

Northern Cyprus Economy Competitiveness Report

2017 - 2018

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Preface

As the Turkish Cypriot Chamber of Commerce, it is with our utmost honour to share our tenth edition of our report this year. This study advances to better comprehend determination of complications and difficulties positioned ahead of the expansion of our economy; as a summary, it constitutes a road map for the decision-makers, business life, academics and all other counter parts of the society.

To be competitive means, selling goods and services produced in the country at high quality, rational costs and competitive prices on local and international markets. However, increased productivity through efficient and correct use of production factors in the economy will drive support to the improvement of life standards and prosperity, as well as the country's income and citizens' purchasing.

The report presented this year shows that the difficulties identified in earlier reports has not been overcome, the problems lasting chronic and continue to affect the economy. Undesirably, our economy is not competitive. The resources are used inefficiently. And, our bureaucracy is far from providing the necessary support for the business life. On top of all, as world ranking sequence we are far behind in the field of innovation and technology utilization. Moreover, there is lack of trained technical staff. Which is why, measures to improve the business and investment environment and increase competitiveness must be taken swiftly and conclusively to comply.

In developing economies like Turkish Republic of Northern Cyprus, it is mandatory to make conclusive reforms for structural problems. In addition to the Governments' comprehensive policy enhancements, the Parliament must also work efficiently to implement the necessary regulations as obligatory process. The long-awaited work of e-government must be finalized and applied to

ensure the actual execution of the tax reform, the public reform and the public services efficiently. An effective and fair tax regime should be provided to increase the tax base and regulate tax rates. Furthermore, resolving the problems for the citizens of Turkish Republic of Northern Cyprus, mainly the insufficiency of health services, educational services and infrastructural services, that shall make a great input to the development of social welfare and at the same time it shall establish the basis for further economic development. All these developments are achievable; if only address to the difficulties with a reformist mentality and not with ordinary daily methodologies and palliative measures. To strengthen the TRNC economy and to ensure the social welfare, reform process as such, has become a fundamental necessity.

"The Dispute in the Labour Market of the Turkish Republic of Northern Cyprus", is the theme in this year's report which Turkish Cypriot Chamber of Commerce insists on drawing attention to the public agenda. Even though the result sequence of surveys conducted up to today as "Managerial Views", has been differentiated over the years, the fundamental difficulties expressed by the business people outlines the lack of labour force. The most important indicator shows that the current workforce and the workforce that are needed does not match accurately, thus the problem demonstrates that it is only primarily structural, rather than periodical. According to these scientific data' we must debate with the related parties to understand the reason behind, and how to overcome of these problems.

Conferring to the results in the theme section, the dimension of the disputes in the labour market was measured, the effects were detected, and some proposals were submitted to the decision makers. Henceforth, we assess that our report is lighting a

strong indicator as where we are positioned and what actions needed to be taken. I would like to take this opportunity to express my gratitude's to Prof. Dr. Mustafa Besim, Prof. Dr. Kamil Sertođlu and assist. Prof. Dr. Tufan Ekici whom has prepared this this year's report in a comprehensive study.

In conclusion, as the Turkish Cypriot Chamber of Commerce, we shall continue to do our best to accomplish better future together.

Yours Sincerely,

Turgay Deniz
President
Turkish Cypriot Chamber of Commerce

Executive Summary

This year's competitiveness report is drafted at a time when the global economy noticeably started to recover. However, despite the optimistic atmosphere in the European Union (EU) and the United States (US) economies, it is expected that all economies will face new risks on a global scale in 2018. The risk of experiencing political and economic conflicts, including military conflicts, in many areas in the world, primarily the Middle East, has reached a level unprecedented in recent history. This continues to worry policy developers and business communities as to what direction economic growth will take in the coming years.

Masses which cannot obtain a share of the new wealth and income generated tend to look for alternatives in democratic systems. The lion's share in this search for alternatives goes to populist political movements, as happened so many times in history. An inevitable consequence of recent political changes, a paradigm shift has started to take place in economic policies of, especially, developed countries. This process is led by the US, one of the most important actors of the global economy. In today's global economy, the concept of globalization is being replaced by other concepts such as protectionism. We also see the re-emergence of trade wars, similar to those experienced in the past. The hottest issue on the global economic agenda today is the new arrangements the US will introduce in steel imports and the measures other countries will take in response. All of this signals that confrontations in the world economy will continue to escalate in the coming years.

It is increasingly felt that current economic models and approaches do not serve mankind and societies as much as desired. As a result, calls are being made for devising new, human-centred economic development models. The value and meaning of economic growth, increasing economic inequality, challenges posed by technological change, complex and unclear effects of globalization (from trade in goods, services, and data to free movement of capital) have already started to be fiercely questioned.

It would not be an exaggeration to say that Northern Cyprus spent 2017 in a political whirlpool. Structural problems dating back many years and low economic competitiveness had, as always, a negative impact on economic growth. Economic growth rates registered in Northern Cyprus did not allow for filling in the economic gaps and creating jobs for the young entering the labour market. While the momentum gained especially in the tourism and education sectors brought about an improvement in economic indicators, the growth could not be spread across the board as intended. The top priority of those governing the country should be to transform this (possibly unsustainable) economic growth

into real development in the coming years by making it possible for all segments of society to experience income rise, enhanced quality of life and improved living standards.

Another important problem specific to the TRNC is the drop in the predictability of the Turkish lira. This situation, which had a profound effect on the import-dependent Northern Cyprus economy, where pricing is to a great extent based on foreign currency, had a negative impact on the already fragile economy. Rise of value in foreign currency caused the inflation figures in the TRNC to reach 14.7% in 2017. In addition, structural problems, such as those as regards local administrations, which have now reached a level where they are not sustainable, challenge the economic development and financial flexibility in the TRNC. Therefore, the most fundamental question that needs to be answered in a political as well as social dimension is: "Will Northern Cyprus insist on maintaining this unsustainable order by internalizing its structural problems or will it develop suitable solution alternatives in line with economic rationales detached from populism?"

Competitiveness of Northern Cyprus

Competitiveness of the Northern Cyprus economy has been measured based on the executive opinion survey conducted in the final quarter of 2017 and the official published data. As a result of the measurement, the competitiveness score of the Northern Cyprus economy has been calculated as 3.77 over 7. This score puts Northern Cyprus in the 109th position among 137 countries. Garnering 0.07 more points from last year, Northern Cyprus has moved up five places at once in the Global Competitiveness (GC) ranking. Although Northern Cyprus' country score has gone up by about 10% in the past 10 years, it has trailed between 100th and 120th in the GC ranking. This means that as the TRNC could not boost its competitiveness as much as the other countries, it has spent the last 10 years almost in a deadlock.

World Economic Forum (WEF) 2017-2018 Competitiveness Report ranks Switzerland as the most competitive country, same as last year, with a score of 5.86. While the United States ranked 3rd last year, this year it has progressed further and gotten ahead of Singapore, hence taking the second place in the ranking. The Netherlands and Germany have kept their respective fifth and sixth ranks. Hong Kong has shown impressive improvement and moved from ninth place to sixth. The top 10 is composed of six European countries, five of which are EU members, the US, and Singapore, Hong Kong, and Japan from the Far East. Turkey, our largest economic partner, has moved two places up and ranks 53rd. Southern Cyprus, with which we have a distorted

economic interaction, has been able to recover swiftly from the economic crisis it experienced, which is evident from its indicators. It has risen 19 places up in the course of the past year and now ranks 64th, moving swiftly to the 40-50 bands, where it was prior to the crisis. Having difficulty solving its economic problems that arose following the global financial crisis, Greece has gone down one step and ranks 87th.

A decade-long overview of the three subindexes of basic requirements, efficiency enhancers, and innovation and sophistication factors for Northern Cyprus shows that the country has received the highest score in basic requirements, which is higher than the overall competitiveness score of 3.77. This subindex is followed by efficiency enhancers. The score Northern Cyprus has collected in this subindex is closer to the overall country score, between 3 and 3.50, which is an area in which Northern Cyprus is still endeavouring to make progress. Northern Cyprus has the lowest score in the subindex of innovation and sophistication factors, which clearly shows that innovation is insufficient. Despite a slight increase in the score for these three subindexes, basic requirements and innovation and sophistication factors have regressed in the country ranking whereas a partial improvement can be observed in efficiency enhancers. In summary, the TRNC's competitiveness subindexes have not made sufficient progress compared to other economies.

