TTIP is considered.

I. MODELING ISSUES

The GTAP computable general equilibrium model was used in the present simulations in order to evaluate the first round effects of the costs and opportunities for Brazil of the conclusion of the TTIP and the TPP. For a description of the standard GTAP model, see Hertel (1997).

The GTAP model is a global comparative static applied general equilibrium model. The model identifies 57 sectors in 153 regions of the world. Its system of equations is based on microeconomic foundations providing a detailed specification of household and perfect competitive firm behavior within individual regions and trade linkages between regions. In addition to trade flows the GTAP model also recognizes global transportation costs.

The GTAP model qualifies as a Johansen-type model. This model estimates the impacts of external shocks (gains and losses of a PTA) through a comparative static modeling (before and after the shock). The solutions are obtained by solving the system of linearized equations of the model. A typical result shows the percentage change in the set of endogenous variables (GDP, exports and imports, exchange rate and land value) after a policy shock is carried out, compared to their values in the initial equilibrium, in a given environment. The schematic presentation of Johansen solutions for such models is standard in the literature (see Dixon et al (1992) and Dixon and Parmenter (1996)).

For the modeling of the reduction of non-tariff barriers, this project used the same methodology presented in Ecorys, 2009.

II. DATA BASE

The GTAP 8 database combines detailed bilateral trade, transport and protection data characterizing economic linkages among 129 regions, together with individual country input-output data bases which account for inter-sectorial linkages within regions. The dataset is harmonized and completed with additional sources to provide the most accurate description of the world economy in 2007 (the last available data base for GTAP).

The main applied protection data used in the GTAP 8 data base originates from ITC's MacMap database, which contains exhaustive information at the tariff line level. The ITC database includes the United Nations Conference on Trade and Development's (UNCTAD's) Trade Analysis and information system (TRAINS) data base, to which

ITC staff added their own data. The model transforms all specific tariffs in ad valorem tariffs.

In order to capture the first round effects, the simulations were carried out using a standard GTAP hypothesis, which considers perfect factor mobility for labor and capital and imperfect factor mobility for land and natural resources. National aggregate supply of factors of production is exogenous and production technology for firms is given.

The way the economy variables are affected by horizontal reductions in bilateral import tariffs of the TTIP and TPP partners will depend on the resulting behavior of domestic relative prices. Domestic relative prices of the TTIP and TPP partners will be altered in such a way that import competition from the PTA partner will be favored, as the economy becomes more preferentially open to trade. Overall efficiency in resource allocation tends to be improved and, by the same token, possible gains from trade may take national welfare a step up.

Notwithstanding the aggregate benefits from improved resource allocation, regions might be adversely affected through re-orientation of trade flows – trade diversion – as relative accessibility changes in the system. Thus bilateral aggregate gains from trade are not necessarily accompanied by generalized regional gains in welfare. This issue of trade diversion versus trade creation has been an important one in the international trade literature, especially in the case of welfare evaluations of preferential trade agreements.

III. RESULTS OF THE SIMULATIONS

The results in these simulations present the impacts for exports and imports, as well as the gains and losses for the sectorial GDP, in order to evidence the sensitiveness of each sector of the Brazilian economy in relation to the TTIP and TPP.

The choice for impacts on sectorial GDP can be explained as an attempt to explore the global effect of each PTA in a more complete evaluation since GDP includes the impacts on production, exports and imports.

The sectorial results are presented according to the following classification:

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or (---)
More than 3	(++++ or (----)

In this section, the main results from the simulations are presented.

Simulation 1 – Impacts of the TTIP on Brazil

This simulation presents the impacts of the negotiation of the TTIP, between the EU and the US, to the Brazilian economy.

Three different hypotheses are proposed: (i) a full tariff reduction between US and EU; (ii) a full tariff elimination plus a 50% reduction of non-tariff barriers (NTB); and (iii) a full elimination of both tariffs and NTBs.

Results

When Brazil remains outside the TTIP, the country's exports are reduced:

- (i) an exclusively tariff reductions results in a small drop of 0,6% of Brazilian exports to the US and the EU, corresponding to a decrease of US\$0.4 billion;
- (ii) a full tariff reduction plus a 50% NTB reduction results in a decrease of 5% of Brazil's exports, corresponding to US\$3.8 billion reduction; and
- (iii) a full liberalization of both tariff and NTBs for TTIP result in a drop of 10% of the exports, corresponding to a US\$7.8 billion decrease.

With the expected increase of trade flow between US and EU, the share of Brazil in the World trade will be reduced.

Regarding imports, when Brazil remains outside the TTIP:

- (i) a full tariff reduction between the US and the EU results in a decrease of 0,4% of Brazil imports from the US and the EU, corresponding to 0.3 billion;
- (ii) a full tariff elimination plus 50% reduction in NTBs results in a drop of 4% of imports, corresponding to a decrease of US\$3.1 billion; and
- (iii) a scenario of full liberalization of both tariffs and NTBs results in a decrease of 8% of imports, corresponding to US\$6.4 billion.

Despite the fact that Brazil does not suffer expressive losses in its trade balance with the negotiation of TTIP between the US and the EU, considering the first round effects presented by the simulation, the comparison shows the opportunities lost by Brazil by remaining outside the integration process. Furthermore, it is possible to assume that the TTIP will result in gains of competitiveness for its partners, while Brazil, by remaining outside of the agreement, will remain in its current level, which will cause further losses in the country's trade balance.

Simulation 1 – Impacts of TTIP on Brazil: Macroeconomic Variables

Macroeconomic Variables	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Variation in bilateral exports (US\$ mi, F.O.B., 2012)	-453	-3,778	-7,858
Variation in bilateral exports %	-0.6%	-5.0%	-10.4%
Variation in bilateral imports (US\$ mi, F.O.B., 2012)	-320	-3,121	-6,401
Variation in bilateral imports %	-0.4%	-3.9%	-8.0%
Terms of trade	-0.1%	-0.6%	-1.3%
Real wage	0.0%	0.0%	-0.1%
Capital gains	0.0%	-0.1%	-0.1%
Land gains	-0.4%	-2.7%	-6.2%
Real exchange rate	-0.1%	-1.0%	-2.2%

Source: CGTI-FGV

In the sectorial analysis, the simulation presents the following results for each sectorial GDP:

For the agricultural sector, the conclusion of the TTIP results in small losses to the majority of the agricultural sectors, with a slightly better scenario according to the level of liberalization of NTBs. One factor that should affect Brazilian agricultural exports to the EU is that any preferential tariff quotas offered by the EU to the US should affect other countries' market access to the EU, since the global tariff quotas will be shared by many partners, with the US benefiting from a larger share of such global quota. Regarding the NTBs, the results of the simulation show that Brazil will benefit from the elimination of NTBs between the two countries.

For the industry, the conclusion of the TTIP results in small gains for a number of sectors. This can be explained by the fact that the increase of trade flows and economic integration between the EU and the US will create some demand for exports from other countries as well.

In services the scenario is not very different from the industry, with small gains for Brazil in the agreement between the EU and the US.

Simulation 1 – Impacts of the TTIP on Brazil: Sectorial Analysis

	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Agriculture	4	5	7
Industry	12	12	12
Services	8	10	11
+	24	25	24
++	0	2	4
+++	0	0	2
++++	0	0	0
Total	24	27	30

Source: CGTI-FGV

Simulation 2 – Impacts of the participation of Brazil on the TTIP

This simulation presents the impacts to the Brazilian economy of an hypothetical participation of the country in the negotiations of the TTIP.

The hypothesis assumed for this participation are: (i) a full liberalization of both tariff and NTBs; and (ii) a 50% reduction of tariffs in agriculture for the US and the EU and a full liberalization of all other tariffs and NTBs; (iii) a 50% liberalization of EU and US's agricultural sectors, 50% liberalization of Brazil's industry and services and a full liberalization of non-tariff barriers for all partners; and (iv) a 50% liberalization of EU and US's agricultural sectors, 50% liberalization of Brazil's industry and services and a 50% reduction of non-tariff barriers for all partners.

Results

When Brazil adheres to the TTIP, its exports present a significant increase:

- (i) a full liberalization of tariffs and NTBs for all three partners results in a strong increase of 126% of Brazilian exports, corresponding to a US\$95.4 billion raise; and
- (ii) with a more realistic 50% reduction of agricultural tariffs plus a full liberalization of all other tariffs and NTBs results in an increase of 102% of the country's exports, corresponding to US\$ 77.3 billion.
- (iii) with a 50% reduction of EU and US agricultural tariffs, a 50% reduction of Brazilian industrial tariffs a full liberalization of non-tariff barriers for all partners, Brazilian exports increase by 121% , corresponding to US\$91.5 billion¹.
- (iv) finally, in a more realistic scenario of 50% reduction of EU and US agricultural tariffs, a 50% reduction of Brazilian industrial tariffs and a 50% reduction of non-tariff barriers for all partners, Brazilian exports increase by 67,6%, corresponding to US\$ 51,1 billion²

In the TTIP, there is a very expressive increase in the exports of agricultural products, which explains the gains in the land value and the valorization of the Brazilian real.

