

Free Trade Area and Exchange rate regime in LDC :

The Case of Tunisia and the European Union

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Abstract

The purpose of this paper is to investigate simultaneously the potential effects of European Union's Association Agreement with Tunisia and the adoption of the Euro as a single currency on exchange rate regime of Tunisian Dinar. Since Tunisia depends heavily on EU as a market for its exports and a source for its imports, limited variability of the Dinar against the Euro seems a priori, to be an appropriate policy option. This option may even be strengthened within the FTA. However, the nature and the composition of Tunisian exports are typical of North-South trade with little diversification and high concentration on textiles products. From this perspective, the risk of asymmetric shocks is more likely, which reduces the expected gains from nominal anchorage.

The first issue is to present the economic framework of the FTA and the theoretic criteria that should guide a nominal anchor currency. The second issue is to investigate the potential effects of the FTA on trade structure and industrial specialization in Tunisia. To this end, a computable general equilibrium model is used to simulate macroeconomic and sectoral effects of the implementation of the FTA on industrial sector. Finally, the question of exchange rate arrangement is examined by combining the expected effects of free trade area between Tunisia and the European Union and considering the adoption of the Euro as a single currency in 11 European countries. Our results seem to suggest that the implementation of a FTA may lead to a reallocation of industrial production toward capital-intensive products but also generate important disequilibria and adjustment costs. Under such circumstances, the symmetry of shocks, as an important condition for anchoring the Dinar to the Euro, is not satisfied making this option non-desirable.

Introduction

The perspective of the Euro-Mediterranean free trade area, and the adoption of the Euro as a single currency in Europe raise once again the debate on the choice of the appropriate exchange rate regimes for Mediterranean countries. Since Tunisia depends heavily on EU as a market for its exports and a source for its imports, limited variability of the Dinar against the Euro seems, a priori, to be an appropriate policy option. This option may even be strengthened within the FTA. However, the nature and the composition of Tunisian exports are typical of North-South trade with little diversification and high concentration on textiles products. From this perspective, the risk of asymmetric shocks is more likely, which reduces the expected gains from nominal anchorage.

The rest of the paper is organized as follows. The first section presents briefly the FTA agreement between Tunisia and the EU. It also reviews the criteria underlying the decision to join a currency area. The second section investigates the potential effects of the FTA on trade structure and industrial specialization in Tunisia. To this end, a computable general equilibrium model is used to simulate macroeconomic and sectoral effects of the implementation of the FTA on industrial sector. The third section examines the issue of exchange rate arrangement by combining the expected effects of free trade area between Tunisia and the European Union and considering the adoption of the Euro as a single currency in Europe. Our results seem to suggest that the implementation of a FTA may lead to a reallocation of industrial production toward capital-intensive products but also generate important disequilibria and adjustment costs. Under such circumstances, the symmetry of shocks, as an important condition for anchoring the Dinar to the Euro, is not satisfied making this option non-desirable in the near-term.

1. FTA between Tunisia-UE and Currency Area Criteria

1.1. FTA between Tunisia-UE

The European Union's (EU) free trade agreement with Tunisia aims at establishing, by the end of a 12-year transition period (starting from 1998), a free trade area (FTA) for most products and seeks to promote and enhance economic growth. The main features of the agreement are (1) progressive elimination of all tariffs on industrial goods over 12 years. That is, Tunisia has to dismantle the protection on the industrial goods imported from EU since its industrial exports already received preferential customs treatment at the entry of the EU, its major trading partner. (2) gradual and limited liberalization for agricultural products (3) Adoption of a wide range of trade-related regulations such as harmonization of rules and regulations concerning competition, intellectual property, and industrial standards.

Since 1976, Tunisia has benefited from a duty-free access to the European market for its industrial products. For agricultural products, which represent about 8% of Tunisian exports to the EU, Tunisia is granted preferential treatment. Nevertheless, some tariff and non-tariff barriers are still important as shown in table (1).

Table 1: EU tariffs for Tunisian products in 1998.

	Simple tariff (1)	Tariff max.	Pondered Tariff (2)	Share (in %) of the Sector M In total UE M from Tunisia Mean 93-96
Agriculture	2,88	83,49	2,93	3,94
Extractive	0,00	0,00	0,00	0,52
Energy	0,00	0,00	0,00	1,22
Food	4,43	268,94	11,71	4,09
Textile, clothes and leathers	0,00	0,00	0,00	62,57
Others manufactures	0,00	0,50	0,01	3,02
Metal, electric	0,00	0,00	0,00	20,30
Chemistry	0,00	0,00	0,00	4,35
Total	0,96	268,94	0,59	100,00

Notes: (1) Simple tariffs include tariff equivalents of non ad-valorem. (2) Weighted by 1998 imports.

