

# KOSOVO CLUSTER AND BUSINESS SUPPORT PROJECT

# AN ANALYSIS OF THE VALUE ADDED TAX ON THE DAIRY INDUSTRY IN KOSOVO

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### PURPOSE OF ASSIGNMENT

To conduct a case study, focusing on the livestock cluster, of the influence of a proposed VAT exemption on the competitiveness of local producers and government revenues.

The general purpose of the assignment did not change, but the scope did. I discussed the overall assignment with Richard O'Sullivan and we decided that:

- the scope and task assignments were too broad for the two-week period in which I was in-country; and
- the lack of national income accounts data, particularly statistics on industry and retail activity, prevented my developing reliable estimates of economic impacts.

We decided I should instead focus on creating a case study of the effects of VAT on one particular type of agricultural producer, tracing the VAT from farmer to retailer. I chose the dairy sector because that data could be gathered relatively quickly. This case study would be developed in such a manner that it could then be replicated for other sectors.

The purpose of my work was thus two-fold:

- to determine if VAT is adversely affecting the agricultural sector by discovering how the VAT is actually being applied by businesses and compare that with the correct application of VAT; and
- 2) to create a case study and demonstrate how such a case is built to validate (or refute) claims made by businesses, thereby eradicating the need to rely on anecdotal evidence to prove these claims.

# BACKGROUND

The misfit and often obvious contradictions between development and fiscal policies was one of the key constraints targeted by the Constraints Study, KCBS' first formal deliverable to USAID-Kosovo. While the Provisional Government is responsible through its various ministries to create and implement policies to develop the Kosovar economy, UNMIK has reserved for itself authority over all fiscal policies. UNMIK appears to have three priorities in evaluating and implementing tax policies: simplicity and uniformity, maximum compliance with minimal enforcement, and avoiding budget deficits. To achieve those goals, UNMIK relies primarily on a Value-Added Tax (VAT) to fund the central government's budget, including applying the VAT to imports.

One of the central development goals of the Provisional Government is to increase regional competitiveness in order to reduce imports and prepare Kosovo for the regional markets that will emerge from the network of free trade agreements (FTAs) dictated by the Stability Pact. Nearly all of the firms that KCBS is assisting have identified the VAT on inputs for which the purchaser is the final consumer, such as capital equipment, feeds, and fertilizers, as a cost increase that undermines their competitive advantage for this imposes a 10 percent surcharge not faced by competitors in the region. Consequently, association boards in every sector are seeking exemptions from the VAT on final input products.

Given the universality with which the VAT exemption is mentioned, KCBS needs to either support or dismiss this argument. Does the VAT really compromise the competitiveness of local providers?

### **EXECUTIVE SUMMARY**

Agricultural producers have complained that the VAT increases the costs of inputs and that the VAT together with customs duties, especially on capital equipment, make domestic production uncompetitive with imports. Moreover, the method of minimum price import valuation used by Customs creates further distortions. In response to these concerns, several amendments to both the Customs law and VAT law were made in 2004. These reformshave made complaints about the negative effects on input costs of VAT and customs registered by agricultural producers in Kosovo moot:

- 1) In February 2004, customs stopped using minimum prices to determine the value of imported goods, and was directed to use the invoice price;
- 2) In May 2004, the Customs law was amended to zero rate most imported agricultural inputs, including capital equipment, thus reducing the costs of imported inputs to world prices; and
- 3) In September of 2004, the VAT law was amended to zero-rate the import and supply of most agricultural inputs (including irrigation water).

Additionally, there are questions regarding the impact of foreign subsidies of agricultural products on the competitiveness of domestic substitutes. The market distortions of these subsidies, which need to be identified and included in a more thorough analysis, could overwhelm any influence of VAT or tariff rates that could well make the proposed VAT changes irrelevant.

These measures remove both the VAT and import duties from most agricultural inputs; however, farmers and processors are still complaining about the effects of these two taxes on their ability to compete with imported goods, and want VAT rates reduced for agricultural *output*. This would be counter-productive, as it would not change domestic prices relative to imports, since the next link in the supply chain would pay the same VAT on either, and it would make the VAT even more difficult to administer and more costly to comply with.

With respect to feed production, the current VAT and customs laws zero rate supplies of "preparations of a kind used in animal feed (other than dog or cat food, put up for retail sale—Code 2309 90." While imported ingredients may be subject to VAT, because the supply is zero-rated, the feed producer will pay no VAT on value added and receive a full credit for VAT paid on inputs. The zero rate effectively removes the VAT from feed production. There may still be an issue of customs duties applied to some ingredients in feed production, which could be dealt with either by extending the zero-rate of customs to those particular ingredients, OR by making imported feed subject to duty. From a protectionist standpoint and perhaps from an administrative standpoint the latter option is preferable, although likely not politically feasible.

Misperceptions of the VAT, in both principle and practice, have encouraged taxpayers to engage in various schemes to evade the tax as well as lobby for reductions in VAT rates and an increase in exemptions and zero-ratings. The VAT invoice/credit system is supposedly self-enforcing, in that a firm is effectively reimbursed for VAT paid on inputs if and only if there is an invoice of taxable sales. In Kosovo this system is not functioning correctly. Retailers are refusing invoices that correctly reflect their purchases, ostensibly to avoid having to be registered for VAT (which puts them in the formal economy and provides an audit trail for other taxes.) When this happens, the processor only receives a partial credit for VAT paid on inputs because the invoiced amount is the only amount creditable. The processor then pays VAT on inputs rather than on value added, and the retailer escapes taxes.

Based on a survey done of retail outlets in Pristina, and assuming comparable quality, Kosovo produced dairy products appear to be competitive with imports. If locally produced dairy products are not selling it must be due to factors other than price (and by extension tax policy).

#### Recommendations:

- **1. VAT rates do not need to be further reduced on inputs.** The problem of VAT on inputs has been effectively dealt with by the 2004 amendments to the VAT law. Continued perceived problems with VAT on agricultural inputs arise from a misunderstanding of the VAT in general, in both principle and practice, and a general lack of transparency in the Kosovo economy that prevents a fair and consistent application of the VAT.
- **2.** Further preferential VAT rates do not need to be established for agricultural outputs as additional preferences would only cause further administrative complexity, create opportunities for more tax evasion, and, in turn, increase not reduce market distortion.
- **3.** The issue is less with VAT rates, and more with the implications of complying with VAT law and the effect that has on compliance with other taxes. Therefore, using business association networks, **concentrate resources on educating producers on VAT and other taxes** and recognizing how businesses' efforts to avoid and evade the tax may be creating more problems than they are solving.
- 4. Discover how much tax is actually paid by the businesses complaining that taxes are making them uncompetitive by promoting better cost accounting and transparency at all links in the agriculture supply chain. Firms who complain about taxes but who are paying relatively little tax may be using taxes as a scapegoat for their lack of economic viability.
- 5. Lobby for effective governance and uniform administration of tax laws. The apparent politicization of the Tax Administration in Kosovo is very troubling, given that there appear to be many issues regarding the transparent and equitable administration of taxes. Businesses are rightly concerned that inadequacies in tax administration increase costs of doing business and create unfair advantages for those firms "favored" by tax administrators. These are legitimate and significant concerns of businesses in Kosovo, but they will not be solved by changing tax rates, creating more tax exemptions, or creating various tax incentives. Businesses must understand that off-setting loopholes and preferences increase market distortions, not rectify them.

# FIELD ACTIVITIES TO ACHIEVE PURPOSES

While in Kosovo, I met with different officials from the Tax Administration of Kosovo (TAK) on four different occasions to determine how tax policy in Kosovo is being implemented and to fully understand recent changes in the VAT law. I also met with the TAK statistical office to gather some revenue data.

I met with members from the Customs and Fiscal Assistance Office to UNMIK in Kosovo (CAFAO-UNMIK) to understand the 2004 changes in the Customs law and to discuss problems with customs administration and how they relate to VAT issues.

I met with Fatmir Selimi to discuss general agricultural issues in Kosovo, as well as various people within the Kosovo Business and Cluster Support Office and the Ministry of Agriculture, Forestry, and Rural Development (MAFRD) to discuss agricultural competitiveness issues.

I visited the dairy processor Bylmeti in Pristina and obtained input price data from them. I also visited a dairy processor in a Serb enclave and I visited the dairy processor ABI in Prizren, as well as the fruit and vegetable processor ABI & Elif. I had hoped to visit a dairy farm but there was insufficient time.

I began developing a case study of the effects of VAT on the dairy sector in Kosovo and presented preliminary results at a seminar for staff and representatives from several business associations at the KCBS offices on Friday, July 8.

A list of my contacts appears in Annex 3.

### TASK FINDINGS AND RECOMMENDATIONS

**Task 1--**Work with cluster team experts to determine how much the VAT on these goods adds to total costs in each of the three livestock sectors: dairy, poultry, and lambs.<sup>1</sup>

#### Findings—

**A.** Agricultural producers have complained that the VAT increases the costs of inputs and that together with customs duties, especially on capital equipment, make domestic production uncompetitive with imports. Moreover, the method of minimum price import valuation used by Customs creates further distortions. Several amendments to both the Customs law and VAT law were made in 2004 which make complaints about the negative effects on input costs of VAT and customs registered by agricultural producers in Kosovo moot:

- 1.) In February 2004, customs stopped using minimum prices to determine the value of imported goods, and was directed to use the invoice price. Some agricultural producers are still complaining about the valuation procedures, but when pressed admit they are referring to the old system and are not sure how the new system is working. As an example of the prevailing lack of understanding of VAT mechanics, some producers are asking for Customs to use internal prices in Kosovo for valuing imported goods, but this is economically incorrect. The correct valuation is the world price, not the internal domestic price. Using internal prices would allow inefficient domestic production to compete with more efficient foreign production. Whether that foreign advantage is created by foreign subsidies is a different issue and, if dealt with at all, should be dealt with via means other than import valuation. For example, customs rates might be increased for these products. Note, however, that we are dealing specifically with the agricultural sector, and increased duty rates will increase ALL domestic prices. Consumer food prices will go up, disproportionately hurting the poor, who spend a larger percentage of their income on food. Moreover, such a valuation policy allows efficient domestic producers to earn economic rents and inefficient domestic producers to continue operating. This is not in the long-term economic interest of Kosovo.
- 2.) In May 2004, the Customs law was amended to zero-rate most imported agricultural inputs, thus reducing the costs of imported inputs to world prices.
- 3.) In September of 2004, the VAT law was amended to zero-rate the import and supply of most agricultural inputs (including irrigation water).

Despite measures removing both the VAT and import duties from most agricultural inputs farmers are still complaining about the effects of these two taxes on their ability to compete with imported goods, and want VAT rates reduced for agricultural final products, which would give them no benefit at all, as, according to WTO regulations, the VAT must be removed for both domestic and imported goods.

With respect to feed production, the current VAT and customs laws zero-rate supplies of "preparations of a kind used in animal feed (other than dog or cat food, put up for retail sale)—Code 2309 90." While imported ingredients may be subject to VAT, because the supply is zero-rated, the feed producer will pay no VAT on value added and receive a full credit for VAT paid on ALL inputs, both domestic and imported. The zero rate effectively removes the VAT from feed production. There may still be an issue of customs duties

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<sup>&</sup>lt;sup>1</sup> Time constraints meant I concentrated on the dairy industry. Results are easily generalized and extended to the other sectors.

applied to some ingredients in feed production. Depending on the severity of the issue, this could be dealt with by doing nothing (10% is a low duty) or by either extending the zero customs rate to those particular ingredients (which increases opportunities for evasion), OR by making imported feed subject to duty. If this issue needs to be dealt with, from a protectionist standpoint and perhaps from an administrative standpoint, the last option is preferable, although likely not politically feasible.

#### Recommendations—

- 1. VAT rates do not need to be further reduced on inputs. The problem of VAT on inputs has been effectively dealt with by the 2004 amendments to the VAT law. Continued perceived problems with VAT on agricultural inputs arise from a misunderstanding of the VAT in general, in both principle and practice. Based on interviews with VAT taxpayers and with my final presentation to business association members I conclude that there has been far too little taxpayer education on the mechanics of the VAT (See Recommendation B1). Taxpayers do not understand the credit/invoice system, and believe the VAT paid on inputs is a non-recoverable cost. As I demonstrate in Table 3 of the Economic Results section, the credit/invoice system removes VAT from inputs and is simply a system of collecting what is essentially a tax on final consumption at each stage of production. With a single-stage collection system, if the tax is evaded the treasury loses 100% of the tax. With a multi-stage collection system, like the credit/invoice VAT, the tax missed at one stage is only part of the total tax being collected, and the budgetary loss is less severe
- 2. Preferential rates do not need to be established for agricultural outputs. Milk producers and food processors with whom I spoke suggested that the VAT rates for their outputs should be reduced so that they can compete with imported products, because those products are subject to reduced VAT rates in their home countries. This is a specious argument. The VAT is a tax on domestic consumption (exports are zero-rated); hence, the VAT rate applied to goods in the home country is completely irrelevant for goods imported into Kosovo and has no effect on the domestic price of imported goods. Moreover, lowering the VAT rate on certain goods will not affect the competitiveness of Kosovo-produced goods competing with imported goods, because that lower VAT rate would apply to the imported goods as well.