An observation of the performance in the twelve pillars of competitiveness shows regression in five pillars, improvement in five pillars, and no change in two pillars in the country ranking. Institutionalization, a strong infrastructure, stability, and a healthy labour force are essential for the development of a country. Therefore, strengthening of institutions and improvement of the infrastructure must be policy priorities for TRNC. Market size is the worst-performing pillar under efficiency enhancers. The worst-performing pillar following market size is labour market efficiency, regarding which businesses grieve of a low level of flexibility in setting wages and a weak linkage between productivity and recruitment, dismissal, and salaries. Another problematic factor businesses face is insufficient educated labour force. This shows that there are mismatches in the Northern Cyprus labour market. This issue is analysed in detail in our thematic work.

The second most important problem for Northern Cyprus in the competitiveness index is business sophistication. In this pillar, which has been drawn up solely based on the data coming from the executive opinion surveys, business executives have given very low scores for a pillar that was about them. Considering that Northern Cyprus can only develop through private sector development, businesses must be at a development level at which they can help this growth. A decade-long performance comparison with selected economies has been made. Among the selected economies, Bulgaria and Serbia have improved most significantly over the past decade. They have boosted their competitiveness remarkably as a result of the reforms

and the changes they have realized in timely manner. Southern Cyprus recovered from the economic problems it experienced as a result of the global financial crisis in a matter of three years, registered positive growth, and has risen up 19 places at once, now ranking 64th. Turkey, with which Northern Cyprus has the most economic interaction, has made consistent progress in the past 10 years and now ranks 53rd. Competitiveness in Northern Cyprus is in a much worse state compared to the countries selected. It will especially be difficult for it to compete with Turkey and Southern Cyprus, with which it economically interacts the most. In summary, considering that Northern Cyprus is an efficiency-driven economy and it can only develop if it develops its goods and services capacity, Northern Cyprus does not have a regional competitive edge. What is worse, for the past ten years, there has not been a significant improvement in the competitiveness of the country. This demonstrates that Northern Cyprus could not bring about the necessary reforms and could not engage in a transformation that would boost development.

Competitiveness and Middle Income Trap

In the past decade, the country score has only risen from 3.43 to 3.77 - a 10% increase. However, as other countries have also progressed, not much difference can be seen in country ranking. Taken together, it appears that there is a parallel between per-capita income progression and country ranking. It seems that as there has been no improvement in country ranking there has been none in per-capita income and that it still trails between 13 and 15 thousand USD. This suggests that Northern Cyprus is stuck in the "middle income trap", where it cannot boost its competitiveness. It must get out of that trap to enhance the quality of life and living standards of its people. Especially in this issue, the competitiveness study as well as others can provide guidance.

In order to be able to escape from the middle income trap, the conclusions of the competitiveness study need to be taken into consideration. In this context, governments must have an economic vision that is internalized and on which there is a consensus. This economic vision must be comprehensive and must aim for sustainable development, must support the idea of a social state, and must strengthen the middle class. In order to ensure production of high value added products, the country must focus on an economic model that is innovative, easily adaptable to new developments, based on competitive knowledge economies, and export-oriented. Service-driven sectors (tourism, higher education) must be the leading sectors and be supported by such complementary sectors as agriculture and light manufacturing industry. This accomplishment can only come through by an effective management of the economy. Political will and an internalized vision, strong institutions and active participation of the relevant stakeholders are preconditions for the process to be sustainable and long-lasting.

Mismatch in TRNC Labour Market

The thematic work of the report this year focuses on mismatch in the TRNC labour market. Although one initially tends to think of demand and supply mismatch, there may well be several other mismatches in a labour market, rendering it inefficient. Some of these include education mismatch, skills mismatch, mismatch between working hours and wages, and mismatches caused by the general dissatisfaction with working conditions. Although it is not easy to measure mismatch, it has been concluded in the previous research that mismatch in a labour market have negative impacts on labour productivity and per-capita production in the country. Findings also suggest that mismatch in a labour market could increase the unemployment rate. We measure different types of mismatch by using various data sources and we provide policy recommendations based on our findings.

We first compare characteristics of different groups in the population before we analyse the mismatch problem. There is a significant supply of people in TRNC who are currently out of labour force but willing to work again under the right conditions. People in this group are generally undereducated, young, and have some previous work experience. Regarding the unemployed population, about 30% have university or postgraduate education. Furthermore, between 2012 and 2014, there was about 45-50% of 'long-term' (more than 12 months) unemployment. Despite a recent decrease in that figure, long-term job seeking causes low morale in people and might push them out of the labour force. 75% of the current workers have at most high school or lower levels of formal education. It can be seen that those who work in the private sector work about 49 hours per week and would like to work 10 hours less than their current working hours. The existence of high educated unemployed, employer demand of low educated workers and high potential supply of individuals currently out of labour force are all indicators of mismatch in TRNC labour market.

Following this assessment, the data from the survey conducted by Turkish Cypriot Chamber of Commerce (KTTO) in 2018 have been used to measure the education and other mismatch problems in the country. The survey was administered to 500 salaried private sector employees and respondents were asked about the education they received and the level of education they think they would need for the job they currently have. Apart from this, information was collected to measure the discrepancy between the actual number of hours they work and what they would like their working hours to be. In this analysis based on the personal statements of the TRNC private sector employees, a 55% mismatch was identified. It was also observed that the mismatch was larger among low-skilled workers and foreign workers compared with their counterparts. Moreover, 75% of the respondents said they would like to be paid more and

55% said they would like to work fewer hours. Such levels of mismatch could increase labour turnover and lower productivity (and hence the macro outcomes). We believe that both the employers and the policymakers within the state should develop policies to tackle these issues.

In the last part of the study, we offer some policy recommendations based on the analyses conducted with the limited data. In order to solve the high-educated unemployed problem, policymakers must revise the resources (scholarships, etc.) used in higher education for fields of study for which there is no need in the economy, and channel these resources into vocational education and labour force development programmes in areas where there is a real need. Moreover, it is recommended that relevant ministries and governmental units create an environment where those who are not part of the workforce but would like to work could come together with the employers. Such environments can be created by privately run employment agencies in addition to the current public ones. Furthermore, employers should be more careful and selective in recruitments, adopting methods to minimize mismatches. Employers should also organize on-the-job trainings so that their workers' productivity and satisfaction would be enhanced. "Job-guaranteed vocational training programmes" should be started with the active participation of the relevant businesses, chambers, and unions and should be expanded throughout the island. Labour force quality must be increased in order to boost efficiency and competitiveness in the economy. In this respect, a vocational certification system should be established and efforts should be made to ensure flexibility in the labour market. For this, the government should put the concept of "flexicurity" in the Lisbon Strategy on the agenda and create the necessary legal basis for it. Tax and social security regulations should also be modified in order to promote flexible working conditions.

