

# Working Paper

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INTERNATIONAL MONETARY FUND



WP/08/151

# IMF Working Paper

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## How Does a Domestic Tax Reform Affect Protection Against Imports? The Case of the Republic of Madagascar

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**IMF Working Paper**

Policy Development and Review

**How does a domestic tax reform affect protection against imports?  
The case of the Republic of Madagascar**

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June 2008

**Abstract**

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In 2008, Madagascar reformed its domestic tax system. Because the excise duties and VAT regimes were reformed, the taxation of imports has changed. This paper quantifies how the reform changes the protection against imports and the fiscal revenues from taxation of imports. It shows that, even if the reform has only a limited impact on the average rate of protection, it substantially alters the structure of protection across goods. Moreover, because the reform further increases the already high rate of taxation of imports, it will also boost revenue from taxes on imports and reduce the fiscal losses from the SADC FTA.

JEL Classification Numbers: E6, F1, F4, H2.

Keywords: Tax reform, Protection, Trade Policy, Tax Policy, Madagascar.

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<sup>1</sup> I thank Tom Dorsey, Mark Ellyne, Ian Gillson, Christian Josz, Alain Jousten, Jacques Morisset, and Ialy Rasoamanana for their comments on a previous version.

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## I. INTRODUCTION

In 2008, Madagascar implemented a landmark domestic tax reform. The reform aims at improving business environment and increasing fiscal revenue. This paper shows that, because the domestic tax reform affects key parameters of the taxation of imports, it will also modify the protection against imports. In this paper, protection is measured by the difference in the rate of taxation of domestic goods and the rate of taxation of imported goods. Over 6,000 products (as defined in the customs tariff schedule) are considered.

In order to assess the respective impact of changes in each component of the taxation of imports (customs tariffs, excise duties, and VAT), this paper focuses on the period 2006–2008. Considering a three-year period allows it to quantify the impact of changes not only of the 2008 domestic tax reform but also the impact of changes in the taxation system that took place in 2007 regarding the customs tariffs and the excise duty regime. Further, it allows an evaluation of how the changes in the tax regime affect the fiscal losses from the SADC FTA.

Section II describes the taxation of imports in Madagascar and provides the background information needed to understand the impact of the domestic tax reform on protection against imports. The tax reform is briefly described in Section 3. Section 4 quantifies how the reform affects the structure of protection against imports, and Section 5 estimates the impact of the domestic tax reform on revenue from taxes on imports and how it changes the fiscal losses of the SADC FTA.

## II. THE TAXATION OF IMPORTS IN MADAGASCAR

The taxation of an imported good  $i$  in Madagascar can be broken down as follows:

$$\text{Domestic price of } i = \text{import value}_i * (1 + T_i) + P$$

$$\text{with } T_i = [(1+t_i) * (1+ed_i)] * (1+vat_i) - 1$$

Where:

- $T_i$  is the total ad valorem rate of taxation of the good  $i$
- $t_i$  is the ad valorem customs duty applied to the good  $i$ ,
- $ed_i$  is the ad valorem excise duty rate on imports levied on good  $i$ ,
- $vat_i$  is the ad valorem VAT rate levied on the good  $i$ , and
- $P$  is the fee for the customs services provided by SGS up to 2007, when it was replaced by the Gasynet fee.<sup>2</sup> The Gasynet fee is calculated on the value of imports

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<sup>2</sup> This change is due to the customs reform. SGS (Société Générale de Surveillance) is a Swiss company employed since 2003 by the Government of Madagascar to monitor imports and import prices and to detect and deter customs fraud. Gasynet is a joint-society between the Government of Madagascar and SGS that provides the automated customs system TradeNet. TradeNet is already implemented in countries such as Singapore,

(continued...)

with various thresholds (up to a f.o.b. value of 25,000 € the fee is specific ranging from 25 to 75 €, and above 25,000 € it amounts to 0.5 percent of the c.i.f. value of imports). Export Processing Zones (EPZ) imports and exports face a different fee structure.

The formula has a cascading effect. The excise duty (when there is one) is levied not on the import value but on the import value (c.i.f.) *plus* the customs duty. Similarly, VAT on imports is calculated on the basis of imports value *plus* customs duty *plus* excise duty. Because all the various taxes are ad valorem in Madagascar,<sup>3</sup> the order in which they are calculated, do not affect the total rate of taxation of imports T. However, changing any of these rates has a protectionist as well as a fiscal impact.

As a result of the cascading effect, the total rate of taxation is high. On average, it reaches about 37 percent in 2008.

### **A. Customs tariffs accounts for only 35 percent of taxation of imports**

As described in Table 1, the simple average customs tariff in Madagascar has been reduced from 13.6 percent in 2006 to 13.0 in 2008 i.e. customs tariffs account for slightly more than one third the total taxation of imports.<sup>4</sup> The tariff cuts were not made across the board but are the result of substantial cuts of some products (chemical products, paper and paperboards), which were partially offset by small increases for some other goods.<sup>5</sup> In 2008, the customs tariff remains at the level of 2007. Thus, all the calculations on the changes in the rate of taxation of imports and in protection against imports in 2008 are fully attributable to the domestic tax reform.

Madagascar's average customs tariff is high by international or African standards.<sup>6</sup> However, it is much lower than the average tariff prevailing in the mid-1990s when liberalization of the trade regime started. In the second half of the 1990s, exchange controls, quantitative restrictions on imports, and widespread export restrictions were eliminated. The average MFN rate fell from 7.3 percent in 1997 to 6.0 percent in 2000. However, this low MFN average tariff is misleading because Madagascar had levied an import tax since 1960. When the import tax is taken into account, the simple average jumps to 18.0 percent in 1997 and to 16.2 percent in 2000.<sup>7</sup> By the end of 2005, the average tariff rate was still at its 2000 level but the trade regime was more transparent following the consolidation of the import tax and the

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Mauritius, Ghana, and Tunisia where it has helped increase revenue, improve governance at customs, and reduce transaction costs and clearance time.