Finally, the more VAT rates there are, the more difficult the VAT is to comply with and the more difficult it is to administer. This creates opportunities for tax avoidance and evasion. Complicating the VAT will create an un-level playing field for domestic firms in Kosovo, with large firms gaining an advantage over small ones because larger firms tend to have more resources to devote to tax avoidance.

#### **Explanation**

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Because most farmers (including dairy farmers) in Kosovo have a turnover amount below the required threshold for VAT registration, they are not *required* to register for VAT and are therefore exempt from making VAT supplies.<sup>2</sup> This means that when an unregistered farmer purchases inputs from a VAT registered trader, the farmer <u>pays VAT on those purchases</u>, and because he is not a VAT taxpayer, does not charge VAT on sales. <u>The farmer will</u> therefore not credit VAT paid on inputs against VAT charged on sales of output. If the farmer

<sup>&</sup>lt;sup>2</sup> Anyone may voluntarily register for VAT. Turnover thresholds for compulsory VAT registration are utilized for administrative purposes, to keep costs down of complying with (on the taxpayer side) and administering of VAT. A producer who finds the VAT increasing costs because he/she is exempt from registering may therefore voluntarily register and "get the VAT out."

cannot increase the price of his output by the full amount of VAT paid on inputs, then the VAT will not be a tax on value added (i.e. wages and profits), but will be a tax on inputs, thereby increasing costs and potentially reducing competitiveness.<sup>3</sup> (See Table 3 in the Economics Results section.) The same is true of customs duty—if the duty can be passed down the chain of production, it is a tax on final consumption and does not affect competitiveness.

This problem of VAT on inputs used by farmers can be addressed in two ways:

- the farmer could voluntarily register for VAT, and then be able to credit VAT paid on inputs against VAT charged against output. This removes the VAT from inputs, gets the farmer involved in the formal economy, does not reduce the tax base, and does not create opportunities for further evasion. It does increase administrative and compliance costs;
- 2) imports and supplies of inputs to the agricultural sector could be zero-rated. When a supply is zero-rated, the seller charges a VAT rate of zero to the purchaser (in this case the farmer), but still credits VAT paid on inputs against VAT charged of zero, thereby removing VAT paid on inputs from costs. The farmer is not charged VAT on these zero-rated inputs, so his input costs are no different from the pre-VAT situation. Note that this method creates further problems for tax administration, as it creates an opportunity for tax evasion. Firms may now create false invoices of these zero-rated sales, thereby creating false credits, and reducing further tax collections. The zero-rating of these supplies reduces the tax base, and tax evasion will reduce it further. So while this method may relieve the burden on the farmer in the short-run, government revenues will be reduced, requiring either an increase in VAT rates in the future (Kosovo's VAT rate is one of the lowest in the region) and a reduction or delay in government assistance to agriculture.

#### Findings—

**B. Misperceptions of the VAT**, in both principle and practice, have encouraged taxpayers to engage in various schemes to evade the tax as well as lobby for reductions in VAT rates and an increase in exemptions and zero-ratings. As I demonstrate in Table 3, Economics Results section, exempting a supply (or a supplier) does not relieve that supply from VAT. Instead, the buyer of the exempt supply pays VAT as though she were the final consumer. As explained above, if the buyer cannot pass on the VAT paid the VAT becomes a tax on inputs and increases the cost of doing business (or as in my examples, reduces the actual gross margin.) The higher up the chain the exemption occurs, the more detrimental to the system. Some taxpayers in Kosovo appear to believe that the VAT they pay on inputs is an increase in costs, when in fact, it is not (see Table 3, Economic Results.)

The invoice/credit system is supposedly self-enforcing, in that a firm is effectively reimbursed for VAT paid on inputs <u>if and only if there is an invoice of taxable sales</u>. The firm therefore has an incentive to correctly invoice all sales so that VAT can be fully removed from inputs. Farmers are mostly unregistered, and therefore do not charge VAT on sales to processors. Under the current regime, many retailers are also exempt from VAT because they (ostensibly) do not meet the turnover threshold. Those in between the farmer and the retailer are literally "caught in the middle." While they no longer have increased prices arising from VAT the farmer paid on inputs, because these supplies are now zero-rated, they must deal

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<sup>&</sup>lt;sup>3</sup> There are also instances in VAT administration that can cause the VAT to be a tax on inputs, e.g. if the refund mechanism is not functioning properly, the VAT incidence can fall on capital rather than value added. These issues are beyond the scope of this report, but are fully discussed in *The Value Added Tax*, Alan Tait, IMF and Summers et al *The Value Added Tax* IMF 2002.

with retailers who either legally or illegally are not VAT registered. The business that sells to that retailer becomes the point of final collection for VAT, and the retailer is effectively treated as the final consumer. If both parties can fully shift the VAT, the consumer then pays the VAT, as designed. For instance, in my examples, the milk processor sells milk to the exempt retailer, charging VAT which the processor then credits against VAT paid on inputs. This removes VAT from the processor's inputs, and the processor pays tax only on her value added. The retailer pays the VAT charged on inputs and increases the output price to compensate for the increase in costs.

In Kosovo this system is not functioning correctly. Retailers are refusing invoices that correctly reflect their purchases, ostensibly to avoid having to be registered for VAT (which would put them in the formal economy and provide an audit trail for other taxes.) When this happens, the processor only receives a partial credit for VAT paid on inputs because the invoiced amount is all that can be credited. The processor then pays VAT on inputs rather than on value added, and the retailer escapes taxes.

The exemptions and zero-ratings for agricultural producers and the lack of transparency throughout the system, has shifted the VAT from a tax on consumption to a tax on production, ironically the sector KCBS is working to develop. The reforms that farmers are seeking could rob them of their best competitive advantage — localized manufacturers.

#### Recommendations—

- 1. Using business association networks, concentrate resources on educating producers on VAT and other taxes, and recognizing how their efforts to evade the tax may be creating more problems than they are solving. The issue is less with VAT rates, and more with the implications of complying with VAT law and the effect that has on compliance with other taxes. Legitimate firms understand that taxes are a normal cost of doing business. The tax laws and rates in Kosovo are based on world "best practice" and compare favorably with taxes in the region (Table 1.) The culture in Kosovo, as within the rest of the Balkans, is one where resources are spent not just on avoiding taxes (i.e. structuring business activities so to legally reduce taxes) but on evading taxes (illegally reducing taxes.) Firms I spoke with described several games being played with invoice pricing on imports (whereby the exporting and importing firms collude to understate the value of imported goods and thereby reduce import duty and VAT) as well as invoicing schemes to evade VAT (already described) with apparently no sense of wrong-doing.
- 2. Discover how much tax is actually paid by the businesses which are complaining that taxes are making them uncompetitive. Firms who complain about taxes but who are paying relatively little tax may be using taxes as a scapegoat for their lack of economic viability. Taxes are visible and are easy targets, and it is much easier for a business to blame government policies for its own economic inefficiencies. To create sustainable economic growth in Kosovo, real productive activities, and not those that are dependent upon tax breaks and subsidies, must be discovered.
- 3. Lobby for effective governance and uniform administration of tax laws. When businesses are informed on tax matters and are complying with the law, it is in their best interest that ALL firms comply with tax law. The apparent politicization of the Tax Administration in Kosovo is very troubling, given that there appear to be many issues regarding the transparent and equitable administration of taxes. Businesses are rightly concerned that inadequacies in tax administration increase costs of doing business and create unfair advantages for those firms "favored" by tax administrators. These are legitimate and significant concerns of businesses in

Kosovo, but they will not be solved by changing tax rates, creating more tax exemptions, or creating various tax incentives. In fact, these things will exacerbate the problems by creating further disparities between taxpayers. In the long run, these measures create even further problems by reducing the tax base, and causing an even heavier tax burden on those compliant firms. The best way to reduce distortion and evasion is by simplifying the administration and eliminating existing preference not by further complicating the system with additional loopholes.

#### Explanation

When tax rates are high, evasion practices, like those discussed above, may be discouraged by lowering tax rates, making it relatively less costly for taxpayers to comply with the law. This works most effectively in countries with a functioning tax administration, a functioning court system, where basic rules of law apply, and where current tax rates are high based on world and regional standards. The issue in Kosovo is less with actual rates than with these other factors necessary for effective governance. For example, Table 1 shows the standard VAT, corporate income tax (CIT), and personal income tax (PIT) rates for other countries in the region. Kosovo's 15% VAT rate is the lowest, and is, in fact, set at the minimum rate allowed by the EU. Kosovo's corporate and personal income tax rates are well within the ranges of neighboring countries.

**Table 1:** Standard VAT rates in countries in the region

| Country    | VAT Rate | CIT Rate <sup>a</sup> | PIT Rate <sup>b</sup> |
|------------|----------|-----------------------|-----------------------|
| Albania    | 18%      | 25%                   | 25%                   |
| Bulgaria   | 20%      | 15%                   | 10% to 29%            |
| Croatia    | 22%      | 20%                   | 45%                   |
| Kosovo     | 15%      | 20%                   | 0% to 20%             |
| Montenegro | 17%      | 14%                   | 10%                   |
| Serbia     | 18%      | 14%                   | 10%                   |
| Slovenia   | 20%      | 25%                   | 17% to 50%            |

<sup>&</sup>lt;sup>a</sup> Corporate income tax rate

www.unmikonline.org Sources: and 2005 Index of Economic Freedom, www.heritage.org/research/features/index

According to TAK officials, two percent (2%) of the taxpayers in Kosovo currently account for eighty percent (80%) of tax revenues. Without further examination of the data, I cannot know what this means, but there are several explanations.4 On the one hand, it could indicate that most economic activity is taking place in a small number of [relatively] large firms and the tax base is adequately taxed. Or it could mean that formal economic activity is occurring in a handful of firms and only their economic activity is in the tax net, which may mean they are being disadvantaged by the tax system. This could imply a large number of firms in the "grey economy" that are reaping an unfair advantage from being outside the tax net. It might also indicate that firms complying with the law are being targeted by tax administration and other firms are being ignored. Each of these situations requires different remedies. The major point is BEWARE: Firms always complain about taxes, these complaints must be thoroughly investigated to determine their legitimacy.

<sup>&</sup>lt;sup>b</sup> Personal income tax rates, lowest to highest where available, otherwise highest marginal rate is given

<sup>&</sup>lt;sup>4</sup> My limited time in-country prevented me from gathering this information, but it would be a productive line of inquiry for evaluating the legitimacy of these complaints.

**Task 2--** Compare the price of domestically produced products with similar products from major importing countries.

#### Findings—

Table 2, presents the average retail price for selected locally produced and imported dairy products in Pristina. I confined my comparison to goods that are good substitutes for one another. I spent one afternoon visiting three VAT registered retail outlets in Pristina—Inter Ex, Viva and Ardi. Inter Ex and Viva are large retail outlets located in the suburbs. Ardi is located in downtown Pristina and is considerable smaller than the other two stores. As expected, Ardi's prices were slightly higher, but all prices at all three retail outlets were similar. Comparing prices at these outlets is important, because all three of these stores are paying ALL taxes (VAT, customs, and income); therefore if taxes were negatively affecting the competitiveness of dairy products produced in Kosovo, it should be evident in these retail establishments. As I show in Table 2, Kosovo dairy products are quite competitive, with the possible exception of UHT milk.

#### Recommendations—

Assuming comparable quality, Kosovo produced dairy products appear to be competitive with imports. If locally produced dairy products are not selling it must be due to factors other than price (and by extension tax policy.)

Table 2: A comparison of retail dairy prices in Pristina

| Country of Origin (Brand) | Product             | Price/kg <sup>a,b</sup><br>(Euros) | Average F | Price      |
|---------------------------|---------------------|------------------------------------|-----------|------------|
|                           |                     |                                    |           |            |
| Kosova (Abi)              | White cheese        | 2.80                               |           |            |
| Kosova (Rona)             | White cheese        | 2.82                               |           |            |
| Kosova (Kabi)             | White cheese        | 2.75                               |           |            |
| Kosova (Bylmeti)          | White cheese        | 2.79                               | Local     | 2.79       |
| Czech Republic            | White cheese        | 3.83                               |           |            |
| Bulgaria                  | White cheese        | 2.22                               |           |            |
| Turkey                    | White cheese        | 3.49                               | Import    | 3.18       |
|                           |                     |                                    |           |            |
| Kosova (Abi)              | Yogurt (3.2% fat)   | .79                                |           |            |
| Kosova (Kabi)             | Yogurt (3.2% fat)   | .66                                |           |            |
| Kosova (Bylmeti)          | Yogurt (3.2% fat)   | .72                                | Local     | .72        |
| Croatia (Dukat)           | Yogurt (3.2% fat)   | 1.00                               |           |            |
| Slovenia                  | Yogurt (3.2% fat)   | .88                                | Import    | .94        |
|                           |                     |                                    |           |            |
| Kosova (Bylmeti)          | Sour Cream          | 1.67                               | Local     | 1.67       |
| Slovenia                  | Sour Cream          | 2.11                               |           |            |
| BiH                       | Sour Cream          | 2.11                               | Import    | 2.11       |
|                           |                     |                                    |           |            |
| Kosova (Vita)             | UHT Milk (3.2% fat) | .59                                |           |            |
| Kosova (Sharri)           | UHT Milk (3.2% fat) | .55 to .75                         |           |            |
| Kosova (Alp Euro-Nex)     | UHT Milk (3.2% fat) | .66                                | Local     | .60 to .67 |
| BiH (Meggle)              | UHT Milk (3.2% fat) | .69                                |           |            |
| Hungary (Sole)            | UHT Milk (3.2% fat) | .55                                | Import    | .62        |
|                           |                     |                                    |           |            |
| Kosova (Rona)             | Cheese (Kashkaval)  | 4.5                                | Local     | 4.5        |
| Hungary                   | Cheese (Kashkaval)  | 4.3                                |           |            |
| Serbia                    | Cheese (Kashkaval)  | 4.45                               | Import    | 4.38       |

Task 3--Calculate the total impact of the VAT exemptions on the Kosovo budget.

