

Unexplored Potential of Intra-Cyprus Trade: the cost of a lingering conflict

by

Bartłomiej Kaminski

Abstract: The paper examines the Green Line (GL) trade, i.e., trade between Greek and Turkish Cyprus community, in the period following the opening of intra-Cyprus boundaries after Republic of Cyprus acceded to the European Union in 2004. Although the economic interaction is not limited to formal flows of goods but also encompasses movement of people including exports of labor and purchases of goods and services by individuals across the GL, the focus is solely on formal trade flows. An attempt is made to assess whether this trade has been in line with economic potential of respective communities. Data on GL trade show that: (a) this is mostly a one-way interaction with Turkish Cypriots taking advantage of better access created by the GLR; (b) consumers and producers on both sides of the island benefit from this interaction; and (c) trade in goods accounts for a very small portion of total TCC's earnings and expenditures enabled by the GLR. An empirical examination of respective trade flows with the rest of the world gives estimates of suppressing effects of the existing arrangements governing GL trade. GL sales can easily increase by multiplies for both communities, but especially so for the GCc based on the empirical analysis presented in this report. But the potential is much larger as these are static estimates that take into account existing economic structures. Paper concludes with policy recommendations.

Keywords: regional integration, EU accession, bilateral liberalization; barriers to trade; technical barriers to trade; economic cost of conflict

JEL Codes: F10; F14; F15

Note: A revised version of a report "Green Line Trade in Goods Ten Years Later: Unexplored Benefits" prepared for the World Bank in 2014. The author is grateful to Francis Rowe for his invaluable comments on successive drafts. He would also like to thank Ian Gilson, Dogukan Muezzinler, Anil Onal, and Gael Raballand for their suggestions and challenging questions. Usual caveats apply.

Copyright © 2013-15 by the WSIiZ (University of Information Technology and Management) in Rzeszow. All rights reserved. No part of this working paper may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by information storage or retrieval system, without permission from the WSIiZ

University of Information Technology and Management in Rzeszow, Poland

Wyższa Szkoła Informatyki i Zarządzania w Rzeszowie

ul. mjr H. Sucharskiego 2, 35-225 Rzeszów, Polska

Kontakt: Natalia Białek (nat.bialek@gmail.com) and Lukasz Cywinski (lcywinski@wsiz.rzeszow.pl)

Unexplored Potential of Intra-Cyprus Trade: the cost of a lingering conflict

Bartłomiej Kaminski*

Contents

Introduction	2
1. Regulatory underpinnings of intra-island trade in goods	3
2. Features of trade in goods across GL: a lost decade?.....	5
A. The absence of intra-industry trade: unfulfilled potential for expansion?.....	7
B. Stagnation combined with volatility in GCc sales to TCc	8
C. Unfulfilled promise of an initial jump in TCc GL sales.....	9
3. Potential for intra-island trade: any room left for growth?.....	11
A. Similarities and differences in foreign trade profiles of GCC and TCC: implications	11
B. TCc GL sales: limited room for expansion without investment	13
C. GCC GL sales: huge untapped potential.....	15
4. Why GL trade is below its potential: what suppresses GCc's sales?	16
Conclusions	18
References:	20
Statistical Appendix.....	21

Tables

Table 1: Integration into global markets for goods: two different profiles.....	12
Table 2: Double-digit HS sectors in GCc and TCc foreign trade in 2012 with overlapping positive net exports (in thousands of US dollars).....	12
Table 3: Ten largest imports of double-digit HS products into GCC and TCC in 2012 (in percent and as indicated)	12
Table 4: Positive TCc net exports matching negative GCc net exports of four-digit HS sectors in 2012 (in thousands of US dollars)	14
Table 5: GL GCc's sale of products of which GCc net ROW exports and TCc ROW imports were above US\$100,000 in 2012 (in thousands of US dollars and percent)	15
Table 6: Illustration of the impact of the absence of VAT refund on export price of a GCc.....	17

Figures

Figure 1: Flows of goods through GL in 2005-2012: formal trade (in thousands of US dollars)	6
Figure 2: Ratios of respective macro-variables in GCC to those of TCC in 2012.....	6
Figure 3: Share of GL trade flows between four-digit HS subsectors in 2012 (in percent)	7
Figure 4: Volatility of GL sales for the high-volume products, 2007-12	9
Figure 5: Index (2008=100) of total GCC imports and GL purchases in TCC and GL purchases relative to total GC imports in percent in 2005-2012	10
Figure 6: Salient features of the TCc GL sales, 2012	11

* University of Information Technology and Management, Rzeszow, Poland and University of Maryland, College Park, Maryland, U.S.

Introduction

The objective of this research is to examine the developments in Green Line (GL) trade, i.e., trade between Greek and Turkish Cyprus community, in the period following the opening of intra-Cyprus boundaries after Republic of Cyprus acceded to the European Union in 2004 and assess whether this trade has been in line with economic potential of respective communities. The economic interaction is not limited to formal flows of goods but also encompasses movement of people including exports of labor and purchases of goods and services by individuals across the GL. Data on flows that have been made possible by the Green Line Regulation (GLR) clearly show that: (a) this is mostly a one-way interaction with Turkish Cypriots taking advantage of better access created by the GLR; (b) consumers and producers on both sides of the island benefit from this interaction; and (c) trade in goods accounts for a very small portion of total TCC's earnings and expenditures enabled by the GLR. These observations raise a number of questions including, among others, why Turkish Cypriots were quick to take advantage of new opportunities? Why was trade in goods so low and uni-directional? In spite of the removal of many barriers to trade between two parts of the island, intra-island trade seems to be well below the level that would be determined solely by purely economic considerations in the absence of remaining formal and informal barriers to free movement of goods across the GL.

The decade-long record of GL trade in goods is disappointing: the opening failed to produce deeper economic interdependence between respective economies; it has not led to the emergence of new forms of division of labor; its composition has not undergone any significant change; and GL trade has been unravelling since 2008. Despite an early rapid increase in Green Line (GL) sales following the opening of GL in 2004, the value of sales of goods appears to have plateaued three to four years later before a steady decline thereafter. While the global financial crisis and the subsequent banking sector crisis in the Greek Cypriot community (GCc) has surely affected the flows, there are some fundamental aspects of GL trade that are worth highlighting:

- The value of GL trade turnover peaked around 2008 and subsequently was falling in 2009-12;
- GL trade has remained a one-way trade with the TCc selling several times more goods in the GCc than vice versa, but both were declining in terms of volume and value;
- GCc's GL sales were particularly erratic; they were very low not only relative to GCc's exports potential, but also relative to GL sales by the TCc;
- The share of industrial products, contrary to the expectations, was on average much higher in TCc's GL sales (around 80-90 percent) than in GCc's GL sales (50-60%); and
- GL trade has not evolved into a two-way trade within industrial sectors, which limits future growth potential.

Thus, the critical question boils down to the following: is there any potential for an expansion in Green Line (GL) trade in goods? In order to answer this question, we first seek to determine whether and to what extent two sides of the island under-traded with each other. Identified developments in this trade are then cast against the potential that can be derived from an examination of similarities and differences between their respective export and import baskets in their 'outside' trade. The conclusion drawn from this analysis is that intra-island trade has been well below its potential.

Unimpressive performance of GL trade in goods cannot be explained by supply side constraints: to the contrary, there seems to be a number of products that might have been traded but they were not. Even a cursory examination of similarities and differences between their respective export and import baskets in their 'outside' trade and in GL trade indicates that GL sales have been well below the potential of both communities. Actual flows have been well below their potential flows not only for the GCc, but also for the TCc's GL sales. Based on current structures, GL sales can easily increase by multiplies for both communities, but especially so for the GCc based on the empirical analysis presented in this report. For GCc exports, the overlap of products that are exported by GCc businesses and are simultaneously imported by TCc is quite significant. This unexplored market for GCc firms was close to US\$100 million in 2012 or 82 times more than their GL sales. Even capturing a small portion of this potential market would represent huge gains for the GCc. Similarly, the unexplored market for the TCc in the GCc was about US\$30 million in 2012, or seven times more than the value of GL sales.

But the potential is much larger. Consider that these are static estimates that take into account existing economic structures. Truly transformational gains from trade could be achieved only by a changing economic structure in response to opportunities offered by deeper integration brought about by a solution to the Cyprus problem. Only the latter would lay institutional setting that would allow to develop intra-industry trade: its absence for trade between two economies with similar endowments does not leave much room for long-term growth prospects.

While a detailed examination of the reasons for the patently poor GL trade performance was beyond the scope of this study, it seems that the explanation lies squarely with idiosyncrasies of institutional arrangements and primacy of politics in the approach taken by the Government of Cyprus (GoC) to the conduct of GL sales. One may easily dismiss explanations blaming poor quality of GL trade statistics or the prohibitively high cost of moving goods through the GL. The latter appears to be well-run by respective Chambers of Commerce and double-checked by respective GL boundary controls. The cost of movement of goods through the GL is the same for businesses on both sides of the GL: why then do GC businesses under-trade so dramatically?

Our analysis points to three possible factors: only one of which has something to do with the way that GLR has been phrased. The GoC is responsible for the first one: indeed the premiere candidate to explain GCC's under-performance is rooted in taxation. While exports are subject to VAT refunds on both sides of the GL, the GoC does not apply it to GL sales by GCc businesses. These are regarded as domestic sales, and the VAT on these sales is not refunded. This in turn raises the price of a GC offered product by the VAT rate. At such an artificially elevated prices, their offer may not be competitive vis-à-vis suppliers from other EU-members or Turkey.

The second factor relates to the GLR banning transshipments of goods destined for GCs through the GL. In contrast to standard preferential trade agreements, where exporters have an option of ignoring the rules of origin in favor of non-preferential treatment, TC businesses do not have this option: the only goods allowed to enter the GC customs territory through the GL are those meeting rather strict rules of origin. This combination of rather restrictive rules of origin and the ban on entry of goods that do not satisfy the rules of origin discourages the development of vertical trade as well as of trade in potentially more sophisticated manufactured goods as they usually require significant inputs of imported components.

The third factor negatively affecting GL trade in agricultural products is phyto-sanitary and veterinary standards. In spite of ten years that passed since the opening of the GL to trade in goods, the certification process has not been completed. The issue has nothing to with the GLR: either the European Commission or the TC authorities bear the responsibility for the absence of a permanent solution, or both. Our analysis shows that agricultural products are the most under exported goods from the TCc to the GCc.

The paper is organized as follows: The first section seeks to outline regulatory characteristics that set the GLR apart from standard free trade agreements. Section 2 presents an empirical analysis of trade flow s in terms of their dynamic, composition and endowments in factors of production. Section 3 cast disaggregated GL trade flows against ROW exports and imports of GCC and TCC. Section 4 seeks explanations as to why there are such significant discrepancies between the potential flows, as suggested by their respective ROW trade, and the actual flows. The last section concludes as well as provides a list of policy recommendations.