<sup>3</sup> Except for a small number of specific tariffs on some energy products.

<sup>4</sup> Excluding the specific duties which are not changed over the 2006–08 period. Because world prices have increased over the period their ad valorem equivalent has decreased.

<sup>5</sup> Small changes in the average are not necessarily related to changes in tariffs but may be due to the shift to a new Harmonized System classification in 2007.

<sup>6</sup> In 2006, the simple average tariff in 44 Sub-Saharan Africa countries was 12.4 percent.

<sup>7</sup> For more details on the trade regime in 2000, see WTO (2001).

import statistics tax in the customs tariff. Another significant MFN tariff cut took place in 2006, bringing the average tariff rate from 16.2 to 13.6 percent.

Table 1. Average customs tariff rate by products  
(simple average; in percent)

	2006	2007	2008
All goods (HS chapters 1-97)	13.6	12.9	13.0
Live animals, animal products	17.9	18.1	18.1
Vegetable products	13.9	14.2	14.2
Animal or vegetable fats and oils	11.2	9.8	9.8
Prepared foodstuffs; beverages, spirits and vinegar; and tobacco	17.2	17.5	17.2
Mineral products <sup>1/</sup>	7.2	6.7	6.8
Products of the chemical or allied industries	10.3	7.0	7.0
Plastics and articles thereof; rubber and articles thereof	13.3	12.5	12.5
Raw hides and skins, leather, furskins; travel goods, handbags	13.1	13.1	13.1
Wood and articles of wood; wood charcoal; cork	15.6	16.1	16.1
Pulp of wood; paper and paperboard, printed books	17.2	12.7	12.7
Textiles and textile articles	17.0	16.3	16.3
Footwear, headgear, umbrellas, walking-sticks, artificial flowers	18.5	18.3	18.5
Articles of stone, plaster, cement, ceramic products, glass	15.3	15.5	15.5
Pearls, precious stones and metals, imitation jewellery; coins	20.0	20.0	20.0
Base metals	10.9	11.1	11.1
Machinery and mechanical appliances, electrical equipment	11.3	11.2	11.2
Vehicles, aircraft, vessels and associated transport equipment	11.2	11.1	10.6
Optical, photographic, cinematographic, measuring, medical instruments, clocks and watches, musical instruments	12.4	12.4	12.4
Arms and ammunition	20.0	20.0	20.0
Miscellaneous manufactured articles	17.7	17.7	17.7
Works of art, collectors pieces and antiques	20.0	18.0	18.0

Source: IMF staff calculation.

1/ Excluding products subject to specific duties.

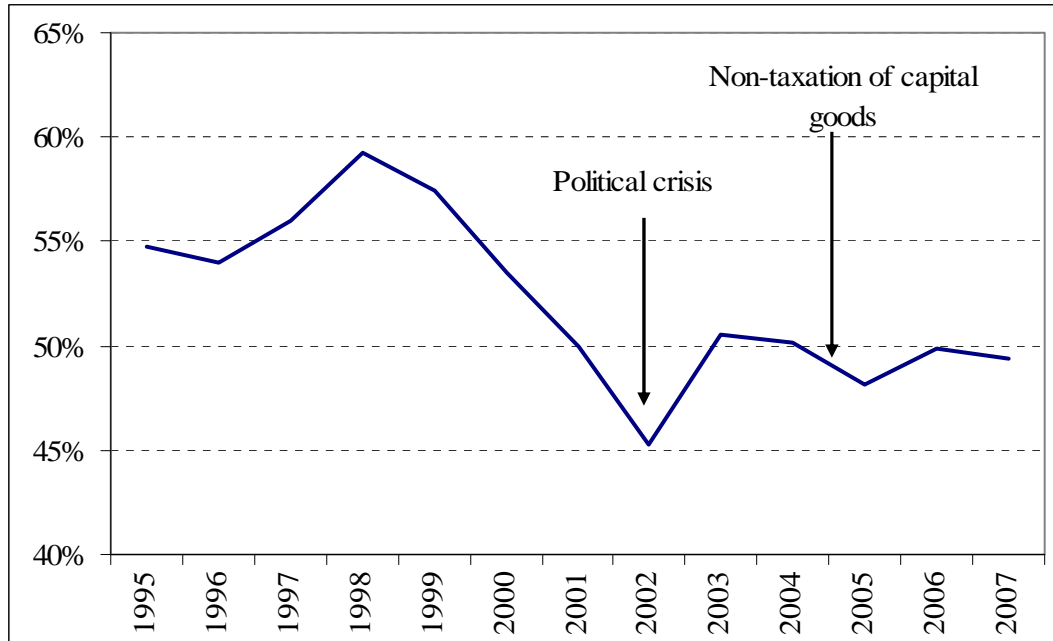
Despite the significant cuts in customs tariff in 2000 and 2006, the share of taxes on imports in total tax revenue of the central government remained stable at about 50 percent except at the time of the 2002 political crisis, which stopped international trade for several months, and the temporary non-taxation of imports of capital goods in 2004–2005 (Figure 1).

The reason for the stability of the share of import taxes is that the trade liberalization triggered a rapid increase in imports (Figure 2). Imports as a share of GDP increased by 26 percent of GDP from 1986 to 2006, of which 9 percent of GDP took place between 2001 and 2006.<sup>8</sup> This increase in imports offset the fiscal impact of tariff rate cuts. Total taxes on

<sup>8</sup> Part of the rapid increase in imports is linked to exports of textiles which have a high import content. These imports have however no impact on revenue from import taxes since exports of textiles are from the tax exempt EPZ firms as explained below.

imports, which accounted for 24 percent of imports value in 2001 were down to 19 percent in 2006, but increased from 4.9 percent of GDP to 5.3 percent over the same period. In short, trade liberalization might have reduced revenue from import taxes, but the reduction was limited because the tariff cuts also triggered a substantial increase in imports.