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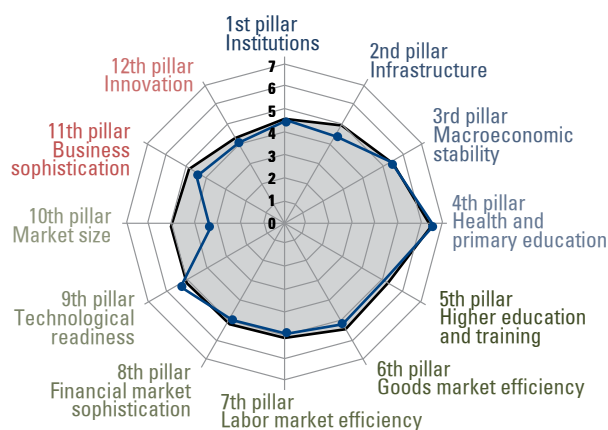
North Cyprus 109th / 137

Key Indicators, 2016

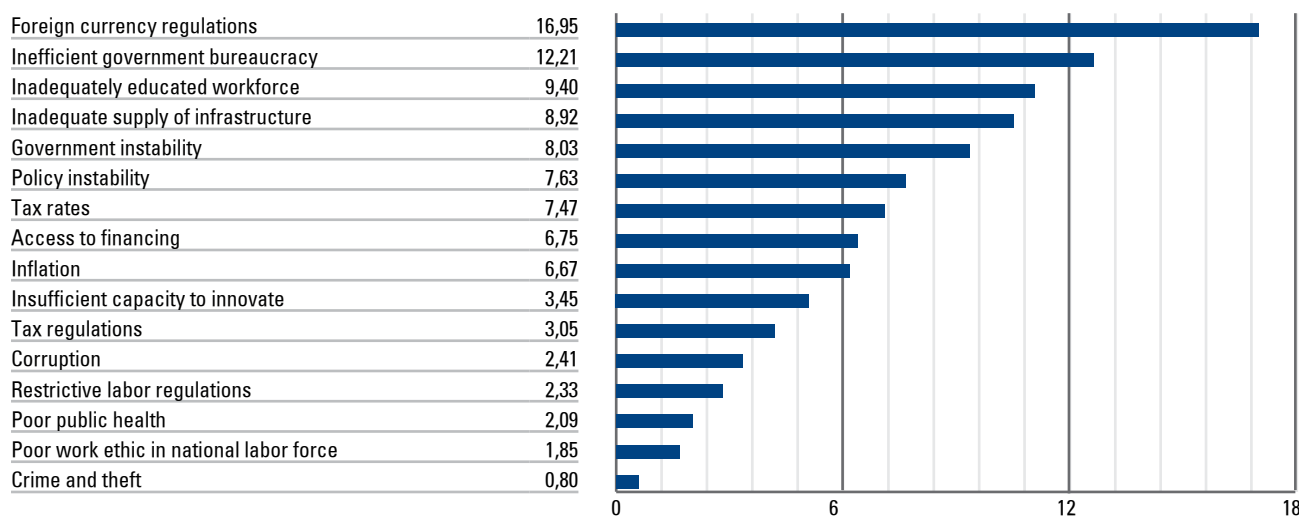
Population (millions)	335,5	GDP per capita (US\$)	13,897
GDP (US\$ millions)	3,898	GDP (PPP) % world GDP	0,0043

Performance Overview

	Rank /137	Score (1-7)	Trend	Distance from best		2013-14	2014-15	2015-16	2016-17	2017-18
Global Competitiveness Index	109	3,77			Edition	2013-14	2014-15	2015-16	2016-17	2017-18
Subindex A: Basic Requirements	90	4,33			Rank	118/148	114/145	121/141	114/139	109/137
1st pillar: Institutions	95	3,50			Score	3,64	3,68	3,56	3,70	3,77
2nd pillar: Infrastructure	100	3,30								
3rd pillar: Macroeconomic stability	79	4,55								
4th pillar: Health and primary education	56	5,97								
Subindex B: Efficiency Enhancers	118	3,45								
5th pillar: Higher education and training	97	3,78								
6th pillar: Goods market efficiency	120	3,84								
7th pillar: Labor market efficiency	122	3,52								
8th pillar: Financial market sophistication	102	3,55								
9th pillar: Technological readiness	64	4,35								
10th pillar: Market size	134	1,68								
Subindex C: Innovation and Sophistication Factors	117	3,14								
11th pillar: Business sophistication	127	3,26								
12th pillar: Innovation	103	3,02								



Most problematic factors for doing business



Note: From the list of 16 factors, respondents to the World Economic Forum's Executive Opinion Survey were asked to select the five most problematic factors for doing business in their country and to rank them between 1 (most problematic) and 5. The score corresponds to the responses weighted according to their rankings.

The Global Competitiveness Index in detail

	RANK/139	SCORE	TREND			TREND
1st pillar: Institutions	96	3,50		6.08 Agricultural policy costs	111	3,28
1.01 Property rights	106	3,77		6.09 Prevalence of non-tariff barriers	134	3,22
1.02 Intellectual property protection	116	3,31		6.10 Trade tariffs % duty*	32	1,24
1.03 Diversion of public funds	78	3,37		6.11 Prevalence of foreign ownership	124	3,37
1.04 Public trust in politicians	82	2,84		6.12 Business impact of rules on FDI	131	3,16
1.05 Irregular payments and bribes	113	3,03		6.13 Burden of customs procedures	130	2,86
1.06 Judicial independence	68	3,80		6.14 Imports % GDP*	76	40,57
1.07 Favoritism in decisions of government officials	102	2,66		6.15 Degree of customer orientation	96	4,23
1.08 Wastefulness of government spending	69	3,33		6.16 Buyer sophistication	108	2,89
1.09 Burden of government regulation	100	3,02				
1.10 Efficiency of legal framework in settling disputes	109	2,82		7th pillar: Labor market efficiency	122	3,52
1.11 Efficiency of legal framework in challenging regs	100	2,75		7.01 Cooperation in labor-employer relations	81	4,20
1.12 Transparency of government policymaking	97	3,59		7.02 Flexibility of wage determination	110	4,33
1.13 Business costs of terrorism	91	4,78		7.03 Hiring and firing practices	103	3,33
1.14 Business costs of crime and violence	68	4,64		7.04 Redundancy costs weeks of salary*	n/a	n/a
1.15 Organized crime	79	4,66		7.05 Effect of taxation on incentives to work	88	3,61
1.16 Reliability of police services	96	3,88		7.06 Pay and productivity	113	3,37
1.17 Ethical behavior of firms	106	3,38		7.07 Reliance on professional management	129	3,20
1.18 Strength of auditing and reporting standards	133	3,00		7.08 Country capacity to retain talent	96	3,00
1.19 Efficacy of corporate boards	131	3,82		7.09 Country capacity to attract talent	114	2,48
1.20 Protection of minority shareholders' interests	133	2,88		7.10 Female participation in the labor force ratio to men*	109	0,63
1.21 Strength of investor protection 0-10 (best)*	102	4,52				
				8th pillar: Financial market development	102	3,55
2nd pillar: Infrastructure	101	3,30		8.01 Financial services meeting business needs	123	3,33
2.01 Quality of overall infrastructure	133	2,15		8.02 Affordability of financial services	115	3,03
2.02 Quality of roads	135	2,11		8.03 Financing through local equity market	n/a	n/a
2.03 Quality of railroad infrastructure	n/a	n/a		8.04 Ease of access to loans	97	3,46
2.04 Quality of port infrastructure	116	2,81		8.05 Venture capital availability	n/a	n/a
2.05 Quality of air transport infrastructure	108	3,53		8.06 Soundness of banks	118	3,64
2.06 Available airline seat kilometers millions/week*	118	26,60		8.07 Regulation of securities exchanges	n/a	n/a
2.07 Quality of electricity supply	110	3,11		8.08 Legal rights index 0-10 (best)*	49	6,00
2.08 Mobile-cellular telephone subscriptions /100 pop.*	1	239,78				
2.09 Fixed-telephone lines /100 pop.*	37	26,82		9th pillar: Technological readiness	63	4,35
				9.01 Availability of latest technologies	120	3,79
3rd pillar: Macroeconomic environment	79	4,55		9.02 Firm-level technology absorption	118	3,86
3.01 Government budget balance % GDP*	42	-1,70		9.03 FDI and technology transfer	128	3,23
3.02 Gross national savings % GDP*	52	23,40		9.04 Internet users % pop.*	1	128,67
3.03 Inflation annual % change*	124	10,19		9.05 Fixed-broadband Internet subscriptions /100 pop.*	16	33,29
3.04 Government debt % GDP*	135	165,40		9.06 Internet bandwidth kb/s/user*	40	100,47
3.05 Country credit rating 0-100 (best)*	n/a	n/a		9.07 Mobile-broadband subscriptions /100 pop.*	24	95,38
4th pillar: Health and primary education	57	5,97		10th pillar: Market size	137	1,68
4.01 Malaria incidence cases/100,000 pop. *	1	0,89		10.01 Domestic market size index*	135	1,34
4.02 Business impact of malaria	31	4,75		10.02 Foreign market size index *	132	2,69
4.03 Tuberculosis incidence cases/100,000 pop. *	5	4,47		10.03 GDP (PPP) PPP \$ billions *	133	4,99
4.04 Business impact of tuberculosis	65	5,58666		10.04 Exports % GDP *	55	40,12
4.05 HIV prevalence % adult pop. *	1	0,02				
4.06 Business impact of HIV/AIDS	58	5,62820		11th pillar: Business sophistication	127	3,26
4.07 Infant mortality deaths/1,000 live births *	1	0,80		11.01 Local supplier quantity	135	3,36
4.08 Life expectancy years*	9	82,65		11.02 Local supplier quality	123	3,54
4.09 Quality of primary education*	104	3,15		11.03 State of cluster development	94	3,46
4.10 Primary education enrollment rate net % *	1	100,00		11.04 Nature of competitive advantage	104	2,95
				11.05 Value chain breadth	113	3,29
5th pillar: Higher education and training	97	3,78		11.06 Control of international distribution	132	2,68
5.01 Secondary education enrollment rate gross %*	66	94,00		11.07 Production process sophistication	117	3,07
5.02 Tertiary education enrollment rate gross % *	9	85,8		11.08 Extent of marketing	133	3,42
5.03 Quality of the education system	106	3,03		11.09 Willingness to delegate authority	120	3,62
5.04 Quality of math and science education	116	3,01				
5.05 Quality of management schools	117	3,43		12th pillar: Innovation	100	3,02
5.06 Internet access in schools	68	4,16		12.01 Capacity for innovation	111	3,64
5.07 Local availability of specialized training services	125	3,49		12.02 Quality of scientific research institutions	108	3,18
5.08 Extent of staff training	130	3,13		12.03 Company spending on R&D 97	124	2,62
				12.04 University-industry collaboration in R&D	96	3,18
6th pillar: Goods market efficiency	120	3,84		12.05 Gov't procurement of advanced tech. products	127	2,52
6.01 Intensity of local competition	126	4,29		12.06 Availability of scientists and engineers	130	2,83
6.02 Extent of market dominance	113	3,10		12.07 PCT patent applications applications/million pop. *	n/a	n/a
6.03 Effectiveness of anti-monopoly policy	117	2,98				
6.04 Effect of taxation on incentives to invest	85	3,40				
6.05 Total tax rate % profits *	104	48,60				
6.06 No. of procedures to start a business*	136	17,00				
6.07 Time to start a business days *	110	26,00				