Regarding imports, when Brazil participates in the TTIP:

- (i) full liberalization of tariffs and NTBs results in an increase of 54%; corresponding to a US\$43.1 billion rise in imports from the US and the EU; and
- (ii) a 50% liberalization in agricultural tariffs and a full liberalization in other tariffs and NTBs results in an increase of 46,5%, corresponding to US\$37.2 billion.
- (iii) a 50% liberalization in the agricultural sectors of the EU and US, a 50% liberalization in the Brazilian industrial sector and a full

¹ Values from Secex (US\$ F.O.B.) for 2012

² Values from Secex (US\$ F.O.B.) for 2012

- liberalization of non-tariff barriers for all partners results in a increase of 34.9%, corresponding to US\$27,9 billion³.
- (iv) finally, in a more realistic scenario of 50% reduction of EU and US agricultural tariffs, a 50% reduction of Brazilian industrial tariffs and a 50% reduction of non-tariff barriers for all partners, Brazilian imports increase by 52,9%, corresponding to US\$ 42.3 billion⁴

Simulation 2 – Impacts of the participation of Brazil on the TTIP - Macroeconomic Variables

Macroeconomic Variables	TTIP + Brazil (100% + 100%NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Increase in bilateral exports (US\$ mi, F.O.B., 2012)	95,433	77,374	91,504	51,079
Increase in bilateral exports %	126.3%	102.4%	121,1%	67,6%
Increase in bilateral imports (US\$ mi, F.O.B., 2012)	43,130	37,209	27,926	42,330
Increase in bilateral imports %	53.9%	46.5%	34,9%	52,9%
Terms of trade	16.0%	10.7%	16,9%	5,4%
Real wage	0.4%	0.8%	0,4%	1,0%
Capital gains	1.1%	1.1%	1,0%	1,2%
Land gains	198,4%	87.7%	191,2%	57,9%
Real exchange rate	15.2%	10.5%	15,9%	6,3%

Source: CGTI-FGV.

In the sectorial analysis, the simulation presents the following results for each sectorial GDP:

In a scenario of participation of Brazil in the TTIP, there are highly expressive gains for the majority of agricultural sectors in all three scenarios. This presents the greatest costs of opportunity of Brazil remaining outside the Trans-Atlantic integration process.

For the industry, when Brazil participates in the TTIP, there are significant losses for the majority of Brazil's industrial sectors in all cases, explained by the impact of the exchange rate.

For services, small and medium losses for the majority of sectors are verified.

³ Values from Secex (US\$ F.O.B.) for 2012

⁴ Values from Secex (US\$ F.O.B.) for 2012

Simulation 2 – Impacts of the TTIP on Brazil: alternative scenario - Sectorial Analysis

	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50% ag + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Agriculture	13	13	13	12
Industry	2	3	2	4
Services	5	5	6	6
+	5	5	6	7
++	3	3	3	4
+++	0	0	1	0
++++	12	13	11	11
Total	20	21	21	22

Source: CGTI-FGV.

Simulation 3 – Impacts of TPP on Brazil

The simulation presents the impacts of TPP to the Brazilian economy, considering: (i) a full tariff liberalization amongst TPP members; (ii) a full tariff liberalization plus a 50% reduction of non-tariff barriers (NTB) amongst TPP members; (iii) the adhesion of China to the agreement and a full tariff liberalization; and (iv) the adhesion of China to the TPP, with a full tariff liberalization plus a 50% reduction of NTBs.

Results

The entry into force of the TPP, considering full tariff liberalization results in a drop of 0,4% of Brazilian global exports as well as a drop of 0,4% of Brazilian global imports.

Full tariff elimination plus a reduction of 50% of NTBs result in a more marked drop on Brazilian global exports, with a reduction of 2,7%, while imports drop by 2,6%.

The adhesion of China to the TPP results in even more expressive losses to Brazil: the elimination of tariffs leads to a reduction of 1,3% of Brazilian exports and 1,3% of imports, while the elimination of tariffs combined to the reduction of 50% of NTBs leads to a reduction of 5% of Brazilian global exports and 4,7% of imports.

Simulation 3 – Impacts of TPP on Brazil: Macroeconomic outlook

Macroeconomic variables	TPP	TPP + NTB	TPP + China	TPP+China+NTB
Variation in global exports (%)	-0,4%	-2,7%	-1,4%	-5,0%
Variation in global imports (%)	-0,4%	-2,6%	-1,3%	-4,7%
Terms of Trade	-0,2%	-0,9%	-0,3%	-1,5%
Real wage	0,0%	-0,1%	0,0%	-0,1%
Capital gains	-0,0%	-0,1%	0,0%	-0,1%
Land gains	-0,3%	-3,1%	-0,2%	-7,7%
Real Exchange rate	-0,3%	-1,8%	-1,2%	-3,7%

Source: CGTI - FGV

Regarding the sectorial analysis, the following results are verified:

In agriculture, small losses are verified for most of the sectors and more relevant losses are verified to a limited number of sectors. The situation is worsened both by the adhesion by the reduction of NTBs. For the industry, small losses are verified for a few sectors, with more sectors affected when NTBs are also reduced. For services, small gains are verified for the majority of sectors.

Simulation 3 – Impacts of TPP on Brazil: Summary of gains – GDP by sector

	TPP	TPP + NTB	TPP + China	TPP+China+NTB
Agriculture	14	9	14	9
Industry	16	11	15	12
Services	12	11	12	11
+	42	29	38	25
++	0	2	3	4
+++	0	0	0	1
++++	0	0	0	2
Total	42	31	41	32

Source: CGTI - FGV

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SIMULATIONS

1. Simulation 1 – Impacts of TTIP on Brazil –

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.1 – Variation on GDP by sector (%)– Agriculture

Agriculture	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Paddy rice	-0,03	-0,12	-0,27
Wheat	0,20	1,54	2,74
Other cereals	-0,12	-0,66	-1,24
Vegetables/fruits	-0,01	-0,27	-0,63
Oil seeds	0,08	-0,55	-1,54
Sugar (cane&beet)	0,01	0,11	0,28
Plant fibres	-0,12	0,07	0,20
Other crops (unprepared)	-0,12	-1,23	-2,93
Cattle, horses, sheeps	-0,13	-0,29	-0,76
Animal products	-0,24	-1,01	-1,95
Raw milk	-0,02	0,00	0,03
Wool, silk	0,00	0,00	0,01
Forestry products	0,06	0,59	1,26
Meat: cattle, sheeps, horses	-0,17	-0,37	-0,96
Meat products	-0,48	-2,01	-3,83
Vegetables oils and fats	-0,02	-0,17	-0,61
Processed rice	-0,01	-0,03	-0,07
Sugar	0,00	0,06	0,19
Food products (animal feed)	-0,04	-0,24	-0,49
Beverage, Tobacco products	-0,01	-0,43	-0,68

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.2 — GDP: Gains and losses by sector - Agriculture

Agriculture	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Paddy rice	-	-	-
Wheat	+	++	+++
Other cereals	-	-	--
Vegetables/fruits	-	-	-
Oil seeds	+	-	--
Sugar (cane&beet)	+	+	+
Plant fibres	-	+	+
Other crops (unprepared)	-	--	---
Cattle, horses, sheeps	-	-	-
Animal products	-	--	--
Raw milk	-	-	+
Wool, silk	-	-	+
Forestry products	+	+	++
Meat: cattle, sheeps, horses	-	-	-
Meat products	-	---	----
Vegetables oils and fats	-	-	-
Processed rice	-	-	-
Sugar	-	+	+
Food products (animal feed)	-	-	-
Beverage, Tobacco products	-	-	-
Total (No. of positive results)	4	5	7

Source: CGTI-FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or (---)
More than 3	(++++ or (----)

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.3 – Variation on GDP by sector (%)– Industry

Industry	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Extractive			
Fishing	0,00	-0,05	-0,10
Coal	0,04	0,26	0,49
Oil	0,03	0,01	-0,01
Gas	0,01	0,09	0,21
Minerals	0,04	0,07	0,15
Manufacturing			
Textiles	-0,06	0,03	0,10
Apparel	-0,01	-0,03	-0,05
Leather products	-0,47	-0,64	-0,87
Wood products	0,15	1,41	3,00
Paper products	0,06	0,52	1,11
Petroleum products	-0,03	-0,32	-0,61
Chemical, rubber, plastics	0,02	0,26	0,53
Mineral (non-metallic)	-0,19	-0,59	-0,94
Iron, steel	0,10	-0,14	-0,34
Metals (non-ferrous)	0,00	0,36	0,78
Metal products	0,04	0,28	0,59
Motor vehicles and parts	-0,02	-0,01	0,01
Transport equipment	0,12	-2,86	-6,54
Electronic equipment	0,07	0,41	0,82
Machinery and equipment	0,16	0,55	1,06
Manufactures	0,00	-0,07	-0,15