Figure 1. Import taxes as a share of total tax revenue (in percent)



Source: IMF.

Increased openness explains the steady share of taxes on trade in total tax revenue, but it does not explain why it is so high. Beyond the high taxation of imports, the reasons are poor domestic tax collection, a large informal sector that is difficult to tax, and a reduction in other tax revenue.<sup>9</sup>

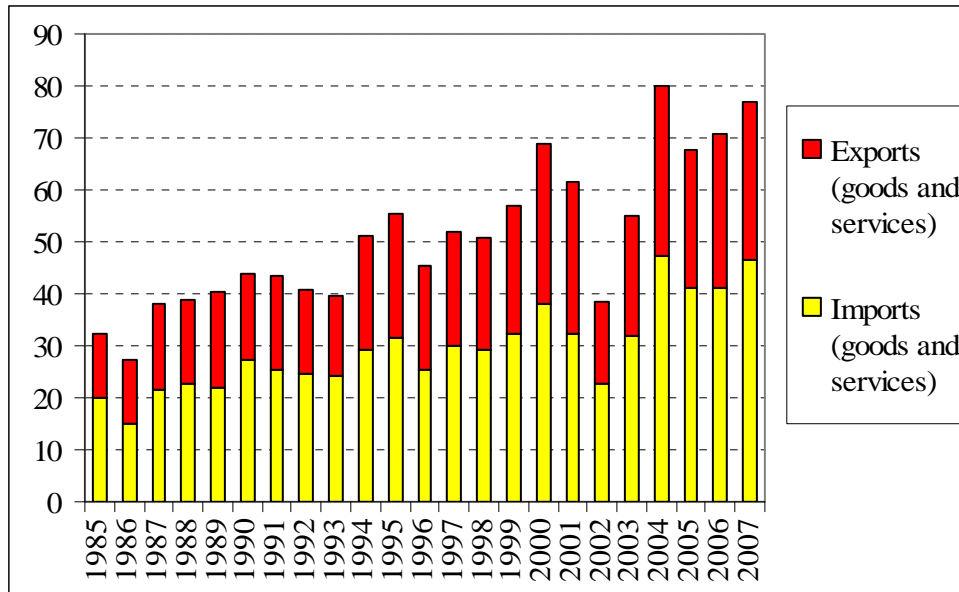
Another feature of trade policy that affects Madagascar's taxation of imports is the widespread use of exemptions: while the simple average tariff is about 13 percent, the collected customs tariff was 4.7 percent in 2007. The EPZ regime is a major exemption. EPZs were created in 1989. Firms exporting at least 95 percent of their output are eligible to the EPZ status and are exempt from the payment of various taxes, including customs duties. In 2006, about 27 percent of the country's import value was exempted from tariffs under this regime. Exemptions have also been granted in the context of preferential agreements, first with COMESA and starting in October 2007 with SADC. More recently, exemptions have

<sup>9</sup> Mansour (2008) calculates that, between early 1980s and mid-2000s, Madagascar's total revenue dropped by 3.3 percent, which is mostly explained by a dropped in "other taxes" (other than trade taxes and indirect taxes) as a share of GDP. Trade taxes in GDP exhibit a negligible decline and while revenue from indirect taxes increases.



been granted to imports for big mining projects and imports for the construction of large upscale hotels.

Figure 2. Trade openness (in percent of GDP)



Source: National authorities and author calculation.

### B. Excise duties: high targeted protection for few revenues

Excise duties on imports are another key element of the taxation of import. They bring relatively little revenues but are highly protectionist in their design.

In 2007, two changes in the regime of excise duties significantly increased their protectionist impact. New excise duties were introduced on sugar and flour. At 10 percent, their rate was low compared to other excise duties rates. However, they cover a larger share of imports: as a result of these new excise duties, the share of import value subject to excise taxes jumped from 0.8 percent in 2006 to 3.9 percent.<sup>10</sup> In addition, while in 2006, excise rates were the same for domestic and local goods, in 2007, the excise rate for imported alcoholic beverages and tobacco products became much higher than for local goods (on average, 42.5 percentage points higher). The discrimination between imported goods and local goods is inconsistent with the WTO principle of national treatment (WTO, 2008) and is reversing a major achievement of Madagascar's trade liberalization: improving the transparency in the trade regime most notably by unifying the various taxes on imports into the customs tariff.

<sup>10</sup> At 2006 constant import share.

Altogether, the changes in the excise duties partially offset the customs tariff cuts of 2007. The total simple average rate of taxation of imports  $T$  increased from 34.7 percent in 2006 to 35.0 percent. As described in the Section III, the 2008 domestic tax reform changes again the excise regime undoing much of the 2007 changes.

