

Economic Repercussions of Opening the Border to Labour Movements between North and South Cyprus

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Abstract

Policy changes in North Cyprus represent the first phase of integration of the labour markets of North and South Cyprus. Employment of construction workers from the North by South Cyprus has reduced the supply of workers in North Cyprus, while increasing individual incomes. To study the effects on economic well-being and wealth allocation in North Cyprus, a computable general equilibrium (CGE) model of the economy is employed. Moves to maintain labour market stability by issuing additional permits to workers entering North Cyprus from Turkey are also studied.

This policy has significantly benefited all stakeholders in North Cyprus.

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Introduction

In this paper a computable general equilibrium (CGE) model is used to analyse the impact of a number of important labour market changes made by both North and South Cyprus in the period 2003–2012. For 30 years the border between North and South Cyprus was closed for the movement of both labour and goods. In April 2003 the border was suddenly opened for the movement of labour (construction workers), though for practical purposes it has remained closed for goods and services. This has led several thousand construction workers to commute daily from the North to jobs in the South.

This evaluation also includes examination of the policy of North Cyprus to balance its needs for such skilled labour by issuing additional work permits for construction labour from Turkey to work in the North.

North Cyprus is a small economy that shares the island of Cyprus with the much larger economy (but small in absolute terms) of the Republic of Cyprus (South Cyprus). While North Cyprus is not internationally recognised as a sovereign state, its economy functions in many ways as an independent economic entity. At the same time its governmental fiscal relations are similar to those of a province or state within Turkey.

Such features make the general equilibrium adjustment of North Cyprus an interesting subject for study. As a state within a country it uses the Turkish lira as its currency and has a completely open capital market. Furthermore, all major currencies (Turkish lira, UK pound, euros and US dollars) are freely convertible. The characteristics of the labour market of North Cyprus are unique, but most resemble those of an independent national entity, with control over residency and working status within the territory.

A special feature of the labour market is that the part of the population who can prove that they are ethnically pure Turkish Cypriots (as distinct from being Turkish or being born in North Cyprus with Turkish parents) are treated as EU citizens and face no restrictions on movement and work in any EU country. At the same time there is a subset of these Turkish Cypriots who are in the construction trades and are allowed to commute daily to work in South Cyprus for higher wages than are available in North Cyprus. These workers serve as a reserve labour force for the construction industry in South Cyprus. They are the last to be hired and the first to be laid off as the economy of South Cyprus expands and contracts. For reasons ranging from discrimination on the demand side to reluctance on the supply side, very few skilled or professional Turkish Cypriots end up working in South Cyprus, although they have been highly successful in pursuing careers almost everywhere else in the world.

At the same time, these skills, and many others, can be supplied in large numbers from Turkey by people who are ready and willing to work on a temporary or extended basis in North Cyprus. This supply of labour is controlled through a system of work permits.

At the present time North Cyprus is attempting to grow rapidly in order to catch up with the level of per capita income enjoyed by the residents of South Cyprus (or at least the level of income that the South enjoyed prior to 2013) and also to prepare itself to be ready to become integrated into the EU. It is pursuing these objectives while trying to retain its cultural identity as a “Turkish Cypriot” nation and not to be overwhelmed in terms of population and culture by immigrant workers (temporary or permanent) from Turkey.

In North Cyprus the supply of savings is not restricted to the amount of domestic savings. There is a large potential flow of savings available and ready to augment domestic savings to finance worthy (and some unworthy) investments. The savings come mainly from Turkey and

the UK. In addition, a substantial amount of funds is available from international savers who are looking for a safe haven (or low tax rate) for their funds. In turn, branches of Turkish banks collect savings in North Cyprus that are used to finance investments elsewhere. In North Cyprus the only factor of production that is truly fixed is the supply of land. This constraint is particularly relevant for beach-front land, as tourism is a leading sector in the economy.

The output of the economy is dominated by two specialised service sectors: tourism (including second-home tourism, which is a large component of the demand facing the construction industry) and the higher education sector, which caters largely to students from outside North Cyprus. Hence, changes in policies and economic circumstances that alter the demand for these key internationally traded services supplied by entrepreneurs in Northern Cyprus will have an immediate impact on the demand and supply of labour and capital in the economy, and will lead to price adjustments for land, which is a major component of the wealth of the title-holders of the land.