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.4 — GDP: Gains and losses by sector - Industry

Industry	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Extractive			
Fishing	-	-	-
Coal	+	+	+
Oil	+	+	-
Gas	+	+	+
Minerals	+	+	+
Manufacturing			
Textiles	-	+	+
Apparel	-	-	-
Leather products	-	-	-
Wood products	+	++	+++
Paper products	+	+	++
Petroleum products	-	-	-
Chemical, rubber, plastics	+	+	+
Mineral (non-metallic)	-	-	-
Iron, steel	+	-	-
Metals (non-ferrous)	-	+	+
Metal products	+	+	+
Motor vehicles and parts	-	-	+
Transport equipment	+	---	----
Electronic equipment	+	+	+
Machinery and equipment	+	+	++
Manufactures	-	-	-
Total (No. of positive results)	12	12	12

Source: CGTI-FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or (---)
More than 3	(++++ or (----)

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.5 – Variation on GDP by sector (%)– Services

Services	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Electricity	0,00	0,04	0,08
Gas distribution	0,01	0,10	0,25
Water	0,00	-0,02	-0,05
Construction	0,00	0,00	0,01
Trade	0,00	-0,02	-0,05
Transport	0,00	0,01	0,04
Water transport	0,08	0,68	1,49
Air transport	0,03	0,22	0,49
Communication	0,01	0,05	0,11
Financial services	0,01	0,02	0,05
Insurance	0,01	0,02	0,06
Business services	0,03	0,32	0,70
Recreation and other serv.	0,01	0,06	0,12
Public administration	0,00	-0,04	-0,08
Dwellings	-0,01	-0,07	-0,15

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.6 — GDP: Gains and losses by sector - Services

Services	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Electricity	-	+	+
Gas distribution	+	+	+
Water	-	-	-
Construction	-	-	+
Trade	-	-	-
Transport	-	+	+
Water transport	+	+	++
Air transport	+	+	+
Communication	+	+	+
Financial services	+	+	+
Insurance	+	+	+
Business services	+	+	+
Recreation and other serv.	+	+	+
Public administration	-	-	-
Dwellings	-	-	-
Total (No. of positive results)	8	10	11

Source: CGTI-FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ---)
More than 3	(++++ or ----)

Simulation 1 – Impacts of the TTIP on Brazil

Hypothesis: TTIP – only tariffs

TTIP with 50% reduction of non-tariff barriers (NTBs)

TTIP with 100% reduction of NTBs

Table 1.7 – Summary of gains – GDP by sector

	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Agriculture	4	5	7
Industry	12	12	12
Services	8	10	11
+	24	25	24
++	0	2	4
+++	0	0	2
++++	0	0	0
Total	24	27	30

Source: CGTI-FGV

Table 1.8 – Macroeconomic outlook

Macroeconomic Variables	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)
Variation in bilateral exports (US\$ mi, F.O.B., 2012)	-453	-3,778	-7,858
Variation in bilateral exports %	-0.6%	-5.0%	-10.4%
Variation in bilateral imports (US\$ mi, F.O.B., 2012)	-320	-3,121	-6,401
Variation in bilateral imports %	-0.4%	-3.9%	-8.0%
Terms of trade	-0.1%	-0.6%	-1.3%
Real wage	0.0%	0.0%	-0.1%
Capital gains	0.0%	-0.1%	-0.1%
Land gains	-0.4%	-2.7%	-6.2%
Real exchange rate	-0.1%	-1.0%	-2.2%

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Table 1.9 - Trade Balance: Agriculture

	TTIP			TTIP+NTB (50%)			TTIP+NTB (100%)		
Agriculture	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports
Paddy rice	-0,36	3,03	0,57	-1,27	7,36	2	-2,97	-1,88	4,48
Wheat	2,20	-0,27	-0,16	16,55	-1,58	-1,19	35,56	-3,55	-2,55
Other cereals	-8,88	-0,43	-0,28	-60,54	-2,91	-1,78	-115,13	-5,55	-3,63
Vegetables/fruits	0,16	-0,07	-0,13	-10,09	-1,88	-1,2	-23,79	-4,26	-2,57
Oil seeds	7,18	0,1	-0,09	-148,95	-2,18	-1,88	-360,59	-5,28	-4,47
Sugar (cane&beet)	0	-0,17	-0,13	0,01	0,13	-1,15	0,02	0,36	-2,41
Plant fibres	-2,92	-0,64	-0,28	-2,80	-0,90	-1,41	-5,69	-1,84	-2,94
Other crops (unprepared)	-41,14	-0,72	-0,38	-390,47	-6,82	-2,70	-914,74	-15,93	-5,51
Cattle, horses, sheeps	0,21	0,02	-0,62	0,13	-0,29	-2,81	0,08	-0,7	-5,92
Animal products	-0,29	-0,21	-0,35	-2,44	-1,46	-2,12	-4,5	-2,84	-4,32
Raw milk	0,01	0,27	-0,15	0,09	2,04	-1,73	0,15	2,13	-3,72
Wool, silk	-0,01	-0,16	-0,19	0,16	0,33	-3,54	0,37	1,19	-6,59
Forestry products	0,03	0,03	-0,11	-1,32	-5,68	-0,89	-2,94	-12,47	-1,79
Meat: cattle, sheeps, horses	-36,62	-1,03	-0,23	-106,88	-3,03	-1,39	-272,04	-7,68	-2,48
Meat products	-84,26	-1,19	-0,40	-382,42	-5,40	-3,48	-740,48	-10,46	-7,02
Vegetables oils and fats	-4,34	-0,12	-0,16	-56,80	-1,52	-1,57	-163,2	-4,24	-3,43
Dairy	-3,88	-1,53	-0,07	4,69	0,18	-2,01	14,78	2,16	-4,33
Processed rice	-0,19	-0,34	-0,02	0,53	-1,23	-0,70	0,77	-2,98	-1,43
Sugar	-4,15	-0,08	-0,17	-13,96	-0,28	-1,85	-34,79	-0,7	-3,68
Food products (animal feed)	-11,55	-0,39	-0,17	-80,48	-2,88	-1,53	-167,31	-6,01	-3,26
Beverage, Tobacco products	-3,04	-0,25	-0,13	-94,25	-6,37	-1,16	-151,15	-10,48	-2,44

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Table 1.10 - Trade Balance: Industry

Industry	TTIP			TTIP+NTB (50%)			TTIP+NTB (100%)		
	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports
Extrative									
Fishing	0,25	0,28	-0,12	1,20	-0,17	-1,09	2,47	-0,57	-2,33
Coal	0,20	0,03	-0,02	6,20	-1,97	-0,49	14,70	-4,15	-1,17
Oil	21,46	0,17	-0,13	135,07	-0,12	-1,70	248,72	-0,87	-3,59
Gas	0,91	-0,28	-0,09	7,98	1,23	-0,81	16,77	2,73	-1,71
Minerals	-7,49	-0,05	-0,09	-143,93	-0,80	-0,67	-311,64	-1,74	-1,43
Manufacturing									
Textiles	-6,08	-0,74	-0,18	14,30	-1,74	-1,44	33,47	-3,45	-3,04
Apparel	-1,38	-0,70	-0,16	8,14	-0,39	-1,75	18,09	-0,53	-3,70
Leather products	-58,08	-1,38	-0,21	-104,01	-2,65	-1,65	-163,84	-4,28	-3,43
Wood products	11,89	0,25	-0,17	112,27	2,38	-1,73	235,99	5,01	-3,61
Paper products	15,55	0,26	-0,22	130,71	2,15	-1,87	274,48	4,53	-3,89
Petroleum products	-10,08	-0,28	-0,06	-123,51	-3,72	-0,93	-231,83	-7,47	-2,03
Chemical, rubber, plastics	26,69	-0,22	-0,19	321,80	-1,08	-1,68	683,96	-2,25	-3,55
Mineral (non-metallic)	-43,39	-1,88	-0,20	-146,31	-6,80	-1,94	-242,77	-11,59	-4,08
Iron, steel	14,05	0,14	-0,10	-165,24	-2,22	-1,60	-357,78	-4,80	-3,44
Metals (non-ferrous)	-11,58	-0,20	-0,04	-12,26	-0,62	-0,76	-20,81	-1,28	-1,69
Metal products	3,26	-0,05	-0,20	58,26	0,51	-2,31	125,68	1,22	-4,86
Motor vehicles and parts	-19,38	-0,21	-0,12	-68,06	-1,20	-1,15	-128,92	-2,45	-2,45
Transport equipment	5,09	-0,06	-0,12	-275,17	-8,79	-2,58	-610,56	-19,32	-5,61
Electronic equipment	30,83	0,44	-0,20	190,65	1,71	-1,57	382,49	3,07	-3,28
Machinery and equipment	65,33	0,14	-0,21	151,27	-1,97	-1,85	286,20	-4,34	-3,88
Manufactures	0,63	-0,21	-0,21	-2,48	-3,51	-1,94	-7,33	-7,74	-4,04