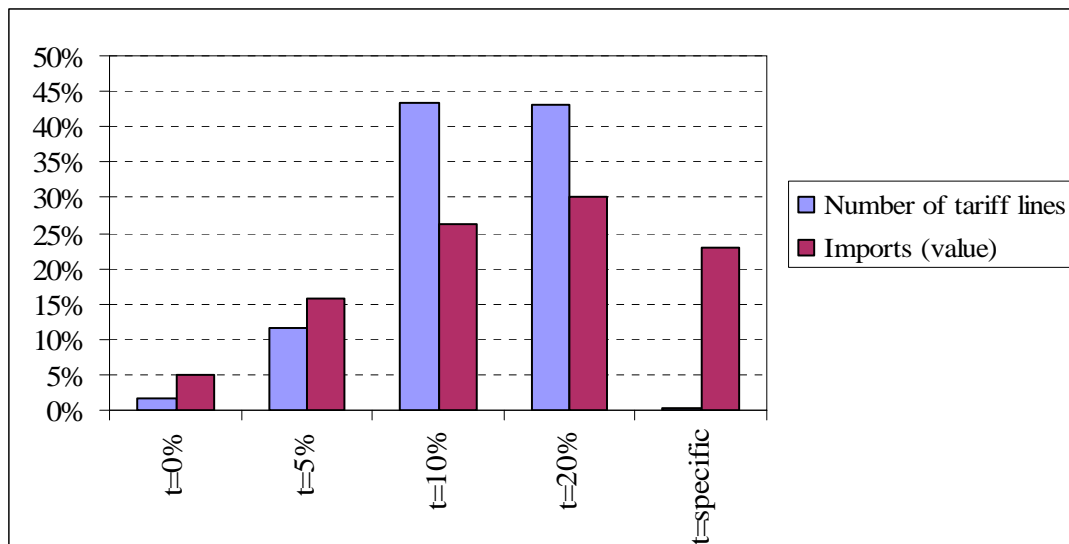
### C. Value Added Tax

While changes in excise duties have a large impact on protection of a few goods, the largest impact for fiscal revenue from taxes on imports comes from the change in the VAT rate. The rate was 18 percent in 2006 and 2007 and has been increased to 20 percent as part of the 2008 tax reform. Although the VAT rate is the same for domestic goods and imported goods, the cascading effect means that increasing the VAT rate leads to an increase in taxation of imports that is larger for imports than for domestic goods. For example, if a good faces a customs tariff of 20 percent, the increase in VAT by 2.0 percentage points increases the tax rate on domestic goods by 2.0 points but by 2.4 points for imported goods.

### D. A wide range of rates of taxation of imports

Before moving from the description of taxation of imports to a quantification of the protectionist and fiscal impact of the domestic tax reform, it is useful to describe another feature of the taxation of imports. Not only the taxation of imports is much larger than suggested by the tariff schedule, but the dispersion of rates of taxation is also much larger.

Figure 3. Tariff structure and import value by customs tariff rate in 2006



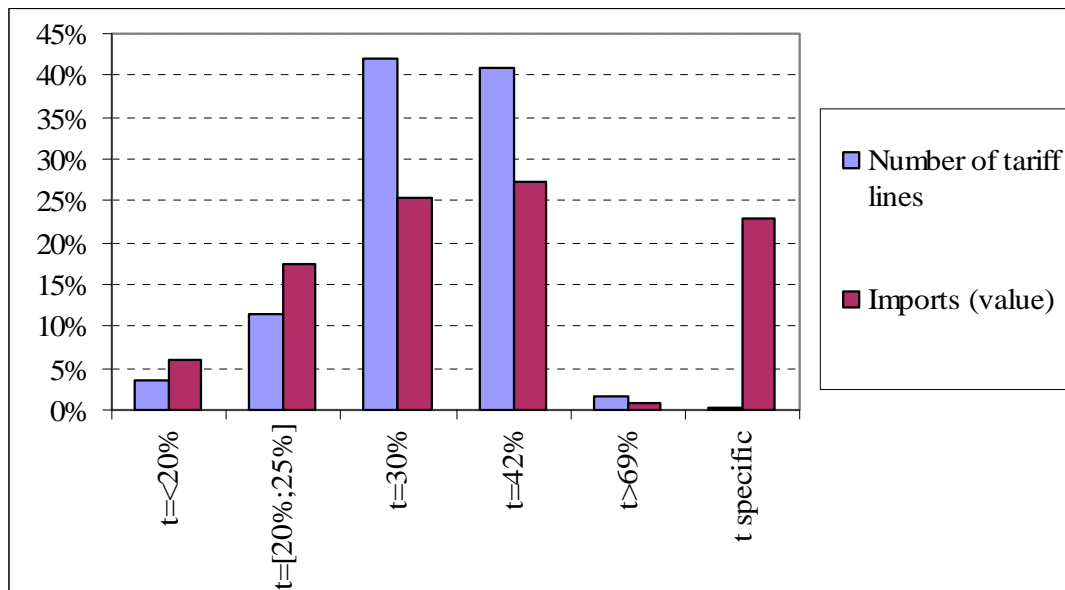
Source: Author calculation.

The tariff schedule appears simple, but the total taxation of imports is more complex because (i) excise duties have very different rates and are applied to a few products and, (ii) although there is only one VAT rate, it is not applied to all goods. This leads to a wide dispersion in taxation rate of imports that can be seen by comparing Figure 3 and Figure 4.

Figure 3 shows that, in 2006, about 85 percent of all tariff lines and the bulk of taxable imports face the top to tariff rates of 10 and 20 percent. Figure 4, in contrast, considers the total rate of taxation. The maximum taxation rate is 296 percent on some alcohol products. Moreover, the rates of taxation are very dispersed. While there are only four customs tariff rates (excluding specific tariffs), there are 18 different rates of taxation of imports when all taxes on imports are considered. Most of imports were taxed at 30 percent or more.

Now that the taxation of imports in Madagascar has been described, it is useful to describe how the domestic tax reform of 2008 affects the taxation of imports.

Figure 4. Total tax rate of imports and import value by customs tariff rate in 2006



Source: Author calculation.

### III. THE 2008 DOMESTIC TAX REFORM

In order to improve the business environment and address the low level of tax revenue, Madagascar implemented a comprehensive domestic tax reform accompanied by the overhaul of the tax administration in 2008.<sup>11</sup> The hallmark of the reform was simplification. The number of taxes dropped from 28 to 14. The taxes on various incomes were harmonized and consolidated in a single 25 percent flat tax. Many excise duties were eliminated. The VAT threshold was increased and the VAT rate was raised from 18 to 20 percent to offset the revenue loss from the elimination of other taxes and increase central government revenue. Moreover, because the tax environment has become more business friendly for all

<sup>11</sup> For more details on the assessment of the weaknesses of the tax system and the rationale of the tax reform, see Josz (2007) and IMF (2008).

enterprises, the government announced that the EPZ regime will be closed for new firms (while grandfathering existing firms) although no implementation date has been set.