#### Findings/Recommendations—

This task was deemed unnecessary given the recent changes in VAT and customs laws. Instead, I was tasked with discovering how the changes had been implemented by the sector and analyzing the effects of those changes on sector costs. Those results are presented in previous sections and in the Economic Results section.

<sup>&</sup>lt;sup>a</sup> price is average price across stores, unless the variation was wide, in which case the range is given

<sup>&</sup>lt;sup>b</sup> Milk prices are per liter

# **ECONOMIC RESULTS**

Using data obtained from the dairy industry on feed costs and raw milk production costs, I developed a case study showing how VAT affects input costs, output prices, and gross margins, under a variety of assumptions. Results of selected scenarios are shown in Table 3. The entire table is presented in Annex 1.

**Table 3:** An analysis of differing VAT rates, exemptions, and pricing assumptions on the gross margins, retail prices and VAT revenues at differing stages of production

| Scenario                     | 1     | 3     | 6     | 10    | 12    | 13    |
|------------------------------|-------|-------|-------|-------|-------|-------|
|                              |       |       |       |       |       |       |
| Farmer Gross Margin= 25%     |       |       |       |       |       |       |
| Value Added                  | 4.34  | 4.72  | 03    | 8.27  | 4.72  | 4.34  |
| VAT Remitted                 | 0     | .71   | 0     | 0     | 0     | 0     |
| Actual Gross Margin          | 25%   | 22%   | 0%    | 25%   | 25%   | 23%   |
| Effective VAT rate           | 0%    | 15%   | 0%    | 0%    | 0%    | 0%    |
|                              |       |       |       |       |       |       |
| Processor Gross Margin = 34% |       |       |       |       |       |       |
| Value Added                  | 8.83  | 9.57  | 3.57  | 10.77 | 9.04  | 4.33  |
| VAT Remitted                 | 0     | 1.44  | .54   | 5.69  | 4.67  | 3.9   |
| Actual Gross Margin          | 34%   | 30%   | 13%   | 33%   | 33%   | 16%   |
| Effective VAT rate           | 0%    | 15%   | 15%   | 53%   | 53%   | 90%   |
|                              |       |       |       |       |       |       |
| Retailer Gross Margin = 12%  |       |       |       |       |       |       |
| Value Added                  | 4.3   | 4.65  | 73    | 12.52 | 10.55 | 3.79  |
| VAT Remitted                 | 0%    | .7    | 0     | 0     | 0     | 0     |
| Actual Gross Margin          | 12%   | 10%   | -3%   | 12%   | 12%   | -3%   |
| Effective VAT rate           | 0%    | 15%   | 0%    | 0%    | 0%    | 0%    |
|                              |       |       |       |       |       |       |
| VAT Revenues                 | 0%    | 2.84  | .54   | 5.69  | 4.67  | 3.9   |
| Total Value added            | 17.47 | 18.94 | 2.81  | 31.58 | 24.31 | 12.46 |
| Average VAT rate             | 0%    | 15%   | 19%   | 18%   | 19%   | 31%   |
| Final consumer price         | 40.1  | 49.86 | 31.32 | 55.98 | 47.19 | 35.34 |

I begin the analysis in the middle of the production chain; therefore, total value added is not equal to the final consumer price. In each scenario, I make different assumptions about the structure of the VAT (e.g. exemptions, zero rating), customs rates, and the ability of producers and retailers to shift VAT and customs duty down the chain by increasing output prices. The ability to shift is a function of demand and supply elasticities and how broadbased the tax in question is. When a tax is broad-based the ability of firms to shift it forward increases, which is why a VAT is generally assumed to be shifted, an assumption, as already discussed, is bold for Kosovo. I will briefly describe the scenarios presented in Table 3 and discuss the salient results. In this analysis, the gross margin is the mark-up percentage for determining output prices, while actual gross margin is the gross margin net of VAT remitted to TAK.

In scenario 1, there is no VAT and no custom duty. Value added is 17.47, and the retail price of fresh milk is 40.1. Actual gross margin and gross margin are equal. Scenario 3 adds a VAT under "ideal" circumstances, i.e. there are no exempt supplies or exempt suppliers, one positive VAT rate of 15% (exports are zero-rated), one customs duty rate of 10%, and full

shifting all along the chain of both VAT and customs duty. This is the base case for comparing different VAT and customs assumptions. Note that value added has increased to 18.94, because of the addition of 10% customs duty and the VAT, both of which are fully shifted, so prices increase and hence value added. The final consumer price is 49.86, and the actual gross margin has decreased slightly, reflecting the tax on the value added at each stage of production. VAT revenues are 2.84, and the effective VAT rate at each stage of production is 15%, and the overall average VAT rate (calculated as VAT revenues as a percentage of total value added) is also 15%.

In scenario 6, the assumptions of scenario 3 still apply, but I show the effects when firms are unable to shift VAT and customs duty forward (basically assuming zero demand elasticities.) In this case, value added decreases because producers are "eating" both customs and VAT. Actual gross margins and VAT revenues both decline precipitously. The average VAT rate increases, reflecting the fact that the inability of firms to shift the VAT forward changes the VAT to a tax on inputs. This is an extreme case, and we would expect firms to fall somewhere between scenarios 3 and 6, with most of the VAT shifted forward.

Scenario 10 reflects more accurately the situation in Kosovo prior to the VAT and customs amendments of 2004: now farmers and retailers are both exempt from VAT. This means that while both must pay VAT on inputs purchased from VAT registered suppliers, they do not charge VAT on outputs and do not receive a credit for the VAT paid on inputs. Because the farmer is exempt and can shift the increased cost of inputs arising from that exemption (by assumption), the value added at the farmer level increases dramatically, from 4.27 to 8.27. When supplies are exempt, the VAT DOES increase costs, and thereby reduces profits (if the increased costs cannot be fully shifted forward.)

In scenario 10, I assume that there is full shifting of VAT and customs, so the farmer and retailers increase their output prices by the VAT paid on inputs. Note that in this situation, the processor is the only producer in the supply chain remitting VAT to TAK. The value added of the retailer is no longer in the VAT base, and the processor will remit VAT not only on her value added but also on the value of the farmer's inputs used by the processor. This is why the effective VAT rate for the processor is 53%. It is important to note that the actual gross margin of the processor actually increases in this situation from the base case, so the increased effective VAT rate does not mean that profits are falling. It just reflects the fact that in this situation the tax on value added is only being collected at one stage of production. The final consumer price also increases dramatically. The increase in price at the farmer stage and the retailer stage is reflected in the increased total value added. This is an artificial increase, however, arising from the exemption of the farmer and the retailer.

Scenarios 12 and 13 reflect the current VAT and customs situation in Kosovo: agriculture inputs are zero rated for VAT and customs and farmers and retailers are exempt from the VAT. In scenario 12, I assume full shifting of VAT and customs and in scenario 13 no shifting of either. Scenario 12 is much closer to the base case, scenario 3, because the zero-rating completely removes VAT from the farmer's inputs. It differs because the farmer is exempt, and so his value added is taxed at the processor level. Note that the price increases less than in scenario 3 because of the zero-rating of agricultural inputs. Finally, note that in scenario 13 the average VAT rate increases, again reflecting the fact that producers are eating the tax because it cannot be shifted.

# CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE ACTIVITY

The amendments made to the VAT and Customs laws of Kosovo in 2004 should have virtually eliminated VAT from agricultural inputs, even though most, if not all, farmers are exempt from VAT. This is illustrated in the case study presented in the previous section. While this study examines the dairy industry, the analysis is completely and easily generalized to other sectors.

No further changes are needed in VAT rates; however, it is not clear if input prices have fallen to reflect the decrease in taxes arising from the zero rating of many agricultural imports and supplies. If prices have not fallen, farmers will still feel the effect of the VAT, and the decline in rates has resulted in a shift of revenue from the budget to the suppliers of farmers. This is a function of market realities and not a function of the structure of the VAT.

Rather than use scarce resources to lobby the government to reduce VAT rates on agricultural *outputs*, those resources could be better spent educating taxpayers on the workings of the VAT and other taxes, explaining the importance of complying with the laws and discussing the costs involved with the various games being played to evade taxes, and using the influence of business associations to require a functioning court system and rule of law in Kosovo.

# **KOSOVO**

# **CLUSTER AND BUSINESS SUPPORT PROJECT**

# AN ANALYSIS OF THE VALUE ADDED TAX ON THE DAIRY INDUSTRY IN KOSOVO

# **Annexes**

Annex I Case Study Results

Annex II Case Study Worksheets

Annex III Contact List

# ANNEX I: Case Study Results

An analysis of differing VAT rates, exemptions, and pricing assumptions on the gross margins, retail prices and VAT revenues at differing stages of production

| Scenario             | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Farmer GM= 25%       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Value Added          | 4.34  | 4.34  | 4.72  | 2.80  | 1.29  | 03    | 4.72  | 1.64  | 2.8   | 8.27  | 4.72  | 4.72  | 4.34  |
| VAT Remitted         | 0     | .65   | .71   | .42   | .19   | 0     | .71   | .25   | .42   | 0     | 0     | 0     | 0     |
| Actual GM            | 25%   | 22%   | 22%   | 13%   | 6%    | 0%    | 22%   | 8%    | 13%   | 25%   | 9%    | 25%   | 23%   |
| Effective VAT rate   | 0%    | 15%   | 15%   | 15%   | 15%   | 0%    | 15%   | 15%   | 15%   | 0%    | 0%    | 0%    | 0%    |
|                      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Processor GM = 34%   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Value Added          | 8.83  | 8.83  | 9.57  | 8.58  | 6.08  | 3.57  | 9.57  | 4.14  | 8.58  | 10.77 | 4.65  | 9.04  | 4.33  |
| VAT Remitted         | 0     | 1.33  | 1.44  | 1.29  | .91   | .54   | 1.44  | .62   | 1.29  | 5.69  | 4.24  | 4.67  | 3.9   |
| Actual GM            | 34%   | 30%   | 30%   | 28%   | 21%   | 13%   | 30%   | 14%   | 28%   | 33%   | 16%   | 33%   | 16%   |
| Effective VAT rate   | 0%    | 15%   | 15%   | 15%   | 15%   | 15%   | 15%   | 15%   | 15%   | 53%   | 91%   | 53%   | 90%   |
|                      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Retailer GM = 12%    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Value Added          | 4.3   | 4.3   | 4.65  | 4.3   | 1.32  | 73    | 11.15 | 3.62  | 4.3   | 12.52 | 4.08  | 10.55 | 3.79  |
| VAT Remitted         | 0%    | .65   | .7    | .64   | .2    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Actual GM            | 12%   | 10%   | 10%   | 10%   | 4%    | -3%   | 12%   | -3%   | -3%   | 12%   | -3%   | 12%   | -3%   |
| Effective VAT rate   | 0%    | 15%   | 15%   | 15%   | 15%   | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| VAT Revenues         | 0%    | 2.62  | 2.84  | 2.35  | 1.3   | .54   | 2.14  | .87   | 1.71  | 5.69  | 4.24  | 4.67  | 3.9   |
| Total Value added    | 17.47 | 17.47 | 18.94 | 15.68 | 8.94  | 2.81  | 25.44 | 9.41  | 15.68 | 31.58 | 13.43 | 24.31 | 12.46 |
| Average VAT rate     | 0%    | 15%   | 15%   | 15%   | 15%   | 19%   | 8%    | 9%    | 11%   | 18%   | 32%   | 19%   | 31%   |
| Final consumer price | 40.1  | 46.2  | 49.86 | 46.11 | 38.07 | 31.32 | 49.86 | 33.83 | 40.1  | 55.98 | 37.85 | 47.19 | 35.34 |

GM = gross margin

Actual GM = (Gross Revenues – VAT remitted)/ Gross Cost (i.e. including VAT and customs), actual GM is cash in/ cash out.