In order to study how different economic policy strategies will affect the traditional measures of economic well-being and wealth allocation in North Cyprus, a CGE model is employed. This is designed to be descriptive of the economic relationships it embodies, and the policy options it faces.

From the results of this analysis the immediate economic welfare impacts of this policy change are measured. In addition, consideration is given to whether these policies are likely to enhance or reduce the incentives for an ultimate resolution of the conflict between the interests of the two communities that share the island of Cyprus.

Methodology and Model

The CGE Model

The CGE model used in the quantitative analysis in this study is the one constructed by Giritli and Ugural (2013). It is similar to the one constructed by Shoven and Whalley (1984) with production-commodity, institution, price and system constraints blocks. A country-specific CGE model is constructed under the constraints that the equilibrium conditions are satisfied through market clearance. Firms are competitive with zero profits, income balances expenditure, and there exists a unique set of equilibrium prices. Furthermore, all agents are assumed to be rational and price takers.

A micro-consistent benchmark dataset in the form of a Social Accounting Matrix describes the economy, which contains 13 industries. Intermediate goods are used in production according to a Leontief fixed-coefficient function. A three-level nested constant elasticity of substitution (CES) production function with four factors, namely, unskilled labour, capital, skilled labour and land, is used to describe the production technology of each sector. These three-level nested production functions allow different elasticities of substitution between the different pairs of factors that are descriptive of the structure of the North Cyprus economy. Skilled labour, unskilled labour and reproducible capital are assumed to be mobile, but land and natural resources are fixed. The household sector consumes and saves while maximising its utility subject to its income constraint. Investment is financed by the total savings of households, government and the foreign savers who bring their savings to Cyprus.

In this model investment demand in each industry is obtained through a constrained optimisation of the amount of planned investment subject to total savings. Government expenditures are exogenous, tax instruments are endogenous, and the government budget balance

is kept fixed. Demand for imported commodities compared with that for their domestically produced counterparts is represented by a CES utility function using the Armington (1969) assumption. Export supply is represented by a constant elasticity of transformation (CET) function.

Labour Market Policy Change

Following the opening of the borders in 2003 the business community of South Cyprus saw a potential source of supply of skilled construction workers who had several advantages over the temporary foreign workers that they would otherwise employ. The most important of these was that the Turkish Cypriot workers could easily commute daily from their homes in the North to the job sites in the South. This reduced the financial and social costs borne by the employers and residents of South Cyprus that are associated with the migrant construction labour from other poorer EU countries that would be inclined to settle permanently in South Cyprus. If the demand for such labour declines and the workers become unemployed, they will expect South Cyprus to assist in alleviating their economic distress. In contrast, for the Turkish Cypriot workers who commute daily to the South, if the demand for their services declines (as has been the case in 2013) then any unemployment problems associated with these workers are exported to North Cyprus. From the perspective of Turkish Cypriots, working in the South represents an opportunity to enjoy substantially higher wage rates without leaving home.

Between 2003 and 2010 the number of Turkish Cypriot construction workers employed in the South's labour market averaged about 10 per cent of the North's unskilled labour supply, or about 3,000 individuals (Table 1). Both the social security records of South Cyprus and the estimates made by Kalimeri, J., Mullen, F. & Hatay, M. (2008) yield similar figures for the

number of commuting workers. As the recession in South Cyprus became more serious after 2010, the number of Turkish Cypriots employed in the South reduced. However, when the economy of South Cyprus recovers it is expected that a large number of North Cypriot construction workers will once again be employed in the South.