1. Regulatory underpinnings of intra-island trade in goods

The Green Line Regulation (hereafter GLR), whose entry into force on May 1, 2004 allowed for the movement of people and goods across the Green Line), is not a typical regional trade agreement (for its extraordinary features, see the discussion in Box 1). For starters, it is wider in scope as it covers the movement of people and labor force, i.e., it allows for employment of Turkish Cypriots (TC) by Greek Cypriot (GC) businesses. Second, this is not bilateral agreement between respective governments, as the TC community (TCc) is not recognized as the state by the EU and the Government of Cyprus, upon accession to the EU, would cede control over external commercial interaction to the EU institutions. The GLR is a unilateral statement of the EU spelling the rules for the entry of goods and people. Last but not

least, since GLRs cover only the conditions of entry into Greek Cypriot community (GCc), other important dimensions of economic interaction hinge critically on good will of other actors, i.e., respective authorities in both sides of the island. The TCc' authorities can ban GL trade at any moment. Authorities in both communities can also impose any behind-the-border barriers to this trade. An illustration is subjecting goods shipped from GCc to double taxation: (a) since they are regarded as domestic sales, GL sales of TC businesses are subject to VAT in GCc; and (b) since they are regarded as imports into TCc, GL sales are subject to VAT in TCc as well.

These features combined erect barriers to stable, long-term commercial relationships between businesses in GCc and TCc for at least two reasons. First, in contrast to regional trade agreements, traders face much higher levels of uncertainty. Since there are not parties to the agreement, it is not legally binding. Uncertainty discourages investment into endeavors dependent on conditions in market access that can be easily revoked. Second, in contrast to regional trade agreements or unilaterally granted preferences in market access, goods that do not meet the rules of origin requirements are not allowed to enter the customs territory of GCs through the GL. While under other circumstances the exporter may opt out from the preferential regime and have its products subjected to Most Favored Nation treatment, this is not the case for a TC firm. Since import content in products manufactured in complex global chains is very high, the GLR effectively precludes participation of TC businesses in any networks encompassing GC firms.

Regulatory arrangements governing the movement of goods across the GL do not create an environment conducive to the development of horizontal and vertical intra-industry links. On top of prohibitively high costs for GC firms to sell in TCc because these sales are subject to VAT collected by tax authorities on both sides of the GL, the combination of rules of origin and a ban (rather than subjecting to non-preferential treatment) on entry of goods not meeting the rules of origin favors exchanges of low processed goods. It provides disincentive to develop integrated networks of production and distribution operations.

Their major unconventional features stem from unusual circumstances producing uncommon rules. Consider the following: For starters, TC is not recognized by the EU as a state or customs entity having the authority to sign international agreements. It is regarded as territory over which the *acquis communautaire* had been merely suspended. By the same token, each side can impose unilaterally any rules on the movement of goods and service they like without constraints of WTO membership or a preferential trade arrangement. GL trade is not regarded as foreign trade by the EU but is treated as such by the TCC authorities. The GL regulations spell out the rules for admitting goods originating in TC while TC, on the other hand, apply the same rules to GC sales as on imports from all EU members, Turkey and EFTA countries. A further complication is that GC may treat GL sales as either exports or domestic sales: she has chosen the latter which has huge VAT tax implications: as a rule, exports are exempt from VAT while imports are subject to VAT. Suppliers from GC pay VAT twice: in GC (as this is a final sale) and TC (as this an import).

Second, the border between two communities is not a usual border. It has all trappings of a border, at least on the Turkish Cypriot side, but it does not exist in the eyes of the rest of the world excluding Turkey. Yet, it is there for all practical purposes with TCC legally being part of the EU, albeit with a caveat. The caveat is that in order to account for accession without resolution of the communal detachment, Protocol 10 of the EU's Treaty of Accession with Republic of Cyprus (RoC) suspends the application of the *acquis communautaire* over northern Cyprus and UK military bases. By the same token, Green Line (GL), separating two communities, is not regarded officially as the external border of the EU. However, it is still a border and hence the need to specify rules of movement through it. Regulation (EC No 866/2004 of 29th April 2004), which entered in force on 1st of May 2004, has laid rules governing movement of goods, services and persons through GL.

Third, there is no room for bilateral arrangements (as TC is not recognized) but only for unilaterally imposed ones by either side. The GLR unilaterally applies to the entry of people, vehicles, and goods from TC into GCC, but not to the conditions of entry into TCc. The latter are unilaterally decided by TC authorities as the EU would not enter into any bilaterally binding agreement with an entity whose existence she does not recognize. Neither are these arrangements bound by international disciplines

such as, for instance, implied by membership in the WTO. This may be a constraint to exports as conditions in access to TCc markets may change due to unilateral trade restrictions. This favors imports from countries having leverage through political channels over TCc actions and discriminates against other countries.

There is an important caveat: Although the decisions related to the movement of goods are vested at the level of EU supranational institutions, the government of the GCc may affect the movement of goods through the GL. It is also empowered to change the behind-border conditions for TC firms supplying goods or services.

Fourth, the conditions in movement of goods across the GL have been evolving. Subsequent amendments of GLR had liberalized market access for goods originating in the northern part of Cyprus including, among others, general lifting of duties on agricultural products.

Fifth, access is preferential for some products but prohibitive for others with import content because of the ban on transshipments. The goods that may be brought into GCc are not subject to customs declaration, "... to customs duties or charges having equivalent effect, unless they are eligible for export refunds or intervention measures." But the pool of goods is limited to those that are either wholly obtained or substantially transformed and excluding live animals and animal products which are subject to Community veterinary requirements. Goods complying with the conditions, as outlined above, have the status of Community goods. While this may not strike one as particularly demanding, the problem is that an importer has no option of declining a preferential access as this is the only option available.

Put it differently, in contrast to other bilateral agreements, the GLR does not allow for 'exit' from unilaterally accorded preferential regime for TC GL suppliers. Usually an importer of goods from a preferential trading partner can opt out from demonstrating that the products meet the rules of origin. In consequence, the shipment is subject to MFN tariff rates rather than lower preferential rates.¹ However, if a GC importer is unable to prove that a product being brought from TC was wholly obtained or substantially transformed there, then the shipment will not be allowed to enter the GC.

Thus, hybrid legal structure governing movement of goods offers, limited and often perverse incentives to expand GL trade: Because of the combination of the rules of origin and unilaterally imposed preference (see above), it discourages the development of more sophisticated forms of division of labor across GL. No modern industrial production can do without imported input usually from many countries. Because of discrimination against GCc sales to TCc resulting from double VAT taxation, GCc sales are discouraged not due to TC restriction but GC insistence on treating these sales as domestic operations. This negatively affect also TC sales: international experience suggests that exports lead to imports.

Despite these limitations, the GLR has had positive economic effects, albeit—not surprisingly in view of limitations outlined above—much more significant in areas other than trade in goods. In fact, over the last decade, economic links have expanded with positive welfare gains for residents of both parts of the island. These links have included not only formal trade in goods amongst firms, but also individual purchases of goods and services across the GL as well as employment. Indeed, formal trade has never become the most important source of welfare gains.

With the total turnover of at least US\$40 million in 2012 and around 1,200 Turkish Cypriot crossing daily the GL to work, GL activity remains of considerable relevance to residents from both communities. The interaction is mostly driven by actions of Turkish Cypriots. For instance, contrast credit card purchases of Turkish Cypriots in GCc of around \$23 million in 2012 with those by Greek Cypriots in TCc of around \$7 million and GL sales of Turkish Cypriot firms of \$5 million with those of Greek Cypriot firms at around \$1.2 million. The inclusion of remittances would further increase the asymmetries in favor of Turkish Cypriot activities.

2. Features of trade in goods across GL: a lost decade?

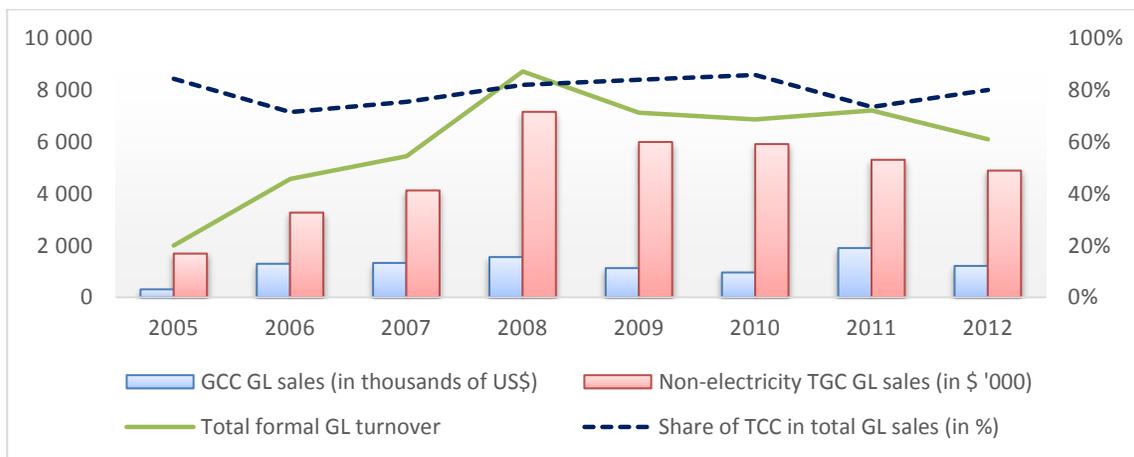
Proximity, differences in size and the level of economic development in favor of GCc should be the major drivers of intra-island trade. They are, however, poor predictors of this trade: were they the

¹ And many exporters faced by high cost of complying with the requirements of the rules of origin subject their products to 'less-preferential' tariff treatment.

drivers not suppressed by other considerations, this trade would probably amount to 10-15 percent of respective trade flows; there would be a two-way trade in agricultural and industrial products; and firms on both sides of the island would participate in supply value added chains and networks of production and distribution based on fragmentation of production processes. Furthermore, this trade would be relatively immune to the business cycle and stable. GL trade has none of these characteristics (see Figure 1).

Perhaps the most distinguishing feature of this trade was its almost uni-directional character. For the reasons to be analyzed later, GCc sales to consumers in TCc were miniscule. Although the ratio of TCc to GCc sales declined from around five in 2008-09 to four in 2012, this was because of the contraction in TCc GL sales rather than the increase in GCc GL sales. On average, the value of goods sold to GCc under the GL regime accounted for 80 percent of the total GL turnover (see Figure 1). As a result, formal GL trade in goods is a one-way trade.

Figure 1: Flows of goods through GL in 2005-2012: formal trade (in thousands of US dollars)

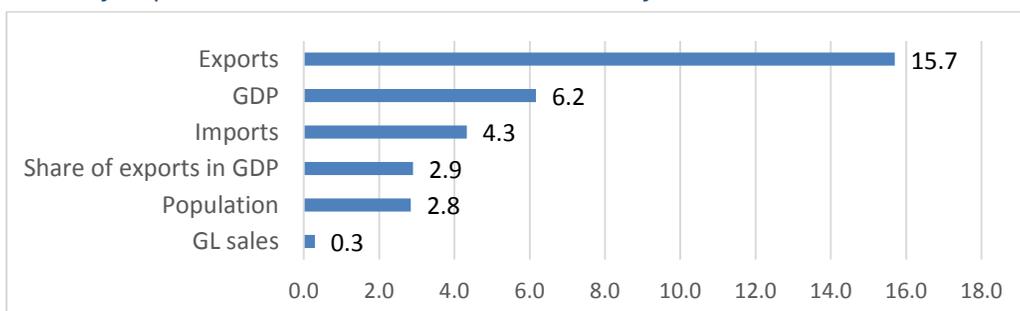


Sources: Based on the data provided by the TCC's Department of Trade.