Source: CGTI-FGV

Simulation 1 – Impacts of the TTIP on Brazil

Table 1.11 - Trade Balance: Services

Services	TTIP			TTIP+NTB (50%)			TTIP+NTB (100%)		
	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports	Δ Trade balance (US\$ million)	% Exports	% Imports
Electricity	3,15	0,17	-0,14	28,15	2,27	-1,17	60,02	5,04	-2,47
Gas distribution	0,45	0,13	-0,19	2,88	1,70	-1,15	5,90	3,74	-2,33
Water	0,24	0,33	-0,34	1,88	2,58	-2,64	4,05	5,77	-5,46
Construction	0,18	0,02	-0,14	2,47	1,06	-1,37	5,33	2,34	-2,92
Trade	6,23	0,07	-0,19	66,67	1,36	-1,76	142,86	3,05	-3,70
Transport	4,98	0,09	-0,16	32,09	0,15	-1,48	71,93	0,50	-3,15
Water transport	6,45	0,08	-0,12	51,25	0,55	-1,01	111,17	1,22	-2,15
Air transport	5,42	0,14	-0,13	45,92	1,03	-1,13	98,76	2,26	-2,41
Communication	1,53	0,18	-0,19	15,13	1,89	-1,73	32,86	4,19	-3,65
Financial services	8,56	0,33	-0,31	15,72	-2,42	-2,37	46,63	-3,67	-4,95
Insurance	3,48	0,22	-0,17	19,08	0,52	-1,50	43,61	1,53	-3,16
Business services	37,06	0,19	-0,14	362,97	1,79	-1,37	792,20	3,99	-2,93
Recreation and other serv.	6,44	0,21	-0,25	55,21	2,18	-2,01	117,33	4,80	-4,23
Public administration	17,71	0,28	-0,30	89,65	0,09	-2,34	195,13	0,55	-4,87
Dwellings	0	-0,13	-0,13	0	-1,06	-1,06	0	-2,25	-2,25

Source: CGTI-FGV

2. Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.1 - Variation on GDP by sector (%): Agriculture

Agriculture	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Paddy rice	-0,81	-0,71	-0,84	-2,27
Wheat	-5,44	-3,44	-4,53	-26,11
Other cereals	8,00	6,89	6,43	4,63
Vegetables/fruits	16,93	16,69	16,14	9,49
Oil seeds	3,74	6,74	6,02	1,28
Sugar (cane&beet)	22,09	3,94	3,56	1,35
Plant fibres	-9,33	-5,39	-5,65	-10,15
Other crops (unprepared)	14,19	14,18	13,69	10,45
Cattle, horses, sheeps	47,01	24,86	24,34	28,92
Animal products	29,43	21,33	20,5	21,34
Raw milk	-0,98	-0,54	-0,96	-2,91
Wool, silk	0,97	1,67	1,55	-0,57
Forestry products	-5,35	-2,41	-2,69	-1,98
Meat: cattle, sheeps, horses	59,89	31,71	31,08	36,22
Meat products	57,26	41,27	39,70	41,73
Vegetables oils and fats	19,06	22,55	21,27	8,63
Processed rice	-0,21	-0,26	-0,29	-0,51
Sugar	34,74	8,47	7,73	4,50
Food products (animal feed)	10,12	7,53	7,16	4,42
Beverage, Tobacco products	-0,56	-0,16	-0,36	-0,66

Source: CGTI-FGV

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.2 — GDP: Gains and losses by sector - Agriculture

Agriculture	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag + 100%NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Paddy rice	-	-	-	---
Wheat	----	----	----	----
Other cereals	++++	++++	++++	++++
Vegetables/fruits	++++	++++	++++	++++
Oil seeds	++++	++++	+++	++
Sugar (cane&beet)	++++	++++	++++	++
Plant fibres	----	----	----	----
Other crops (unprepared)	++++	++++	++++	++++
Cattle, horses, sheeps	++++	++++	++++	++++
Animal products	++++	++++	++++	++++
Raw milk	-	-	-	---
Wool, silk	+	++	+	-
Forestry products	----	---	----	--
Meat: cattle, sheeps, horses	++++	++++	++++	++++
Meat products	++++	++++	++++	++++
Vegetables oils and fats	++++	++++	++++	++++
Processed rice	-	-	-	-
Sugar	++++	++++	++++	++++
Food products (animal feed)	++++	++++	++++	++++
Beverage, Tobacco products	-	-	-	-
Total (No. of positive results)	13	13	13	12

Source: CGTI-FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ----)
More than 3	(++++ or ----)

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.3 - Variation on GDP by sector (%): Industry

Industry	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Extractive				
Fishing	0,95	0,72	0,70	0,61
Coal	-5,83	-4,05	-4,45	-4,38
Oil	-1,57	-0,24	-0,51	-0,61
Gas	-7,53	-5,18	-5,50	-3,29
Minerals	-9,06	-6,15	-6,60	-3,78
Manufacturing				
Textiles	-6,85	-3,04	-2,73	-3,66
Apparel	1,19	1,54	1,79	1,05
Leather products	-6,09	15,35	12,84	11,27
Wood products	-12,50	-5,71	-6,48	-3,78
Paper products	-6,59	-4,48	-4,49	-3,18
Petroleum products	-1,03	-0,30	-0,35	-0,64
Chemical, rubber, plastics	-11,92	-8,32	-7,71	-7,2
Mineral (non-metallic)	-2,34	-0,03	-0,09	-1,16
Iron, steel	-13,23	-6,56	-6,71	-6,95
Metals (non-ferrous)	-28,08	-17,14	-18,62	-11,34
Metal products	-12,13	-8,76	-7,43	-7,18
Motor vehicles and parts	-7,22	-3,66	-3,68	-3,18
Transport equipament	-13,45	-5,24	-8,03	0,66
Electronic equipment	-12,05	-9,13	-8,93	-6,56
Machinery and equipment	-23,74	-15,74	-14,20	-17,19
Manufactures	-1,89	-1,13	-0,74	-1,07

Source: CGTI-FGV

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.4 — GDP: Gains and losses by sector - Industry

Industry	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Extractive				
Fishing	+	+	+	+
Coal	----	----	----	----
Oil	--	-	-	-
Gas	----	----	----	----
Minerals	----	----	----	----
Manufacturing				
Textiles	----	----	---	----
Apparel	++	++	++	++
Leather products	----	++++	++++	++++
Wood products	----	----	----	----
Paper products	----	----	----	----
Petroleum products	--	-	-	-
Chemical, rubber, plastics	----	----	----	----
Mineral (non-metallic)	---	-	-	-
Iron, steel	----	----	----	----
Metals (non-ferrous)	----	----	----	----
Metal products	----	----	----	----
Motor vehicles and parts	----	----	----	----
Transport equipment	----	----	----	+
Electronic equipment	----	----	----	----
Machinery and equipment	----	----	----	----
Manufactures	--	--	-	----
Total (No. of positive results)	2	3	3	4

Source: CGTI-FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or (---)
More than 3	(++++ or (----)

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.5 – Variation on GDP by sector (%): Services

Services	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100%NTB)	TTIP + Brazil (50% ag + 50% ind. + 50%NTB)
Electricity	-4,28	-2,58	-2,74	-1,85
Gas distribution	-5,76	-3,18	-3,48	-2,71
Water	0,43	0,28	0,34	0,37
Construction	-0,03	-0,04	-0,03	-0,01
Trade	0,24	0,30	0,34	0,33
Transport	-0,84	-0,56	-0,59	-0,35
Water transport	-10,38	-7,43	-7,99	-4,82
Air transport	-4,35	-3,22	-3,36	-1,91
Communication	-0,95	-0,69	-0,66	-0,46
Financial services	-0,77	-0,53	-0,47	-0,55
Insurance	-0,02	-0,16	-0,12	0,05
Business services	-3,76	-2,54	-2,74	-2,13
Recreation and other serv.	0,44	0,12	0,17	0,49
Public administration	1,49	0,72	0,84	0,79
Dwellings	1,80	1,07	1,23	1,17

Source: CGTI-FGV.