Source: Own calculations using TRAINS and COMEXT

Given the low level of protection currently imposed by the European Union, the FTA agreement is mainly a unilateral removal of Tunisian protection. The average tariff rate is going to decline from 29,3% (initial tariff) to 4,7% (final tariff) by the year 2010 as reported in table 2. By the end of the dismantling period of twelve years, 70% of Tunisian imports from the EU will be entering

*Tunisia under a duty-free regime*¹. Before the FTA agreement, industrial products are mainly imported from the EU while agricultural products, not covered by the first stage of the agreement, originate more often from the rest of the world (ROW). Although tariff-dismantling process is regional and involves quasi-exclusively industrial products, its effects are more general and cover almost the entire imports from Europe. Finally, consumption goods are expected to be liberalized at a slower pace, postponing the impact on domestic output to the end of the transition period².

Table 2: Tunisian tariffs before and during the dismantling.

	Tariffs initials and for each years				Share in imports Mean 93-96	
	Initial	1998	2003	2010	UE	ROW
Agriculture	35,2	35,0	34,1	33,8	30,4	69,6
Extractive	22,9	19,8	3,0	0,0	22,2	77,8
Energy	11,7	10,1	0,5	0,0	55,4	44,6
Food	37,7	37,4	35,2	31,8	48,3	51,7
Textile, clothes and leathers	38,2	35,8	21,9	0,9	91,9	8,1
Others manufactures	34,6	30,6	18,2	0,0	66,9	33,1
Building materials	32,9	27,9	13,1	0,0	73,4	26,6
Metal, electric	23,1	17,9	7,3	0,0	78,1	21,9
Chemistry	23,6	19,2	3,4	0,0	74,3	25,7
Total	29,3	25,6	14,0	4,7	73,7	26,3

Source: TRAINS 98, CNUCED. The tariffs used are those of 1996. The structure of imports refers to the mean of imports from 93 to 96.

1.2. Currency area criteria and Tunisian exchange rate regime

According to the literature, there are several criteria to assess the appropriateness for a given country of a nominal anchorage to another country's currency. The trade share with the country to which it intends to peg is high, the shocks it faces are similar to those facing the country to which it pegs, the involvement with international capital markets is low; the country is willing to give up monetary independence for its partner's monetary credibility; its fiscal policy is flexible and sustainable, its labour market is flexible, and finally it has high international reserves.

¹ Authors' computation from table 2.

² Only some food products (cakes and sweets) are concerned by tariff dismantling.

On the basis of these criteria one may investigate to what extent a nominal anchorage of the Dinar to the Euro is an appropriate exchange rate policy for Tunisia. This paper focuses on the first three criteria; the others are beyond its scope.

The Euro zone is the major trading partner of Tunisia and the major source of service revenues (tourism, workers' remittances and FDI). In 1998, for instance, roughly 70% of Tunisian trade took place with the EU.

Under FTA, trade with Europe is expected to increase, and integration of European financial markets is expected to lower borrowing costs, which may offer Tunisia more attractive financing opportunities in Europe. All these considerations motivate a limited variability of the Tunisian currency vis-à-vis the Euro.

However, Tunisian export structure is little diversified and its trade with the EU is typical of North-South relationship with a high concentration of Tunisian exports on cloths and textiles (two thirds) and electric components (one fifth). This lack of output and export diversification is likely to weaken the ability of Tunisian economy to absorb external shocks, and may increase its vulnerability to any potential asymmetric shocks with Europe. Under such circumstances, a nominal anchorage to the Euro reduces the possibility of using the exchange rate to buffer against external shocks.

The implementation of a FTA between the EU and Tunisia will mainly consist in a unilateral dismantling of Tunisian trade barriers that can first result

in trade balance worsening. A fixed nominal exchange rate of the Dinar vis-à-vis the Euro would lead to a real appreciation of the Dinar and hence would harm Tunisian competitiveness. But this situation could not be sustainable since the external debt burden would cause high fiscal pressures already initiated by the dismantling. The choice of the anchoring currency seems to depend also on the currencies in which Tunisian debt is labelled.