Table 1 Employment in Cyprus

	Turkish Cypriot workers employed in South Cyprus	Turkish workers employed in North Cyprus
2003	2,410	6,597
2004	3,639	7,734
2005	3,772	12,692
2006	3,470	27,032
2007	2,730	33,694
2008	2,801	31,589
2009	2,418	28,616
2010	2,167	28,627
2011		25,806

Source: Social Insurance Service, South Cyprus; Department of Labour, North Cyprus

As the Turkish Cypriot workers bring their earnings to the North, this becomes an inflow of external income, and an increase in aggregate demand from the perspective of the economy of North Cyprus. The annual amount of this external income during the period 2003–11 was approximately 12.5 million TL (in 1998 prices) Apostolides C., Apostolides A., Eminer F., Guryay E., Loizou L. M., Ozyigit A. Papadopoulos C. I. & Safakli O. V. (2011). On the other hand, the tightening of the unskilled labour market in North Cyprus has created an employment opportunity for foreign workers, mainly from Turkey, to come at the prevailing wage rates and satisfy the demand for labour in North Cyprus. These construction workers sourced in Turkey are substituted for the Turkish Cypriot workers who have left the North's workforce for

employment in the South. During the period following 2003 a great deal of investment also flowed into North Cyprus as a result of the improved political climate there. This brought an additional demand for labour, which was also sourced from Turkey. The analysis in this paper is focused only on the incremental policies implemented by the Republic of Cyprus to allow Turkish Cypriot workers to be employed in the South. It does not attempt to model the large increase in demand for the construction of tourist homes in North Cyprus after 2004, when the economic uncertainty and political risks of non-nation status were greatly reduced.

Defining the Policy Simulations

In the first policy simulation carried out with the CGE model, to assess the economic impacts of the opening up of the South Cyprus labour market to construction workers from North Cyprus, it is assumed that the authorities in North Cyprus authorise just enough workers from Turkey to keep the total workforce in North Cyprus unchanged. Hence, the net shock to the economy of North Cyprus is to experience an increase in expenditure of 12.5 million TL from the income of individuals who now work in the South but live and spend their income in the North. Turkish Cypriot workers in the South are better off working in the South, as their earnings prior to starting work in the South were lower. Thus, no less than 93 per cent reported a significant increase in their pay in the South over previous earnings in the North, the majority reporting up to 25 per cent higher pay Katircioglu, S., Lisaniler, F.G., Mehmet, O. & Tahiroglu, M. (2007). In the second policy simulation it is assumed that the number of Turkish workers coming to the North is increased further with the objective of maintaining the same real wage for unskilled labour as existed prior to the exodus of the North's construction labour to the South. The reason for this assumption is that the construction industry in North Cyprus is supplying the new

holiday homes that are in demand from foreign residents. In order to maintain their internationally competitive position, the authorities in North Cyprus would prefer there to be no rise in the real wages for construction labour. This is also true for many service industries, such as restaurants, which rely on lower-skilled workers to provide the labour they need.

In general, wages for this type of labour are much higher in North Cyprus than in Turkey. The statistics derived from a special random survey reveal that 39.1 per cent of the guest workers earn 50 per cent higher wages in North Cyprus compared with their previous earnings in Turkey, while a further 25 per cent reported pay that was 25–50 per cent higher. In total, 85.1 per cent reported significant pay increases in North Cyprus compared to previous earnings in Turkey Katircioglu, S., Lisaniler, F.G., Mehmet, O. & Tahiroglu, M. (2007). Hence, by changing the number of work permits issued to Turkish workers, the construction labour wage rates in the North can be controlled, since as many workers can be sourced as are needed at the prevailing wage rate.

In addition to the labour mobility and the inflow of income from South Cyprus there is also a capital inflow into the North as the expansion of aggregate demand creates an increase in the demand for goods and services produced in the North, and hence the derived demand for capital also increases. With the international price of capital fixed to North Cyprus, there is an accommodating supply of foreign savings from abroad. The other factor prices, such as for unskilled labour wages, skilled labour wages and rent, adjust within the model (Table 2).

In the first policy simulation it is assumed that the Turkish migrant workers spend all their income in the North. However, this is not a likely scenario. When Turkish workers come to the North and are employed through temporary work permits, most of their families remain in Turkey. As a result, they will transfer approximately half of their earnings back to Turkey.

Hence, while there are external inflows of 12.5 million TL from the South to the North, there is also an increase of about 4 million TL of remittance outflows by Turkish workers from the North to Turkey. Together the net positive remittance flow to the economy of the North is about 8.5 million TL. This is the value of the net income flow to the North that is used in the second policy simulation. The same assumption regarding capital flows is maintained. The results of the CGE model simulations of the two labour market scenarios give estimates of their impacts on factor prices, savings and investment, income, factor supplies and output.