TCc sales to customers in the GCc were not only several times larger than GCc GL sales, but also of much larger relevance to TCc's welfare: these sales amounted to 4.2 percent of total TCc exports in 2012, although down from 8.4 percent in 2009. On the other hand, the engagement of GCc firms was limited: relative to total exports, it was well below one percent. Despite the promise of an initial increase in 2006, the values of their GL sales remained stagnant (Figure 1).

Trade composition has changed little over the last decade and has been stagnant, if not declining over the last five years. GL sales can be characterized by intra-industry flows: there is practically no two-way trade within subsectors of the economy. GL sales—especially originating in GCC—are volatile. GL sales amount to around 4 percent of TCc total exports of goods and less than one percent of GCC total goods exports. GL sales remain marginal. In terms of their total respective goods imports, GL purchases amounted to 0.07 percent for both GCC and TCC in 2012. Last but not least, the value of the total GL turnover was stagnant and falling in real terms.

Figure 2: Ratios of respective macro-variables in GCC to those of TCC in 2012



Source: Derived from the data in the World Bank Development Indicators database and of TCC's State Planning Organization and Department of Trade.

Considering the significant differences in the size and the level of economic development in favor of GCc (see Figure 2 above), very low levels of GL flows originating in GCc are rather puzzling. GL sales are the only variable where TCc has enormous edge over GCc (see Appendix Table 1). It would be rather unusual

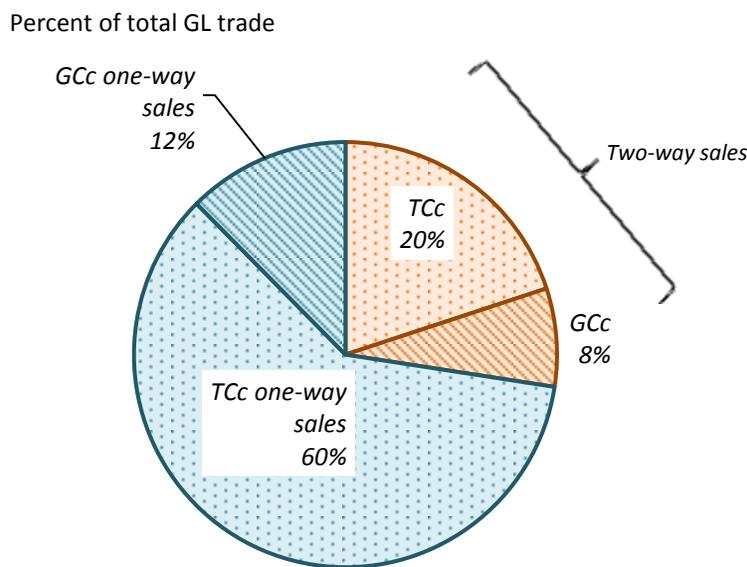
if these could be explained by a limited export offer of GCc or lack of import demand in TCc. While GCc towers over TCc across all major macroeconomic variables, the gap is relatively lower for imports: the ratio of GDP is higher than that for imports indicating the high propensity to import in TCc. Relative to TCc, GCc has a huge exports base. The reasons for abnormally low levels of GCc GL sales have little to do with limited supply of goods competitive in world markets, so there must be some other reasons shaping incentives of traders on both sides of the GL.

However, in spite of a significantly higher level of economic development of GCc and its much larger industrial exports base, the GL exchanges do not comprise industrial products supplied by GCC for TCc's raw materials. In fact, the share of industrial products of 84 percent in 2012 was higher than that in GCc's GL sales of 59 percent.² Chemical products, almost exclusively tanning extracts (HS 30), and ceramic products (HS 69) were dominant in GCs GL sales accounting for between 25 and 50 percent of total sales in 2007-12. Construction materials and plastic products towered over other products in TCc's GL sales accounting for around half of exports: in 2012 the share of articles of stone (HS 68) was 21 percent and that of plastics (HS 39) of 16 percent.

A. The absence of intra-industry trade: unfulfilled potential for expansion?

Although intra-island trade as traditionally defined is mainly in industrial products, this is not intra-industry trade as this rarely involves exchange of products from the same industrial sector defined here as a four-digit Harmonized System (HS) item or subsector. Almost 30 percent of total GL trade turnover involved two-way trade in 2012. As can be seen from Figure 3, firms from TCc contributed 20 percent to the sector two-way sales and those from GCC 8 percent. Note that TCc's one-way sales were three times larger than two-way sales while the ratio of GCc one-way sales to its two-way sales was only 1.5.

Figure 3: Share of GL trade flows between four-digit HS subsectors in 2012 (in percent)



Source: Own calculations based on data from the TCc's Department of Trade.

These figures suggesting a large proportion of two-way sales are grossly misleading and the significance of this trade is hugely overstated. Consider first that these calculations took all sales no matter how small they were into account. If one excludes transactions with values below \$5 thousand, the share of two-way sales in total GL trade turnover would drop almost half to 15 percent. Second, there were only nine four-digit HS sectors characterized by the simultaneous export and import of goods in the same industry out of the total of 74 four-digit HS industries involved in GL trade in 2012.³

Last but not least, the two-way flows within those nine four-digit HS sectors were highly asymmetrical in favor TCc GL sales except for one sector (HS 3214; see Appendix Table 2). TCc GL sales in 'two-way' sectors were several times higher than 'two-way' sector purchases of GCc. For instance, the value of TCc

² This share was lower than the average of around two thirds in 2005-11 due to one-time increase in GCs GL sales of beverages, spirits and vinegar in 2014. These sales jumped from US\$59 thousands in 2011 to US\$202 thousands in 2012.

³ For their list and GL values of sales, see Appendix Table 2.

purchases in GCc of plastic household articles (HS3294) of \$1,000 was rather symbolic relative to the value of TCc GL sales of \$655 thousand. While this is an extreme case, the largest ratio of respective sales of 44 percent for sales of bread (HS1806) is still very small. Note also that 75 percent and 63 percent of TCc GL sales and GCc sales, respectively, occurred without any reciprocity within four-digit HS sectors.

A standard measure used to assess the extent of intra-industry trade, i.e., the simultaneous GL sales and purchases of similar types of goods is the Grubbel-Lloyd index. The index assumes zero for the complete absence of exports and imports of the same types of goods and unity when sales of the same types of products equal their purchases. The latter is pure intra-industry trade. The value of the index calculated for four-digit HS items in GL trade was 0.06 in 2012. This clearly points that there is horizontal nor vertical integration amongst businesses across the GL.

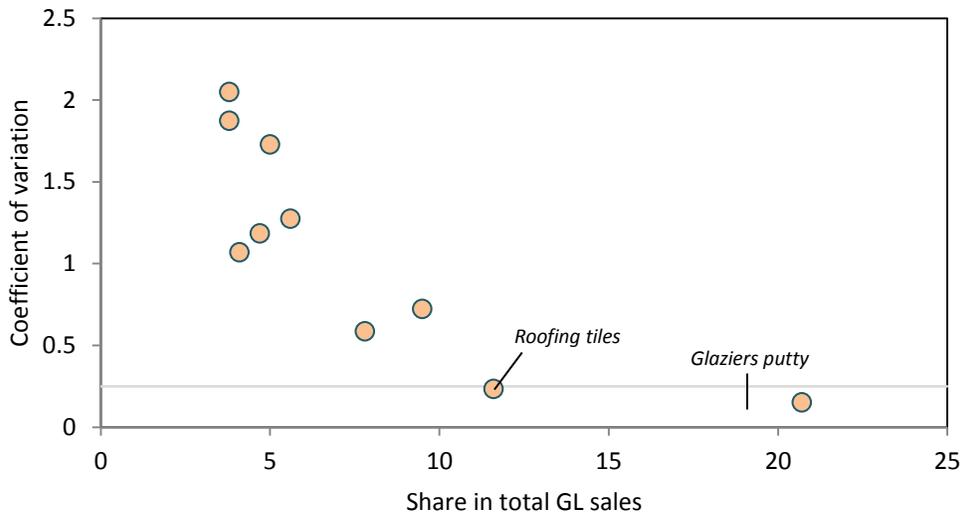
The absence of intra-industry trade usually implies very weak links between industrial sectors across the border and the lack of incentives to develop industrial cooperation. It also suggests low level of industrialization of at least one economy. While we do not have detailed data at a similar level of decomposition to assess two-way flows within the same sectors for earlier years, even a cursory examination of GL sales for earlier years indicates the dominance of low processed products typical for countries at a low level of industrial development. Since GCC, in particular, has a well-developed industrial base, the lack of intra-industry trade may also indicate the existence of barriers to investment in TCc and to GL sales in GCC. An important question is whether the fault lies with the rules governing movements of goods through the GL: this will be addressed in section 4.

B. Stagnation combined with volatility in GCc sales to TCc

Developments in GCc sales to TCc do not point to stable and well-established commercial relations albeit with some exceptions. Exceptions were sectors supplying materials to the construction sector in TCc. They accounted on average for about one third of average total GCc GL sales in 2007-12: these were products from two four-digit HS sectors (HS3214 and HS6905). The largest item on the GCc list over 2007-12 was glaziers putty (HS3214) followed by roofing tiles (HS6905): the values of coefficient of variation of sales of these products in the 2007-12 period were the lowest and so were minimum value of sales expressed in percent of the highest value of sales in 2007-12 (Figure 4 and Appendix Table 3)). These were the only sectors with values of coefficient of variation (a measure of volatility) well below 0.25 indicating relatively stable sales and commercial relationship. While volatility was low in these products, the values of their GL sales did not show any signs of a growing trend. They were stagnant in terms of value, indicating contraction in real terms.

Leaving aside an initial increase in 2006, GCc GL sales to customers in TCc have been flat. The growth rate over 2005-12 of 0.1 confirms this trend, but hides huge swings. For instance in 2010-12, a two-fold increase in 2011 was followed by a contraction of 36 percent in 2012. The apparent random nature of purchases by TCc firms is also revealed in the pattern of ups and downs in sales of various sectors, which tended to mutually offset each other from year to year. Consequently, the variation for total annual sales was much less pronounced than for individual sectors. The coefficient of variation over the 2005-12 period of 0.23 was significantly lower than the values for most of four-digit HS sectors. Indeed, a very large number of transactions were never repeated: consider that over 2007-12, 87 different HS four-digit sectors participated in GCc GL sales while in a given single year this number would never exceed 40.

Figure 4: Volatility of GL sales for the high-volume products, 2007-12



*/ Coefficient of variation is equal to the ratio of the mean to standard deviation
 Source: Own calculations based on data from the TCC's Department of Trade.

In the context of GCC economy, GL sales of goods had little relevance as their economic impact was insignificant. GL sales in terms of total GCC exports of goods were well below one percent. The prospect of possible GL sales was not a consideration for most GCC businesses. Out of 641 four-digit HS sectors involved in GCC's total exports in 2012, only 37 sectors were engaged in GL sales and ten of them accounted for 87 percent of total GL sales. This situation also indicates that the gap between what might be possible and what was taking place is large.