A largely unintended effect of this tax reform is its impact on the protection against imports. For the reasons described in the previous section, the impact of the reform on protection is linked to the elimination of many excise duties and the changes in the VAT rate.

Changes in the excise duties lower the average rate of taxation on imports but increase protection. This apparently counterintuitive result is due to two factors.

- First, a substantial number of excise duties have been eliminated (including excises on sugar and flour introduced a year before). Starting in 2008, excise duties are limited to alcoholic beverages, tobacco products, and telephone communications. As a result, the number of products subject to excise taxes dropped from 116 in 2007 to 46 in 2008. Although this reduces the average taxation of imports, it only marginally affects the rate of protection as measured by the difference in taxation between imports and local goods because all of the excise duties that were eliminated had similar rates for imports and local goods.
- Second, the discrimination between imports and local goods has been increased. None of the excise duties that tax imports more than local goods have been eliminated. In fact, the discrimination has increased because in many cases the excise duty rate on imported products remained at its 2007 level while the rate on local goods was reduced.<sup>12</sup> Thus, the gap in the taxation between imports and local products (our measure of protection) has increased. On average, the difference between the excise duty on domestic goods and the excise duty on imports jumped from 42.5 percentage points in 2007 to 56.1 percentage points (for goods for which some discrimination exists).

Increasing the VAT rate obviously increases taxation of imports, but it also has a protectionist impact. Although the VAT rate is the same for imports and domestic goods, increasing the VAT rate increases taxation on imports more than on domestic goods because of the cascading effect. Moreover, increasing the VAT rate magnifies the gap between taxes on imported and domestically produced goods for the goods subject to excise.

In sum, the changes in the excise regime reduce taxation of imports but have only a limited impact on protection while the change in the VAT rate increase both the taxation of imports and protection. The next two sections quantify the size of the protectionist and the fiscal impact of the 2008 reform.

#### **IV. THE PROTECTIONIST IMPACT OF THE DOMESTIC TAX REFORM**

This section quantifies the protectionist impact of the 2008 tax reform. Because the MFN customs tariffs remained broadly unchanged in 2007-08, the change in taxation of imports is attributable to changes in the excise duties and the VAT.

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<sup>12</sup> Only three excise rates on imports were slightly increased. Moreover, three new excise duties discriminating between imports and local goods were introduced but the rates are low compared to other rates: 5 to 10 percent.

### A. The overall protectionist impact is small...

Table 2 provides an overview of the changes in the rate of protection measured by the difference between the total rate of taxation of imports and of local goods. Two main messages appear clearly.

- First, the total taxation of imports has increased by 1.9 percent over 2006–08. Most of the increase (1.6 percent) took place as a result of the domestic tax reform. In 2007, the increase was limited (0.3 percent) because the impact of the tariff cuts offset the changes in excise duties.
- Second, as expected, the protectionist effect of the reform is small. The rate of protection remains at about 16 percent over the period 2006–08.

Table 2. Impact of the tax reform on total tax level  
(simple average, in percent)

	2006	2007	2008
Total tax on imports	34.7	35.0	36.6
Total tax on domestic goods	18.5	19.1	20.3
Difference (rate of protection)	16.2	15.9	16.2

Source: Author calculation.

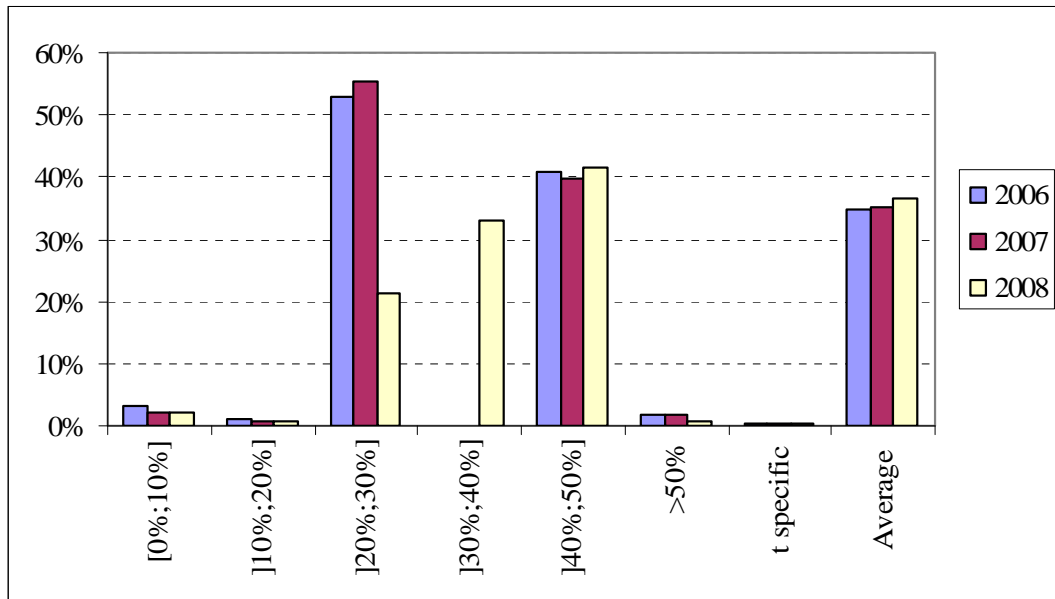
If the trend is clear, the level of rate of taxation presented in Table 2 must be interpreted with caution. As described above, a large share of imports benefit from customs tariff exemptions. Moreover, many domestic goods escape taxation because the informal sector is large in Madagascar as is the agricultural sector. These sectors are difficult to tax and, therefore, a substantial share of domestic goods escape from taxation. This fact is most visible in the structure of VAT collection. As is common in low income countries, VAT collected on imports is larger than VAT collected on domestic goods. In 2006, VAT on imports accounted for 60 percent of total VAT collection although the consumption value of domestic goods is far larger than the taxable imports value.<sup>13</sup>

### B. ... but the structure of protection is significantly modified

Looking behind the averages shows that the structure of the protection is significantly altered. Figure 5 indicates that while, in 2007, the tariff cuts and the introduction of discrimination between imports and local goods for excise duties had not significantly changed the structure of import taxes, the 2008 domestic tax reform did have such an effect.