Results of Policy Analysis

In the first scenario, the wage rates of unskilled labour in the North increase by 5.62 per cent while the price levels increase by 1.93 per cent, giving a real wage rate increase of 3.69 per cent. The nominal wages of skilled labour increase by 6.39 per cent and land rents increase by 5.85 per cent. In real terms they increased by 4.46 and 3.92 per cent, respectively (Table 2, columns 1 and 3). The price levels relative to those in Turkey increase by 1.93 per cent for the first policy simulation and 1.30 per cent for the second (Table 2, row 5). Clearly, both educated skilled labour of all nationalities and the title-holders of land in North Cyprus benefited substantially from the opening up of the labour market of the South. However, the increase in the real wage rates of unskilled labour would no doubt elicit protests from the North's construction firms and restaurant owners, who would ask for a relaxation of the number of work permits issued to workers from Turkey.

The results of the simulations for the second scenario indicate that in order to maintain the same real unskilled labour wage, additional work permits must be issued over and above the initial level of 10 per cent of the labour force. This additional migrant labour to maintain real

wage stability is estimated to be equal to 3.2 per cent of the unskilled labour force, or 32 per cent of the workers who chose to find work in the South. In both of the scenarios the results of the CGE model simulation indicate that the stimulation of capital inflows would increase the capital stock by 2.74 per cent.

The final results of the simulations for these labour market policy changes made by the governments of South and North Cyprus indicate that they increased the real wages of skilled workers by 4.12 per cent, while real land rents increased by 3.78 per cent (Table 2, column 2).

Table 2 Factor Prices and Price Level

		Simulation 1		Simulation 2	
		Percentage change in nominal terms	Percentage change in real terms	Percentage change in nominal terms	Percentage change in real terms
		1	2	3	4
1	Unskilled labour wage	5.62	3.69	1.31	0.00
2	Skilled labour wage	6.39	4.46	5.42	4.12
3	Land rents	5.85	3.92	5.08	3.78
4	Price levels	1.93	N/A	1.31	N/A

Source: Authors' creation from GAMS output for the North Cyprus economy

Overall it can be seen that the combined policy changes of South and North Cyprus have been highly beneficial to Turkish Cypriots and to workers from Turkey, who have enjoyed a substantially higher wage rate in North Cyprus than the one in Turkey. The gains by those who chose to work in the South are obvious, but skilled workers in the North also enjoyed an increase in their real wages. This 4.12 per cent increase in the real wages increased the annual incomes of skilled workers in the North by about 13 million TL. This gain is greater than that of the Turkish Cypriot construction workers who found employment in South Cyprus.

The use and ownership of land in North Cyprus that prior to 1974 was owned by Greek Cypriots is a highly contentious issue. However, it is clear that the value of this land has been enhanced by these policies. The main beneficiaries of the increase in land prices are the citizens of North Cyprus and other countries such as Turkey, the UK and the rest of Europe who own properties in the North. If there was a settlement between the two parts of Cyprus, to the degree that Turkish Cypriots were required to give up their current right to the use or sale of this land, these individuals would have more to lose from such a settlement (Gurel & Ozersay 2006 and Mullen, Orphanides & Platis 2006). Consider a situation in which the value of land in North Cyprus is worth 10 billion US dollars. If the real annual rate of return on such land were 2 per cent then the annualised increase in the return on the land of 3.78 per cent would be approximately 7.5 million US dollars, and as this value will be capitalised into the price of land a much larger increase in land prices would be expected.¹

Finally, another very contentious issue in the negotiations for reconciliation between the North and the South is the number of former residents of Turkey who now live and work in North Cyprus. The results of this analysis show that the effects of these policy changes by South Cyprus have unambiguously increased this obstacle to the ultimate political reconciliation of the two divisions of Cyprus by encouraging more workers from Turkey to come to North Cyprus to work and perhaps settle in the North.