C. Unfulfilled promise of an initial jump in TCC GL sales

Dramatic expansion in TCC GL sales following the entry into force of the GLR and sustained until 2009 pointed to impressive abilities of TCC businesses to take advantage of opportunities created by the GLR. TCC's GL sales dramatically increased in 2005-08, but subsequently sharply declined in 2009-12. The value of TCC GL sales increased 4.2 times from \$1.7 million in 2005 to \$7.2 million in 2008 and then fell each year to reach \$4.9 million in 2012 or 68 percent of its peak value in 2008 (see Figure 4 above). It was quite a reversal of dynamics as the average rate of growth of 46 percent was followed by an average of minus 7.2 percent in 2009-2012.

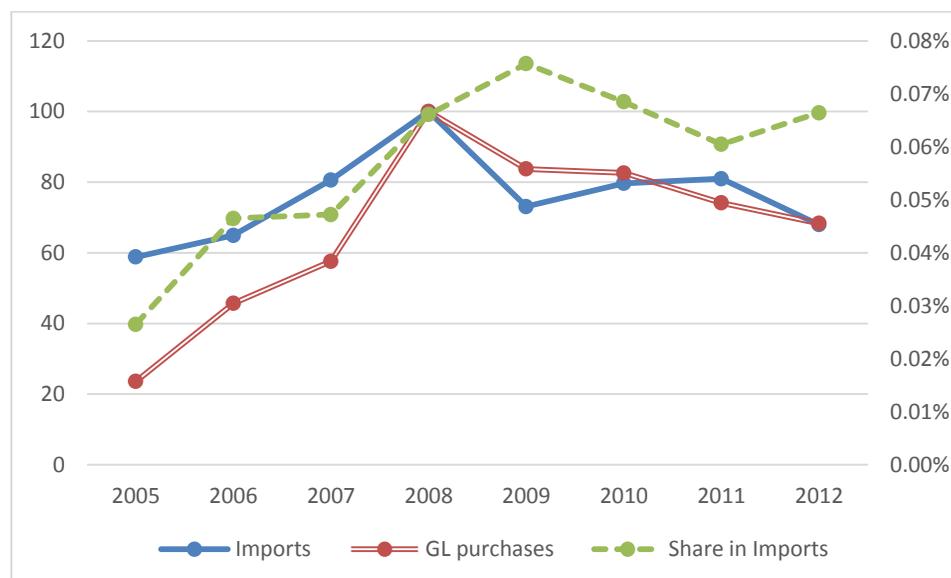
The overall time profile can be explained by catch-up dynamics, initially, and economic crisis, subsequently. Catch-up dynamics and the time profile of GCC total imports of goods explains developments in TCC GL sales during its expansion phase in 2005-08. Anecdotal evidence suggests that the GLR allowed businesses to revive earlier-established commercial contacts. This 'pent-up' demand effect was reinforced by boom in GCC's import demand in 2005-08: TCC suppliers of products with relatively high transportation costs had a competitive edge over other sources due to the proximity of the GCC market. Total imports of the GCC grew at 18.1 percent over 2005-08, while GL shipments grew at a much faster rate of 46 percent. Moreover, their value relative to total GCC imports increased from 0.03 percent in 2005 to 0.07 percent in 2008. Subsequently, however, the ratio of GL purchases to total GC imports contracted to around 0.06—0.07 percent in 2011-12 (see Figure 5).

The contraction over 2010-12 was not steep and there are no indications that the downward trend will continue especially once the construction sector rebounds. The cumulative contraction over 2008-2012 of total imports was 32 percentage points and was smaller than that of GL purchases of 49 percentage points. During the steep recession in GCC, the construction sector was particularly hit as the banking crisis spread. Exports of marble, stone, and other materials drove the fall in TCC total sales. Because of unavailability of detailed data about TCC sales south of the GL over 2005-12,⁴ it would be difficult to examine systematically which products contributed most to the contraction, the data do suggest that the most affected areas were sales of materials used in construction. It seems that building stone articles were most affected contributing around 20 percent to the decline in absolute terms. As the

⁴ TCC Department of Trade collected and processed data on GCC GL sales using the same format as for imports data from other sources. These were published in foreign trade yearbook. But data on GL sales to GCC were not processed in line with the rules used to present exports data. The Department did it only for the data in 2012, which are available in six-digit Harmonized System.

construction sector comes back after the crisis it is expected that some of this lost ground in GL sales can be regained. Construction materials seem to have retained their dominant position as the major four-digit HS sector in TCC GL sales. They accounted for 21 percent of total GL sales followed by plastic articles contributing jointly 16 percent to total sales to GCC in 2012 (Appendix Table 4).

Figure 5: Index (2008=100) of total GCC imports and GL purchases in TCC and GL purchases relative to total GC imports in percent in 2005-2012



Note: **Left axis:** values of indices 2012 (2005=100); **Right axis:** ratio of the values of TCC sales to GCC to the value of GCC total imports of goods in 2005-12.

Sources: own calculations based on the data from the UN COMTRADE database for GCC imports of goods and from the TCC Department of Trade for TCC GL sales.

In spite of a contraction in 2009-2012, sales to GCC continued to have positive significant impact on TCC businesses. For many of them, GL trade has significantly expanded their reach outside local markets. As can be seen from data in Appendix Table 4, main items traded in GL sales tend not to be sold elsewhere, i.e., they are not major TCC exportables. The product groups listed in this table accounted in 2012 for 83 percent of TCC sales to GCC, but only for 3.4 percent of total exports. The aforementioned building stone (HS6802), the largest item in GL sales, accounted for 1.7 percent of total TCC exports while sales to GCC accounted for 55 percent of total TCC exports of this product group.

For some business, access to GCC markets under the GL regime offered the only opportunity to sell outside of TCC markets. Although their GL sales were not large, there were ten two-digit sectors with sales to GCC contributing more than 90 percent to total TCC exports of these products. And for five two-digit sectors, GCC was the only external market for their products (see memorandum items in Appendix Table 4). In 2012, there were five double-digit HS sectors selling solely to GCC and six sectors whose GL sales accounted for more than 90 percent of total TCC exports. Their share in total GL sales was 2.5 percent for products exclusively sold to GCC (i.e., 100 percent) and 31.1 percent for sales amounting to 90-99 percent of total TCC exports.

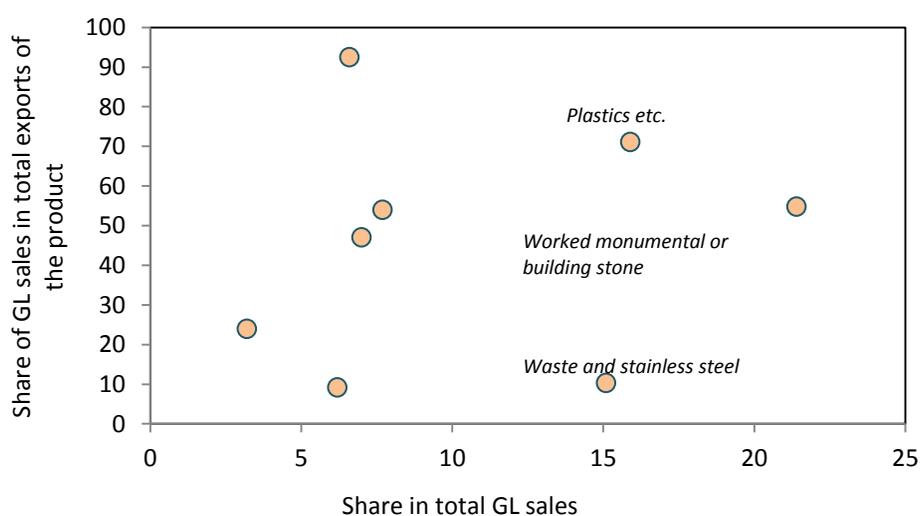
While frequently TCC GL sales were relatively small and not sustained over a longer period of time, its GL sale basket has encompassed most industrial goods produced in TCC and has been less concentrated than its ROW (Rest of the World) exports offer. In 2012, there were 50 two-digit HS sectors involved in GL sales and 72 in total ROW exports; three top sectors accounted for 52.4 percent in GL sales as opposed to 68 percent in ROW exports. Three top double-digit HS sectors contributed 68 percent of ROW exports as opposed to 52 percent in GL sales.

For some business, access to GCC markets under the GL regime offered the only opportunity to sell outside of TCC markets. Although their GL sales were not large, there were ten two-digit sectors with sales to GCC contributing more than 90 percent to total TCC exports of these products. And for five two-digit sectors, GCC was the only external market for their products (see memorandum items in Appendix Table 4). In 2012, there were five double-digit HS sectors selling solely to GCC and six sectors whose GL sales accounted for more than 90 percent of total TCC exports. Their share in total GL sales was 2.5

percent for products exclusively sold to GCC (i.e., 100 percent) and 31.1 percent for sales amounting to 90-99 percent of total TCc exports (see Figure 6).

While frequently TCc GL sales were relatively small and not sustained over a longer period of time, its GL sale basket has encompassed most industrial goods produced in TCc and has been less concentrated than its ROW (Rest of the World) exports offer. In 2012, there were 50 two-digit HS sectors involved in GL sales and 72 in total ROW exports; three top sectors accounted for 52.4 percent in GL sales as opposed to 68 percent in ROW exports. Three top double-digit HS sectors contributed 68 percent of ROW exports as opposed to 52 percent in GL sales.

Figure 6: Salient features of the TCc GL sales, 2012



Source: Own calculations based on data from the TCC's Department of Trade.

Specialization profiles revealed in respective sales were also different with agricultural products dominant in ROW exports and industrial products in sales to GCC. The share of industrial products in GL sales was 85 percent as compared with 16 percent for ROW exports in 2012. On the one hand, this is not particularly surprising: climate and quality of soil is the same on both sides of the island. On the other hand, however, even regions with similar endowments would become involved in two-way trade in agricultural products as the sector moves beyond subsistence levels.

3. Potential for intra-island trade: any room left for growth?

The issue critical to the assessment of GL trade following its 10th year anniversary is whether there is any room for its further expansion. Has GL trade exhausted its potential? It might be tempting to conclude that since (a) export offers are limited, and (b) because of the similarity in the endowment in climate and factors of production; intra-land trade reached its maximum plateau. In a similar vein, one might argue that TCc has not much to offer in terms of available goods for sale: its major exportables are agricultural products that are also likely to be produced on the other side of the island. This section provides empirical evidence that does not provide full support to these observations. To the contrary, even within the existing production structures and capacities, there is a potential for expansion even in the agricultural sector.

A. Similarities and differences in foreign trade profiles of GCC and TCC: implications

We also look at each community's foreign trade profiles. The data presented in this section show that their respective revealed specializations augur well for the removal of remaining barriers and the subsequent growth of intra-island trade. The composition of imports into GCC and TCc is very similar indicating that the potential gains from consolidating import operations are huge. The establishment of logistic networks spanning over the whole territory of the island and picking up the most cost-efficient transportation entries would lower the cost of imports significantly. Table 1 summarizes major features of respective profiles of integrating into global markets. Export specializations, on the other hand, differ widely. Except for a very narrow range: of products of which both GCC and TCc are net exporters, both specialize in different products: GCC in industrial products and TCc in agricultural products. Hence, there is little scope for competition and significant potential for mutually profitable trade.