Trade liberalization is expected to generate large efficiency gains in production due to the cost reduction of intermediate goods and the intensification of competition in Europe. However, transition and adjustment costs may also be important. A relatively flexible exchange rate regime could be desirable given its ability to offset or at least minimize the expected static losses.

An extension of OCA theory shows that the criteria may be met partly endogenously (Frankel and Rose 1998). In particular, the participation in a currency area or simply the adoption of a nominal anchorage may enhance trade relationships by reducing transaction costs and exchange rate risk. This intensification of trade, in turn, affects the nature and hence the degree of synchronization of business cycles.

If the elimination of exchange rate volatility among partners leads to higher specialization, it is very likely that the shocks will be more asymmetric, and country-specific (Krugman [1993]). A flexible exchange rate regime allows

large adverse shocks to be more easily absorbed while the costs associated with the collapse of a hard peg may be very large³.

However, if the removal of exchange rate volatility results in an intensification of intra-industry trade and shocks dominated by demand shocks, the cycles are expected to be more synchronized and highly correlated among countries. In such case, it is less costly to give up monetary independence and may be risky, for credibility reasons⁴, to run an independent monetary policy.

2. Potential effects of the FTA on trade and industrial specialization in Tunisia

The assessment of expected costs and benefits of the FTA with EU has generated a vast empirical literature. Overall, the agreements are expected to be beneficial in the long run, but there will be costs in the short to medium term. With a simple model calibrated on a 1990 matrix, Rutherford et al. (1995) estimated the overall welfare gains for the Tunisian economy in a range of 3,1% to 4,7% in annual GDP once the agreement is fully implemented and if a better access to the EU is granted. Decaluwé and Souissi (1996) use the same model

³ Tornell and Velsco (1999): show that the difference between fixed and flexible regimes is in the inter-temporal distribution of the costs. Flexible rates allow the effects of unsound policies to manifest themselves immediately through movements in the exchange rate and relative price adjustment while fixed rates allow postponing them.

but account for the differences in VAT taxes and conclude to lesser gains. Deardorff (1996) concludes to even lesser gains if liberalization is not accompanied by FDI entry.

Havrylyshyn O. (1997) provides a comprehensive overview of the challenges that face policy makers in southern Mediterranean region and points out that the agreements need to be complemented by structural reforms. Ghesquiere H. (1998) corroborates this view and argues that the benefits could be substantial, but only if accompanied by an extension of trade liberalization to services and agriculture, an improvement of the environment to stimulate foreign direct investment, and an appropriate fiscal and exchange rate policies.

This paper shows that the FTA between Tunisia and European union is likely to diminish Tunisian specialization in non-industrial products. We simulate trade barriers dismantling effects vis-à-vis the EU using a computable general equilibrium model. The results are reported in table (3).

At the aggregate level, trade liberalization leads to a small increase of output – see Table 3. A slight decrease in welfare is also expected. These findings are less optimistic than those of previous simulations (Rutherford et al. [1995] among others).

However, our model does not capture the dynamic gains that liberalization might involve such as economies of scale or technological

⁴ If credibility cannot be built at home, then it can be imported by fixing the exchange rate to a hard-money country.

transfers. Moreover, this model does not account for inter-temporal behaviour of agents and does not deal with the effects on agents' anticipations after the announcement of liberalization process. Nevertheless, this framework fits well within a medium term analysis and seems to provide a good starting point to investigate the impact of the implementation of a FTA between Tunisia and EU on Tunisian economy.

According to our results, the dismantling of trade barriers is expected to have a higher positive effect on exports that more than compensate the increase in imports (in volume). As a result, trade deficit (in volume) is expected to shrink but not in value due to the exchange rate depreciation. This exchange rate depreciation is a mechanical outcome of trade liberalization since it avoids trade balance to worsen, at least in volume.

Under fixed nominal exchange rate, the adjustment would take place not through nominal exchange rate but through relative prices⁵. Our model doesn't allow examining the consequences of such an option. However, it seems that gains from price-competitiveness are unlikely for Tunisia at least in the short-run. In addition, the lack of price-flexibility would delay and complicate any adjustment process.

A relative flexibility of nominal exchange rate is then required in order to support the implementation of the FTA between Tunisia and European Union. This is consistent with the finding of Alonso-Gamo et al. (1997) who examine

the effect of trade liberalization on the external equilibrium and suggest that some depreciation of exchange rate might be needed to restore equilibrium in the current account. In the absence of the appropriate exchange rate adjustment, the trade deficit would increase, requiring a sizable depreciation or a reversal of liberalization.