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.6 — GDP: Gains and losses by sector - Services

Services	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Electricity	----	---	---	--
Gas distribution	----	----	----	---
Water	+	+	+	+
Construction	-	-	-	-
Trade	+	+	+	+
Transport	-	-	-	-
Water transport	----	----	----	---
Air transport	----	----	----	--
Communication	-	-	-	-
Financial services	-	-	-	-
Insurance	-	-	-	+
Business services	----	---	---	---
Recreation and other serv.	+	+	+	+
Public administration	++	+	+	+
Dwellings	++	++	++	++
Total (No. of positive results)	5	5	5	5

Source: CGTI-FGV.

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or (---)
More than 3	(++++ or (----)

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Hypothesis Full Liberalization + NTBs (100%)

50% liberalization on agriculture (US and EU) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (100%)

50% liberalization on agriculture (US and EU) + 50% liberalization on industry (Brazil) + NTBs (50%)

Table 2.7 – Summary of gains: GDP by sector

	TTIP + Brazil (100% + 100% NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Agriculture	13	13	13	12
Industry	2	3	2	4
Services	5	5	6	6
+	5	5	6	7
++	3	3	3	4
+++	0	0	1	0
++++	12	13	11	11
Total	20	21	21	22

Source: CGTI-FGV.

Table 2.8 – Macroeconomic outlook

Macroeconomic Variables	TTIP + Brazil (100% + 100%NTB)	TTIP + Brazil (50%ag +100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 100% NTB)	TTIP + Brazil (50% ag + 50% ind. + 50% NTB)
Increase in bilateral exports (US\$ mi, F.O.B., 2012)	95,433	77,374	91,504	51,079
Increase in bilateral exports %	126.3%	102.4%	121,1%	67,6%
Increase in bilateral imports (US\$ mi, F.O.B., 2012)	43,130	37,209	27,926	42,330
Increase in bilateral imports %	53.9%	46.5%	34,9%	52,9%
Terms of trade	16.0%	10.7%	16,9%	5,4%
Real wage	0.4%	0.8%	0,4%	1,0%
Capital gains	1.1%	1.1%	1,0%	1,2%
Land gains	198,4%	87.7%	191,2%	57,9%
Real exchange rate	15.2%	10.5%	15,9%	6,3%

Source: CGTI-FGV.

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Table 2.9 – Trade balance - Agriculture

	TTIP + Brazil (100% + 100%NTB)			TTIP + Brazil (50%ag +100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 50%NTB)		
Agriculture	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports
Paddy rice	-32,25	1998,15	66,89	-21,11	1975,79	49,85	-24,29	1892,75	53,91	-58,93	286,09	91,74
Wheat	-393,71	-11,35	27,21	-286,18	-12,07	19,70	-290,05	-12,95	19,95	-349,37	-24,4	23,85
Other cereals	227,69	14,31	42,37	314,52	17,05	29,78	307,17	16,72	29,75	162,66	9,59	23,51
Vegetables/fruits	796,26	109,31	34,72	788,75	104,37	28,34	775,26	103,57	29,38	439,28	58,9	16,99
Oil seeds	62,62	1,59	70,38	171,06	3,16	70,27	171,72	3,16	69,3	215,41	3,53	41,43
Sugar (cane&beet)	-2,59	-70,06	74,03	-1,36	-38,91	26,47	-1,39	-39,68	27,08	-1,21	-34,73	22,8
Plant fibres	-72,31	-8,81	21,94	-56,66	-6,89	17,27	-71,91	-8,2	24,14	-160,79	-17,15	58,77
Other crops (unprepared)	5580,24	101,64	121,04	5338,18	96,22	95,89	5224,54	94,49	100,22	3615,72	66,75	95,98
Cattle, horses, sheeps	-296,34	-79,97	474,26	-137,83	-48,83	127,35	-137,69	-48,78	127,19	-88,47	-28,18	107,08
Animal products	-127,61	-9,35	73,64	-34,92	6,30	44,57	-37,45	6,62	47,42	-34,56	3,7	37,12
Raw milk	6,44	439,18	65,14	9,23	559,6	47,00	8,94	546,45	48,52	0,63	104,1	46,86
Wool, silk	39,59	415,57	195,62	63,86	607,52	118,45	59,17	575,41	148,9	-14,33	62,39	597,59
Forestry products	37,6	160,62	24,31	42,94	175,98	18,30	40,49	170,67	23,27	13,95	91	48,92
Meat: cattle, sheeps, horses	24007,78	686,25	445,65	9358,86	266,11	135,21	9232,76	262,68	137,34	9050,04	255,39	79,88
Meat products	12671,07	179,5	265,96	8453,70	119,61	129,37	8200,49	116,17	169,72	7364,64	104,94	339,82
Vegetables oils and fats	3403,36	90,31	87,47	4034,42	102,42	64,48	3849,04	99,84	79,5	1683,57	53,87	120,88
Processed rice	-33,00	38,10	30,22	-28,70	21,92	22,43	-33,49	19,17	23,98	-37,58	0,57	19,72
Sugar	7638,74	152,45	84,27	1947,03	38,87	36,11	1861,25	37,16	42,98	1152,52	23,04	60,86
Food products (animal feed)	3353,58	112,09	45,68	2704,97	87,61	30,32	2541,61	85,51	35,9	1098,18	47,07	39,01
Beverage, Tobacco products	29,29	14,74	28,85	52,61	10,61	16,4	-6,44	9,96	23,13	-26,68	7,07	19,49

Source: CGTI-FGV.

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Table 2.10 – Trade balance - Industry

Industry	TTIP + Brazil (100% + 100%NTB)			TTIP + Brazil (50%ag +100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 50%NTB)		
	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports
Extractive												
Fishing	-18,75	13,07	20,67	-10,07	18,38	14,95	-11,19	17,79	15,72	-6,74	10,36	9,35
Coal	59,61	-12,69	-4,73	32,82	-11,10	-2,60	33,5	-11,7	-2,66	79,06	10,14	-6,27
Oil	586,59	64,43	38,66	782,94	67,68	38,62	701,78	66,71	38,9	306,42	26,1	14,84
Gas	30,19	269,90	-3,07	11,16	248,45	-1,13	6,31	228,59	-0,64	31,34	40,32	-3,19
Minerals	-94,58	-2,11	-11,27	-60,40	-1,35	-7,21	-107,1	-1,52	-6,82	89,74	-0,5	-6,45
Manufacturing												
Textiles	-918,78	27,28	47,07	-402,49	47,06	39,54	-324,41	40,87	33,46	-438,62	23,22	27,97
Apparel	-171,80	94,06	88,18	37,71	129,00	69,93	100,22	118,04	51,71	-15,57	74,38	47,29
Leather products	-103,05	11,43	101,67	2293,14	63,09	71,29	2029,51	55,8	62,86	1505,9	41,38	46,47
Wood products	-830,89	-11,62	78,36	-189,45	1,90	67,41	-262,82	-1,68	46,53	-108,43	0,92	36,82
Paper products	-1808,02	-20,90	49,89	-1181,70	-10,56	41,01	-1161,81	-13,5	31,87	-802,87	-8,07	25,44
Petroleum products	1147,37	21,94	1,25	1058,68	23,62	3,13	1016,76	23,21	3,31	772,06	13,96	0,37
Chemical, rubber, plastics	-11571,64	-19,79	34,78	-8456,84	-7,42	28,49	-7628,29	-10,84	23,89	-5670,61	-2,78	20,07
Mineral (non-metallic)	-33,82	17,11	50,03	344,87	29,72	41,58	345,52	26,51	32,85	63,71	15,5	34,75
Iron, steel	-441,36	1,91	30,87	642,51	13,83	29,55	475,12	10,41	22,67	102,21	6,04	21,91
Metals (non-ferrous)	-1613,65	-23,49	2,33	-756,94	-9,23	4,24	-994,44	-12,9	4,2	-198,77	-2,87	0,32
Metal products	-2322,72	-25,54	87,27	-1800,87	-11,96	74,66	-1338,91	-15,59	49,54	-1142,44	-9,47	45,69
Motor vehicles and parts	-2863,30	2,58	32,90	-1102,44	12,16	29,77	-893,13	7,5	20,52	-519	8,19	17,78
Transport equipment	-960,19	-7,46	8,15	-246,53	7,38	8,97	-464,47	1,24	7,53	570,2	22,71	8,69
Electronic equipment	-4508,38	-34,76	39,20	-3397,09	-21,79	31,12	-3276,54	-26,24	28,14	-2169,63	-12,72	20,31
Machinery and equipment	-10055,34	-6,06	41,20	-6358,08	12,00	35,55	-5273,64	4,85	26,42	-5244,75	6,11	27,05
Manufactures	-641,14	2,41	79,85	-397,22	23,39	63,43	-294,53	17,11	46,88	-336,89	8,06	46,29

Source: CGTI-FGV..