#### **Scenarios:**

- 1—No Taxes (i.e. no VAT, no customs)
- 2—15% VAT, no customs duty, full shifting of VAT
- 3—15% VAT, 10% customs duty, full shifting of VAT and customs duty
- 4—15% VAT, 10% customs duty, full shifting of VAT, no shifting of customs duty
- 5—15% VAT, 10% customs duty, one-half shifting of VAT, no shifting of customs
- 6—15% VAT, 10% customs duty, no shifting of either VAT or customs duty
- 7—15% VAT, 10% customs duty, Retailers exempt, full shifting of both VAT and customs duty
- 8—15% VAT, 10% customs duty, Retailers exempt, no shifting of VAT, full shifting of customs duty
- 9—15% VAT, 10% customs duty, Retailers exempt, full shifting of VAT, no shifting of customs duty
- 10—15% VAT, 10% customs duty, Retailers exempt, Farmers exempt, full shifting of VAT and customs duty
- 11—15% VAT, 10% customs duty, Retailers exempt, Farmers exempt, no shifting of VAT, full shifting of customs
- 12—15% VAT, 10% customs duty, Retailer exempt, Farmer agri inputs zero rated, full shifting of VAT and customs duty
- 13—15% VAT, 10% customs duty, Retailer exempt, Farmer agri inputs zero rated, no shifting of VAT, full shifting of customs duty

# ANNEX II: Case study worksheets

See the attached Excel file.

NOTES ON WORKSHEETS:

#### NO EXEMPTIONS CASES

- 1. When there is **full shifting of both customs and VAT**, the relevant cost for calculating gross margin (GM) is "Cost, including customs." The price of the output is a function of the desired gross margin, which is in cell C2 (for farmer), C3 (for processor), and C4 (for retailer.)
- 2. When **VAT** is fully shifted and customs is not, the relevant cost for calculating GM is total input cost (which does not include customs.)

#### **EXEMPTIONS CASES**

- When a taxpayer or the supply of a certain good is exempt from VAT, and there is full shifting of both customs and VAT paid, the relevant cost for calculating GM is Cost Including VAT and Customs. The exempt supplier neither pays nor charges VAT; therefore, the VAT costs are included in input costs to calculate the output sales price (assuming full shifting.)
- 2. When there are exempt taxpayers or exempt goods and NO shifting of either VAT or customs, the total charged (ie sales price) will be the input costs written-up by the desired GM. This total charged is VAT inclusive; therefore, the VAT exclusive output price will be calculated by dividing the VAT inclusive price by (1 + t) where t is the VAT rate. If customs is shifted, the relevant input cost base is "cost including customs."

#### **ACTUAL GROSS MARGIN**

 Actual gross margin, as opposed to gross margin used for determining the price, is [roughly] defined as the amount of receipts kept by the supplier (after adjusting for the difference between VAT collected and VAT paid to TAK) divided by the amount spent on the inputs to produce the product. The Vat inclusive price charged/Vat inclusive cost will be equal to GM. The actual gross margin takes into account the amount of VAT.

|                 |                        |                  |                      |             | 1                   | NO VAT NO            | CUSTOMS DUTY            |                           |                           |                    |                |                       |
|-----------------|------------------------|------------------|----------------------|-------------|---------------------|----------------------|-------------------------|---------------------------|---------------------------|--------------------|----------------|-----------------------|
|                 | Farmer                 |                  |                      |             |                     | NO VAI, NO           | COSTOMIS DOTT           |                           |                           |                    |                |                       |
|                 | INPUT                  | IMPORT           | PRICE                | VAT<br>RATE | VAT<br>PAID         | Customs<br>(10%)     | COST Including VAT&DUTY | COST<br>Including<br>DUTY |                           | VAT PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed<br>other<br>other | YES<br>YES<br>NO | 9.36<br>6.00<br>2.00 | 0<br>0<br>0 | 0<br>0<br>0         | 0.00<br>0.00<br>0.00 | 9.36<br>6.00<br>2.00    | 9.36<br>6.00<br>2.00      |                           | 0                  | 4.34           | 0%                    |
| Gross<br>Margin | Total inp<br>OUTPUT    | EXPORT           | 17.36<br>PRICE       | VAT<br>RATE | 0<br>VAT<br>CHARGEE | 0.00                 | 17.36 PRICE CHARGED     | 17.36                     | Actual<br>Gross<br>Margin |                    |                |                       |
| 25%             | raw milk<br>VALUE      | NO<br>ADDED      | 21.70<br>4.34        | 0           | 0                   | 0.00                 | 21.70                   |                           | 25%                       |                    |                |                       |
|                 | Proce                  | essor            |                      |             |                     |                      |                         |                           |                           |                    |                |                       |
|                 | INPUT                  | IMPORT           | PRICE                | VAT<br>RATE | VAT<br>PAID         | Customs<br>(10%)     | COST Including VAT&DUTY | COST includin             | g DUTY                    | VAT PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk               | NO               | 21.70                | 0           | 0.00                | 0.00                 | 21.70                   | 21.70                     |                           | 0                  | 8.83           | 0%                    |
|                 | energy                 | NO               | 1.74                 | 0           | 0.00                | 0.00                 | 1.74                    | 1.74                      |                           |                    |                |                       |
|                 | packaging              | YES              | 2.53                 | 0           | 0.00                | 0.00                 | 2.53                    | 2.53                      |                           |                    |                |                       |
|                 | Total Inp              | uit value        | 25.97                |             | 0.00                | 0.00                 | 25.97                   | 25.97                     |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT                 | EXPORT           | PRICE                | VAT<br>RATE | VAT<br>CHARGED      |                      | PRICE<br>CHARGED        | 20.01                     | Actual<br>Gross<br>Margin | 1                  |                |                       |
| 34%             | fresh milk             | NO               | 34.80                | 0           | 0.00                | 0.00                 | 34.80                   |                           | 34%                       |                    |                |                       |
|                 | VALUE                  | ADDED            | 8.83                 |             |                     |                      |                         |                           |                           |                    |                |                       |
|                 | Retailer               |                  |                      |             |                     |                      |                         |                           |                           |                    |                |                       |
|                 | INPUT                  | IMPORT           | PRICE                | VAT<br>RATE | VAT<br>PAID         | Customs<br>(10%)     | COST Including VAT&DUTY | COST includin             | g DUTY                    | VAT PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk             | NO               | 34.80                | 0           | 0.00                | 0.00                 | 34.80                   | 34.80                     |                           | 0                  | 4.30           | 0%                    |
|                 | energy                 | NO               | 1.00                 | 0           | 0.00                | 0.00                 | 1.00                    | 1.00                      | <b>-</b>                  |                    | 47.47          |                       |
| -               | Total !                | ut value         | 25.00                |             | 0.00                | 0.00                 | 35.80                   | 25.00                     | Total                     | 0                  | 17.47          |                       |
| Cress           | Total Inp              | EXPORT           | 35.80<br>PRICE       | VAT         | VAT                 | 0.00                 | PRICE 35.80             | 35.80                     | Actual                    |                    |                |                       |
| Gross<br>Margin | OUTPUT                 | EXPORT           | PRICE                | RATE        | CHARGE              | )                    | CHARGED                 |                           | Gross<br>Margin           |                    |                |                       |
| 12%             | fresh milk             | NO               | 40.10                | 0           | 0.00                | 0.00                 | 40.10                   |                           | 12%                       |                    |                |                       |
|                 | VALUE                  | ADDED            | 4.30                 |             |                     |                      |                         |                           |                           |                    |                |                       |

Scenario 1-- No Taxes (i.e. no VAT, no customs)

| GROSS  | MARGIN VA  | LUES:    |         |       |         |             |                    |            |           |             |       |            |
|--------|------------|----------|---------|-------|---------|-------------|--------------------|------------|-----------|-------------|-------|------------|
|        | Farmer     | 0.25     |         |       |         |             |                    |            |           |             |       |            |
|        | Processor  | 0.34     |         |       |         |             |                    |            |           |             |       |            |
|        | Retailer   | 0.12     |         |       | ,       | VAT, NO EXE | MPTIONS,NO CUSTOM  | S, FULL SH | IFTING    |             |       |            |
|        | Farmer     |          |         |       |         |             |                    |            |           |             |       |            |
|        | INPUT      | IMPORT   | PRICE   | VAT   | VAT     | Customs     | COST Including     | COST ir    | ncluding  | VAT PAID TO | VALUE | EFFECTIVE  |
|        |            |          |         | RATE  | PAID    | (10%)       | VAT&DUTY           | DU         |           | TAK         | ADDED | VAT RATE   |
|        | Feed       | YES      | 9.36    | 0.15  | 1.40    | 0.00        | 10.76              | 9.36       |           | 0.65        | 4.34  | 15%        |
|        | other      | YES      | 6.00    | 0.15  | 0.90    | 0.00        | 6.90               | 6.00       |           | 0.00        | 7.07  | 1070       |
|        | other      | NO       | 2.00    | 0.15  | 0.30    | 0.00        | 2.30               | 2.00       |           |             |       |            |
|        | Total inp  |          | 17.36   | 0.13  | 2.60    | 0.00        | 19.96              | 17.36      |           |             |       |            |
| Gross  | OUTPUT     | EXPORT   | PRICE   | VAT   | VAT     | 0.00        | PRICE              | 17.50      | Actual    |             |       |            |
| Margin | OOTFOT     | EXPORT   | FRICE   | RATE  | CHARGED |             | CHARGED            |            | Gross M   | largin      |       |            |
| 25%    | raw milk   | NO       | 21.70   | 0.15  | 3.26    | 0.00        | 24.96              |            | 22%       |             |       |            |
|        | VALUE /    | ADDED    | 4.34    |       | 3.26    |             |                    |            |           |             |       |            |
|        | Proce      | essor    |         |       |         |             |                    |            |           |             |       |            |
|        | INPUT      | IMPORT   | PRICE   | VAT   | VAT     | Customs     | COST Including     | COST ir    | ncluding  | VAT PAID TO | VALUE | EFFECTIVE  |
|        |            |          |         | RATE  | PAID    | (10%)       | VAT&DUTY           | DU         |           | TAK         | ADDED | VAT RATE   |
|        |            |          |         |       |         | ,           |                    |            |           |             |       |            |
|        | raw milk   | NO       | 21.70   | 0.15  | 3.26    | 0.00        | 24.96              | 21.70      |           | 1.32        | 8.83  | 15%        |
|        | energy     | NO       | 1.74    | 0.15  | 0.26    | 0.00        | 2.00               | 1.74       |           |             |       |            |
|        | packaging  | YES      | 2.53    | 0.15  | 0.38    | 0.00        | 2.91               | 2.53       |           |             |       |            |
|        | Total Inp  | ut value | 25.97   |       | 3.90    | 0.00        | 29.87              | 25.97      |           |             |       |            |
| Gross  | OUTPUT     | EXPORT   | PRICE   | VAT   | VAT     |             | PRICE              |            | Actual    | 1           |       |            |
| Margin |            |          |         | RATE  | CHARGED |             | CHARGED            |            | Gross M   | largin      |       |            |
| 34%    | fresh milk | NO       | 34.80   | 0.15  | 5.22    | 0.00        | 40.02              |            | 30%       |             |       |            |
| 0470   | VALUE      |          | 8.83    | 0.10  | 5.22    | 0.00        | 10.02              |            | 0070      |             |       |            |
|        | Retailer   |          | 0.00    |       | 5122    |             |                    |            |           |             |       |            |
|        | INPUT      | IMPORT   | PRICE   | VAT   | VAT     | Customs     | COST               | COST       |           | VAT PAID TO | VALUE | EFFECTIVE  |
|        | 1141 01    |          | · INIOL | RATE  | PAID    | (10%)       | Including VAT&DUTY | including  |           | TAK         | ADDED | VAT RATE   |
|        |            |          |         | TOTTE | 1700    | (1070)      | morading vittabott | DUTY       |           | 1741        | NDDLD | V/(110/(12 |
|        | fresh milk | NO       | 34.80   | 0.15  | 5.22    | 0.00        | 40.02              | 34.80      |           | 0.64        | 4.30  | 15%        |
|        | energy     | NO       | 1.00    | 0.15  | 0.15    | 0.00        | 1.15               | 1.00       |           |             |       |            |
|        | Total Inp  |          | 35.80   |       | 5.37    | 0.00        | 41.17              | 35.80      | Total     | 2.62        | 17.47 | 15%        |
| Gross  | OUTPUT     | EXPORT   | PRICE   | VAT   | VAT     | 2.30        | PRICE              |            | Actual    |             |       | 10,0       |
| Margin | 3331       |          |         | RATE  | CHARGED |             | CHARGED            |            | Gross M   | largin      |       |            |
| 9      |            |          |         |       | 3,      |             | 3 ((OLD            |            | J. 003 IV | .w. g.,,    |       |            |
| 12%    | fresh milk | NO       | 40.10   | 0.15  | 6.01    | 0.00        | 46.11              |            | 10%       |             |       |            |
|        | 1          | ADDED    | 4.30    |       | 1       |             | +                  | +          | +         |             |       | +          |