Table 1: Integration into global markets for goods: two different profiles

Greek Cypriot community	Turkish Cypriot community
<ul style="list-style-type: none"> Relatively low openness in terms of exports of goods: the ratio relative to GDP has been around 6-9 percent; Exports of goods in terms of their imports fell from around 25 percent in 2005 to 16-17 in 2007-10 and rebounded to 25 percent in Specialization in industrial products: their share in total goods exports of around 80 percent and in imports of around 60 percent Medicaments (HS30), organic chemicals (HS29) and electrical machinery contributing around 30 percent to the total; Except for live animals (HS01) and vegetables (HS07), it is a net importer of other double-digit HS agricultural items 	<ul style="list-style-type: none"> Extremely low openness in terms of exports of goods: the ratio relative to GDP has been around 2-3 percent Goods imports coverage by their exports stable over 2004-12 at around 6-7 percent Specialization in agricultural products: their share in total goods exports of around 85 percent and in imports of around 20 percent; Cheese (HS04) and citrus fruits (HS08) accounting for almost half of total exports; Except for meat (HS02), dairy products (HS04) and fruits (HS08), it is a net importer of other double-digit HS agricultural items

Source: Own analysis.

In both economies exports of goods contribute between two and nine percent of the GDP. GCc exports are not only 16-times larger than the value of TCc's total exports of goods, but they are also dominated by industrial goods. In a marked contrast, TCc exports cheese and citrus fruits, which account for almost half of total exports of goods. Agricultural products, taken together, contribute 80 percent to total exports. The reverse is true for GCc: two-thirds of products in its exports basket are industrial goods with medicaments, organic chemicals and electric machinery contributing one-third (See Table 1 and Appendix Table 5). In 2012, the share of industrial products in total exports was 81 percent in GCc and only 16 percent in TCc in 2012. Lastly, both communities are both significant net importers of goods, with TCc having an average coverage of goods imports of 6-7 percent in 2005-12, compared with between 16 and 25 percent for GCc (Tables 2 and 3).

Table 2: Double-digit HS sectors in GCc and TCc foreign trade in 2012 with overlapping positive net exports (in thousands of US dollars)

HS	Description	GCC Net Exports	TCC Net Exports
41	Raw hides and skins (other than furs)	5,805	1,135
47	Pulp of wood/of other fibrous cellulose	5,650	15
04	Dairy products; birds' eggs; natural honey	1,692	19,430
78	Lead and articles thereof.	339	467
Memo:	Total exports of items above	95,600	35,653

Source: GCC's trade data from the UN COMTRADE database and TCc's data from TCc Department of Trade.

Table 3: Ten largest imports of double-digit HS products into GCC and TCc in 2012 (in percent and as indicated)

Imports into TCc			Import into GCC		
HS-2	Description	Share in total	HS-2	Description	Share in total
27	Mineral fuels, oils and their products	26.57	27	Mineral fuels, oils and their products	30.16
84	Nuclear reactors, boilers, machinery & mechanical appliances, computers	8.57	84	Nuclear reactors, boilers, machinery & mechanical appliances, computers	5.43
87	Vehicles o/t railway/tramway roll-stock	7.69	85	Electrical machinery and equipment, parts, telecommunications eq.	5.36
85	Electrical machinery and equipment, parts, telecommunications eq.	5.81	87	Vehicles o/t railway/tramway roll-stock	5.23
22	Beverages, spirits and vinegar	3.09	30	Pharmaceutical products.	3.86
39	Plastics and articles thereof.	2.62	39	Plastics and articles thereof.	2.58
23	Residues & waste from the food industry	2.53	62	Art of apparel & clothing accessories	2.24
73	Articles of iron or steel.	2.52	22	Beverages, spirits and vinegar.	2.21
30	Pharmaceutical products.	2.41	10	Cereals	1.93
10	Cereals	2.36	94	Furniture; bedding, mattress, matt	1.93
Total of the above		64.17			60.93
Memorandum:					
Total imports (in millions of US\$)		1,682			7,377

Source: own calculations based on data from TCc Department of Trade and UN COMTRADE database for GCC's imports.

Specialization in foreign trade can leave little room for competition; but this is not the case of respective patterns of trade of GCc and TCc. The comparison of net positive exports (surpluses in trade balances) at the level of double-digit HS sectors points to significant differences in profiles of integration into global markets for goods in both communities. Net exports were positive in foreign trade of both TCc and GCc

for only four double-digit HS sectors listed in Table 1. These were the only industries in both economies with their exports larger than their imports in 2012. But the exposure is higher for TCc's businesses. Note that the shares of these exports differ: the value of these exports was \$96 million from GCc (5 percent of total goods exports) and \$36 million (31 percent of total exports of goods) for the TCc. Except for these overlapping limited areas of shared specialization, differences in export profiles are huge: 95 percent of GCc exports do not overlap with TCc's and 69 percent of TCc exports have no equivalents in exports originating from GCc. More formally, the value of an export similarity index of 23, which provides useful information on distinctive export patterns from country to country, is very low.⁵

In contrast to the export picture, the import baskets of each community are almost identical. The value of the import similarity index is 84, suggesting a near complete overlap of respective imports baskets. Among ten top double-digit HS imports (accounting for 60 percent of respective imports in 2012), there are two items that are different: the GCc did not import 'waste from the food industry' (HS23) and 'iron and steel' (HS 73) in similar quantities as TCc while 'apparel and clothing' (HS62) and 'bedding and mattresses' (HS94) failed to make to the top ten of TCc imports of goods (see Table 2 above). The level of concentration is also similar with ten largest double-digit HS sectors contributing over 60 percent to total imports.

Similarities in the composition of imports and the dissimilarity of exports have important implications. The first to note is that there are significant gains to be had from the removal of barriers to intra-island trade. A similar composition of imports suggests that new competition from imports with an opening up of the GL even further would not destroy respective production capacities as their respective specializations in global markets for goods are different. A similar composition of imports indicates also not only the diminished likelihood of sectors being wiped away by imports, but also falling transaction costs thanks to economies of scale. Instead of dealing with two markets, external suppliers would face a single market with import demand of almost US\$10 billion. Another factor that might lead to lower prices would be the emergence of distribution networks covering both parts of the island, although this is difficult to quantify.

B. TCc GL sales: limited room for expansion without investment

At first glance, it would seem that within the existing capacities there is very little room for an increase in TCc GL sales. In terms of value, they are already five times larger than those of GCc. A return of TCc GL sales to a pre-crisis level in 2008 would mean at least an increase of 40 percent over the 2012 level. Moreover, as detailed above, low trade complementarity suggests very little potential for sustained expansion. This section explores the possibility of whether there is room for expansion to reach or expand beyond the historically high level of TCc GL sales.

A more detailed examination of respective positive net exports and net imports identifies areas where TCc sales could replace GCc external purchases from other sources. A broad measure that can be used to gauge the potential for growth in mutual trade is the index of trade complementarity. In short, it estimates the extent of an overlap between one economy's exports and another's imports. It assumes the values between zero - when no goods exported are imported by another economy - and 100 when exports and imports exactly match.⁶ The value of complementarity index between TCc total exports and GCc total imports was 19 percent in 2012. It indicates a very small degree of an overlap between TCc exports and GCc imports. Consequently, the space for expansion is very limited.

Yet, despite the low complementarity between TCc exports and GCc imports, there is potential for increase in TCc GL sales provided that barriers to imports of foods are eliminated. Table 4 presents trade in all four-digit HS products (in thousands of US\$ in 2012) meeting the two criteria: (a) TCc was a positive

⁵ The similarity index is defined as: export similarity $XS(j, k) = \sum [\min(X_{ij}, X_{ik}) * 100]$ or import similarity $MS(j, k) = \sum [\min(m_{ij}, m_{ik})]$ where X_{ij} (M_{ij}) and X_{ik} (M_{ik}) are industry i 's export (import) shares in country j 's and country k 's exports (imports), which usually include a group of countries or competitors. The index varies between zero and 100, with zero indicating complete dissimilarity and 100 representing identical export (import) composition. This measure is subject to aggregation bias (as the data are more finely disaggregated, the index will tend to fall) and hence embodies a certain arbitrariness due to product choice (See Hoekman, Matto and English, 2002).

⁶ It is calculated according to the formula: $Tc_{ij} = 100 - \sum(|m_{ik} - x_{ij}|) / 2$ where Tc_{ij} - complementarity index between economies k and j ; m_{ik} - share of imports of product i in total imports of a country k ; and x_{ij} - share of exports of product i in total exports of a country j . The index takes the value between zero (no complementarity) and 100 (full overlap of respective shares). For more see, Hoekman, Matoo and English (2002).

net exporter; (b) and GCc was a negative net exporter or, put differently, a net importer of these products. Although the number of four-digit HS sectors was small (nine), the total value of imports of these products by GCC of US\$31 million was six-times higher than total GCc's purchases from TCC across GL in 2012. This potential is as yet to be explored.

Table 4: Positive TCC net exports matching negative GCc net exports of four-digit HS sectors in 2012 (in thousands of US dollars)

HS	Description	GCC Imports	GCC Net Exports	TCC exports	TCC Net exports
7204	Ferrous waste and scrap	767	-767	6,385	6,385
0207	Meat and edible offal, of the poultry	21,669	-20,769	7,126	5,980
0407	Birds' eggs, in shell, fresh	1,182	-926	4,702	4,414
1213	Cereal straw and husks, unprepared,	16	-16	45	45
0504	Guts, bladders and stomachs of animals	6,625	-215	32	32
8310	Sign-plates, name-plates	154	-34	192	21
4707	Recovered (waste and scrap) paper	161	-161	167	167
3407	Modelling pastes	125	-125	12	5
1506	Other animal fats and oils	4	-4	4	4
TOTAL		30,703	-22,124	18,402	17,794

Source: Own calculations based on foreign trade data from the UN COMTRADE database for GCC and Department of Trade for TCC.

Except for two sectors, the remaining seven did not participate in GL trade. These two sectors accounted for 18 percent of TCC GL sales in 2012 and were: ferrous waste and scrap (HS7204) and recovered paper waste (HS4707). The share of these products (with overlapping exports and imports) originating in TCC in their GCc imports (including their GL purchases) was 3 percent in 2012 and their share in TCC GL sales was 18 percent. Total imports of non-agricultural products amounted to US\$1.2 million with \$893 thousands, or 74% of the total, originating in TCC. If anything, this suggests that TCC producers were successful in taking advantage of preferential access offered in GLR. But even for these two sectors there is a potential for an increase as their 'import-share' equivalents were below 50 percent of GCc's respective external purchases of these products.⁷

The data also show significant potential for intra-island trade in agricultural products: this is surprising because the same climate and soil usually do not create conditions enabling two-way trade in agricultural products. Except for two four-digit HS sectors, all other groups are agricultural products accounting for 96 percent of all 'complementary' GCc imports. A big promise for TCC GL sales is in these products of "complementary" sectors, which were not sold before to GCc importers. An examination of TCC net exports and GCc imports broken down to two- and four-digit HS products suggests that the potential market in the GCc for TCC products was to the tune of US\$30 million in 2012. This should not suggest that this is the amount easily available for grabs, but only suggestive based on GCc imported products from elsewhere of which TCC is a net exporter. TCC is a significant exporter of meat and edible offal (HS0207), for example. GCc imports of meat were around three times larger: US\$22 million as compared with exports of US\$7 million in 2012, indicating the potential of GCc import demand from the TCC.