<sup>13</sup> In 2006, consumption accounted for 88 percent of GDP and imports (excluding non taxed EPZ imports) for 26 percent of GDP.

Figure 5. Structure of the total imports taxes in 2006–2008  
(in percent of tariff lines)



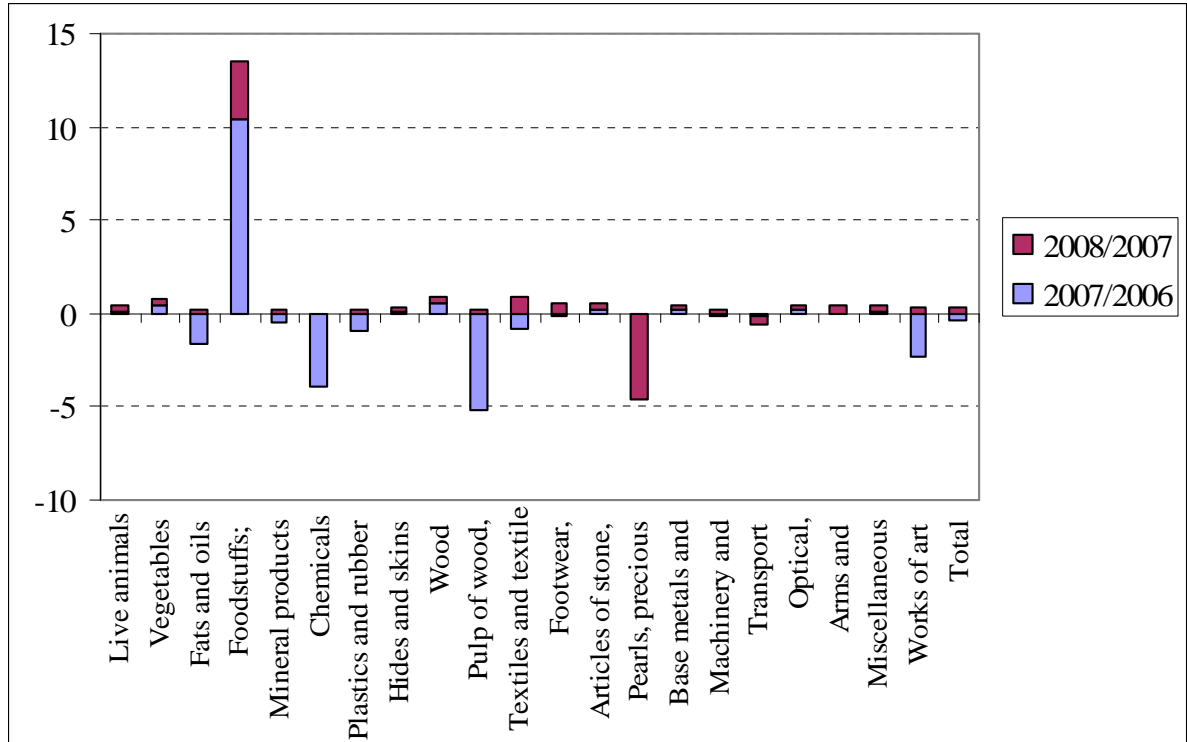
Source: Author calculation.

In order to give a better sense of the change in the structure of protection, goods have been sorted in 21 categories (Figure 6 and Table 3). While for most products the domestic tax reform leaves the protectionist effect of taxation broadly unchanged, it substantially affects protection of the categories “prepared foodstuff, beverages, and tobacco” and “pearls, precious stones and metals.”

Protection against imports of “Prepared foodstuffs, beverages, and tobacco” increased dramatically over 2006-08. The difference between taxation of imports and taxation of local goods, which had already increased by more than 10 percent in 2007 increased further in 2008 by 3 percent to reach 38 percent. The increase in 2007 was due to the introduction of discrimination between imported and locally produced alcohol and tobacco products as well as a new excise duty on sugar. In 2008, despite the elimination of some excise taxes (notably on sugar), protection rose further because the difference in excise duty rates between imported goods (with unchanged excise rates) and domestic goods (with a decline in excise duty rates) became larger.

In contrast, protection against imports of “Pearls, precious stones and metals” declined in 2008. Taxed at 71 percent in 2006 and 2007, they were taxed at 43 percent in 2008. Because local goods also benefit from the elimination of excise duties, the reduction of protection against these imports is more limited but remain sizable: 4.5 percentage points from 28.5 percent to 24.0 percent.

Figure 6. Changes in the difference of taxes on imports – taxes on domestic goods  
(2006–2008, simple average in percent) <sup>1/</sup>



Source: Author calculation.