*Hard data

Note 1: The data that does not contain "*" was prepared in a 1 to 7 scale

Note 2: For The formation of the sample of Executive Opinion Survey, sectoral weights were calculated by taking the average of last five years of GDP.

Note 3: Reflect the trends in the values of publications (2013-2014)-(2017-2018).

INTRODUCTION

Global Geopolitical Risks Taking Precedence over Economic Problems

Northern Cyprus in the Grip of Change and Reform

Measurement Method for Competitiveness and Identification of the Stage of Development of Northern Cyprus

Global Geopolitical Risks Taking Precedence over Economic Problems

This year's competitiveness report is drafted at a time when the global economy noticeably started to recover. Global economy was forecasted to conclude 2017 with a 3.5% growth. This signals the best growth performance of the past eight years. However, despite the optimistic atmosphere in the European Union (EU) and the United States (US) economies, it is expected that all economies will face new risks on a global scale in 2018. The risk of experiencing political and economic conflicts, including military conflicts, in many areas in the world, primarily the Middle East, has reached a level unprecedented in recent history. The Annual Global Risks Perception Survey conducted as part of the 2018 Global Risks Report shows that experts are getting ready for yet another high-risk year. The survey demonstrates that 93% of respondents expect a worsening of political or economic confrontations between major powers in the international arena. Considering the escalating regional wars and the rising tensions in other regions, it is possible to interpret the annually increasing military spending by countries as bracing for possible warfare. This continues to worry policy developers and business communities as to what direction economic growth will take in the coming years.

On the other hand, despite the improvement in a handful of economic indicators, the most important problem that takes precedence (over problems such as high levels of debt, low savings, less-than-favourable employment figures) is the distortions in income distribution. Reports drafted on this issue demonstrate that almost all of the additional global wealth produced in the past one year went to the richest 1%. In the last 10 years, billionaires saw their wealth increase more than six times faster than that of employees. In 2017 the number of billionaires around the world rose to a record 2,043 – an addition of 183 new billionaires. However, whether this billionaire boom is a sign of a growing economy or a collapse of the economic order is a question that needs to be discussed in its own right.

Masses which cannot obtain adequate share of the new wealth and income generated tend to look for alternatives in democratic systems. The lion's share in this search for alternatives goes to populist political movements, as happened so many times in history. An inevitable consequence of recent political changes, a paradigm shift has started to take place in economic policies of, especially, developed countries. This process is led by the US, one of the most important actors of the global economy. In today's global economy, the concept of globalization is being replaced by other concepts such as protectionism. We also see the re-emergence of trade wars, similar to those experienced in the past. The hottest issue on the global economic agenda today is the new arrangements the US will introduce in steel imports and the measures other countries will

take in response. All of this signals that confrontations in the world economy will continue to escalate in the coming years.

In addition, high technology and geopolitical challenges continue to shape the economic and political order. This creates grave uncertainty in governments, businesses, and individuals. It is increasingly felt that current economic models and approaches do not serve mankind and societies as much as desired. As a result, calls are being made for devising new, human-centred economic development models. The value and meaning of economic growth, increasing economic inequality, challenges posed by technological change, complex and unclear effects of globalization (from trade in goods, services, and data to free movement of capital) have already started to be fiercely questioned. These realities will constitute the most hotly debated economic issues of the coming years.

Northern Cyprus in the Grip of Change and Reform

It would not be an exaggeration to say that Northern Cyprus spent 2017 in a political whirlpool. Structural problems dating back many years and low economic competitiveness had, as always, a negative impact on economic growth. Economic growth rates registered in Northern Cyprus did not allow for filling in the economic gaps and creating jobs for the young entering the labour market. While the momentum gained especially in the tourism and education sectors brought about an improvement in economic indicators, the growth could not be spread across the board as intended. The top priority of those governing the country should be to transform this (possibly unsustainable) economic growth into real development in the coming years by making it possible for all segments of society to experience income rise, enhanced quality of life and improved living standards. The bright period experienced in the global economy beginning in 2002, marked by an abundance of financial capital flows, which in a way veiled the structural problems in countries, came to an end; and in fact, reversed in many developing countries. This is also true for the Turkish Republic of Northern Cyprus (TRNC). In addition to this external factor, another feature of the Northern Cyprus economy has also reached finality: the potential, which had gone untapped until 2003 due to the Cyprus Issue, was utilized to a great extent between 2003 and 2009 due to favourable conditions. This had significant positive impact on the economy. Another important problem specific to the TRNC is the drop in the predictability of the local currency (Turkish Lira) because the goods in the local economy are usually priced based on foreign currencies. Thus, this situation had a profound effect on the import-dependent Northern Cyprus economy with a negative impact on the already fragile state. Rise of value in foreign currency caused the inflation figures in the TRNC to reach 14.7% in 2017. In addition, structural problems in local administrations have

reached to unsustainable levels that now challenge the economic development and financial flexibility of TRNC. The policymakers have to decide on the dynamics that require reconfiguration in order for TRNC economy to attain the desired economic development levels under this new era. Insisting on the current structural problems and implementing policies to save the day rather than solving problems by taking into consideration short-term concerns will be a waste of time for the country and will add to the wreck that will be inherited by the younger generations. Therefore, the most fundamental question that needs to be answered in a political as well as social dimension is: "Will Northern Cyprus insist on maintaining this unsustainable order by internalizing its structural problems or will it develop suitable solution alternatives in line with economic rationales detached from populism?"