If TCC agricultural producers could capture just five percent of GCc imports of products listed in Table 3, the value of total GL sales in terms of 2012 would increase by around one third to US\$6.5 million. This may be feasible as the increase in the value of TCC exports by 10 percent seems to be within the realm of existing capacities. Capturing five percent of GCc combined imports of meat and edible offal (HS0207) and birds' eggs (HS0407) would increase TCC GL sales by around US\$1.1 million. Without, however, implementing measures that would assure meeting the EU phyto-sanitary standards TCC producers will not get the chance of competing in GCc markets for agricultural products. With a recovery in general GCc import demand and EU certification of TCC agricultural products, the 2012 value of GL sales could double to around US\$10 million.

However, over a longer period of time the challenge for TCC is to **expand** its exports offer. It remains limited and, more importantly, has not changed since 2004. There was very little reshuffling in GL sales

⁷ GCc's purchases across the GL are not counted as imports in GCc foreign trade statistics. If they were treated as such, than the share "imports" from TCC would be 49 and 48 percent, respectively.

offer in response to improved conditions in access to GCc markets. One explanation is the lack of investment flows into TCc sectors with potential comparative advantages in GCc markets. The reasons for the lack of investment relate both to the overarching ‘Cyprus problem’ and the quality of domestic investment climate in TCc. A recently produced World Bank report on financial incentives to the private sector documents in detail some of the domestic investment constraints in the TCc (WB 2014).

C. GCC GL sales: huge untapped potential

GCc’s GL sales have remained so small, relative to its revealed exports capacities and to overall GL sales, that the GL trade can be described as one-way trade. Despite total exports of around 15-16 times larger than TCc total exports, GL TCc sales exceeded those originating in GCc by a factor of four-to-five. This section shows that the problem is not in the mismatch in respective supply and demand—it lies somewhere else in the policy area. We hypothesize that much of the discrepancy would be removed if changes in tax policy by the GCc were implemented.

The reasons for low level of GCc GL sales have little to do with the absence of overlap between TCc import demand and the GCc exports offer. Consider the following: the value of the index of complementarity between GCc’s exports and TCc’s imports in 2012 is a significant 48. This value was around 2.5 times higher than that between TCc’s exports and GCc’s imports of 19. But this is only a general measure indicating the extent of the overlap, a more detailed look at the data follows.

Most products exported by GCc and imported by the TCc were absent from the GL sales basket. An examination of foreign trade at the level of four-digit HS items identified 27 sectors meeting simultaneously the following two conditions:

- (a) the value of GCc net exports above US\$100,000; and
- (b) TCc imports larger than US\$100,000.

The list is very diversified ranging from potatoes, Portland cement, enzymes to motor vehicles and trailers (see Appendix Table 6). Their total exports of US\$207.4 million accounted for 13 percent of GCc total exports of goods in 2012. The value of TCc’s imports of these goods of US\$93.5 million amounted to five percent of total TCc imports in 2012. It would seem that GCc firms from these sectors would have competitive edge also in TCc markets. In spite of having potential consumers next door—GCc firms mainly shipped these items elsewhere. The share of TCc’s purchases of these products in TCc total imports of these products was 0.17 percent (Table 5).

Table 5: GL GCc’s sale of products of which GCc net ROW exports and TCc ROW imports were above US\$100,000 in 2012 (in thousands of US dollars and percent)

HS-4	Description	CCC GL sales	In % of GL sales	TCC imports	Share of GCC in TC imports (in %)
2501	Salt (including table salt and denatured salt) and pure sodium chloride, whether or not in aqueous solution	102	8.39	962	10.6
3823	Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols	3	0.25	5,055	0.1
8716	Trailers and semi-trailers; other vehicles, not mechanically propelled;	17	1.40	1,112	1.5
8419	Machinery, plant or laboratory equipment, whether or not electrically heated	35	2.88	5,868	0.6
Total above		157	12.91	12,997	0.2

Source: Own calculations based on foreign trade data from the UN COMTRADE database for GCC and Department of Trade for TCc.

The potential for sales of products from these sectors is yet to be tapped. Only four GCc sectors out of 27 participated in GL trade. TCc took only 0.32 percent of the total in 2012. The largest item in 2010-12 was salt accounting on average for two-thirds of combined GL sales of these four sectors. Salt was the only four-digit HS products with GL sales amounting to 2 percent of its total exports (Appendix Table 7). More generally, it is puzzling why GCc sectors, clearly competitive internationally as revealed in their export performance elsewhere, and whose products are imported by TCc businesses from elsewhere. Tapping this potential even to the tune of three percent of TCc imports of these products would more than tripled the total GCc GL sales in 2012 to US\$3.9 million from US\$1.2 million. But given the proximity of TCc markets, one would not be surprised if the share of GCc producers of these products in their total TCc’s external purchases would go much higher than this.

In all, potential static gains that are implicit in the foreign trade patterns of GcC and TcC are significant for both sides of the island as they both under-trade with each other. Even without new industrial investments, they both would have obtained substantial welfare gains from closing the gap between actual and the potential. GcC's sales, in particular, have been well below the levels suggested by their export specialization in global markets and TcC's import demand in TcC. While TcC GL sales have been more aligned with its existing export capacities, there is the potential for an increase of TcC GL sales of agricultural products.

Comparing the estimates of under trading with other estimates, it is not surprising that these estimates are lower. For instance, Gorcekus et al (2012: 864) used a gravity model to estimate the gap between the potential and actual GL trade in 2004-09. They found that actual trade stood at only around 12 percent of its potential in 2008 and 11 percent in 2009 (see Table 1 in Gorcekus et al. 2012). Gravity models tend to overestimate trade potential because they assign a much higher weight to manufacturing than to other sectors of the economy. Since both economies rely heavily on services, this overestimates their capacity to trade in goods. Moreover, gravity models incorporate implicitly dynamic effects associated with the absence of barriers to the movement of goods and—since the authors used intra-EU trade to estimate model parameters—services as well as of capital and people. Hence, estimates derived from static indicators are bound to be significantly lower.

4. Why GL trade is below its potential: what suppresses GcC's sales?

An in-depth analysis of factors responsible for dismal developments in GL trade would go beyond the modest format of this report. In particular, it would require conducting surveys and interviews of GcC businesses and a closer examination of the cost of trading faced by these firms as well a thorough analysis of conditions in access to TcC markets.

Yet, some observations can be derived our empirical analysis. Namely, this analysis suggests that barriers to GL trade do not necessarily have anything to do with psychology but are deeply rooted in extraordinary features of institutional arrangements governing the movement of goods across the GL. The barriers can be split into two groups: those that prevent exploiting opportunities that can be tapped within the existing supply structures; and those that prevent allocation of investment into endeavors creating networks of production and distribution cutting across the GL. The former include taxation and phyto-sanitary standards whereas the latter include restrictions on goods traded and uncertainty inherent in the existing GL trading regime. Taxation explains miniscule GL sales of GcC firms, while phyto-sanitary standards explains under-representation of agricultural products in TC GL sales. The other two restrict GL trade irrespective of the side of the island.

Psychological factors play an important role in common explanations of GL under-trading. A study on interdependence (CYP 2011: 12) quotes surveys pointing to the existence of significant psychological constraints to participate in GL crossings and trade. It notes that "... (the) psychological reservations are the major restriction on movement and one of the main factors that restricts business-to-business cooperation (CYP 2011: p. 30)". In a similar vein, Gokcekus et al (2012), using a gravity model to estimate potential trade, find that "unmeasurable and social-psychological factors" explain 60 percent of the gap between potential and actual GL trade. Other factors include legal constraints (35 percent) and extra transportation costs (5 percent). While psychological barriers may be playing some part in explaining GL trade flows, we suggest cost concerns are an important factor as well. If psychological barriers were indeed an important explanation it would be difficult to reconcile the fact that Greek Cypriots consumers do not mind buying products from TcC, but decline to sell their own products to Turkish Cypriots.

Prohibitive costs to selling in the TcC seems to us to be a more powerful explanation as to why GcC under-exports to the TcC. Other explanations, including psychological barriers, seem unable to explain the dominance of one-way trade across the GL. In particular, explanations that indicate trade barriers related to crossing the GL fail to note that the GLR applies to products brought from TcC not from GcC, and the latter under-trades significantly while the former does not. Certain barriers related to the implementation of GLR may explain losses in potential TcC sales of products that are explicitly banned by its provisions. But as argued throughout this note, the gap between potential and TcC's actual GL sales is rather small and far below the gap in the GcC's GL sales.

Tax policies can provide an explanation of under-trading by GCc. TCc authorities regard GL sales as exports and subject firms selling their products to GCc clients to the same rules as in other external markets. TCc firms participating in GL trade enjoy the same incentives as other exporters and, among others, obtain VAT refunds on GL sales. On the other hand, GCc does not consider GL sales as exports but rather domestic final sales that are subject to VAT. As a result, the price of a product offered by a GCc firm has to include VAT. Since the price includes VAT, importer has to bear its cost and additionally, it will also have to pay the local VAT levied on imports. The base for the local VAT is the invoice price including 'external' VAT. An example presented in Table 6 provides an illustration of the resulting trade diversion: in this example, even a producer with a product 10 percent more expensive can crowd out a more efficient GCc producer who has to carry the extra VAT burden. Consumers must pay 13 percent more for the product 'X', while the authorities collect 32 percent more in taxes. The practice of VAT refunds on exports, commonly adhered to in most countries including the EU, make it much more difficult, if not entirely impossible for products subject to high VAT rates, for GCc businesses to trade with the TCc.

Table 6: Illustration of the impact of the absence of VAT refund on export price of a GCc

	GCc	Other
Export price of a product 'X'	100	110
Cost of freight and insurance	7	7
Domestic VAT (20%)	20	refunded
Offered price for exports	127	117
Import price (wharfage charge--4.4% and VAT-20%)	158	146
Import price if domestic VAT refunded (wharfage charge--4.4% and VAT-20%)	129	146
Tax collected if VAT refunded	22	29

GL sales of these products. Our analysis shows that agricultural products are the most under exported goods from the TCc to the GCc. These products have to meet rather demanding EU phyto-sanitary standards. Meeting these standards requires time and resources. Both of these have been available: more than ten years that passed since the opening of the GL to trade in goods; and TCc has been a recipient of substantial assistance from the EU. Yet, the certification process for agricultural products has not been completed. Note that the issue has nothing to with the GLR: either the European Commission or the TC authorities bear the responsibility for the absence of a permanent solution, or both.