Table 3. Impact of the tax reform by type of goods  
(simple average, in percent)<sup>1/</sup>

Goods	Taxation of imports			Taxation of domestic goods			Difference		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
Live animals, animal products	38.6	38.8	41.3	17.5	17.5	19.7	21.1	21.3	21.6
Vegetables	33.0	33.9	36.2	16.7	17.2	19.1	16.3	16.7	17.0
Animal or vegetable fats, oils	29.8	29.5	31.7	16.7	18.0	20.0	13.1	11.5	11.7
Prepared foodstuffs; beverages, tobacco	61.5	77.4	77.4	37.1	42.6	39.5	24.4	34.8	37.9
Mineral products	22.7	22.4	24.3	15.3	15.5	17.2	7.5	7.0	7.2
Chemicals	29.1	25.5	26.6	16.9	17.2	18.3	12.2	8.3	8.4
Plastics and rubber	33.3	32.7	35.0	17.6	18.0	20.0	15.7	14.7	15.0
Raw hides and skins	33.5	33.5	35.8	18.0	18.0	20.0	15.5	15.5	15.8
Wood and articles of wood	36.4	37.0	39.3	18.0	18.0	20.0	18.4	19.0	19.3
Pulp of wood, paper	37.2	32.2	34.2	17.1	17.3	19.1	20.1	14.9	15.1
Textiles and textile articles	38.0	37.1	40.0	17.9	17.9	19.9	20.1	19.3	20.2
Footwear, headgear, ...	39.8	39.6	42.1	18.0	18.0	20.0	21.8	21.6	22.1
Articles of stone, plaster, cement, glass	35.8	36.1	38.4	17.8	17.9	19.9	18.0	18.2	18.5
Pearls, precious stones and, precious metals, imitation jewellery; coins	71.1	70.9	43.7	42.6	42.4	19.8	28.5	28.5	24.0
Base metals	30.8	31.1	33.3	17.9	18.0	20.0	12.9	13.1	13.3
Machinery and mechanical appliances; electrical equipment	31.3	31.2	33.3	18.0	18.0	20.0	13.3	13.2	13.3
Transport equipment	30.9	30.9	32.5	17.7	17.8	19.8	13.2	13.0	12.7
Optical, photographic instruments ...	29.7	32.6	34.1	15.4	18.0	19.4	14.3	14.6	14.8
Arms and ammunition	41.6	41.6	44.0	18.0	18.0	20.0	23.6	23.6	24.0
Miscellaneous	38.8	38.9	41.2	18.0	18.0	20.0	20.8	20.9	21.2
Works of art	41.6	39.2	41.6	18.0	18.0	20.0	23.6	21.2	21.6

Source: Author calculation.

1/ The product category is bolded when in a particular year at least one product of the category was subject to an excise duty.

## V. WHAT IS THE IMPACT FOR REVENUE FROM TAXES OF IMPORTS?

This section provides an estimate of the impact of the tax reform on revenue from import taxes and of the fiscal cost of the SADC FTA. A theoretical tax revenue is calculated for 2006, 2007, and 2008 assuming constant imports weights (taxable imports of January-November 2006 i.e. excluding EPZ imports) at the most detailed level (HS-8 digits). This assumption allows estimation of the impact of the 2008 tax reform, everything else constant. Of course, as imports increased over the period, revenue from taxes on imports have grown and changes in taxation will trigger some substitution effects that are not captured here.



Therefore, the data presented in this section do not constitute a projection but an assessment of the impact of the tax reform on an unchanged import base.

#### **A. The domestic tax reform will increase revenue from taxes on international trade...**

Table 4 confirms that the taxation of non-EPZ imports is large and has been increasing since 2006. On average domestic prices of imported goods would be 33 percent higher than international prices (including transportation costs).<sup>14</sup> Suggesting that some of the very high rates of taxation have a prohibitive impact, this is somewhat lower than the simple average of 37 percent reported in Table 2.

Table 4. Changes in the structure of taxes on imports  
(2006–2008, in percent of non-EPZ import value)<sup>1/</sup>

	2006	2007	2008
Customs tariff	11.0	10.4	10.4
Excise duties	2.3	3.3	2.0
VAT	18.8	19.2	21.1
Total	32.1	32.9	33.4

Source: Author calculation.

1/ Excluding imports subject to specific duties.

Moreover, the weighted average total rate of taxation of imports increased over the period by 1.3 percent. Most of the increase took place in 2007 and is due the impact of the change in the excise duties. More specifically, the impact of the 2007 tariff cuts was more than offset by the large increase in revenue from excise on imports (Tables 4 and 5). Excise duties collection increased from 2.3 to 3.3 percent of import value. This is very substantial given that excise duties were levied on less than 4 percent of the total import value. Finally, illustrating the cascading effect, changes in the excise duty regime explains an increase in revenue from VAT on imports by 2 percent (Table 5) although the VAT rate did not change.

In 2008, the tariff cuts are negligible leading to no material change in revenue from customs tariffs compared to 2007. However, the impact of the tax reform is large:

- Reducing the number of goods subject to the excise duties reversed the sharp increase of 2007.

<sup>14</sup> This assumes that COMESA imports are taxed at the MFN rate. This is obviously not the case but data limitation do not allow to take the regional preferences into account. However, the impact is rather limited since the share of COMESA in Madagascar's imports was 7.5 percent in 2006.

- The impact of the increase in the VAT rate is substantial. Revenues are expected to increase by 10 percent or by about 2 percent of imports value. They will reach 21.1 percent of imports value. This is more than the VAT rate of 20 percent due to the cascading effect of the taxation of imports in Madagascar.<sup>15</sup>

Table 5. Changes in revenues from imports taxes  
(non EPZ imports, percentage change compared to the previous year) <sup>1/</sup>

	2007	2008
Customs tariff	-5.7	-0.4
Excise duties	47.2	-40.7
VAT	1.9	10.1
Total	2.5	1.6

Source: Author calculation.

1/ Constant import structure and excluding imports subject to specific duties.

Overall, the 2008 domestic tax reform would increase revenue from taxes on imports by 1.6 percent adding to its revenue enhancing impact on the domestic side. However, this estimate excludes the impact of the tariff phase out undertaken under the SADC FTA.