Simulation 2 – Impacts of the participation of Brazil on the TTIP

Table 2.11 – Trade balance - Services

Services	TTIP + Brazil (100% + 100%NTB)			TTIP + Brazil (50%ag +100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 100%NTB)			TTIP + Brazil (50% ag + 50% ind. + 50%NTB)		
	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports	Δ Trade balance (US\$ mi)	% Exports	% Imports
Electricity	-367,34	-29,55	15,21	-276,61	-19,06	11,66	-295,5	-21,07	12,41	-174,84	-12,9	7,31
Gas distribution	-12,17	5,69	5,64	-9,05	11,25	4,64	-10,15	9,21	4,99	-3,84	7,54	2,14
Water	-20,18	-26,22	29,85	-13,37	-15,56	21,69	-14,85	-17,84	23,51	-9,69	-10,82	16,19
Construction	-49,66	-27,51	23,16	-36,90	-21,06	16,78	-40,01	-22,65	18,31	-22,04	-12,89	9,8
Trade	-1073,93	-22,23	28,17	-742,92	-14,51	19,91	-806,26	-16,01	21,48	-519,62	-9,78	14,11
Transport	-807,01	-16,75	24,79	-564,09	-11,02	17,98	-615,51	-12,3	19,36	-370	-6,8	12,2
Water transport	-780,17	-10,38	12,38	-541,85	-7,07	8,81	-592,7	-7,82	9,51	-320,26	-4,07	5,37
Air transport	-647,52	-16,09	15,37	-477,19	-12,47	11,11	-511,56	-13,24	11,96	-288,95	-7,16	6,86
Communication	-161,79	-17,10	22,50	-103,02	-9,34	16,33	-115,7	-10,96	17,73	-81,6	-9,01	10,85
Financial services	-430,10	-10,75	19,14	-255,79	-2,10	13,94	-296,46	-3,83	15,32	-253,43	0,6	15,4
Insurance	-350,84	-19,27	20,16	-237,06	-11,53	14,76	-260,39	-13,08	15,89	-166,56	-6,82	11,34
Business services	-3858,25	-13,35	19,15	-2352,53	-5,06	14,15	-2664,74	-6,77	15,19	-2027,79	-7,61	9,59
Recreation and other serv.	-715,24	-25,53	26,90	-502,02	-18,26	18,78	-543,05	-19,73	20,32	-335,92	-12	12,63
Public administration	-1472,12	-21,44	26,09	-1002,77	-14,09	18,09	-1097,7	-15,65	19,66	-754,18	-9,5	14,28
Dwellings	0	13,51	13,51	0	10,04	10,04	0	10,79	10,79	0	6,3	6,3

Source: CGTI-FGV.

3. Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.1 – Variation on GDP by sector (%)– Agriculture

Agriculture	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Paddy rice	0,04	0	0,02	-0,03
Wheat	0,26	-0,21	0,67	-0,14
Other cereals	-0,13	-0,3	0,07	0,38
Vegetables/fruits	0,22	-2,5	0,57	-1,75
Oil seeds	0,57	0,32	0,53	-9,59
Sugar (cane&beet)	-0,02	-0,1	-0,27	-0,01
Plant fibres	0,56	-0,49	-1,16	-2,21
Other crops (unprepared)	0,17	-1,12	0,25	-0,71
Cattle, horses, sheeps	0,24	0,49	0,11	0,87
Animal products	-1,74	-2,76	-1,32	-2,04
Raw milk	0,05	0,05	0,07	0,17
Wool, silk	0,02	0,03	-0,03	-0,02
Forestry products	0,09	0,75	0,06	1,09
Meat: cattle, sheeps, horses	0,26	0,58	0,10	0,98
Meat products	-3,52	-5,07	-2,76	-3,74
Vegetables oils and fats	0,16	-0,14	0,10	0,31
Dairy	0,07	0,07	0,10	0,21
Processed rice	0,02	0,01	0,01	0,01
Sugar	-0,05	-0,29	-0,06	0,14
Food products (animal feed)	-0,23	-0,95	-0,13	-0,90
Beverage, Tobacco products	-0,01	-0,22	0,05	-0,09

Source: CGTI - FGV

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.2 — GDP: Gains and losses by sector - Agriculture

Agriculture	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Paddy rice	+	+	+	-
Wheat	+	-	+	-
Other cereals	-	-	+	+
Vegetables/fruits	+	---	+	--
Oil seeds	+	+	+	----
Sugar (cane&beet)	-	-	-	-
Plant fibres	+	-	--	---
Other crops (unprepared)	+	--	+	-
Cattle, horses, sheeps	+	+	+	+
Animal products	--	---	--	---
Raw milk	+	+	+	+
Wool, silk	+	+	-	-
Forestry products	+	+	+	++
Meat: cattle, sheeps, horses	+	+	+	+
Meat products	----	----	---	----
Vegetables oils and fats	+	-	+	+
Dairy	+	+	+	+
Processed rice	+	+	+	+
Sugar	-	-	-	+
Food products (animal feed)	-	-	-	-
Beverage, Tobacco products	-	-	+	-
Total (No. of positive results)	12	9	14	9

Source: CGTI - FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ---)
More than 3	(++++ or ----)

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.3 – Variation on GDP by sector (%)– Industry

Industry	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Extractive				
Fishing	0,01	-0,01	0,05	0,02
Coal	0,13	0,5	0,38	0,84
Oil	0,15	0,01	0,09	0,05
Gas	0,05	-0,3	-0,06	-0,31
Minerals	0,22	0,49	-0,03	-0,87
Manufactures				
Textiles	-0,2	-0,11	-1,65	-1,47
Apparel	-0,08	-0,12	-0,23	-0,22
Leather products	-1,16	-0,96	-5,99	-6,7
Wood products	0,32	1,8	0,31	2,62
Paper products	0,04	0,69	0,09	1,03
Petroleum products	0,03	-0,14	0,24	0,07
Chemical, rubber, plastics	0,08	0,42	-0,86	-0,41
Mineral (non-metallic)	0,02	-0,02	0,02	-0,1
Iron, steel	-0,01	-0,32	0,7	0,77
Metals (non-ferrous)	0,57	1,08	1,78	3,72
Metal products	0,05	0,25	0,28	0,9
Motor vehicles and parts	-0,33	-1	0,08	-0,24
Transport equipment	0,22	-3	1,75	-0,61
Electronic equipment	0,14	0,91	0	0,91
Machinery and equipment	0,2	0,08	0,97	1,48
Manufactures	0	0,03	0,04	0,19

Source: CGTI - FGV

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.4 — GDP: Gains and losses by sector - Industry

Industry	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Extractive				
Fishing	+	-	+	+
Coal	+	+	+	+
Oil	+	+	+	+
Gas	+	-	-	-
Minerals	+	+	-	-
Manufacturing				
Textiles	-	-	--	--
Apparel	-	-	-	-
Leather products	--	-	----	----
Wood products	+	++	+	+++
Paper products	+	+	+	++
Petroleum products	+	-	+	+
Chemical, rubber, plastics	+	+	-	-
Mineral (non-metallic)	+	-	+	-
Iron, steel	-	-	+	++
Metals (non-ferrous)	+	++	++	++++
Metal products	+	+	+	+
Motor vehicles and parts	-	--	+	-
Transport equipment	+	---	++	-
Electronic equipment	+	+	+	+
Machinery and equipment	+	+	+	++
Manufactures	+	+	+	+
Total (No. of positive results)	16	11	15	12

Source: CGTI - FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ---)
More than 3	(++++ or ----)

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.5 – Variation on GDP by sector (%)– Services

Services	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Electricity	0,04	0,10	0,13	0,36
Gas distribution	0,09	0,59	0,36	1,18
Water	-0,01	-0,03	-0,03	-0,06
Construction	0,00	0,00	0,01	0,01
Trade	-0,02	-0,05	-0,03	-0,06
Transport	0,01	0,05	0,03	0,11
Water transport	0,49	1,34	1,90	4,03
Air transport	0,09	0,39	0,23	0,72
Communication	0,02	0,07	0,06	0,14
Financial services	0,02	0,08	0,08	0,16
Insurance	0,02	0,11	0,08	0,20
Business services	0,09	0,44	0,20	0,80
Recreation and other serv.	0,01	0,08	0,09	0,14
Public administration	0,00	-0,04	0,02	-0,08
Dwellings	-0,02	-0,11	-0,04	-0,19

Source: CGTI - FGV

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.6 — GDP: Gains and losses by sector - Services