Authorities trying to guide TRNC economy do not possess unlimited options in solving economic problems. Traditionally policymakers have tried to implement fiscal policies to solve the economic problems. As we discussed above, the use of Turkish Lira and relevant monetary policies as instruments have many drawbacks in the case of TRNC. In fact, use of effective monetary policy is not possible in TRNC. Use of fiscal policies, which constitute the second main policy instrument, would not be possible at the desired level because of low budgetary flexibility. In light of the above facts, the only sustainable approach in the country is paving the way for investments to take place, improving ease of doing business, and reinvigorating the economy. Such an approach would also bring about a relaxation in the labour markets, which have started to become a chronic problem of the country with a special threat on social balance.

It would be overly optimistic to think that the TRNC economy will accomplish substantial development in the short run considering the state of affairs in the world at large and what has transpired recently as regards to the Cyprus Issue. Therefore, apart from reviving the economy based on the development of investments, the political powers and the economic authorities must pay as much attention to making markets cheaper as they do to economic growth. This can be achieved if the local markets acquire more depth and aggregate economy operates in a more effective manner. For this, it is necessary that the financial burden of the public sector is restructured. Such a restructuring approach should stretch from financial markets to the food sector. In this context, efforts must also be made to create the conditions, by revising the external trade regime, for competition in the market in order to break the structure based on lack of competition in various sub-sectors of the economy. Now is the time for the political powers to view these facts in a healthy manner and engage in reforms to take the necessary steps to solve the root-causes of these structural problems. In view of the global

realities, Northern Cyprus must come to the terms with the fact that it cannot get anywhere simply by taking steps to circumvent its structural problems and save the day, and the governments must be willing to demonstrate the political will to affect the necessary changes. In this respect, the competitiveness report has the capacity to provide important inputs for policy developers and guidance towards solving the problems.

Measurement Method for Competitiveness and Identification of the Stage of Development of Northern Cyprus

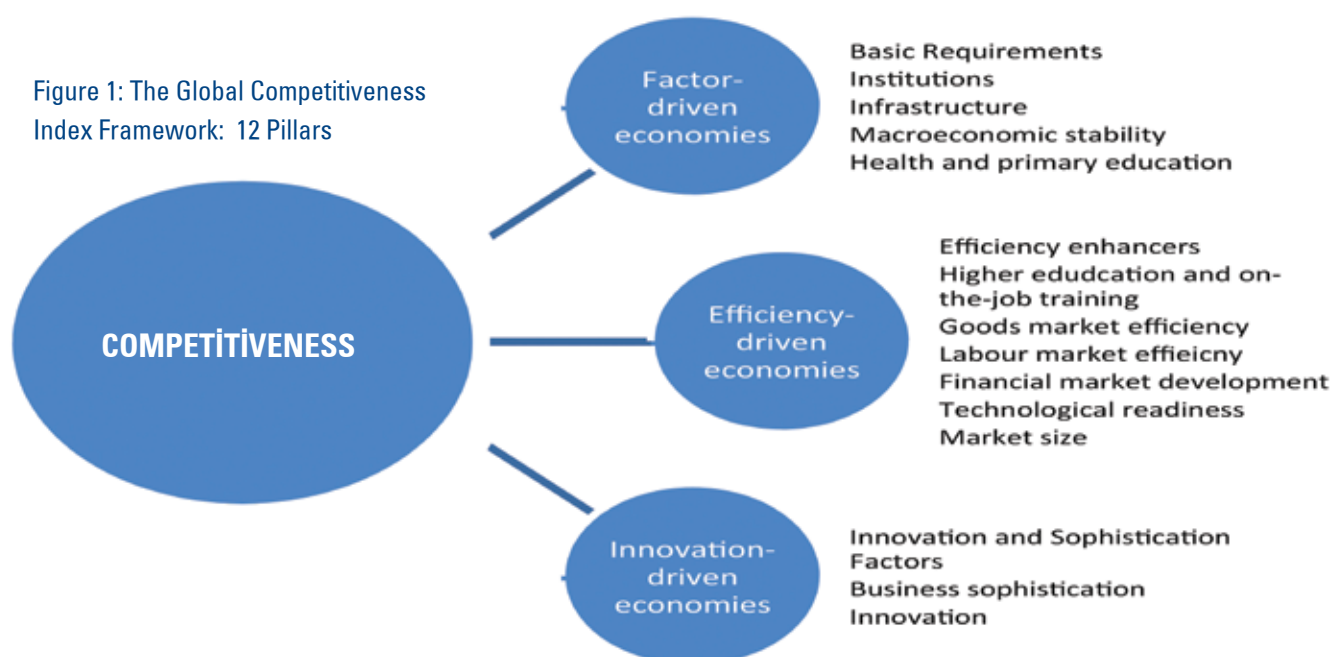
Competitiveness is defined as the institutions, policies, and factors that determine the level of efficiency in an economy. Competitiveness shows how much income and prosperity country's economies can generate. 114 indicators and components, including efficiency and long-term prosperity, are assessed in a holistic manner to measure the competitiveness of countries. The basis of the comprehensive and sophisticated method used in measuring the competitiveness of countries is related to how efficient the institutions within the economy, the policies developed, and such production factors as labour and capital are. World Economic Forum (WEF) measures competitiveness under 12 different pillars in its index. As seen in Figure 1, the 12 competitiveness pillars are organized into three main groups, each representing a different stage of development. The intention is to present the factors (pillars) that determine the efficiency of a country as well as identify its competitive advantages (strengths) and disadvantages

(weaknesses) and hence guide policy developers.

The index and its 12 pillars have been updated over the years by WEF in line with new developments and changes with the aim of presenting the determinants of efficiency more effectively. In this framework, factors of production and natural resources in a country as well as the position of the country are all thoroughly assessed. If information is utilized in an effective manner with a competitive approach, it should increase the prosperity in a country. In forming the basis for efficiency of countries, microeconomic components (business environment quality, cluster stage, sophistication of business operations, business strategies) also play an important role in determining competitiveness. In addition to microeconomic components, macroeconomic components such as political institutions, infrastructure, macroeconomic stability, and health and education must also be sufficient and up-to-date for businesses to achieve effective and efficient production. Before the measurement is made, countries are classified in accordance with their stage of development and calculations are made based on the different weights assigned to countries. The reason for this is because not all 137 economies are at the same stage of development.

Two criteria are used to determine the stage of development of a country. The first is the per capita gross domestic product. The second variable measures if a country is largely factor-driven or not.¹ Following the assessment of these two criteria,

1 If the share of natural resources in overall exported goods and services is larger than 70% then a country is classified as largely factor driven.



Source: The Global Competitiveness Report, 2017-2018

economies are classified into three groups, namely factor-driven, efficiency-driven, and innovation-driven. Furthermore, economies in between two stages of development are classified as being in transition.

Economies are scored with the use of the responses to the 'Executive Opinion Survey' comprising 130 questions as regards to the 12 pillars of competitiveness and distributed to business communities. In the fall of 2017, 100 businesses responded to the survey. In addition, the calculations are complemented by the official economic and social statistics on the relevant economy. For Northern Cyprus, the socio-economic data of 2016 released by the State Planning Organization (SPO) were used. Each pillar and the questions therein are scored separately in line with the subject covered and then an overall score for the country is reached. Global Competitiveness Index (GCI) scale ranges from 1 to 7 where 1 indicates the lowest level of competitiveness and 7 indicates the highest. This standard measurement method allows us to benchmark countries against one another. Detailed information regarding the method used can be found in Annex 3.

The WEF method summarized above is used to measure the competitiveness of Northern Cyprus, taking into consideration the updates and revisions each year. As a first step to measure the 2017-2018 competitiveness of the Northern Cyprus economy, its stage of development has been determined and is presented in the table below.

An economy whose per capita income is 13 thousand US dollars (USD) in current rates should have been classified as in transition from the efficiency-driven stage to the innovation-driven stage in accordance with the income criterion². However, upon examination of the scoring of the indicators from the business community, it was decided that the Northern Cyprus economy could only be classified as an efficiency-driven economy. Comparison of the statistics of other economies in transition with those of the Northern Cyprus economy has shown that the indicators of Northern Cyprus are in line with those of other economies. As a result, it has been decided that the Northern Cyprus economy should be classified as a country in the second stage of development, namely efficiency-driven. A similar adjustment can be seen in the example of Kuwait, which, as of 2016, has a per-capita income of 26 thousand USD. According to the WEF criteria, this country could only be classified as an economy in transition from the first to the second stage of development.