Since protection of agricultural markets is in the EU much higher than that of markets for industrial products, the potential for growth in sales is particularly high once the barriers are removed. Preferential margins, i.e., differences between tariff rates faced by non-preferential and preferential suppliers are one of the measures of value added brought by the regional trade agreement. By this measure alone, the value for TCc of the GLR was not high. Industrial products accounted for 85 percent of GL sales in 2012: more than one third of industrial products was subject to zero tariff rates and another 20 percent to 1.5—2.0 percent tariff rates. Two large exports (exceeding \$100,000 in 2012), knotted netting of twine (HS5608) and tableware (HS3294), accounting for around 23 percent of industrial GL sales, enjoyed margins exceeding 6.5 percent. In contrast, potatoes, one of a few agricultural products sold in GCc, would be subject to variable duty or at least 11.5 percent if originated in a third country.

Restrictions on the entry of goods into the GCc suppress the potential for growth of GL trade and prevent the emergence of more sophisticated division of labor across the GL. In contrast to standard preferential trade agreements, where exporters have an option of ignoring the rules of origin in favor of non-preferential treatment, TC businesses do not have this option. As noted earlier (see Introduction), the critical difference between GLR and standard preferential trade agreements is that rules of origin in the latter are used to determine **not the entry** but whether a good can obtain preferential treatment. More specifically, a product not meeting the rules of origin can still enter the customs area, unless banned for health or security reasons, but subject to conditions faced by products originating in non-preferential trading partners. In a nutshell, only goods meeting the rules of origins are allowed to cross

the GL into GCc.⁸ Since global networks of production and distribution imply movement of products with high import content across borders, participation of both GC and TC businesses in the same global chain would be impossible. In consequence, the ban on entry of goods that do not satisfy the rules of origin discourages the development of vertical trade as well as of trade in potentially more sophisticated manufactured goods as they usually require significant inputs of imported components.

Similarly, uncertainty about stability of GL regulatory arrangements stemming from the absence of any legal commitments that would bind all participants do not augured well for any investment projects that would address market opportunities in respective parts of the island.

Conclusions

In spite of almost a decade that has elapsed since the introduction of a special regime for intra-island trade, stable commercial relations linking together producers and consumers in both sides of the island in networks of mutual exchanges have so far remained largely elusive. Nevertheless, a one-way flow of goods from TCc to GCc seems to have emerged and is quite robust to cyclical fluctuations. The 2008-2012 period witnessed stagnation in GCc sales and a steep contraction in TCc GL sales since their peak in 2008. The contraction can be largely explained by developments in GCc economy in 2008-12: the fall in import demand brought about by the slump of global trade subsequently exacerbated by the banking crisis. Relative to the peak in 2008, both total imports and GL purchases stood in 2012 at 68 percent of their respective levels in 2008.

While a positive development that TCc sales were not more affected in GCc markets than of other exporters to GCc, an important point to consider for future trade growth is that that beyond 2008 there were very little gains. From this perspective, this was a lost decade. First, intra-island has not moved towards more stable two-way intra-industry trade suggesting an absence of any progress towards more sophisticated division of labor that would link both communities. Ten years later GL intra-land trade still consists of irregular exchanges. Moreover, the composition of TCc sales barely changed in 2007-12.⁹ Volatility in sales of individual products especially acute in GL sales by GCc firms indicate their marginal status as suppliers in TCc markets. Although the composition of TCC GL sales was more stable, products that originated in TCc accounted for a very small fraction of consumption in GCc.

Second, relative to the GDP of the two respective economies, trade fell over the last five years. GL sales has been losing relevance to economic welfare in both sides of the island. Business community in particular in GCc seems to have little or no stake in this trade as it has always stood well below one percent of total exports and purchases in the TCc and contributed even less to total imports of goods. In terms of their respective imports of goods, GL purchases amounted to 0.07 percent for both GCc and TCc in 2012. However, the economic relevance of GL sales for TCC remains important to a number of TCc businesses for which GL sales are the only opportunity to go beyond local markets.

The objective of the analysis in this section was not to gauge the impact of GLR on intra-island trade but to apply tools commonly used in regional trade analyses to assess potential static gains from the removal of barriers to trade. Simple standard tools of this analysis help identify patterns of similarity and complementarity in foreign trade flows of two economies, which, in turn, allow an evaluation of the potential for increases of trade flows without in-depth analyses of respective productive structures. Potential static gains that are implicit in the foreign trade patterns of GCc and TCc are significant. The most important result of this analysis can be summarized as follows: both sides of the island under-trade with each other and both would have obtained substantial welfare gains from closing the gap between actual and the potential. This is possible even without new investments in the industrial base. Flows of goods originating in GCc have been well below the levels indicated by the patterns of GCc's export specialization and the composition of import demand in TCc. The gap between the potential as revealed in foreign trade activities and actual performance has been particularly acute for GCc.

⁸ According to Article 4 of the GLR, goods can enter under "... the condition that they are wholly obtained in the areas not under effective control of the Government of the Republic of Cyprus or have undergone their last, substantial, economically justified ..."

⁹ Gokzekus (2007) noted that by 2006 GL trade "now appears to have reached a ceiling." While during the first six months following the entry into force of the GLR in May 2004, the number of product categories increased from three to 13 per month and then stabilized at 14 per month.

On the other 'side,' although TCc GL sales are more aligned with its existing export capacities, there is still room for expansion. One of the most surprising findings relates to the potential for an increase of TCc GL sales of agricultural products. Contrary to what might expect given similarity in endowments shaping agricultural production, i.e., the same climate and soil across both sides of the island, it appears that there is potential for a significant increase in GL sales of agricultural goods from TCc.

Our estimates of under-trading are lower than estimates derived from gravity models in part because they do not take into account dynamic effects associated with free trade, i.e., those effects that will take place as a result of investments triggered by regional liberalization. For instance, Gorcekus et al (2012: 864) estimate that the value of potential trade is around 8 times higher than its actual levels. Estimates derived from static indicators are bound to be significantly lower.

An empirical analysis of developments in GL trade cast against a broader context of trends in foreign trade of GCc and TCc shows that there is untapped potential for both sides for greater gains from GL trade. The gap for TCc's GL sales is relatively low, as active pursuit of GL sales opportunities combined with a narrow export base does not leave much space for expansion. The difference between potential and actual stems from the contraction in GCc business activity due to the crisis, on one hand, and, on the other hand, not meeting EU phyto-sanitary standards by potential agricultural exportables. As for the GCc, a critical factor in suppressing GL sales is their treatment by GCc authorities as domestic final sales not subject to a customary refund of VAT. This reduces GCc's GL sales offer to products subject to zero or very low VAT rates.

Commercial relations across GL have not only remained erratic, albeit with some notable exceptions (suppliers of construction materials and plastic producers from TCc), also one-way with shipments originating from the TCc towering over those from GCc. But, the gap is also significant for TCc GL sales: if TCc firms could capture five percent of GCc imports of products of which the TCc is a net exporter, this would increase TCc's GL sales by 33 percent in terms of 2012 sales. On the other hand, if GCc firms could capture five percent of TCc imports of which the GCc is a net exporter, this would increase GCc's sales four-fold in terms of 2012 sales. These estimates suggest a potential increase in GL turnover from around US\$6 million to more than US\$12 million.

The key reasons for GL trade underperformance have been identified as follows:

- **Taxation:** While exports are subject to VAT refunds on both sides of the GL, the GoC does not apply it to GL sales by GCc businesses. GL sales are treated as domestic sales, and the VAT on these sales is not refunded. This in turn raises the price of a GC offered product by the VAT rate. At such an artificially elevated prices, their offer is unlikely to be competitive vis-à-vis suppliers from other EU-members or Turkey.
- **Phyto-sanitary standards.** Our analysis shows that agricultural products are the most under-exported goods from the TCc to the GCc. GCc imports a number of agricultural products that are exported by TCc suggesting possible GL sales once restrictions are removed. Since preferential margins are particularly high on agricultural products because of high levels of protection, the lack of access dramatically lowers economic benefits of the GLR.
- **Uncertainty inherent in the GL regime and entry restrictions:** while no price tag can be easily produced for these two barriers, their combined effect is the existence of strong disincentives to invest in projects that would seek to tap market opportunities in both parts of the island. The combination of uncertainty and access through the GL restricted solely to goods that satisfy the rules of origin discourages the development of vertical trade as well as of trade in potentially more sophisticated manufactured goods as they usually require significant inputs of imported components.

Thus, the major policy recommendations to accelerate GL trade include the following: exempting GCc producers from paying VAT on their GL sales, which appears to be one of the largest barrier to GL sales; certifying agricultural production in line with the EU's standards in TCc; and overhauling the rules governing entry of products through the GL. These measures would help to exploit untapped gains from GL trade and trigger investments with an eye on exploiting comparative advantage in either side of the island.

References:

- Brenton, P. and M. Manchin, 2002. "Making EU Trade Agreements Work: The Role of Rules of Origin", Centre for European Policy Studies Working Paper No. 183, Brussels: CEPS. [CYP 2011]: *Economic Interdependence: Main Findings and Recommendations*. Peace Economics Consortium, Nicosia
- Donmezer, Ayse and Costas Apostolides. 2006. *Constraints to Intra-Island Trade*, Edge, USAID, Nicosia, March.
- Gokcekus, Omer. 2007. *Green Line Regulation and Its Economic Implications in Cyprus*, John C. Whitehead School of Diplomacy and International Relations, Seton Hall University, *unpublished manuscript*.
- Gokcekus, Omer, Jessica Henson, Dennis Nottebaum, and Anthony Wanis-St John. 2012. "Impediments to trade across the Green Line in Cyprus: Classic barriers and mistrust," *Journal of Peace Research* 49 (6), pp. 863-872
- Hatay, Mete, Fiona Mullen and Julia Kalimeri. 2008. "Intra-Island trade in Cyprus: obstacles, oppositions and psychological barriers." *PRIO Paper 2/2008*, International Peace Research Center, Oslo, Norway
- Hoekman, Bernard, Aaditya Mattoo and Philip English, eds. 2002. *Development, Trade, and the WTO*, World Bank, Washington D.C.
- Noë, Willem and Max Watson. 2005. "Convergence and Reunification in Cyprus: Scope for a Virtuous Circle." *ECFIN Country Focus*, Vol. 2, Issue 3, 1-7.
- WB 2014: *Private Sector in the Turkish Cypriot Economy: A Critical Overview*, mimeo, World Bank.
- WB 2010: *Cyprus: An Economic Update of the Turkish Cypriot Community*, Poverty Reduction and Economic Management Unit, Europe and Central Asia Region, World Bank, Washington DC, September 30.
- WB 2007: *Sustainability and Sources of Economic Growth in the Northern Part of Cyprus*, Volume II: Technical Papers, Poverty Reduction and Economic Management Unit Europe and Central Asia Region, World Bank, Washington DC, March 7.