Scenario 2-- 15% VAT, no customs duty, full shifting of VAT

|                 |            |            |              |              | Full shiftin   | g of VAT and     | d full shifting of Custor | ms            |                           |                    |                |                       |
|-----------------|------------|------------|--------------|--------------|----------------|------------------|---------------------------|---------------|---------------------------|--------------------|----------------|-----------------------|
|                 | Farmer     |            |              |              |                |                  | <u> </u>                  |               |                           |                    |                |                       |
|                 | INPUT      | IMPORT     | PRICE        | VAT<br>RATE  | VAT<br>PAID    | Customs<br>(10%) | COST (including VAT&Duty) | COST (ir      |                           | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE VAT<br>RATE |
|                 | Feed other | YES<br>YES | 9.36<br>6.00 | 0.15<br>0.15 | 1.54<br>0.99   | 0.94<br>0.60     | 11.84<br>7.59             | 10.30<br>6.60 |                           | 0.71               | 4.72           | 15%                   |
|                 | other      | NO         | 2.00         | 0.15         | 0.30           | 0.00             | 2.30                      | 2.00          |                           |                    |                |                       |
|                 | Total inp  |            | 17.36        | 0.15         | 2.83           | 1.54             | 21.73                     | 18.90         |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT     | PRICE        | VAT<br>RATE  | VAT<br>CHARGED |                  | TOTAL<br>CHARGED          | 10.00         | Actual<br>Gross<br>Margin |                    |                |                       |
| 25%             | raw milk   | NO         | 23.62        | 0.15         | 3.54           | 0.00             | 27.16                     |               | 22%                       |                    |                |                       |
|                 | VALUE      |            | 4.72         |              | 3.54           |                  |                           |               |                           |                    |                |                       |
|                 |            | essor      |              |              |                |                  |                           |               |                           |                    |                |                       |
|                 | INPUT      | IMPORT     | PRICE        | VAT<br>RATE  | VAT<br>PAID    | Customs<br>(10%) | COST (including VAT&Duty) | COST (ir      |                           | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE VAT<br>RATE |
|                 | raw milk   | NO         | 23.62        | 0.15         | 3.54           | 0.00             | 27.16                     | 23.62         |                           | 1.44               | 9.57           | 15%                   |
|                 | energy     | NO         | 1.74         | 0.15         | 0.26           | 0.00             | 2.00                      | 1.74          |                           |                    |                |                       |
|                 | packaging  | YES        | 2.53         | 0.15         | 0.42           | 0.25             | 3.20                      | 2.78          |                           |                    |                |                       |
|                 | TOT        |            | 27.89        | \            | 4.22           | 0.25             | 32.36                     | 28.14         |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT     | PRICE        | VAT<br>RATE  | VAT<br>CHARGED |                  | TOTAL<br>CHARGED          |               | Actual<br>Gross<br>Margin |                    |                |                       |
| 34%             | fresh milk | NO         | 37.71        | 0.15         | 5.66           | 0.00             | 43.37                     |               | 30%                       |                    |                |                       |
|                 | VALUE      | ADDED      | 9.57         |              | 5.66           |                  |                           |               |                           |                    |                |                       |
|                 | Retailer   |            |              |              |                |                  |                           |               |                           |                    |                |                       |
|                 | INPUT      | IMPORT     | PRICE        | VAT<br>RATE  | VAT<br>PAID    | Customs<br>(10%) | COST (including VAT&Duty) | COST (ir      |                           | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE VAT<br>RATE |
|                 | fresh milk | NO         | 37.71        | 0.15         | 5.66           | 0.00             | 43.37                     | 37.71         |                           | 0.70               | 4.65           | 15%                   |
|                 | energy     | NO         | 1.00         | 0.15         | 0.15           | 0.00             | 1.15                      | 1.00          |                           |                    |                |                       |
|                 |            |            |              |              |                |                  |                           |               |                           | 2.84               | 18.94          | 15%                   |
|                 | TOT        |            | 38.71        |              | 5.81           | 0.00             | 44.52                     | 38.71         |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT     | PRICE        | VAT<br>RATE  | VAT<br>CHARGED |                  | TOTAL<br>CHARGED          |               | Actual<br>Gross<br>Margin |                    |                |                       |
| 12%             | fresh milk | NO         | 43.36        | 0.15         | 6.50           | 0.00             | 49.86                     |               | 10%                       |                    |                |                       |
|                 | VALUE      | ADDED      | 4.65         |              | 6.50           |                  |                           |               |                           |                    |                |                       |
|                 |            | 1          | FI           | NAL COST     | TO CONSU       | MERS             | 49.86                     |               |                           |                    |                |                       |

Scenario 3--15% VAT, 10% customs duty, full shifting of VAT and customs duty

|                 |            |         |                                   |             | Full shifting o       | of VAT, no sh    | ifting of customs         |                  |                   |                        |                |                       |
|-----------------|------------|---------|-----------------------------------|-------------|-----------------------|------------------|---------------------------|------------------|-------------------|------------------------|----------------|-----------------------|
|                 | Farmer     |         |                                   |             |                       |                  |                           |                  |                   |                        |                |                       |
|                 | INPUT      | IMPORT  | PRICE                             | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | COST (i<br>Duty) | ncluding          | VAT<br>PAID<br>TO TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed       | YES     | 9.36                              | 0.15        | 1.54                  | 0.94             | 11.84                     | 10.30            |                   | 0.42                   | 2.80           | 15%                   |
|                 | other      | YES     | 6.00                              | 0.15        | 0.99                  | 0.60             | 7.59                      | 6.60             |                   |                        |                |                       |
|                 | other      | NO      | 2.00                              | 0.15        | 0.30                  | 0.00             | 2.30                      | 2.00             |                   |                        |                |                       |
|                 | Total inp  |         | 17.36                             |             | 2.83                  | 1.54             | 21.73                     | 18.90            |                   |                        |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT  | PRICE                             | VAT<br>RATE | VAT CHA               | RGED             | TOTAL CHAR                | RGED             | Actual<br>Gross I | Margin                 |                |                       |
| 25%             | raw milk   | NO      | 21.70                             | 0.15        | 3.26                  | 0.00             | 24.96                     |                  | 13%               |                        |                |                       |
|                 | VALUE      |         | 2.80                              |             | 3.26                  |                  |                           |                  |                   |                        |                |                       |
|                 | Proce      | essor   |                                   |             |                       |                  |                           |                  |                   |                        |                |                       |
|                 | INPUT      | IMPORT  | PRICE (excluding<br>VAT and duty) | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | Duty)            | ncluding          | VAT<br>PAID<br>TO TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk   | NO      | 21.70                             | 0.15        | 3.26                  | 0.00             | 24.96                     | 21.70            |                   | 1.29                   | 8.58           | 15%                   |
|                 | energy     | NO      | 1.74                              | 0.15        | 0.26                  | 0.00             | 2.00                      | 1.74             |                   |                        |                |                       |
|                 | packaging  | YES     | 2.53                              | 0.15        | 0.42                  | 0.25             | 3.20                      | 2.78             |                   |                        |                |                       |
|                 | TOT        | ALS     | 25.97                             |             | 3.93                  | 0.25             | 30.16                     | 26.22            |                   |                        |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT  | PRICE                             | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                  | Actual<br>Gross I | │<br><b>Margin</b>     |                |                       |
| 34%             | fresh milk | NO      | 34.80                             | 0.15        | 5.22                  | 0.00             | 40.02                     |                  | 28%               |                        |                |                       |
|                 | VALUE      | ADDED   | 8.58                              |             | 5.22                  |                  |                           |                  |                   |                        |                |                       |
|                 | Retailer   |         |                                   |             |                       |                  |                           |                  |                   |                        |                |                       |
|                 | INPUT      | IMPORT  | PRICE                             | VAT<br>RATE | VAT PAID ON<br>INPUTS | Customs<br>(10%) | COST (including VAT&Duty) | COST (i<br>Duty) | ncluding          | VAT<br>PAID<br>TO TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk | NO      | 34.80                             | 0.15        | 5.22                  | 0.00             | 40.02                     | 34.80            |                   | 0.64                   | 4.30           | 15%                   |
|                 | energy     | NO      | 1.00                              | 0.15        | 0.15                  | 0.00             | 1.15                      | 1.00             |                   |                        |                |                       |
|                 |            |         |                                   |             |                       |                  |                           |                  | Total             | 2.35                   | 15.68          | 15%                   |
|                 | TOT        |         | 35.80                             |             | 5.37                  | 0.00             | 41.17                     | 35.80            |                   |                        |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT  | PRICE                             | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                  |                   | Actual<br>Gross Margin |                |                       |
| 12%             | fresh milk | NO      | 40.10                             | 0.15        | 6.01                  | 0.00             | 46.11                     |                  | 10%               |                        |                |                       |
|                 | VALUE A    | ADDED   | 4.30                              |             | 6.01                  |                  |                           |                  |                   |                        |                |                       |
|                 |            | TF 100/ | 1 . C 11                          |             | L COST TO CON         | SUMERS           | 46.11                     |                  |                   |                        |                |                       |

Scenario 4—15% VAT, 10% customs duty, full shifting of VAT no shifting of customs

|                 |                   |             |                                |             | Half shifti   | ng of VAT, no    | shifting of customs       | <b>S</b>          |                           |                    |                |                       |
|-----------------|-------------------|-------------|--------------------------------|-------------|---------------|------------------|---------------------------|-------------------|---------------------------|--------------------|----------------|-----------------------|
|                 | Farmer            |             |                                |             |               |                  |                           |                   |                           |                    |                |                       |
|                 | INPUT             | IMPORT      | PRICE                          | VAT<br>RATE | VAT<br>PAID   | Customs<br>(10%) | COST (including VAT&Duty) | COST (i           |                           | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed              | YES         | 9.36                           | 0.15        | 1.54          | 0.94             | 11.84                     | 10.30             |                           | 0.19               | 1.29           | 15%                   |
|                 | other             | YES         | 6.00                           | 0.15        | 0.99          | 0.60             | 7.59                      | 6.60              |                           |                    |                |                       |
|                 | other             | NO          | 2.00                           | 0.15        | 0.30          | 0.00             | 2.30                      | 2.00              |                           |                    |                |                       |
|                 | Total inp         | ut value    | 17.36                          |             | 2.83          | 1.54             | 21.73                     | 18.90             |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT            | EXPORT      | PRICE                          | VAT<br>RATE | VAT<br>CHARGI | ĒD               | TOTAL<br>CHARGED          |                   | Actual<br>Gross N         | largin             |                |                       |
| 16%             | raw milk<br>VALUE | NO<br>ADDED | 20.18<br>1.29                  | 0.15        | 3.03          | 0.00             | 23.21                     |                   | 6%                        |                    |                |                       |
|                 | Proce             |             |                                |             |               |                  |                           |                   |                           |                    |                |                       |
|                 | INPUT             | IMPORT      | PRICE (excluding VAT and duty) | VAT<br>RATE | VAT<br>PAID   | Customs<br>(10%) | COST (including VAT&Duty) | COST (ir<br>Duty) | ncluding                  | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk          | NO          | 20.18                          | 0.15        | 3.03          | 0.00             | 23.21                     | 20.18             |                           | 0.91               | 6.08           | 15%                   |
|                 | energy            | NO          | 1.74                           | 0.15        | 0.26          | 0.00             | 2.00                      | 1.74              |                           |                    |                |                       |
|                 | packaging         | YES         | 2.53                           | 0.15        | 0.42          | 0.25             | 3.20                      | 2.78              |                           |                    |                |                       |
|                 | TOT               | ALS         | 24.45                          |             | 3.71          | 0.25             | 28.41                     | 24.70             |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT            | EXPORT      | PRICE                          | VAT<br>RATE | VAT<br>CHARGI | ≣D               | TOTAL CHAR                | GED               | ED Actual<br>Gross Margin |                    |                |                       |
| 26%             | fresh milk        | NO          | 30.79                          | 0.15        | 4.62          | 0.00             | 35.40                     |                   | 21%                       |                    |                |                       |
|                 | VALUE             | ADDED       | 6.08                           |             | 4.62          |                  |                           |                   |                           |                    |                |                       |
|                 | Retailer          |             |                                |             |               |                  |                           |                   |                           |                    |                |                       |
|                 | INPUT             | IMPORT      | PRICE                          | VAT<br>RATE | VAT<br>PAID   | Customs<br>(10%) | COST (including VAT&Duty) | COST (i           |                           | VAT PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk        | NO          | 30.79                          | 0.15        | 4.62          | 0.00             | 35.40                     | 30.79             |                           | 0.20               | 1.32           | 15%                   |
|                 | energy            | NO          | 1.00                           | 0.15        | 0.15          | 0.00             | 1.15                      | 1.00              |                           |                    |                |                       |
|                 |                   |             |                                |             |               |                  |                           |                   | Total                     | 1.30               | 8.69           | 15%                   |
|                 | TOT               |             | 31.79                          |             | 4.77          | 0.00             | 36.55                     | 31.79             |                           |                    |                |                       |
| Gross<br>Margin | OUTPUT            | EXPORT      | PRICE                          | VAT<br>RATE | VAT<br>CHARGI | ≣D               | TOTAL<br>CHARGED          |                   | Actual<br>Gross N         | largin             |                |                       |
| 4%              | fresh milk        | NO          | 33.11                          | 0.15        | 4.97          | 0.00             | 38.07                     |                   | 4%                        |                    |                |                       |
|                 | VALUE             | ADDED       | 1.32                           |             | 4.97          |                  |                           |                   |                           |                    |                |                       |
|                 |                   |             | FINAL CO                       | ST TO CO    | ONSUMER       | S                | 38.07                     |                   |                           |                    |                |                       |