Services	TPP	TPP + NTB	TPP+China	TPP+China+NTB
Electricity	+	+	+	+
Gas distribution	+	+	+	++
Water	-	-	-	-
Construction	+	+	+	+
Trade	-	-	-	-
Transport	+	+	+	+
Water transport	+	++	++	++++
Air transport	+	+	+	+
Communication	+	+	+	+
Financial services	+	+	+	+
Insurance	+	+	+	+
Business services	+	+	+	+
Recreation and other serv.	+	+	+	+
Public administration	+	-	+	-
Dwellings	-	-	-	-
Total (No. of positive results)	12	11	12	11

Source: CGTI - FGV

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ---)
More than 3	(++++ or ----)

Simulation 3 – Impacts of TPP on Brazil

Hypotheses:

Full liberalization of tariffs

Full liberalization on tariffs and 50% reduction on NTBs

Full liberalization of tariffs + China

Full liberalization on tariffs and 50% reduction on NTBs + China

Table 3.7 – Summary of gains – GDP by sector

	TPP	TPP + NTB	TPP + China	TPP+China+NTB
Agriculture	14	9	14	9
Industry	16	11	15	12
Services	12	11	12	11
+	42	29	38	25
++	0	2	3	4
+++	0	0	0	1
++++	0	0	0	2
Total	42	31	41	32

Source: CGTI - FGV

Table 3.8 – Macroeconomic outlook

Macroeconomic Variables	TPP	TPP + NTB	TPP + China	TPP+China+NTB
Variation in global exports (%)	-0,4%	-2,7%	-1,4%	-5,0%
Variation in global imports (%)	-0,4%	-2,6%	-1,3%	-4,7%
Terms of Trade	-0,2%	-0,9%	-0,3%	-1,5%
Rela wage	0,0%	-0,1%	0,0%	-0,1%
Capital gains	-0,0%	-0,1%	0,0%	-0,1%
Land gains	-0,3%	-3,1%	-0,2%	-7,7%
Real Exchange rate	-0,3%	-1,8%	-1,2%	-3,7%

Source: CGTI - FGV

Simulation 3 – Impacts of TPP on Brazil

Table 3.9 – Trade Balance: Agriculture

Agriculture	TPP			TPP + NTB			TPP + China			TPP+China+NTB		
	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports
Paddy rice	0,87	39,95	-0,96	1,46	42,4	-1,82	1,2	12,24	-1,71	1,96	8,01	-2,9
Wheat	9,71	2,25	-0,63	45,02	6,78	-3	23,57	1,75	-1,61	75,48	11,12	-5,03
Other cereals	1,74	0,02	-0,59	-17,72	-1,06	-2,74	-8,42	-0,52	-1,45	-21,71	-1,42	-4,67
Vegetables/fruits	10,64	0,95	-0,32	-82,79	-10,62	-2,45	16,64	0,98	-1,28	-66,59	-10,19	-4,52
Oil seeds	53,03	0,77	-0,24	-77,54	-1,14	-1,75	-15,89	-0,24	-1,34	-1627,15	-23,67	-5,54
Sugar (cane&beet)	0,02	0,44	-0,44	0,02	0,28	-2,54	-0,01	-0,66	-1,52	0,06	1,07	-5,28
Plant fibres	21,31	3,96	-0,94	-21,73	-5,16	-3,61	0,4	-1,11	-4,85	-49,53	-12,04	-9,38
Other crops (unprepared)	40,64	0,68	-0,27	-366,89	-6,42	-2,83	4,95	0,02	-1,18	-386,17	-6,91	-6
Cattle, horses, sheeps	2,97	1,34	-0,44	-0,68	-0,6	-2,27	2,84	1,07	-2,06	2,09	0,33	-5,19
Animal products	1,17	-0,08	-1,12	-21,14	-7,19	-3,36	2,87	0,02	-2,17	-23,73	-8,81	-5,81
Raw milk	0,05	1,94	-0,61	0,2	5,64	-3,27	0,08	2,15	-1,46	0,41	10,89	-7,07
Wool, silk	0,79	6,7	-1,08	0,83	6,28	-3,45	-0,28	-2,69	-0,69	-0,48	-6,23	-5,97
Forestry products	-0,05	-0,51	-0,39	-1,32	-6,59	-2,08	0,34	-0,17	-1,84	-0,77	-6,26	-4,27
Meat: cattle, sheeps, horses	67,55	1,86	-0,66	79,74	2,18	-1,08	69,13	1,81	-3,01	173,03	4,66	-4,37
Meat products	-547,35	-7,72	-1,12	-878,46	-12,4	-4,02	-497,69	-7,03	-3,34	-812,32	-11,48	-8,88
Vegetables oils and fats	31,12	0,67	-0,55	-37,49	-1,18	-2,5	-16,73	-0,63	-2,02	-63,52	-2,3	-6,8
Dairy	9,27	2,8	-0,91	9,47	1,26	-2,93	13,56	3,3	-2,33	24,78	4,93	-5,63
Processed rice	1,89	1,71	-0,4	3,64	0,59	-1,69	2,53	-0,18	-1,38	6,13	-1,39	-3,66
Sugar	-19,85	-0,4	-0,61	-123,55	-2,47	-3,02	-71,36	-1,43	-1,99	-162,28	-3,24	-6,57
Food products (animal feed)	-73,24	-2,2	-0,42	-372,25	-11,29	-2,39	-57,52	-2,28	-1,6	-402,81	-13,28	-5,05
Beverage, Tobacco products	-2,83	-0,3	-0,27	-53,05	-4,14	-1,89	2,06	-0,44	-1,26	-44,67	-4,49	-3,83

Source: CGTI - FGV.

Simulation 3 – Impacts of TPP on Brazil

Table 3.10 – Trade Balance: Industry

Industry	TPP			TPP + NTB			TPP + China			TPP+China+NTB		
	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports
Extrative												
Fishing	0,81	0,85	-0,41	1,89	-2,77	-2,58	1,94	0,74	-1,42	3,8	-3,81	-4,58
Coal	-1,18	0,04	0,09	7,29	0,03	-0,58	1,83	-2,19	-0,15	17,86	-3,23	-1,42
Oil	35,26	0,47	-0,09	81,44	-1,8	-2,25	-22,73	-0,84	-0,33	73,08	-3,38	-3,27
Gas	0,14	1,19	-0,01	13,41	-29,69	-1,37	11,65	-5,43	-1,19	29,01	-54,55	-2,96
Minerals	34,62	0,19	0,11	-138,46	-0,77	-0,61	-253,3	-1,41	-1,12	-1040,96	-5,42	-2,11
Manufacturing												
Textiles	-24,82	-2,54	-0,5	-3,65	-5,23	-2,69	-185,04	-13,13	-0,56	-166,22	-20,16	-5,01
Apparel	-10,88	-3,85	-0,26	-3,7	-5,58	-2,63	-38,66	-13	-0,53	-15,53	-16,79	-7,12
Leather products	-138,57	-3,27	-0,32	-162,43	-4,09	-2,3	-720,08	-16,95	-1,36	-870,51	-21,39	-8,25
Wood products	23,04	0,47	-0,51	120	2,49	-2,5	-17,93	-0,55	-1,54	124,92	2,32	-5,53
Paper products	5,6	-0,05	-0,46	153,33	2,09	-3,36	2,5	-0,72	-2,1	203,43	2,12	-6,24
Petroleum products	0,06	0,16	0,09	-55,61	-3,52	-1,5	161,12	1,01	-1,04	106,2	-3,63	-3,19
Chemical, rubber, plastics	90,1	-0,18	-0,42	568,77	-1,42	-2,75	-531,43	-7,19	-1,14	237,51	-8,99	-4,81
Mineral (non-metallic)	0,43	-0,15	-0,45	-37,41	-2,76	-3,27	-15,53	-1,26	-1,65	-98,45	-6,54	-6,62
Iron, steel	-27,62	-0,41	-0,43	-205,24	-2,95	-2,86	49,76	0,22	-1,55	-178,95	-3,29	-5,7
Metals (non-ferrous)	47,77	0,62	-0,2	28,32	-0,77	-2,12	127,83	1,44	-0,91	198,39	1	-3,59
Metal products	7,06	-0,31	-0,61	73,97	-0,06	-3,56	42,66	-0,12	-2,12	176,57	0,86	-7,6
Motor vehicles and parts	-201,22	-1,63	-0,45	-659,29	-6,25	-2,9	-62,39	-1,25	-1,28	-392,12	-5,51	-4,47
Transport equipment	13,47	0,01	-0,19	-296,29	-10,32	-3,42	114,29	1	-0,89	-127,58	-8,62	-4,56
Electronic equipment	52,96	0,01	-0,61	409,04	4,3	-3,14	61,44	-1,03	-1,08	461,12	0,88	-4,98
Machinery and equipment	69,15	-0,25	-0,46	-88,31	-5,5	-2,9	446,79	0,21	-1,87	493,77	-5,86	-5,72
Manufactures	2,77	-0,3	-0,53	21,46	-0,95	-3,23	9,32	-1,05	-1,81	44,56	-5,48	-8,93