Macro-Economic Impacts

The overall positive impacts of these policies on North Cyprus are transferred to the estimated impact on the macro-economic variables of North Cyprus. The economic impacts of the simulations are shown in Table 3. The estimated percentage increase in real GDP (gross domestic

product) is 0.78 and 1.25 per cent respectively for the two simulations. If the second simulation is taken to be the most realistic description of the policies of the two governments (Table 3, column 4), in this case it is found that real investment in the North increases by 2.51 per cent, and the real value of consumption increased by 4.3 per cent (Table 3, column 4, row 4). Real tax revenues increased by 5.11 per cent, while real public expenditure increased by 3.78 per cent. (Table 3, column 4, row 6, 7). Total real savings in the economy grew by 3.34 per cent, while the private component of this total increased by 9.89 per cent in real terms. All these results from the CGE model appear entirely reasonable, given the expected general equilibrium responses to this labour market shock.

Table 3 Changes in Main Macro-Economic Variables

		Simulation 1		Simulation 2	
		Percentage change in nominal terms	Percentage change in real terms	Percentage change in nominal terms	Percentage change in real terms
		1	2	3	4
1	GDP	2.71	0.78	2.55	1.25
2	Investment	6.3	4.37	3.81	2.51
3	Inventories	4.54	2.61	3.5	2.2
4	Consumption	6.97	5.04	5.6	4.3
5	Imports	12.16	10.23	8.99	7.69
6	Tax revenues	8.21	6.28	6.41	5.11
7	Public expenditures	6.56	4.63	5.08	3.78
8	Savings	6.2	4.27	4.64	3.34
9	Private savings	15.15	13.22	11.19	9.89

Source: Authors' creation from GAMS output for the North Cyprus economy

Conclusions and Implications for Further Integration of the Economies of North and South Cyprus

All the results of this study point to the fact that the opening of the South Cyprus labour market to construction workers from the North has produced a very substantial benefit for the economy of North Cyprus. The impacts were positive in all respects, since North Cyprus in turn has gained access to a large pool of such labour from Turkey that it is able to source on a temporary basis. The close cultural and economic ties between North Cyprus and Turkey enable this flow of labour to enter and exit North Cyprus with the minimum of disruption to the economy. Furthermore, it allows South Cyprus to export some of the unemployment that arises indirectly to Turkey in the construction labour market (for example, during the crash in the economy of South Cyprus in 2013). Because of the huge size of the construction labour force in Turkey, and the fact that the Turkish workers coming to North Cyprus are sourced from a wide geographical area, the disruption of such labour movements to the labour market in Turkey is minimal.

These policy simulations highlight a number of features of the present labour market policies on the island of Cyprus that might be considered in the evolution of market policies. First, the increased integration of the labour market for Greek and Turkish Cypriots benefits both communities. Second, allowing North Cyprus, through work permits, to control the volume of labour entering the North allows it to stabilise its labour market conditions so that a severe recession in the North or South Cyprus is absorbed to a large extent by reducing the number of temporary workers in the North from Turkey. Third, to the extent that the integration of the labour markets improves the economic situation in the North, it can be expected that land prices in the North will increase. While such an outcome will increase the wealth of the North's landowners, it also will make them less willing to accept a settlement between the two

communities that would foresee significant transfers of land back to their original Greek Cypriot owners. Lastly, while the relatively easy flow of labour at all skill levels between Turkey and North Cyprus is of great economic benefit to both Greek and Turkish Cypriots, it is likely that a greater stock of Turkish workers and eventually their families will reside in the North.

This development over time means that both Greek and Turkish Cypriots are likely to experience a greater cultural penetration of Turkey, well after the Turkish army leaves the island. Of course, this is not a unique experience within the EU, where a policy allowing the free movement of people is one of the foundations of the EU. Furthermore, as Turkish Cypriot citizens in North Cyprus, where there is a strong university system, achieve higher levels of education, they too can be expected to move from the island to seek better prospects elsewhere. Under EU conditions it would be completely natural for this labour void to be filled by people from a similar culture who reside only a few hundred kilometers away and are seeking higher incomes.

¹ According to a report done by PRIO 2/2006 land values from 2003 to 2006 in North Cyprus increased by 416 per cent. This was a result of many economic and political changes that occurred in Cyprus at that time, not only the relaxing of borders that applied to commuting workers.

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