Scenario 5-- 15% VAT, 10% customs duty, one-half shifting of VAT, no shifting of customs

|                 |          |                                |             | No shifting o      | of VAT, no shi   | fting of customs          |                   |                     |                       |                |                       |
|-----------------|----------|--------------------------------|-------------|--------------------|------------------|---------------------------|-------------------|---------------------|-----------------------|----------------|-----------------------|
| Farmer          |          |                                |             |                    |                  |                           |                   |                     |                       |                |                       |
| INPUT           | IMPORT   | PRICE                          | VAT<br>RATE | VAT PAID           | Customs<br>(10%) | COST (including VAT&Duty) | COST (ii<br>Du    |                     | VAT<br>PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
| Feed            | YES      | 9.36                           | 0.15        | 1.54               | 0.94             | 11.84                     | 10.30             |                     | 0.00                  | -0.03          | 0%                    |
| other           | YES      | 6.00                           | 0.15        | 0.99               | 0.60             | 7.59                      | 6.60              |                     |                       |                |                       |
| other           | NO       | 2.00                           | 0.15        | 0.30               | 0.00             | 2.30                      | 2.00              |                     |                       |                |                       |
| Total inp       | ut value | 17.36                          |             | 2.83               | 1.54             | 21.73                     | 18.90             |                     |                       |                |                       |
| OUTPUT          | EXPORT   | PRICE                          | VAT<br>RATE | VAT<br>CHARGED     |                  | TOTAL<br>CHARGED          | Actua<br>Gross    |                     | Margin                |                |                       |
| raw milk        | NO       | 18.87                          | 0.15        | 2.83               | 0.00             | 21.70                     |                   | 0%                  |                       |                |                       |
| VALUE /         | ADDED    | -0.03                          |             | 2.83               |                  |                           |                   |                     |                       |                |                       |
| Proce           | essor    |                                |             |                    |                  |                           |                   |                     |                       |                |                       |
| INPUT           | IMPORT   | PRICE (excluding VAT and duty) | VAT<br>RATE | VAT PAID           | Customs<br>(10%) | COST (including VAT&Duty) | COST (ii<br>Du    |                     | VAT<br>PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
| raw milk        | NO       | 18.87                          | 0.15        | 2.83               | 0.00             | 21.70                     | 18.87             |                     | 0.54                  | 3.57           | 15%                   |
| energy          | NO       | 1.74                           | 0.15        | 0.26               | 0.00             | 2.00                      | 1.74              |                     |                       |                |                       |
| packaging       | YES      | 2.53                           | 0.15        | 0.42               | 0.25             | 3.20                      | 2.78              |                     |                       |                |                       |
| TOT             |          | 23.14                          |             | 3.51               | 0.25             | 26.90                     | 23.39             |                     |                       |                |                       |
| OUTPUT          | EXPORT   | PRICE                          | VAT<br>RATE | VAT<br>CHARGED     |                  | TOTAL<br>CHARGED          |                   | Actual Gross Margin |                       |                |                       |
|                 |          |                                |             |                    |                  |                           |                   |                     |                       |                |                       |
| fresh milk      | NO       | 26.96                          | 0.15        | 4.04               | 0.00             | 31.01                     |                   | 13%                 |                       |                |                       |
| VALUE /         | ADDED    | 3.57                           |             | 4.04               |                  |                           |                   |                     |                       |                |                       |
| <u>Retailer</u> |          |                                |             |                    |                  |                           |                   |                     |                       |                |                       |
| INPUT           | IMPORT   | PRICE                          | VAT<br>RATE | VAT PAID ON INPUTS | Customs<br>(10%) | COST (including VAT&Duty) | COST (ir<br>Duty) | ncluding            | VAT<br>PAID<br>TO TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
| fresh milk      | NO       | 26.96                          | 0.15        | 4.04               | 0.00             | 31.01                     | 26.96             |                     | 0.00                  | -0.73          | 0%                    |
| energy          | NO       | 1.00                           | 0.15        | 0.15               | 0.00             | 1.15                      | 1.00              |                     |                       |                |                       |
|                 |          |                                |             |                    |                  |                           |                   |                     |                       |                |                       |
| TOT             |          | 27.96                          |             | 4.19               | 0.00             | 32.16                     | 27.96             | Total               | 0.54                  | 2.81           | 19%                   |
| OUTPUT          | EXPORT   | PRICE                          | VAT<br>RATE | VAT<br>CHARGED     |                  | TOTAL<br>CHARGED          |                   | Actual<br>Gross     | Margin                |                |                       |
| fresh milk      | NO       | 27.23                          | 0.15        | 4.08               | 0.00             | 31.32                     |                   | -3%                 |                       |                |                       |
| VALUE /         | ADDED    | -0.73                          |             | 4.08               |                  |                           |                   |                     |                       |                |                       |
|                 |          |                                | FINA        | L COST TO CON      | SUMERS           | 31.32                     |                   |                     |                       |                |                       |

Scenario 6--15% VAT, 10% customs duty, no shifting of either VAT or customs duty

|        | VAT, Exempt Retailer, full shifting of VAT and customs |  |  |  |  |  |  |  |  |  |  |  |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|
| Farmer |  |  |  |  |  |  |  |  |  |  |  |  |

|        | INPUT            | IMPORT | PRICE          | VAT         | VAT PAID     | Customs | INPUT COST              | INPUT C    | OST               | VAT             | VALUE | EFFECTIVE |
|--------|------------------|--------|----------------|-------------|--------------|---------|-------------------------|------------|-------------------|-----------------|-------|-----------|
|        |                  |        | (excluding VAT | RATE        |              | (10%)   | (including VAT&         | (including | Duty)             | PAID TO         | ADDED | VAT RATE  |
|        |                  |        | and duty)      |             |              |         | Duty)                   |            |                   | TAK             |       |           |
|        | Feed             | YES    | 9.36           | 0.15        | 1.54         | 0.94    | 11.84                   | 10.30      |                   | 0.71            | 4.72  | 15%       |
|        | other            | YES    | 6.00           | 0.15        | 0.99         | 0.60    | 7.59                    | 6.60       |                   |                 |       |           |
|        | other            | NO     | 2.00           | 0.15        | 0.30         | 0.00    | 2.30                    | 2.00       |                   |                 |       |           |
|        | Total inp        |        | 17.36          |             | 2.83         | 1.54    | 21.73                   | 18.90      |                   |                 |       |           |
| Gross  | OUTPUT           | EXPORT | PRICE          | VAT         | VAT          |         | TOTAL                   |            | Actual            |                 |       |           |
| Margin |                  |        |                | RATE        | CHARGED      |         | CHARGED                 |            | Gross N           | <i>l</i> largin |       |           |
| 25%    | raw milk         | NO     | 23.62          | 0.15        | 3.54         | 0.00    | 27.16                   |            | 22%               |                 |       |           |
|        | VALUE            | ADDED  | 4.72           |             | 3.54         |         |                         |            |                   |                 |       |           |
|        | Proce            | essor  |                |             |              |         |                         |            |                   |                 |       |           |
|        | INPUT            | IMPORT | PRICE          | VAT         | VAT PAID     | Customs | INPUT COST              | INPUT C    | OST               | VAT             | VALUE | EFFECTIVE |
|        |                  |        | (excluding VAT | RATE        |              | (10%)   | (including              | (including | Duty)             | PAID TO         | ADDED | VAT RATE  |
|        |                  |        | and duty)      |             |              |         | VAT&Duty)               |            | 1                 | TAK             |       |           |
|        |                  |        |                |             |              |         |                         |            |                   |                 |       |           |
|        | raw milk         | NO     | 23.62          | 0.15        | 3.54         | 0.00    | 27.16                   | 23.62      |                   | 1.44            | 9.57  | 15%       |
|        | energy           | NO     | 1.74           | 0.15        | 0.26         | 0.00    | 2.00                    | 1.74       |                   |                 |       |           |
|        | packaging        | YES    | 2.53           | 0.15        | 0.42         | 0.25    | 3.20                    | 2.78       |                   |                 |       |           |
|        | TOTALO           |        | 07.00          |             | 4.00         | 0.05    | 00.00                   | 00.44      |                   |                 |       |           |
| Cross  | TOTALS<br>OUTPUT | EXPORT | 27.89<br>PRICE | \/AT        | 4.22<br>VAT  | 0.25    | 32.36<br>TOTAL          | 28.14      | Astual            |                 |       |           |
| Gross  | OUTPUT           | EXPORT | PRICE          | VAT<br>RATE | CHARGED      |         | CHARGED                 |            | Actual<br>Gross N | lorain          |       |           |
| Margin | fresh milk       | NO     | 27.74          |             |              | 0.00    |                         |            |                   | nai giii        |       |           |
| 34%    | VALUE            |        | 37.71<br>9.57  | 0.15        | 5.66<br>5.66 | 0.00    | 43.37                   |            | 30%               |                 |       |           |
|        |                  | ADDED  | 9.57           |             | 5.00         |         |                         |            |                   |                 |       |           |
|        | Retailer         |        |                |             |              |         |                         |            |                   |                 |       |           |
|        | INPUT            | IMPORT | PRICE          | VAT         | VAT PAID     | Customs | INPUT COST              | INPUT C    |                   | VAT             | VALUE | EFFECTIVE |
|        |                  |        |                | RATE        | ON INPUTS    | (10%)   | (including<br>VAT&Duty) | (including | Duty)             | PAID TO<br>TAK  | ADDED | VAT RATE  |
|        | fresh milk       | NO     | 37.71          | 0.15        | 5.66         | 0.00    | 43.37                   | 37.71      |                   | 0.00            | 11.15 | 0%        |
|        | energy           | NO     | 1.00           | 0.15        | 0.15         | 0.00    | 1.15                    | 1.00       |                   | 0.00            |       | 0,0       |
|        | arrang)          |        |                | 0110        | 0110         |         |                         | 1100       |                   | 2.14            | 25.44 | 8%        |
|        | TOTALS           | 1      | 38.71          |             | 5.81         | 0.00    | 44.52                   | 38.71      |                   |                 |       |           |
| Gross  | OUTPUT           | EXPORT | PRICE          | VAT         | VAT          |         | TOTAL                   |            | Actual            |                 |       |           |
| Margin |                  |        |                | RATE        |              |         | CHARGED                 |            | Gross N           | /largin         |       |           |
| 29%    | fresh milk       | NO     | 49.86          | EXEMPT      | 0.00         |         | 49.86                   |            | 12%               |                 |       |           |
|        | VALUE            | ADDED  | 11.15          |             | 0.00         |         |                         |            |                   |                 |       |           |
|        |                  |        |                | FINAL       | COST TO CONS | SUMERS  | 49.86                   |            |                   |                 |       |           |

Scenario 7-- 15% VAT, 10% customs duty, Retailers exempt, full shifting of both VAT and customs duty

| Farmer    | 0.25 | VAT, Exempt Retailer, full shifting of customs, no VAT shifting |  |  |
|-----------|------|---|--|--|
| Processor | 0.34 |   |  |  |

|                 | Retailer   | 0.12     |                                      | ]           |                       |                  |                           |                    |              |                       |                |                       |
|-----------------|------------|----------|--------------------------------------|-------------|-----------------------|------------------|---------------------------|--------------------|--------------|-----------------------|----------------|-----------------------|
|                 | Farmer     |          |                                      |             |                       |                  |                           |                    |              |                       |                |                       |
|                 | INPUT      | IMPORT   | PRICE                                | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(including | g Duty)      | VAT PAID<br>TO TAK    | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed       | YES      | 9.36                                 | 0.15        | 1.54                  | 0.94             | 11.84                     | 10.30              |              | 0.25                  | 1.64           | 15%                   |
|                 | other      | YES      | 6.00                                 | 0.15        | 0.99                  | 0.60             | 7.59                      | 6.60               |              |                       |                |                       |
|                 | other      | NO       | 2.00                                 | 0.15        | 0.30                  | 0.00             | 2.30                      | 2.00               |              |                       |                |                       |
|                 | Total inp  | ut value | 17.36                                |             | 2.83                  | 1.54             | 21.73                     | 18.90              |              |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                                | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                    | Actual Gross | Margin                |                |                       |
| 9%              | raw milk   | NO       | 20.54                                | 0.15        | 3.08                  | 0.00             | 23.62                     |                    | 8%           |                       |                |                       |
| -               | VALUE /    | ADDED    | 1.64                                 |             | 3.08                  |                  |                           |                    |              |                       |                |                       |
|                 | Processor  |          |                                      |             |                       |                  |                           |                    |              |                       |                |                       |
|                 | INPUT      | IMPORT   | PRICE<br>(excluding VAT<br>and duty) | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(including | g Duty)      | VAT PAID<br>TO TAK    | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk   | NO       | 20.54                                | 0.15        | 3.08                  | 0.00             | 23.62                     | 20.54              |              | 0.62                  | 4.14           | 15%                   |
|                 | energy     | NO       | 1.74                                 | 0.15        | 0.26                  | 0.00             | 2.00                      | 1.74               |              |                       |                |                       |
|                 | packaging  | YES      | 2.53                                 | 0.15        | 0.42                  | 0.25             | 3.20                      | 2.78               |              |                       |                |                       |
|                 | TOTALS     |          | 24.81                                |             | 3.76                  | 0.25             | 28.82                     | 25.06              |              |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                                | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                    | Actual Gross | Margin                |                |                       |
| 17%             | fresh milk | NO       | 29.20                                | 0.15        | 4.38                  | 0.00             | 33.58                     |                    | 14%          |                       |                |                       |
|                 | VALUE /    | ADDED    | 4.14                                 |             | 4.38                  |                  |                           |                    |              |                       |                |                       |
|                 | Retailer   |          |                                      |             |                       |                  |                           |                    |              |                       |                |                       |
|                 | INPUT      | IMPORT   | PRICE                                | VAT<br>RATE | VAT PAID<br>ON INPUTS | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(including | g Duty)      | VAT PAID<br>On INPUTS | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk | NO       | 29.20                                | 0.15        | 4.38                  | 0.00             | 33.58                     | 29.20              |              | 0.00                  | 3.62           | 0%                    |
|                 | energy     | NO       | 1.00                                 | 0.15        | 0.15                  | 0.00             | 1.15                      | 1.00               |              |                       |                |                       |
|                 |            |          |                                      |             |                       |                  |                           |                    |              | 0.87                  | 9.41           | 9%                    |
|                 | TOTALS     |          | 30.20                                |             | 4.53                  | 0.00             | 34.73                     | 30.20              |              |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                                | VAT<br>RATE | VAT                   | Customs<br>(10%) | TOTAL<br>CHARGED          |                    | Actual Gross | Margin                |                |                       |
| 12%             | fresh milk | NO       | 33.83                                | EXEMPT      | 0.00                  | 0.00             | 33.83                     |                    | -3%          |                       |                |                       |
|                 | VALUE /    | ADDED    | 3.62                                 |             | 0.00                  |                  |                           |                    |              |                       |                |                       |
|                 |            |          |                                      | FINAL       | COST TO CONS          | SUMERS           | 33.83                     |                    |              |                       |                |                       |