Statistical Appendix

Appendix Table 1: Salient features of trade of GCC and TCC in 2005-12	22
Appendix Table 2: Intra-island trade within four-digit HS sectors is one-way from TCC to GCC except for nine HS sectors listed below (in thousands of US\$ in 2012).....	22
Appendix Table 3: Measures of variation in GL GcC sales for the largest four-digit HS products in 2007-12 (in thousands of US dollars and percent)	23
Appendix Table 4: Salient features of TCC GL sales in the context of total TC exports in 2012 (in thousands of US dollars and percent).....	23
Appendix Table 5: Exports profiles of GCC and TCC in 2012: Ten largest exporting double-digit HS sectors in 2012 (in percent and thousands of US dollars).....	24
Appendix Table 6: GCC exports and TCC imports exceeding US\$100,000 in 2012 (in thousands of US dollars)	24
Appendix Table 7: GL GGC's sale of products of which GGC net ROW exports and TCC ROW imports were above US\$100,000 in 2007-2012 (in thousands of US dollars and percent)	24

Appendix Table 1: Salient features of trade of GCC and TCC in 2005-12

	2005	2006	2007	2008	2009	2010	2011	2012	LSG rate 2006-12
GCC Exports (in millions of US\$)	1,546	1,415	1,486	1,713	1,351	1,506	1,955	1,826	4.2
Share of industrial products (in percent)	81.9	79.6	76.4	77.4	76.0	77.1	79.3	80.5	n/a
GCC GL sales (in thousands of US\$)	311	1,299	1,332	1,559	1,131	962	1,906	1,216	0.1
GCC Imports GDP (in millions of current US dollars)	6,382	7,046	8,749	10,849	7,933	8,645	8,789	7,377	-0.3
	16,998	18,436	21,842	25,322	23,543	23,132	24,851	22,767	2.9
Exports in percent of GDP	9.1	7.7	6.8	6.8	5.7	6.5	7.9	8.0	n/a
Imports in percent of GDP	37.5	38.2	40.1	42.8	33.7	37.4	35.4	32.4	n/a
TCC Exports (in millions of US\$)	70	72	89	94	71	96	120	116	7.3
Share of industrial products (in percent)	19.6	19.2	16.1	17.1	18.1	13.2		16.0	n/a
Total non-electricity GL sales to Southern Part (in \$ '000)	1,692	3,277	4,132	7,171	6,006	5,924	5,317	4,196	3.8
TCC Imports GDP (in millions of current US dollars)	1,256	1,376	1,539	1,681	1,326	1,604	1,700	1,705	2.8
	2,328	2,845	3,599	3,996	3,503	3,751			5.3
Exports in percent of GDP	3.0	2.5	2.5	2.4	2.0	2.6			n/a
Imports in percent of GDP	54	48	43	42	38	43			n/a

Sources: Own calculations based on the World Bank's World Development Indicators database and Turkish Cypriot State Planning Organization

Appendix Table 2: Intra-island trade within four-digit HS sectors is one-way from TCC to GCC except for nine HS sectors listed below (in thousands of US\$ in 2012)

HS	Description	TCC GL sales	GCC GL sales	Trade Balance TCC
0301	Live fish	341	128	213
1806	Bread, pastry, cakes, biscuits and other bakers' wares, whether or not containing cocoa	14	32	-18
3214	Glaziers' putty, grafting putty, resin cements, caulking compounds and other mastics; painters' fillings;	11	260	-249
3923	Articles for the conveyance or packing of goods, of plastics; stoppers, lids, caps and other closures, of plastics:	29	9	20
3924	Tableware, kitchenware, other household articles and hygienic or toilet articles, of plastics:	655	1	654
3926	Other articles of plastics	20	2	18
7308	Structures (excluding prefabricated buildings of heading 9406) and parts of structures	93	19	74
7610	Aluminum structures	11	1	10
8407	Spark-ignition reciprocating or rotating	45	4	41
Total two-way trade (in thousands of US dollars)		1,220	456	767
Share in total GL sales (in percent)		25	37	21
Total one-way trade (in thousands of US dollars)		3,675	760	2,912

Source: Own calculations based on data from the TCC's Department of Trade.

Appendix Table 3: Measures of variation in GL GCc sales for the largest four-digit HS products in 2007-12 (in thousands of US dollars and percent)

HS	Description	Average sales in 2007-12	Sales in 2012	Coefficient of variation*	Average share in total, 2007-12	Min in % of Max Sales
3214	Glaziers putty	282	260	0.152	20.7	70.8
6905	Roofing tiles	158	178	0.234	11.6	47.3
2208	Undenatured ethyl alcohol	130	153	0.722	9.5	5.7
84 (13 HS 4-digit items)	Machinery and parts	107	55	0.585	7.8	26.2
4902	Newspapers, journals and periodicals	77	9	1.274	5.6	3.6
2711	Petroleum gases	69	0	1.728	5	0
302	Fish fresh or chilled	64	128	1.183	4.7	0
701	Potatoes	56	0	1.068	4.1	0
10 (3 HS 4-digit items)	Cereals	52	2	1.872	3.8	0.5
8535	Electrical apparatus for electrical circuits,	51	0	2.049	3.8	0
Total above		1,045	785	0.23	76.6	58.2
All products		1,365	1,216	0.24	100	61.7

* Coefficient of variation is equal to the ratio of the mean to standard deviation

Source: as in Table 1.

Appendix Table 4: Salient features of TCc GL sales in the context of total TC exports in 2012 (in thousands of US dollars and percent)

HS	Specification	GL Sales	Share in total GL	Share in total exports	Share of GL sales in total exports
6802	Worked monumental or building stone	1,049	21.4	1.7	54.8
39 (8 HS4-digit)	Plastics and articles thereof.	777	15.9	1.0	71.1
72 (2 HS4-digit)	Waste and stainless steel.	741	15.1	6.5	10.3
9403	Other furniture	378	7.7	0.6	54.0
0302	Fish, fresh and chilled	341	7.0	0.7	47.1
5608	Knotted netting of twine	324	6.6	0.3	92.5
07 (2 HS4-digit)	Potatoes and edible vegetables	305	6.2	3.0	9.2
7802	Lead waste and scrap.	158	3.2	0.6	24.0
Total above		4,073	83.1	3.4
Memorandum: HS double-digit products with GL shares in their total respective exports above 90 percent					
23	Residues & waste from the food industry	47	1.0	0.0	100
59	Impregnated, coated, cover,	27	0.6	0.0	100
46	Manufactures of straw	21	0.4	0.0	100
32	Tanning/dyeing extracts	19	0.4	0.0	100
96	Miscellaneous manufactured articles	8	0.2	0.0	100
74	Copper and articles thereof.	43	0.9	0.0	99.4
73	Articles of iron or steel.	114	2.3	0.1	99.1
69	Ceramic products.	109	2.2	0.1	96.6
56	Wadding, felt & nonwoven;	324	6.6	0.3	92.5
62	Art of apparel & clothing	36	0.7	0.0	91.8
Total above		747	15	0.7	95.6

Source: Own calculations based on TCC's Department of Trade data

Appendix Table 5: Exports profiles of GCC and TCC in 2012: Ten largest exporting double-digit HS sectors in 2012 (in percent and thousands of US dollars)

HS	Description	GCC Exports	Share in X in %	HS	Description	TCC Exports	Share in X in %
30	Pharmaceutical products.	283,631	18.06	04	Dairy products; eggs; natural honey	33,951	32.2
29	Organic chemicals.	144,258	9.18	08	Edible fruit and nuts	26,484	25.1
85	Electrical machinery, parts	107,723	6.86	22	Beverages, spirits, vinegar.	11,699	11.1
27	Mineral fuels, oils & their products	83,395	5.31	72	Iron and steel.	6,488	6.1
04	Dairy products; eggs; natural honey	83,212	5.30	02	Meat and edible meat offal	6,122	5.8
71	Natural/cultured pearls, precious stone	77,813	4.95	21	Miscellaneous edible preparations.	4,438	4.2
84	Nuclear reactors, boilers, machinery	63,533	4.04	07	Edible vegetables and certain roots	3,028	2.9
24	Tobacco and manufactured	59,303	3.78	25	Salt; sulphur; earth & stones;	2,998	2.8
74	Copper and articles thereof.	57,752	3.68	76	Aluminum, articles thereof.	1,443	1.4
07	Edible vegetables and certain roots	54,154	3.45	34	Soap, organic surface-active	1,307	1.2
Total above		1,014,772	65	Total above		97,957	93
Total exports		1,570,888		Total exports		105,507	

Source: UN COMTRADE database for GCC exports and TCC Department of Trade for TCC exports

Appendix Table 6: GCC exports and TCC imports exceeding US\$100,000 in 2012 (in thousands of US dollars)

HS-4	Products	GCC Exports	GCC Net Exports	TCC imports
8430	Other moving, grading, leveling,	1,388	999	44,244
2523	Portland cement, aluminous cement,	12,812	11,813	14,858
8419	Machinery, plant or laboratory equipment	15,460	5,243	5,868
3823	Industrial monocarboxylic fatty acid	660	431	5,055
1704	Sugar confectionery	617	617	2,982
4817	Envelopes, letter cards, plain post	4,177	2,750	2,741
1518	Animal or vegetable fats and oils	758	719	2,700
1101	Wheat or meslin flour.	6,650	1,593	2,184
0701	Potatoes, fresh or chilled.	42,813	36,700	2,110
3916	Monofilament of which any cross-section	8,479	5,318	1,952
8702	Motor vehicles for the transport of persons	23,545	18,849	1,860
8472	Other office machines	2,611	221	1,287
8716	Trailers and semi-trailers; other vehicles	28,434	26,107	1,112
2501	Salt (including table salt and denatured salt) and pure sodium chloride	4,777	3,034	962
7303	Tubes, pipes and hollow profiles,	9,396	7,758	699
9003	Frames and mountings for spectacles	2,734	295	522
8524	Records, tapes and other recorded music	19,977	11,970	347
3507	Enzymes; prepared enzymes	1,341	450	322
8469	Typewriters other than printers	189	172	314
8480	Moulding boxes for metal foundry;	1,263	137	214
9402	Medical, surgical, dental or veterinary	11,413	10,506	195
4201	Saddlery and harness for any animal	2,072	1,583	187
8908	Vessels and other floating structures	730	720	185
4010	Conveyor or transmission belts	1,790	210	164
4017	Hard rubber (for example, ebonite)	872	860	161
9012	Microscopes other than optical microscope	774	445	158
8425	Pulley tackle and hoists	1,629	645	137
Total above		207,360	150,142	93,519

Source: Based on data from the UN COMTRADE database (for GCC) and Department of Trade (for TCC).

Appendix Table 7: GL GGC's sale of products of which GGC net ROW exports and TCC ROW imports were above US\$100,000 in 2007-2012 (in thousands of US dollars and percent)

HS	Description	2007	2008	2009	2010	2011	2012
2501	Salt (including table salt and denatured salt) and pure sodium chloride	0.0	0.0	0.8	32.1	102.6	101.6
8419	Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514)	0.0	0.0	20.9	17.0	41.4	34.9
8716	Trailers and semi-trailers; other vehicles, not mechanically propelled; and parts thereof:	0.0	0.0	0.0	0.0	10.2	16.6
3823	Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols:	40.4	27.6	15.4	0.0	0.0	3.5
Memorandum: Share in total GL sales		3.0	1.4	3.0	5.1	8.1	12.9

Source: Based on data from the UN COMTRADE database (for GCC) and Department of Trade (for TCC).