Table 1: Some Economies by Stage of Development

Gelişim Aşamalarına Göre Sınıflandırma					
Stages of Development	1 Factor-driven	1-2 Transition	2 Efficiency-driven	2-3 Transition	Aşama 3: Inovasyon Odaklı
Economies	Bangladesh Ghana Mali Pakistan Yemen	Azerbaijan Kuwait Philippines Ukraine Viet Nam	Albania Bulgaria Egypt Northern Cyprus South Africa	Argentina Croatia Hungary Saudi Arabia Turkey	Germany USA Switzerland Southern Cyprus

Source: The Global Competitiveness Report, 2017-2018 and KTTO competitiveness calculations

In this respect, in the competitiveness measurement, a weight of 40% is given to the whole of the indicators under basic requirements, 50% to those under efficiency, and 10% to those under innovation.

Under these weights, in order to increase its competitiveness, the Northern Cyprus economy must focus on improving the efficiency of factor markets and business production stages. Key factors that could enable this are improving human capital by higher education institutions specific to relevant sectors, ensuring efficiency in goods and services markets, ensuring flexibility in the labour market, and improving the efficiency of financial markets. Beyond that, ensuring access to new markets to overcome the scale problem and ensuring more extensive use of latest technologies in production will also significantly increase the competitiveness of the Northern Cyprus economy.

² Such countries include Brazil, Malaysia, and Turkey.

Competitiveness in Northern Cyprus

Evolution of Northern Cyprus' Competitiveness

Global Competitiveness

Competitiveness in Northern Cyprus: Progress in Three Main indexes

Northern Cyprus Competitiveness in Twelve Pillars: Decade-long Evolution (2008-2017)

Northern Cyprus and Selected Economies: Comparative Review (2008-2017)

Competitiveness and Middle Income Trap

Evolution of Northern Cyprus' Competitiveness

Competitiveness of the Northern Cyprus economy has been measured based on the executive opinion survey conducted in the final quarter of 2017 and the data published in 2016. Thanks to the method used by the World Economic Forum (WEF), the realized social and economic data of 2016 and the up-to-date perceptions regarding 2017, via the executive opinion survey with business executives, have been measured.

As a result of the measurement made based on the method above, the competitiveness score of the Northern Cyprus economy has been calculated as 3.77 over 7. This score puts Northern Cyprus in the 109th position among 137 countries. Having achieved 0.07 more points from last year, Northern Cyprus has gone up five places in the GCI ranking (Table 2, Figure 2). In addition to Northern Cyprus' better performance, the fact that countries with higher competitiveness such as Barbados, Ivory Coast, Gabon, and Macedonia have not been included in the 2017-2018 list has also had a positive impact. On the other hand, the Seychelles being added to the list has caused Northern Cyprus to go down one place. In conclusion, Northern Cyprus has registered a slight improvement in both the country score and ranking.

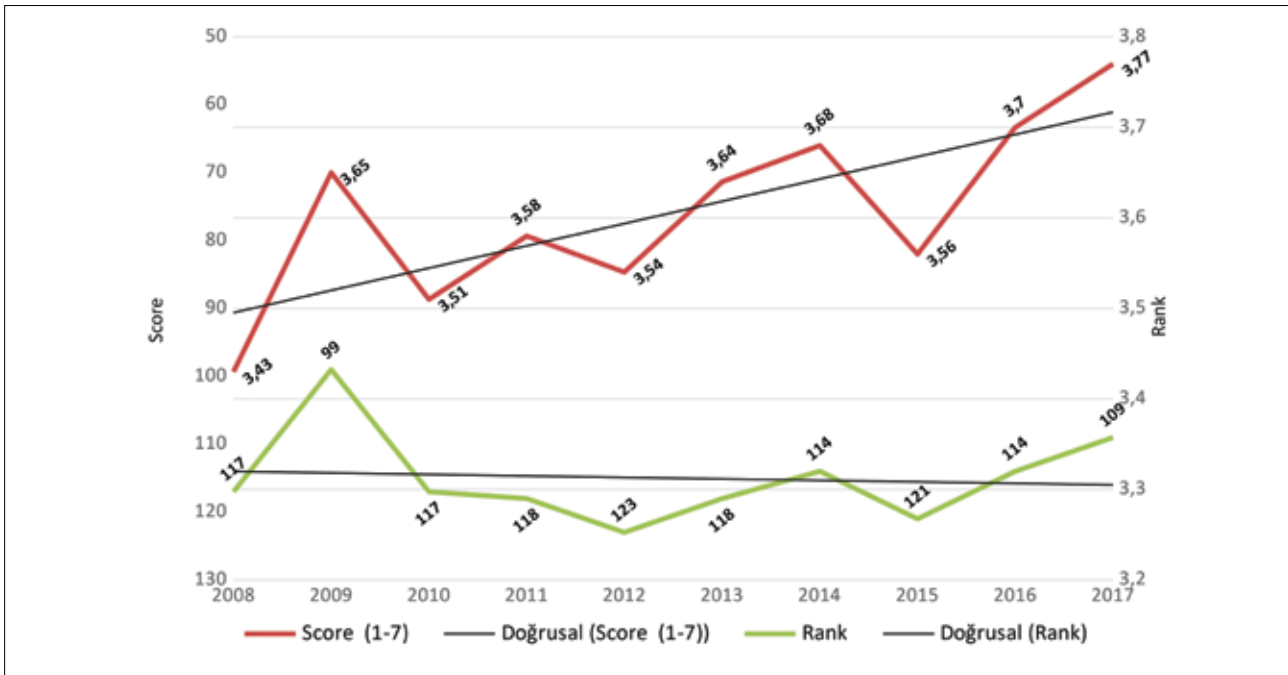
Table 2: Northern Cyprus' Performance in the Competitiveness Index (2008-2017)

Period	Score (1-7)	Rank
GCI 2017-2018	3.77	109
GCI 2016-2017	3.70	114
GCI 2015-2016	3.56	121
GCI 2014-2015	3.68	114
GCI 2013-2014	3.64	118
GCI 2012-2013	3.54	123
GCI 2011-2012	3.58	118
GCI 2010-2011	3.51	117
GCI 2009-2010	3.65	99
GCI 2008-2009	3.43	117

Source: KTT0 competitiveness calculations (2008-2017)

With its competitiveness score at 3.77 and ranking at 109th, Northern Cyprus is still lagging much behind among all the other countries. It can be seen that Northern Cyprus' score and ranking are comparable to those of such countries as El Salvador, Cape Verde, Ghana, and Ethiopia, which have very low living standards and per-capita income (see Table 3).

Figure 2. Competitiveness Score and Ranking of Northern Cyprus (2008-2017)



Source: KTTÖ competitiveness calculations (2008-2017)

This year, the tenth competitiveness study has been conducted. As can be seen in Figure 2, the competitiveness score of the Northern Cyprus economy has trailed between 3.40 and 3.70 in the last ten years and this year has acquired its highest score yet with 3.77. While Northern Cyprus' competitiveness score shows a positive trend, it is evident from benchmarking against other countries that this is insufficient. Although its score has risen, Northern Cyprus still ranks in the 100th - 120th band in the annual ranking by WEF of 140 countries. This, consequently, means that the competitiveness of Northern Cyprus has not increased relatively as much as other countries' and

That is why it has not registered a significant rise in terms of its international ranking. In other words, Northern Cyprus has not been able to boost its competitiveness compared to countries with better competitiveness, which has caused it to stall. The underlying cause for this is the fact that the necessary structural transformation in the country has not taken place as fast as intended and not in the necessary direction. Neither has the economic structure been able to carry out the reforms that would bring prosperity to the society nor has it been able to adapt to global developments.