Scenario 8--15% VAT, 10% customs duty, Retailers exempt, no shifting of VAT, full shifting of customs duty

| L |        |  | VAT, Exempt | Retailer, no s |  |  |  |
|---|--------|--|-------------|----------------|--|--|--|
|   | Farmer |  |             |                |  |  |  |

|                 | INPUT      | IMPORT | PRICE (excluding VAT and duty) | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | INPUT COST<br>(including<br>VAT&Duty) | INPUT Co<br>(including |                   | VAT<br>PAID<br>TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|-----------------|------------|--------|--------------------------------|-------------|-----------------------|------------------|---------------------------------------|------------------------|-------------------|--------------------------|----------------|-----------------------|
|                 | Feed       | YES    | 9.36                           | 0.15        | 1.54                  | 0.94             | 11.84                                 | 10.30                  |                   | 0.42                     | 2.80           | 15%                   |
|                 | other      | YES    | 6.00                           | 0.15        | 0.99                  | 0.60             | 7.59                                  | 6.60                   |                   |                          |                |                       |
|                 | other      | NO     | 2.00                           | 0.15        | 0.30                  | 0.00             | 2.30                                  | 2.00                   |                   |                          |                |                       |
|                 | Total inpu |        | 17.36                          |             | 2.83                  | 1.54             | 21.73                                 | 18.90                  |                   |                          |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                          | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED                      |                        | Actual<br>Gross M | argin                    |                |                       |
| 25%             | raw milk   | NO     | 21.70                          | 0.15        | 3.26                  | 0.00             | 24.96                                 |                        | 13%               |                          |                |                       |
|                 | VALUE A    | DDED   | 2.80                           |             | 3.26                  |                  |                                       |                        |                   |                          |                |                       |
|                 | Processor  |        |                                |             |                       |                  |                                       |                        |                   |                          |                |                       |
|                 | INPUT      | IMPORT | PRICE (excluding VAT and duty) | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | INPUT COST<br>(including<br>VAT&Duty) | INPUT<br>(includir     |                   | VAT<br>PAID<br>TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk   | NO     | 21.70                          | 0.15        | 3.26                  | 0.00             | 24.96                                 | 21.70                  |                   | 1.29                     | 8.58           | 15%                   |
|                 | energy     | NO     | 1.74                           | 0.15        | 0.26                  | 0.00             | 2.00                                  | 1.74                   |                   |                          |                |                       |
|                 | packaging  | YES    | 2.53                           | 0.15        | 0.42                  | 0.25             | 3.20                                  | 2.78                   |                   |                          |                |                       |
|                 | TOTALS     |        | 25.97                          |             | 3.93                  | 0.25             | 30.16                                 | 26.22                  |                   |                          |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                          | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED                      |                        | Actual<br>Gross M | argin                    |                |                       |
| 34%             | fresh milk | NO     | 34.80                          | 0.15        | 5.22                  | 0.00             | 40.02                                 |                        | 28%               |                          |                |                       |
|                 | VALUE A    | DDED   | 8.58                           |             | 5.22                  |                  |                                       |                        |                   |                          |                |                       |
|                 | Retailer   |        |                                |             |                       |                  |                                       |                        |                   |                          |                |                       |
|                 | INPUT      | IMPORT | PRICE                          | VAT<br>RATE | VAT PAID<br>ON INPUTS | Customs<br>(10%) | INPUT COST<br>(including<br>VAT&Duty) | INPUT Co<br>(including |                   | VAT<br>PAID<br>TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Fresh milk | NO     | 34.80                          | 0.15        | 5.22                  | 0.00             | 40.02                                 | 34.80                  |                   | 0.00                     | 4.30           | 0%                    |
|                 | energy     | NO     | 1.00                           | 0.15        | 0.15                  | 0.00             | 1.15                                  | 1.00                   |                   |                          |                |                       |
|                 | TOTALS     |        | 35.80                          |             | 5.37                  | 0.00             | 41.17                                 | 35.80                  | Total             | 1.71                     | 15.68          | 11%                   |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                          | VAT<br>RATE | VAT                   |                  | TOTAL<br>CHARGED                      |                        | Actual<br>Gross M | argin                    |                |                       |
| 12%             | Fresh milk | NO     | 40.10                          | EXEMPT      | 0.00                  |                  | 40.10                                 |                        | -3%               |                          |                |                       |
|                 | VALUE A    | DDED   | 4.30                           |             | 0.00                  |                  |                                       |                        |                   |                          |                |                       |
|                 |            |        |                                | FINAL       | COST TO CONS          | SUMERS           | 40.10                                 |                        |                   |                          |                |                       |

Scenario 9--15% VAT, 10% customs duty, Retailers exempt, full shifting of VAT, no shifting of customs duty

|        |  | VAT, Exempt Retailer, Exempt farmer, full shifting of customs and VAT |  |  |  |  |  |  |  |  |  |  |
|--------|--|---|--|--|--|--|--|--|--|--|--|--|
| Farmer |  |   |  |  |  |  |  |  |  |  |  |  |

|                 | INPUT      | IMPORT   | PRICE                    | VAT         | VAT PAID              | Customs          | COST (including           | COST              |                           | VAT                   | VALUE          | EFFECTIVE             |
|-----------------|------------|----------|--------------------------|-------------|-----------------------|------------------|---------------------------|-------------------|---------------------------|-----------------------|----------------|-----------------------|
|                 |            |          |                          | RATE        |                       | (10%)            | VAT&Duty)                 | (includin         | g Duty)                   | PAID TO<br>TAK        | ADDED          | VAT RATE              |
|                 | Feed       | YES      | 9.36                     | 0.15        | 1.54                  | 0.94             | 11.84                     | 10.30             |                           | 0.00                  | 8.27           | 0%                    |
|                 | other      | YES      | 6.00                     | 0.15        | 0.99                  | 0.60             | 7.59                      | 6.60              |                           |                       |                |                       |
|                 | other      | NO       | 2.00                     | 0.15        | 0.30                  | 0.00             | 2.30                      | 2.00              |                           |                       |                |                       |
|                 | Total inp  | ut value | 17.36                    |             | 2.83                  | 1.54             | 21.73                     | 18.90             |                           |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                    | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                   | Actual<br>Gross<br>Margin |                       |                |                       |
| 25%             | Raw milk   | NO       | 27.16                    | EXEMPT      | 0.00                  | 0.00             | 27.16                     |                   | 25%                       |                       |                |                       |
|                 | VALUE      | ADDED    | 8.27                     |             | 0.00                  |                  |                           |                   |                           |                       |                |                       |
|                 | Proce      | essor    |                          |             |                       |                  |                           |                   |                           |                       |                |                       |
|                 | INPUT      | IMPORT   | PRICE                    | VAT         | VAT PAID To           | Customs          | COST (including           | COST              |                           | VAT                   | VALUE          | EFFECTIVE             |
|                 |            |          | (excluding VAT and duty) | RATE        | Supplier              | (10%)            | VAT&Duty)                 | (includin         | g Duty)                   | PAID TO<br>TAK        | ADDED          | VAT RATE              |
|                 | raw milk   | NO       | 27.16                    | EXEMPT      | 0.00                  | 0.00             | 27.16                     | 27.16             |                           | 5.69                  | 10.77          | 53%                   |
|                 | energy     | NO       | 1.74                     | 0.15        | 0.26                  | 0.00             | 2.00                      | 1.74              |                           |                       |                |                       |
|                 | packaging  | YES      | 2.53                     | 0.15        | 0.42                  | 0.25             | 3.20                      | 2.78              |                           |                       |                |                       |
|                 | TOT        | ALS      | 31.43                    |             | 0.68                  | 0.25             | 32.36                     | 31.69             |                           |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                    | VAT<br>RATE | VAT CHA               | RGED             | TOTAL CHAR                | GED               | Ac                        | tual Gross I          | Margin         |                       |
| 34%             | fresh milk | NO       | 42.46                    | 0.15        | 6.37                  | 0.00             | 48.83                     |                   | 33%                       |                       |                |                       |
|                 | VALUE      | ADDED    | 10.77                    |             | 6.37                  |                  |                           |                   |                           |                       |                |                       |
|                 | Retailer   |          |                          |             |                       |                  |                           |                   |                           |                       |                |                       |
|                 | INPUT      | IMPORT   | PRICE                    | VAT<br>RATE | VAT PAID ON<br>INPUTS | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)                   | VAT<br>PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk | NO       | 42.46                    | 0.15        | 6.37                  | 0.00             | 48.83                     | 42.46             |                           | 0.00                  | 12.52          | 0%                    |
|                 | energy     | NO       | 1.00                     | 0.15        | 0.15                  | 0.00             | 1.15                      | 1.00              |                           |                       |                |                       |
|                 | TOT        |          | 43.46                    |             | 6.52                  | 0.00             | 49.98                     | 43.46             | Total                     | 5.69                  | 31.56          | 18%                   |
| Gross<br>Margin | OUTPUT     | EXPORT   | PRICE                    | VAT<br>RATE | VAT<br>CHARGED        | Customs<br>(10%) | TOTAL<br>CHARGED          |                   | Actual<br>Gross<br>Margin |                       |                |                       |
| 12%             | fresh milk | NO       | 55.98                    | EXEMPT      | 0.00                  | 0.00             | 55.98                     |                   | 12%                       |                       |                |                       |
|                 | VALUE      | ADDED    | 12.52                    |             | 0.00                  |                  |                           |                   |                           |                       |                |                       |
|                 |            |          |                          | FINAL       | COST TO CONS          | UMERS            | 55.98                     |                   |                           |                       |                |                       |

Scenario 10--15% VAT, 10% customs duty, Retailers exempt, Farmers exempt, full shifting of VAT and customs duty

| VAT, Exempt Retailer, Exempt farmer, full shifting of customs and no shifting of VAT |  |
|--|--|