### **B. ... and will reduce the fiscal cost of the SADC FTA**

The tax reform will also have an impact on the fiscal losses from the SADC FTA. Assuming that the various tax rates (including the customs tariff) remain stable at their 2006 level, Hallaert (2007b) estimated that the phasing out of tariffs on imports from South Africa (which accounts for 84 percent of all trade liberalized under the SADC FTA) would reduce revenue of taxation of all imports by 2.7 percent in 2008. Using the same methodology but including the changes in the parameters of the taxation of imports in 2007 and 2008, it appears that the fiscal losses associated to the SADC FTA would be lower by 0.5 percentage points in 2008 (Table 6).

Table 6, provides a breakdown of this lower fiscal loss by type of tax. Losses from customs revenue appear unchanged.<sup>16</sup> The revised estimates are thus related to changes in the excise and VAT regimes. In 2007, the revenue losses from excise duties are 25 percent smaller than estimated by Hallaert (2007b). The reason is that the changes in the excise duty regime affect the rest of the world more than South Africa. Although South Africa supplied only about 5 percent of Madagascar's imports, it contributed to 42 percent of excise duties collected on imports in 2006 because it is a prominent supplier of alcoholic beverages. In 2007, excises were extended to other products with smaller shares of imports from South Africa. Therefore,

<sup>15</sup> Actually the impact of the cascading effect is slightly larger than 1.1 because some goods are exempt from VAT. Changes in the list of exempted goods has been taken into account in the calculation.

<sup>16</sup> The drop from 7.9 to 7.8 reported in the Table 7 is a rounding effect. The difference is actually 0.02 percent.

South Africa's contribution to excise duties on imports dropped by 6 percentage points to 36 percent.<sup>17</sup> The substantial drop in the share of South Africa explains why the estimated impact of the SADC FTA on excise duties collection is lower than previously estimated.

Table 6. SADC FTA: Revenue losses on imports from South Africa  
(in percent of the respective taxes)

	2007 <sup>1/</sup>		2008	
	Constant 2006 tax system 2/	2007 tax system	Constant 2006 tax system 2/	2008 tax system
Customs duties	7.7	7.7	7.9	7.8
Tax on petroleum products	0	0	0	0
Excise duties	5.8	4.4	5.8	6.3
VAT	0.9	0.9	0.9	0.6
Total (taxes on international trade)	2.6	2.5	2.7	2.2

Source: Author calculation.

1/ Full year impact.

2/ See Hallaert (2007b).

In contrast, in 2008, the revenue losses on excise duties from the SADC FTA are larger. Eliminating many excise duties and limiting them to tobacco products and alcoholic beverages results in South African imports' share in total revenue from excise taxes jumps to 46 percent. The impact of the SADC FTA on the collection of VAT on imports drops to 0.6 percent due to the cascading effect and the increase in the rate. Because the VAT accounts for about 63 percent of revenues from taxes on imports, the impact of the increase in the rate is large on total taxes on imports explaining the overall reduction in fiscal losses.

In short, the domestic tax reform will not only increase revenue from taxes on imports but it will also reduce the fiscal losses from the SADC FTA.

<sup>17</sup> The drop in the share of South Africa does not mean lower revenue. In fact, assuming a constant import structure at the 2006 level, the change in the excise duty regime in 2007 led to an increase of excise levied on imports from South Africa by about 20 percent but by about 54 percent for imports from the rest of the world.

## VI. CONCLUSION AND NEXT STEPS IN THE TRADE REFORM

Despite little change in MFN tariff rates, the protection against imports has changed in 2008 due to the overhaul of the domestic tax reform that affects two key components of taxation of imports: the excise duties and the VAT rate. Overall, the average taxation of imports is expected to increase slightly from 35.0 percent in 2005 to 36.6 percent in 2008. The rate of protection, measured by the difference between taxation of domestic goods and taxation of imported goods, increases much less because taxation of domestic goods also increases. The rate of protection increases by 0.3 percentage points. This small increase is an average that masks substantial changes in the structure of protection across goods.

Because the domestic tax reform changes key parameters of the taxation of imports, it affects not only revenue from domestic taxes (its primary objective) but also has an unintended effect on increase revenues from taxes on international trade, which accounts for about half of total fiscal revenue. This paper estimates that the domestic tax reform will boost revenue from import taxes by 1.6 percent. Moreover, it will also reduce the fiscal loss of the phasing out of tariffs on SADC imports.

This paper suggests that the trade reform that started about a decade ago should continue by focusing on MFN tariff cuts, exemptions, and excise duties.

First, the cut in the MFN average customs tariff, which paused in 2008, should be revived. At 13 percent, the simple average customs tariff remains high and even higher than the (high by international standards) average for sub-Saharan Africa.

This high MFN tariff poses risks at the time Madagascar is expanding its preferential trade agreements. The impact of the SADC FTA will be rather limited (Hallaert, 2007a and 2007b) but the tariff cuts on EU imports in the context of the Economic Partnership Agreements (EPA) will, in the medium and long run, have substantial implications. Maintaining high MFN tariffs while eliminating them for a major trade partner such as the EU means that EU imports will benefit from a large price advantage and thus may replace imports from other suppliers. This trade diversion would increase further the revenue losses from the EPAs because non-taxed imports (from the EU) would replace taxed imports. Moreover, it has welfare costs. Because more favorable taxation would give EU exporters a substantial price advantage, they could price their product above the world price. They would then capture the benefit of tariff liberalization, which would not translate in decline in prices for Malagasy consumers and firms. In sum, maintaining high MFN tariff would reduce Madagascar's welfare in the context of expanding preferential agreements. A cut in the MFN tariff would reduce the scope of the trade diversion and thus its impact on the country welfare.

Second, exemptions are widespread, leading to a collected tariff rate of about a third of the simple average tariff rate. Such widespread exemptions are a source of economic distortions. A review of these exemptions would be warranted.

Third, given the large impact of the excise duties on protection, the reform of the excise regime should be pursued by eliminating the discrimination of excise rate between imports

and local products. This would also increase the transparency of the trade regime, which was one of the main achievements of the trade reform of the first half of the current decade.

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