WEF 2017-2018 Competitiveness Report ranks Switzerland as the most competitive country, same as last year, with a score of 5.86. While the United States ranked 3rd last year, this year it has progressed further and gotten ahead of Singapore, hence taking the second place in the ranking (see Table 3). The Netherlands and Germany have kept their respective

fifth and sixth ranks. Hong Kong has shown impressive improvement and moved from ninth place to sixth. The top 10 is composed of six European countries, five of which are EU members, the US, and Singapore, Hong Kong, and Japan from the Far East. Turkey, our largest economic partner, has moved two places up and ranks 53rd. Southern Cyprus, with which we have a distorted economic interaction, has been able to recover swiftly from the economic crisis it experienced, which is evident from its indicators. It has risen 19 places up in the course of the past year and now ranks 64th, moving swiftly to the 40-50 band, where it was prior to the crisis. Having difficulty solving its economic problems that arose following the global financial crisis, Greece has gone down one step and ranks 87th.








Considered to be the new growth engines of the global economy following the US and the EU, China and India rank 27th and 40th respectively while other developing markets such as Russia, Mexico, and Brazil rank 38th, 51st, and 80th respectively. The least competitive economies according to the 2017-2018 Competitiveness Report are, from worst to best, Yemen, Mozambique, and Chad. These countries have scored less than 3 over 7 (see Table 3).

Global Competitiveness

Switzerland, which has topped the Global Competitiveness Index (GCI) ranking for the past nine years, once again ranks first with a score of 5.86 (Table 3). The top ten features five

Table 3: Comparison of Global Competitiveness Index 2017-2018 Ranking and 2016-2017 Ranking)

GCI 2017 - 2018			GCI 2016 - 2017
	Economy	Score	Prev.
1	Switzerland	5,86	1
2	United states	5,85	3
3	Singapore	5,71	2
4	Netherlands	5,66	4
5	Germany	5,65	5
6	Hong Kong SAR	5,53	9
7	Sweden	5,52	6
8	United Kingdom	5,51	7
9	Japan	5,49	8
10	Finland	5,49	10
11	Norway	5,40	11
12	Denmark	5,39	12
13	New Zealand	5,37	13
14	Canada	5,35	15
15	Taiwan	5,33	14
16	Israel	5,31	24
17	United Arab Emirates	5,30	16
18	Austria	5,25	19
19	Luxembourg	5,23	20
20	Belgium	5,23	17
21	Australia	5,19	22
22	France	5,18	21
23	Malaysia	5,17	25
24	Ireland	5,16	23
25	Qatar	5,11	18
26	Korea	5,07	26
27	China	5,00	28
28	Iceland	4,99	27
29	Estonia	4,85	30
30	Saudi Arabia	4,83	29
31	Czech Republic	4,77	31
32	Thailand	4,72	34
33	Chile	4,72	33
34	Spain	4,70	32
35	Azerbaijan	4,69	37
36	Indonesia	4,68	41
37	Malta	4,65	40
38	Russian Federation	4,64	43
39	Poland	4,59	36
40	India	4,59	39
41	Lithuania	4,58	35
42	Portugal	4,57	46
43	Italy	4,54	44
44	Bahrain	4,54	48
45	Mauritius	4,52	45
46	Brunei Darussalam,	4,52	58
47	Costa Rica	4,50	54
48	Slovenia	4,48	56
49	Bulgaria	4,46	50
50	Panama	4,44	42
51	Mexico	4,44	51
52	Kuwait	4,43	38
53	Turkey	4,42	55
54	Latvia	4,40	49
55	Viet Nam	4,36	60
56	Philippines	4,35	57
57	Kazakhstan	4,35	53
58	Rwanda	4,35	52
59	Slovak Republic	4,33	65
60	Hungary	4,33	69
61	South Africa	4,32	47
62	Oman	4,31	66
63	Botswana	4,30	64
64	South Cyprus	4,30	83
65	Jordan	4,30	63
66	Colombia	4,29	61
67	Georgia	4,28	59
68	Romania	4,28	62
69	Iran, Islamic Rep.	4,27	76
70	Jamaica	4,25	75
71	Morocco	4,24	70
72	Peru	4,22	67
73	Armenia	4,19	79
74	Croatia	4,19	74
75	Albania	4,18	80
76	Uruguay	4,15	73
77	Montenegro	4,15	82
78	Serbia	4,14	90
79	Tajikistan	4,14	77
80	Brazil	4,14	81
81	Ukraine	4,11	85
82	Bhutan	4,10	97
83	Trinidad ve Tobago	4,09	94
84	Guatemala	4,08	78
85	Sri Lanka	4,08	71
86	Algeria	4,07	87
87	Greece	4,02	86
88	Nepal	4,02	98
89	Moldova	3,99	100
90	Namibia	3,99	84
91	Kenya	3,98	96
92	Argentina	3,95	104
93	Nicaragua	3,95	103
94	Cambodia	3,93	89
95	Tunisia	3,93	95
96	Honduras	3,92	88
97	Ecuador	3,91	91
98	Lao PDR	3,91	93
99	Bangladesh	3,91	106
100	Egypt	3,90	116
101	Mangolia	3,90	102
102	Kyrgyz Republic	3,90	111
103	Bosnia Hersegovina	3,87	107
104	Dominican Republic	3,87	92
105	Lebanon	3,84	101
106	Senegal	3,81	112
107	Seychelles	3,80	n/a
108	Ethiopia	3,78	109
109	North Cyprus	3,77	114
109	El Salvador	3,77	105
110	Cape Verde	3,76	110
111	Ghana	3,72	115
112	Paraguay	3,71	118
113	Tanzania	3,71	117
114	Uganda	3,70	113
115	Pakistan	3,67	123
116	Cameroon	3,65	120
117	Gambia	3,61	124
118	Zambia	3,52	119
119	Ginea	3,47	n/a
120	Benin	3,47	125
121	Madagascar	3,40	129
122	Swaziland	3,35	n/a
123	Mali	3,33	126
124	Zimbabwe	3,32	127
125	Nigeria	3,30	128
126	congo	3,27	130
127	Venezuela	3,23	131
128	Haiti	3,22	n/a
129	Burundi	3,21	136
130	Sierra Leone	3,20	133
131	Lesotho	3,20	121
132	Malawi	3,11	135
133	Mauritania	3,09	138
134	Liberia	3,08	132
135	Chad	2,99	137
136	Mozambique	2,89	134
137	Yemen	2,87	139

	East Asia and Pacific
	Eurasia
	Europe and North America
	Latin America and Caribbean
	Middle East and North Africa
	South Asia
	Sub-Saharan Africa

European Union member states (in order; the Netherlands, Germany, Sweden, the United Kingdom, and Finland), one North American (the US) and three Far East countries (Singapore, Hong Kong, and Japan). Singapore, which has held the second spot for the previous five years, ranks third this year. Considered to be the point of origin for the global financial crisis, the US was among the economies most impacted by the crisis. The crisis had pushed the US considerably behind in competitiveness. As a result of the progress it has made only in the last four or five years and the economic recovery it has gone through, the US has reclaimed its place in the higher tiers of the index. Out of the other two Asian countries, Hong Kong has shown a considerable rise and has gone up from ninth to sixth place. Japan has slipped back one place and ranks ninth.

Switzerland has topped the ranking for the past nine years not only because it ranks the best in all indicators but also because it has achieved a stable increase in its country score. Strong institutions, infrastructure, and an educated and healthy labour force are among the primary requirements for a high quality of life and ease of doing business. Strongest aspects of Switzerland continue to be innovation and efficiency in the labour market. Besides business sophistication, the most significant strong point of the country is that it can produce easily tradable products as a result of the numerous research and development (R&D) efforts between the business community and universities.

This year, the US, which has shown continuous improvement over the past 5-6 years, ranks second in the GC ranking. Improvement in basic requirements and the positive turn in business perceptions are important factors in this rise. The strongest aspects of the American economy are its successful performance in efficiency enhancers and its continuing good performance in innovation and business sophistication. Despite not reaching the top ten in terms of macroeconomics ranking, business sophistication and efficient use of market resources have enabled the US to become the second most competitive country in the world.

Although Singapore, having a score of 5.71, has lost the second place to the US, it is still the second most competitive economy in Asia. The underlying reason for this is the fact that it features in top three in seven of the 12 pillars of the competitiveness index. It is especially remarkable that Singapore has topped the ranking in public sector performance in the world. While transport infrastructure, labour market efficiency, and financial markets efficiency make Singapore a competitive economy, market pressure caused by the deflation problem has caused a slight macroeconomic distortion.