| 1               | F          | F      |   | T .         | <u> </u>                | TE'              | <u>F</u>                        |                                 |       |                          | F              |                       |
|-----------------|------------|--------|---|-------------|-------------------------|------------------|---------------------------------|---------------------------------|-------|--------------------------|----------------|-----------------------|
|                 | Farmer     |        |   |             |                         |                  |                                 |                                 |       |                          |                |                       |
|                 | INPUT      | IMPORT | PRICE                                   | VAT<br>RATE | VAT PAID                | Customs<br>(10%) | COST<br>(including<br>VAT&Duty) | COST<br>(includid<br>(includid) | ng    | VAT<br>PAID<br>TO TAK    | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed       | YES    | 9.36                                    | 0.15        | 1.54                    | 0.94             | 11.84                           | 10.30                           |       | 0.00                     | 4.72           | 0%                    |
|                 | other      | YES    | 6.00                                    | 0.15        | 0.99                    | 0.60             | 7.59                            | 6.60                            |       |                          |                |                       |
|                 | other      | NO     | 2.00                                    | 0.15        | 0.30                    | 0.00             | 2.30                            | 2.00                            |       |                          |                |                       |
|                 | Total inp  |        | 17.36                                   |             | 2.83                    | 1.54             | 21.73                           | 18.90                           |       |                          |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                                   | VAT<br>RATE | VAT<br>CHARGED          |                  | TOTAL<br>CHARGED                |                                 | Actua | al<br>s Margin           |                |                       |
| 25%             | raw milk   | NO     | 23.62                                   | EXEMPT      | 0.00                    | 0.00             | 23.62                           |                                 | 9%    |                          |                |                       |
|                 | VALUE /    | ADDED  | 4.72                                    |             | 0.00                    |                  |                                 |                                 |       |                          |                |                       |
|                 | Proce      | essor  |   |             |                         |                  |                                 |                                 |       |                          |                | -                     |
|                 | INPUT      | IMPORT | PRICE<br>(excluding<br>VAT and<br>duty) | VAT<br>RATE | VAT PAID<br>To Supplier | Customs<br>(10%) | COST<br>(including<br>VAT&Duty) | COST<br>(including<br>Duty)     | ng    | VAT<br>PAID<br>TO TAK    | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk   | NO     | 23.62                                   | EXEMPT      | 0.00                    | 0.00             | 23.62                           | 23.62                           |       | 4.24                     | 4.65           | 91%                   |
|                 | energy     | NO     | 1.74                                    | 0.15        | 0.26                    | 0.00             | 2.00                            | 1.74                            |       |                          |                | 0.70                  |
|                 | packaging  | YES    | 2.53                                    | 0.15        | 0.42                    | 0.25             | 3.20                            | 2.78                            |       |                          |                |                       |
|                 | TOTALS     |        | 27.89                                   |             | 0.68                    | 0.25             | 28.82                           | 28.14                           |       |                          |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                                   | VAT<br>RATE | VAT<br>CHARGED          |                  | TOTAL<br>CHARGED                |                                 | Actua | al<br>s Margin           |                |                       |
| 17%             | fresh milk | NO     | 32.79                                   | 0.15        | 4.92                    | 0.00             | 37.71                           |                                 | 16%   |                          |                |                       |
|                 | VALUE /    | ADDED  | 4.65                                    |             | 4.92                    |                  |                                 |                                 |       |                          |                |                       |
|                 | Retailer   |        |   |             |                         |                  |                                 |                                 |       |                          |                |                       |
|                 | INPUT      | IMPORT | PRICE                                   | VAT<br>RATE | VAT PAID<br>ON INPUTS   | Customs<br>(10%) | COST<br>(including<br>VAT&Duty) | COST<br>(including<br>Duty)     | ng    | VAT<br>PAID<br>TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk | NO     | 32.79                                   | 0.15        | 4.92                    | 0.00             | 37.71                           | 32.79                           |       | 0.00                     | 4.06           | 0%                    |
|                 | energy     | NO     | 1.00                                    | 0.15        | 0.15                    | 0.00             | 1.15                            | 1.00                            |       |                          |                |                       |
|                 | TOTALS     | -      | 33.79                                   |             | 5.07                    | 0.00             | 38.86                           | 33.79                           | Total | 4.24                     | 13.43          | 32%                   |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                                   | VAT<br>RATE | VAT<br>CHARGED          | Customs (10%)    | TOTAL CHA                       |                                 | Actua |                          |                |                       |
| -3%             | fresh milk | NO     | 37.85                                   | EXEMPT      | 0.00                    | 0.00             | 37.85                           |                                 | -3%   | - J                      |                |                       |
|                 | VALUE      |        | 4.06                                    |             | 0.00                    |                  |                                 |                                 |       |                          |                |                       |
|                 |            |        |   | FINAL C     | OST TO CONS             | SUMERS           | 37.85                           |                                 |       |                          |                |                       |

Scenario 11--15% VAT, 10% customs duty, Retailers exempt, Farmers exempt, no shifting of VAT, full shifting of customs

| Exempt Retailer, Farmer agri inputs zero rated full shifting of VAT and customs |  |
|---|--|

|                 | Farmer     |        |                                    |             |                       |                  |                           |                   |                 |                       |                |                       |
|-----------------|------------|--------|------------------------------------|-------------|-----------------------|------------------|---------------------------|-------------------|-----------------|-----------------------|----------------|-----------------------|
|                 | INPUT      | IMPORT | PRICE                              | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)         | VAT<br>PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | Feed       | YES    | 9.36                               | 0.00        | 0.00                  | 0.00             | 9.36                      | 9.36              |                 | 0.00                  | 4.72           | 0%                    |
|                 | other      | YES    | 6.00                               | 0.00        | 0.00                  | 0.00             | 6.00                      | 6.00              |                 |                       |                |                       |
|                 | other      | NO     | 2.00                               | 0.15        | 0.30                  | 0.00             | 2.30                      | 2.00              |                 |                       |                |                       |
|                 | Total inp  |        | 17.36                              |             | 0.30                  | 0.00             | 17.66                     | 17.36             |                 |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                              | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                   | Actual<br>Gross | Margin                |                |                       |
| 25%             | raw milk   | NO     | 22.08                              | EXEMPT      | 0.00                  | 0.00             | 22.08                     |                   | 25%             |                       |                |                       |
|                 | VALUE /    | ADDED  | 4.72                               |             | 0.00                  |                  |                           |                   |                 |                       |                |                       |
|                 | Proce      | essor_ |                                    |             |                       |                  |                           |                   |                 |                       |                |                       |
|                 | INPUT      | IMPORT | PRICE<br>(excluding VAT<br>& duty) | VAT<br>RATE | VAT PAID              | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)         | VAT<br>PAID TO<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk   | NO     | 22.08                              | EXEMPT      | 0.00                  | 0.00             | 22.08                     | 22.08             |                 | 4.67                  | 9.04           | 52%                   |
|                 | energy     | NO     | 1.74                               | 0.15        | 0.26                  | 0.00             | 2.00                      | 1.74              |                 |                       |                |                       |
|                 | packaging  | YES    | 2.53                               | 0.15        | 0.42                  | 0.25             | 3.20                      | 2.78              |                 |                       |                |                       |
|                 | TOTALS     |        | 26.35                              |             | 0.68                  | 0.25             | 27.28                     | 26.60             |                 |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                              | VAT<br>RATE | VAT<br>CHARGED        |                  | TOTAL<br>CHARGED          |                   | Actual<br>Gross | Margin                |                |                       |
| 34%             | fresh milk | NO     | 35.64                              | 0.15        | 5.35                  | 0.00             | 40.99                     |                   | 33%             |                       |                |                       |
|                 | VALUE /    | ADDED  | 9.04                               |             | 5.35                  |                  |                           |                   |                 |                       |                |                       |
|                 | Retailer   |        |                                    |             |                       |                  |                           |                   |                 |                       |                |                       |
|                 | INPUT      | IMPORT | PRICE<br>(excluding VAT<br>& duty) | VAT<br>RATE | VAT PAID ON<br>INPUTS | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)         | VAT<br>PAID to<br>TAK | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk | NO     | 35.64                              | 0.15        | 5.35                  | 0.00             | 40.99                     | 35.64             |                 | 0.00                  | 10.55          | 0%                    |
|                 | energy     | NO     | 1.00                               | 0.15        | 0.15                  | 0.00             | 1.15                      | 1.00              |                 |                       |                |                       |
|                 |            |        |                                    |             |                       |                  |                           |                   |                 | 4.67                  | 24.31          | 19%                   |
|                 | TOTALS     |        | 36.64                              |             | 5.50                  | 0.00             | 42.14                     | 36.64             |                 |                       |                |                       |
| Gross<br>Margin | OUTPUT     | EXPORT | PRICE                              | VAT<br>RATE | VAT<br>CHARGED        | Customs<br>(10%) | TOTAL<br>CHARGED          |                   | Actual<br>Gross | Margin                |                |                       |
| 12%             | fresh milk | NO     | 47.19                              | EXEMPT      | 0.00                  | 0.00             | 47.19                     |                   | 12%             | -                     |                |                       |
|                 | VALUE /    | ADDED  | 10.55                              |             | 0.00                  |                  |                           |                   |                 |                       |                |                       |
|                 |            |        |                                    | FINAL       | COST TO CONS          | UMERS            | 47.19                     |                   |                 |                       |                |                       |

Scenario 12--15% VAT, 10% customs duty, Retailer exempt, Farmer agri inputs zero rated, full shifting of VAT and customs duty

| VAT, Exempt Retailer,Farmer agri inputs zero rated no shifting of VAT, full shifting of customs |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Farmer  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|                 | INPUT       | IMPORT   | PRICE                              | VAT<br>RATE             | VAT PAID                     | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)                | VAT<br>PAID TO<br>TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|-----------------|-------------|----------|------------------------------------|-------------------------|------------------------------|------------------|---------------------------|-------------------|------------------------|------------------------|----------------|-----------------------|
|                 | Feed        | YES      | 9.36                               | 0.00                    | 0.00                         | 0.00             | 9.36                      | 9.36              |                        | 0.00                   | 4.34           | 0%                    |
|                 | other       | YES      | 6.00                               | 0.00                    | 0.00                         | 0.00             | 6.00                      | 6.00              |                        |                        |                |                       |
|                 | other       | NO       | 2.00                               | 0.15                    | 0.30                         | 0.00             | 2.30                      | 2.00              |                        |                        |                |                       |
|                 | Total inp   | ut value | 17.36                              |                         | 0.30                         | 0.00             | 17.66                     | 17.36             |                        |                        |                |                       |
| Gross<br>Margin | OUTPUT      | EXPORT   | PRICE                              | VAT<br>RATE             | VAT<br>CHARGED               |                  |                           |                   | Actual<br>Gross I      | Actual<br>Gross Margin |                |                       |
| 25%             | raw milk    | NO       | 21.70                              | EXEMPT                  | 0.00                         | 0.00             | 21.70                     |                   | 23%                    |                        |                |                       |
|                 | VALUE       | ADDED    | 4.34                               |                         | 0.00                         |                  |                           |                   |                        |                        |                |                       |
|                 | Processor   |          |                                    |                         |                              |                  |                           |                   |                        |                        |                |                       |
|                 | INPUT       | IMPORT   | PRICE<br>(excluding VAT<br>& duty) | VAT<br>RATE             | VAT PAID                     | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)                | VAT<br>PAID TO<br>TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | raw milk    | NO       | 21.70                              | EXEMPT                  | 0.00                         | 0.00             | 21.70                     | 21.70             |                        | 3.90                   | 4.33           | 90%                   |
|                 | energy      | NO       | 1.74                               | 0.15                    | 0.26                         | 0.00             | 2.00                      | 1.74              |                        |                        |                |                       |
|                 | packaging   | YES      | 2.53                               | 0.15                    | 0.42                         | 0.25             | 3.20                      | 2.78              |                        |                        |                |                       |
|                 | TOTALS      |          | 25.97                              |                         | 0.68                         | 0.25             | 26.90                     | 26.22             |                        |                        |                |                       |
| Gross<br>Margin | OUTPUT      | EXPORT   | PRICE                              | VAT<br>RATE             | VAT<br>CHARGED               |                  | _                         |                   | Actual<br>Gross I      | Actual<br>Gross Margin |                |                       |
| 17%             | fresh milk  | NO       | 30.56                              | 0.15                    | 4.58                         | 0.00             | 35.14                     |                   | 16%                    |                        |                |                       |
|                 | VALUE ADDED |          | 4.33                               |                         | 4.58                         |                  |                           |                   |                        |                        |                |                       |
|                 | Retailer    |          |                                    |                         |                              |                  |                           |                   |                        |                        |                |                       |
|                 | INPUT       | IMPORT   | PRICE<br>(excluding VAT<br>& duty) | VAT<br>RATE             | VAT PAID ON<br>INPUTS        | Customs<br>(10%) | COST (including VAT&Duty) | COST<br>(includin | g Duty)                | VAT<br>PAID to<br>TAK  | VALUE<br>ADDED | EFFECTIVE<br>VAT RATE |
|                 | fresh milk  | NO       | 30.56                              | 0.15                    | 4.58                         | 0.00             | 35.14                     | 30.56             |                        | 0.00                   | 3.79           | 0%                    |
|                 | energy      | NO       | 1.00                               | 0.15                    | 0.15                         | 0.00             | 1.15                      | 1.00              |                        |                        |                |                       |
|                 |             |          |                                    |                         |                              |                  |                           |                   | Total                  | 3.90                   | 12.46          | 31%                   |
|                 | TOTALS      |          | 31.56                              |                         | 4.73                         | 0.00             | 36.29                     | 31.56             |                        |                        |                |                       |
| Gross<br>Margin | OUTPUT      | EXPORT   | PRICE                              | VAT<br>RATE             | VAT Customs<br>CHARGED (10%) |                  |                           |                   | Actual<br>Gross Margin |                        |                |                       |
| -3%             | fresh milk  | NO       | 35.34                              | EXEMPT                  | 0.00                         | 0.00             | 35.34                     |                   | -3%                    |                        |                |                       |
|                 | VALUE       |          | 3.79                               |                         | 0.00                         |                  |                           |                   |                        |                        |                |                       |
|                 |             |          |                                    | FINAL COST TO CONSUMERS |                              | 35.34            |                           |                   |                        |                        |                |                       |

Scenario 13--15% VAT, 10% customs duty, Retailer exempt, Farmer agri inputs zero rated, no shifting of VAT, full shifting of customs duty

# **ANNEX III: Contact List**

Tax Administration of Kosovo:

Naser Jakupi, [Former] Manager of Large Taxpayer Unit Naser Prapashtica [Former] Deputy Director Elamzja Pireva, [Former] Deputy Director Fahri Brexnica Sefedin Daci

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| KOSOVO CLUSTER AND BUSINESS SUPPORT   |
|---|
| An analysis of the value added tax on the agricultural sector in Kosovo: The dairy industry Contract No. AFP-1-00-03-00030-00, Task Order No. 800 |
| This report submitted by Chemonics International Inc. / August 5, 2005  |
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