We have already underlined that the implementation of a FTA may not lead to a reallocation towards the primary and tertiary sectors since their production are expected to decrease except that of commerce. Especially, the agricultural and food sector bear directly the effects of tariff dismantling and are expected to experience a significant employment decline. The results show a positive effect of trade liberalization on the most capital-intensive industries such as metal, mechanical and electrical products and chemicals although the production of more traditional industry like textiles and clothes is also expected to grow. Exports and employment are expected to grow in these sectors, and in particular mechanics sectors.

⁵ In our model, the consumer price index is constant. This implies that nominal exchange rate fluctuations are equivalent to real exchange rate fluctuations.

Table 3 : Impact of EU-Tunisia FTZ (dismantling of tariffs on manufactured products⁶).

Variations compared to initial situation (in %)	Production	Demand	Labour	Return on capital	Exports	Share in X	Imports	Share in M	Imports From the UE
Agriculture	-1,6	-2,3	-7,4	-6,0	4,8	-1,6	-4,7	-9,9	-4,7
Food	-6,7	-6,8	-13,0	-11,7	-2,7	-8,7	-3,8	-9,0	-3,8
Extractive	15,2	7,8	16,4	18,1	16,6	9,5	-11,5	-16,2	-1,6
Water	-6,1	-6,2	-12,1	-10,8	0,5	-5,6	-1,7	-7,0	5,8
Electricity	-2,5	-2,4	-7,0	-5,6	-0,6	-6,7	-0,1	-5,4	5,0
Petroleum	-0,9	-3,1	-11,5	-10,2	6,7	0,2	0,4	-5,0	5,7
Chemistry	8,2	5,1	20,5	22,4	17,6	10,4	8,2	2,4	18,7
Building materials	-8,1	-3,2	-15,7	-14,4	-0,7	-6,8	24,6	17,9	44,6
Mechanics	8,2	7,4	12,0	13,7	24,3	16,8	10,5	4,6	19,7
Textile, clothes and leathers	4,9	2,5	8,5	10,1	7,7	1,1	4,3	-1,3	4,9
Others manufactures	-0,3	0,8	-0,7	0,8	9,0	2,4	5,5	-0,2	16,4
Financial Services	0,1	0,3	0,4	1,9	1,8	-4,4	4,4	-1,2	
Tourism	-0,1	-2,9	-0,5	1,0	0,2	-5,9	-2,9	-8,1	
Transport and communications	-0,7	-1,2	-1,2	0,3	0,5	-5,6	-1,2	-6,5	
Others saleable services	-1,0	-1,6	-4,5	-3,1	4,3	-2,0	-2,5	-7,7	
Commerce	2,5	3,0	8,1	9,7	0,1	-6,0			
Building and public works	-3,4	-3,4	-3,9	-2,5					
Total	0,1	0,0	0,0	3,0	6,5		5,7		13,4

Wages 1,5 Exchange rate (Dinar/ foreign currency) 3,3
Investment 0,3 Trade balance (foreign currency) 0,0
Welfare -1,2 Multiplication of VAT 2,4

This simulation exercise of the potential effects of the implementation of the free trade area between the EU and Tunisia using CEGM allows us to draw very useful conclusions on the reallocation of industrial production and its consequences in term of employment and current account balance. The most important insight is that the implementation of a FTA may lead, at the least in the medium term, These findings suggest that trade liberalization process would lead to a diversification of Tunisian industry since traditional sectors (Textiles, clothing, Chemicals) will grow lesser than more capitalistic ones. But overall, the agreement will generate important adjustment costs in the short run with important reallocation of labour and especially in detriment of the primary sector and a steady demand due to the rise in VAT rate that will compensate the lost of tariff revenue.

⁶ Liberalised sectors are marked by *.

These findings seem very worrying since openness and trade liberalization are also known to facilitate technological transfers and productivity improvement. It should be reminded that these dynamic effects are not fully captured in our model and their omission may have distorted our results. One interpretation of our results is to consider that they represent a baseline hypothesis in which no restructuring effort is undertaken by the industrial sector to face the effects of tariff dismantling. Under this assumption, these results may be used to design and assess the appropriate industrial policy to counteract the damaging effects of tariff dismantling.

Turning to exchange rate policy, our results show that an exchange rate depreciation of the Dinar may be required to curb the potential effects of trade liberalization on trade balance and current account.