Source: CGTI - FGV

Simulation 3 – Impacts of TPP on Brazil

Table 3.11 – Trade Balance - Services

Services	TPP			TPP + NTB			TPP + China			TPP+China+NTB		
	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports	Δ Trade balance (US\$mi)	% Exports	% Imports
	6,43	0,58	-0,26	40,72	1,3	-1,81	27,67	0,13	-1,28	83,5	2,18	-3,74
Electricity	0,71	0,63	-0,27	6,38	3,64	-2,54	3,65	0,9	-1,53	10,98	5,09	-4,45
Gas distribution	0,61	1,06	-0,63	2,68	3,52	-3,91	1,67	1,92	-2,72	4,93	6,41	-7,3
Water	1,39	1	-0,48	5,26	2,8	-2,53	2,56	0,97	-1,52	10,07	5,15	-5
Construction	19,53	0,5	-0,46	99	1,74	-2,75	66,38	1	-1,92	218,07	4,48	-5,74
Trade	19,16	0,6	-0,39	81,47	1,7	-2,49	49,61	0,94	-1,61	153,76	2,98	-4,93
Transport	42,83	0,87	-0,23	103,2	1,3	-1,74	167,21	3,2	-1,22	329,79	5,51	-3,58
Water transport	15,46	0,67	-0,27	80,55	1,96	-1,93	50,84	0,96	-1,31	149,35	2,66	-3,91
Air transport	4,77	0,63	-0,5	21,07	2,32	-2,81	11,25	0,94	-1,89	37,18	3,74	-5,41
Communication	15,01	0,67	-0,5	79,68	2,12	-3,47	62,32	1,71	-2,68	155,52	4,25	-6,7
Financial services	8,97	0,6	-0,43	48,09	2,5	-2,87	28,71	1,51	-1,7	87,56	4,56	-5,22
Insurance	99,96	0,55	-0,33	507,91	2,14	-2,22	254,96	0,84	-1,3	924,34	3,67	-4,21
Business services	14,22	0,65	-0,49	82,75	2,96	-3,11	50,45	1,16	-2,09	152,37	4,73	-5,95
Recreation and other serv.	34,31	0,68	-0,49	189,96	2,78	-3,36	130,27	1,73	-2,41	348,81	4,63	-6,46
Public administration	0	-0,28	-0,28	0	-1,8	-1,8	0	-1,36	-1,36	0	-3,81	-3,81

Source: CGTI - FGV

GTAP Data Bases: Detailed Sectorial List

Number	Description
1	Paddy Rice: rice, husked and unhusked
2	Wheat: wheat and meslin
3	Other Grains: maize (corn), barley, rye, oats, other cereals
4	Veg & Fruit: vegetables, fruit vegetables, fruit and nuts, potatoes, cassava, truffles,
5	Oil Seeds: oil seeds and oleaginous fruit; soy beans, copra
6	Cane & Beet: sugar cane and sugar beet
7	Plant Fibres: cotton, flax, hemp, sisal and other raw vegetable materials used in textiles
8	Other Crops: live plants; cut flowers and flower buds; flower seeds and fruit seeds; vegetable seeds, beverage and spice crops, unmanufactured tobacco, cereal straw and husks, unprepared, whether or not chopped, ground, pressed or in the form of pellets; swedes, mangolds, fodder roots, hay, lucerne (alfalfa), clover, sainfoin, forage kale, lupines, vetches and similar forage products, whether or not in the form of pellets, plants and parts of plants used primarily in perfumery, in pharmacy, or for insecticidal, fungicidal or similar purposes, sugar beet seed and seeds of forage plants, other raw vegetable materials
9	Cattle: cattle, sheep, goats, horses, asses, mules, and hinnies; and semen thereof
10	Other Animal Products: swine, poultry and other live animals; eggs, in shell (fresh or cooked), natural honey, snails (fresh or preserved) except sea snails; frogs' legs, edible products of animal origin n.e.c., hides, skins and furskins, raw , insect waxes and spermaceti, whether or not refined or coloured
11	Raw milk
12	Wool: wool, silk, and other raw animal materials used in textile
13	Forestry: forestry, logging and related service activities
14	Fishing: hunting, trapping and game propagation including related service activities, fishing, fish farms; service activities incidental to fishing
15	Coal: mining and agglomeration of hard coal, lignite and peat
16	Oil: extraction of crude petroleum and natural gas (part), service activities incidental to oil and gas extraction excluding surveying (part)
17	Gas: extraction of crude petroleum and natural gas (part), service activities incidental to oil and gas extraction excluding surveying (part)
18	Other Mining: mining of metal ores, uranium, gems. other mining and quarrying
19	Cattle Meat: fresh or chilled meat and edible offal of cattle, sheep, goats, horses, asses, mules, and hinnies. raw fats or grease from any animal or bird.
20	Other Meat: pig meat and offal. preserves and preparations of meat, meat offal or blood, flours, meals and pellets of meat or inedible meat offal; greaves
21	Vegetable Oils: crude and refined oils of soya-bean, maize (corn),olive, sesame, ground-nut, olive, sunflower-seed, safflower, cotton-seed, rape, colza and canola, mustard, coconut palm, palm kernel, castor, tung jojoba, babassu and linseed, perhaps partly or wholly hydrogenated,inter-esterified, re-esterified or elaidinised. Also margarine and similar preparations, animal or vegetable waxes, fats and oils and their fractions, cotton linters, oil-cake and other solid residues resulting from the extraction of vegetable fats or oils; flours and meals of oil seeds or oleaginous fruits, except those of mustard; degreas and other residues resulting from the treatment of fatty substances or animal or vegetable waxes.
22	Milk: dairy products
23	Processed Rice: rice, semi- or wholly milled
24	Sugar
25	Other Food: prepared and preserved fish or vegetables, fruit juices and vegetable juices, prepared and preserved fruit and nuts, all cereal flours, groats, meal and pellets of wheat, cereal groats, meal and pellets n.e.c., other cereal grain products (including corn flakes), other vegetable flours and meals, mixes and doughs for the preparation of bakers' wares, starches and starch products; sugars and sugar syrups n.e.c., preparations used in animal feeding, bakery products, cocoa, chocolate and sugar confectionery, macaroni, noodles, couscous and similar farinaceous products, food products n.e.c.

26	Beverages and Tobacco products
27	Textiles: textiles and man-made fibres
28	Wearing Apparel: Clothing, dressing and dyeing of fur
29	Leather: tanning and dressing of leather; luggage, handbags, saddlery, harness and footwear
30	Lumber: wood and products of wood and cork, except furniture; articles of straw and plaiting materials
31	Paper & Paper Products: includes publishing, printing and reproduction of recorded media
32	Petroleum & Coke: coke oven products, refined petroleum products, processing of nuclear fuel
33	Chemical Rubber Products: basic chemicals, other chemical products, rubber and plastics products
34	Non-Metallic Minerals: cement, plaster, lime, gravel, concrete
35	Iron & Steel: basic production and casting
36	Non-Ferrous Metals: production and casting of copper, aluminium, zinc, lead, gold, and silver
37	Fabricated Metal Products: Sheet metal products, but not machinery and equipment
38	Motor vehicles and parts: cars, lorries, trailers and semi-trailers
39	Other Transport Equipment: Manufacture of other transport equipment
40	Electronic Equipment: office, accounting and computing machinery, radio, television and communication equipment and apparatus
41	Other Machinery & Equipment: electrical machinery and apparatus n.e.c., medical, precision and optical instruments, watches and clocks
42	Other Manufacturing: includes recycling
43	Electricity: production, collection and distribution
44	Gas Distribution: distribution of gaseous fuels through mains; steam and hot water supply
45	Water: collection, purification and distribution
46	Construction: building houses factories offices and roads
47	Trade: all retail sales; wholesale trade and commission trade; hotels and restaurants; repairs of motor vehicles and personal and household goods; retail sale of automotive fuel
48	Other Transport: road, rail ; pipelines, auxiliary transport activities; travel agencies
49	Water transport
50	Air transport
51	Communications: post and telecommunications
52	Other Financial Intermediation: includes auxiliary activities but not insurance and pension funding (see next)
53	Insurance: includes pension funding, except compulsory social security
54	Other Business Services: real estate, renting and business activities
55	Recreation & Other Services: recreational, cultural and sporting activities, other service activities; private households with employed persons (servants)
56	Other Services (Government): public administration and defense; compulsory social security, education, health and social work, sewage and refuse disposal, sanitation and similar activities, activities of membership organizations n.e.c., extra-territorial organizations and bodies
57	Dwellings: ownership of dwellings (imputed rents of houses occupied by owners)