3. FTA and Appropriate exchange rate regime for Tunisia

The degree of flexibility of an exchange rate regime depends on a number of structural characteristics of the economy, such as the size and the degree of openness of the economy, the degree of economic and financial development, the geographical concentration of trade, the degree of labour mobility, the nature of shocks to the economy and policy preferences.

Exchange rate regime in Tunisia is fixed and the nominal value of the Dinar is determined in relation to a basket of major foreign currencies according to the weight of Tunisia's foreign trade partners and the structure of currencies used in external settlements. Recently this composition was modified in order

to allow the Euro to have more weight in the determination of Tunisian exchange rate. The large appreciation of the Dinar against the Euro in 2000 seems to indicate that the Euro was under-represented with respect to the real weight of Euro zone in Tunisian economy. The purpose of this section is to examine, in the light of our simulation results, whether a nominal anchorage to the Euro may be appropriate in the perspective of the implementation of the FTA.

With regard to the criteria provided by the literature to assess the opportunity of a nominal anchorage, it appears that Tunisia and the EU don't fulfil some crucial conditions. Beyond their very unequal development levels, the implementation of the FTA, and its effects on industrial specialization indicate that the two regions are likely to be exposed to asymmetric shock. A nominal anchorage of the Tunisian currency on the Euro may lead to an appreciation of the Dinar and would force Tunisian authorities to opt for restrictive policies in order to curb inflation and avoid devaluation.

Our computations suggest that the implementation of the FTA is expected to result in very small gains in terms of total output unless important restructuring efforts are undertaken. In this context, the exchange rate policy may play a crucial role in providing incentives for exports (Achy and Sekkat 2000). Therefore, a restrictive exchange rate policy may not be appropriate and would increase transition costs of the FTA.

Under the assumption that our results reflect reliably the effects of the implementation of the FTA, trade between Tunisian and Europe is likely to disengage from typical north-south trade. Overall, output in manufacturing sector is expected to rise, more specifically in capital-intensive industries. Our results indicate a slight trend toward more diversification in industrial output.

The future patterns of industrial sector in Tunisia show some convergence toward an industrialized country, which could make the option of anchorage more desirable. But the risk of asymmetric shocks will be important in the short term since adjustment costs are expected to be important and the FTA will conduce to slight growth at less in a first step. Furthermore, macroeconomic disequilibria could be avoided if debt remains steady and external deficit is controlled. While Tunisia don't attract more foreign capitals, an appreciation of the Dinar seems risky. From this perspective, it seems that a flexible exchange rate strategy may be more desirable in order to accommodate the economy during this transition process.

But on the other hand, EU is the main trading partner of Tunisia and the FTA is likely to strengthen trade in goods and services between the two regions. An anchorage on the Euro would reduce price uncertainty on Tunisian imports and provide higher incentives for European investors. Taking these considerations into account should lead to increase the weight of the Euro the determination of Tunisian exchange rate. In our view, a «crawling peg» regime in which Tunisian Dinar rate is determined by reference to a basket of partner's

currencies in which the Euro is strongly represented seems to be the most appropriate strategy.

4. Conclusion

The simulation exercise of the potential effects of the implementation of a free trade area between the EU and Tunisia using CEGM allows us to draw very useful conclusions on the reallocation of industrial production and its consequences in term of employment and current account balance. The most important insight is that the implementation of a FTA may lead to more diversification of the Tunisian economy but supposed costly reallocation of employment end production and slight growth at least in the first step. These potential effects could affect the logic behind the current design of Tunisian exchange rate policy.

A certain flexibility of Tunisian exchange rate policy seems to be necessary to restrain the potential effects of trade liberalization on current account, and absorb the asymmetric shocks. In addition, an appropriate management of exchange rate policy may also play a crucial role in proving incentives for exports. However, exchange rate policy does not replace the restructuring process of the industrial sector. Accompanying reforms to create an attractive business environment require deep changes in judicial and administrative practices, a newly defined role for the government, an appropriate incentive scheme for foreign investors, and a stable macroeconomic policy.

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Appendix

General Features of the Model

This paper uses a computable general equilibrium model (CGEM) framework to assess the potential effects of the FTA on Tunisian economy both at the aggregate and sectoral levels. CGE models, unlike partial equilibrium models, capture the interactions throughout the economy in a consistent manner. They allow taking into account the direct and indirect effects of specific policy measures. CGE models are natural extensions of Input-Output (IO) models. By using multi-sectoral version of CGE model, one can address the effects of policy for a range of industries. A CGE model works by using data to describe the economy in a benchmark year, and then by varying one or more elements so as to "shock" the economy and change the values of data items. The benchmark calibration, so that the model replicates the observed economic data, is comparable to the estimation stage in building macroeconomic forecasting models.

The general specification of the model is very close the model used by De Melo [1988], Roland-Holst et al. [1994], Rutherford and Tarr [1995], and Ecole PARADI [1996]). It is a static model in which competition is assumed to be perfect and focuses on real effects. Production is modelled as factor specific, which seems to be more appropriate for medium term analysis. The benchmark calibration is base on the social accounting matrix (SAM) for 1994 published by Decreux (2001) and on the basis of price-elasticity of imports and exports estimated by Abdelkhalek (1996). We use the same sectoral breakdown as the

SAM (17 sectors, among which 6 are services. Most important data are reported in Table 4.

Table 4: Principal aggregates by sectors, Tunisia 1994.

Share in total (in %)	Production	Pay packet	Imports	Exports
Agriculture	11,3	10,1	3,8	1,9
Food	11,1	5,1	5,4	6,1
Extractive	0,6	2,0	0,3	0,6
Water	0,5	0,9	0,1	0,1
Electricity	2,0	1,5	0,7	0,4
Petroleum	3,7	0,9	6,7	5,0
Chemistry	5,4	2,4	9,4	7,6
Building materials	3,4	3,1	1,9	1,2
Mechanics	6,2	5,4	35,0	8,4
Textile, clothes and leathers	12,6	11,5	21,5	30,0
Others manufactures	4,3	3,3	7,1	2,6
Financial Services	3,0	4,7	0,5	0,2
Tourism	6,1	5,1	2,8	20,4
Transport and communications	7,2	14,9	2,9	8,7
Others saleables services	6,5	6,5	2,0	2,1
Commerce	7,1	9,7		4,5
Building and public works	9,1	13,0		
Total	100,0	100,0	100,0	100,0

Source: own calculation from Decreux (2001)

We assume a Cobb-Douglas utility function (elasticity of substitution among goods is constant). Income elasticity for each good is assumed to be one, which means that the relative share of each good in total income is constant. Therefore the consumers demand for each good is a function of its price, consumer income and budget shares. For each tradable good (composite good), consumption demand is divided between imported goods and locally produced goods. We assume imperfect substitutability between the two categories according to Armington hypothesis of differentiation by origin.

Each tradable good is a composite of imported and domestic products. The demand is assumed to be a CES (constant elasticity substitution) function of the two components. As a consequence, import demand depends on the relative price of imported and locally produced goods.

Households' disposable income comes from factor revenues (wages and capital return, net transfers non-residents or from the government). Saving rate (assumed to be constant) and disposable income determine consumption budget.

For each sector, the value added is generated using two primary factors (capital and labour). Production technology is described by a Cobb-Douglas function with constant returns to scale. Capital is assumed to be sector-specific. Capital stock for each sector is considered as exogenous and fixed. Labour demand is determined from cost-minimization behaviour of the representative firm. Intermediate goods are viewed as complementary to the value added (Leontief function). The relative share of each intermediate good is also assumed to be fix.

The production of tradable goods is assumed to be a composite product. Domestic production can be sold either in local market or exported. This composite product is represented by a CET function (Constant Elasticity of Transformation).

The government revenue comes from direct and indirect taxes including import taxes (net of export subsidies)⁷. Financial transactions balance vis-à-vis the overseas is added to the government revenue while government consumption is subtracted.

⁷ Others taxes explicitly taken into account are: general income tax, taxes on capital returns, and indirect taxes (VAT).

Consistently with "small open economy" assumption, the price of imports and exports are exogenous, which implies that foreign demand and supply are assumed to be infinitely elastic. Exchange rate is flexible. The trade balance can vary but the balance of payments is fixed.

The «closure» of the model is ensured through the "neo-classic" assumption for macroclosure (investment adjusting to saving). Investment distribution among sectors is exogenous, and all the adjustments take place once for all. This means that capital stock in each sector is not affected by any subsequent shock. This heavy assumption implies that our model does not capture the dynamic adjustment process of investment following the tariff dismantling measures. A more realistic assumption should allow, any decline in imported capital goods due to the dismantling to affect investment decisions and relative sectoral returns. Our objective is to overcome this important weakness in future work.