Two EU member states hold the fourth and fifth places in the GC ranking. Strong Dutch education system and individuals' and businesses' readiness for high technology makes the Netherlands a competitive economy. Germany ranks fifth on grounds of its world-class innovation capacity and business sophistication. The United Kingdom has slipped one step back this year, now ranking eighth. Even though this retreat does not yet reflect the impact of the Brexit negotiations, it is likely that the withdrawal of the UK from the EU will have a negative impact its competitiveness.

10 years after the global financial crisis, European economies are signalling prudent growth. While it is expected that the economy will grow by 1.9 in 2017, this recovery will still be fragile. High levels of youth unemployment in the labour market, depletion of the mid-skilled labour force, lower-than-before levels of investment, and gaps in the digital, energy, and transport infrastructures will have a negative effect on growth.

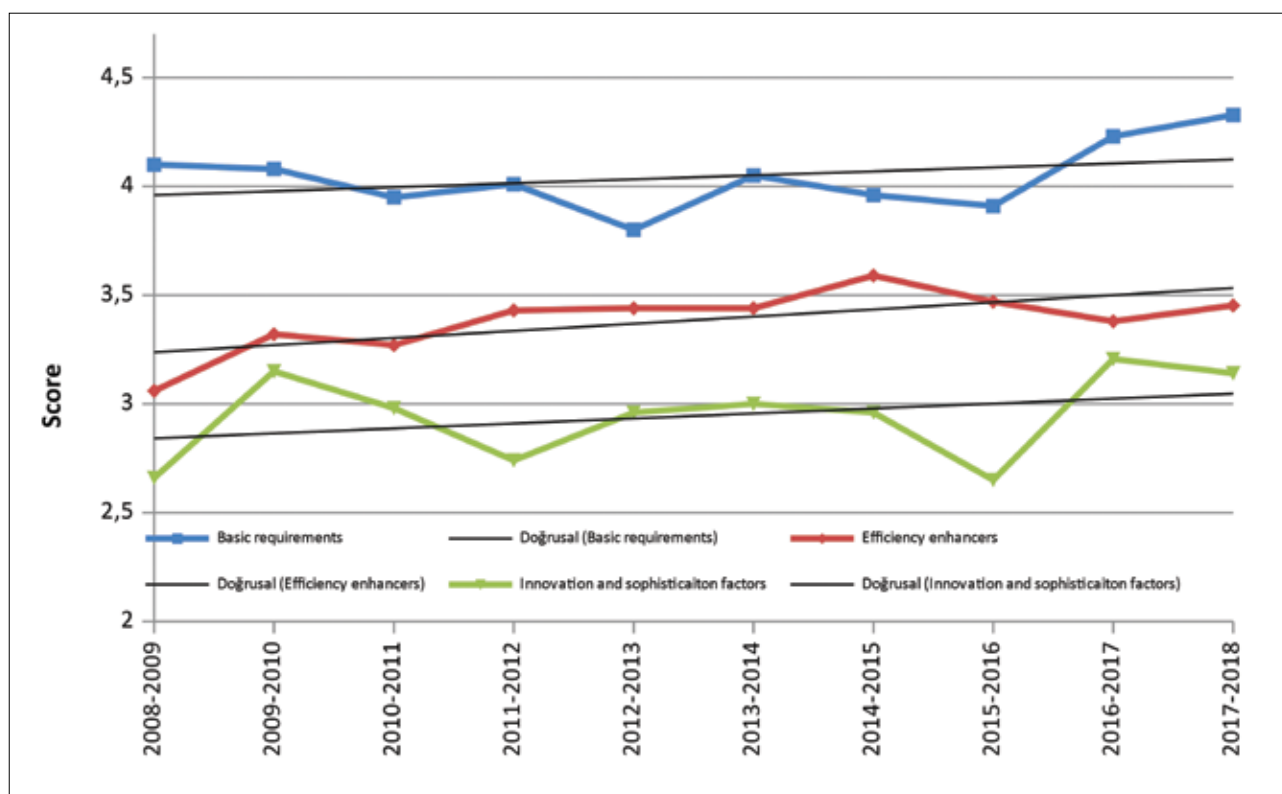
Eurasian economies have improved their competitiveness over the past year and it is likely that the 2015 recession will have ended by the end of 2017. Low inflation, improvement in technological readiness, innovation, and enhancement in primary education indicators has laid the ground for the improvement in all competitiveness factors. The performance in Russia and China, the two largest trade partners of the region, has had a positive impact on business perceptions. Despite the positive developments, the decline in labour market efficiency, and the gaps in infrastructure, macroeconomic stability, financial development, and innovation persist.

It is expected that the economic recession experienced in Latin America and the Caribbean will be overcome with a 1.1 growth rate. Latin American economies have started to slowly recover with the sharp decline following the commodity boom, the rise in the foreign trade deficit, and the decline in public revenues. With the disruption in foreign trade, national currencies depreciated considerably and it was expected that this depreciation would automatically have a positive impact on exports. However, this has not exactly happened as expected and much lower growth than anticipated has been registered.

The main factors for the low levels of competitiveness are the weakness of institutions, infrastructure gaps, labour markets inefficiency, and lack of improvement in innovation. Low efficiency, high informality in the economy, and less-than-desirable levels of exports diversity have caused insufficient job creation for the new labour force and non-delivery of demands from public services.

The most important trade partner of Northern Cyprus, Turkey has moved up two places and ranks 53rd. Although Turkey is now

Figure 3. Progress in Three Main Subindexes of Competitiveness (Scores, 2008-2017)



Source: KTTÖ competitiveness calculations

far from the 43rd place it occupied in 2012, the most remarkable development that has recently taken place in Turkey is the adoption of up-to-date technologies and the strengthening of mobile systems. In order to enhance its competitiveness, it needs to strengthen its institutional structures, continue to reduce the rigidities in the labour market, and, most importantly, improve the efficiency and stability of its financial markets. Depreciation in the Turkish lira in the first half of 2017 has had a positive impact on goods and services export. Furthermore, Turkey has endeavoured to increase domestic demand through financial and monetary policies. It is expected that the country will register a 2.7 growth for 2017.

Competitiveness in Northern Cyprus: Progress in Three Main indexes

As stated in the previous chapter, three subindexes are used to measure competitiveness of country economies. These are in order basic requirements, efficiency enhancers, and innovation and sophistication factors. A decade-long overview of these three subindexes for Northern Cyprus (Figure 3) shows that the country has received the highest score in "basic requirements", which is higher than the overall competitiveness score of 3.77. This subindex is followed by "efficiency enhancers". The score

Northern Cyprus has collected in this subindex is closer to the overall country score, between 3 and 3.50, which is an area in which Northern Cyprus is still endeavouring to make progress. Northern Cyprus has the lowest score in the subindex of "innovation and sophistication factors", which clearly shows that innovation is insufficient.

An overall assessment of the three main subindexes indicates that the subindex of basic requirements has made the largest contribution to the competitiveness of Northern Cyprus. Performance in innovation and sophistication factors has made the lowest contribution. The fact that Northern Cyprus has not been able to garner half of the possible total score, which is 7, in the last 10 years indicates that there are significant problems in sophistication of businesses, which are indispensable for country economies. Inadequate use of know-how and technology has limited innovation in the economy and prevented transition to value-added production.

The most important subindex in the three main ones is "efficiency enhancers" as Northern Cyprus is defined as an efficiency-driven economy. Northern Cyprus has not been able to make a significant progress in the past 10 years in the subindex of "efficiency enhancers", which is the main area in which the country can make more efficient use of its resources and can augment its competitiveness. A score that

moves between 3 and 3.60 in efficiency enhancers indicates that such markets that effectively make up the economy and provide resources as higher education, goods market, financial market, and labour market are not sufficiently developed. This signals that the economic management in Northern Cyprus needs to pay more attention to the issues above. Enhancing efficiency in use of resources and the afore-mentioned markets will contribute significantly to the amelioration of competitiveness and prosperity in Northern Cyprus.

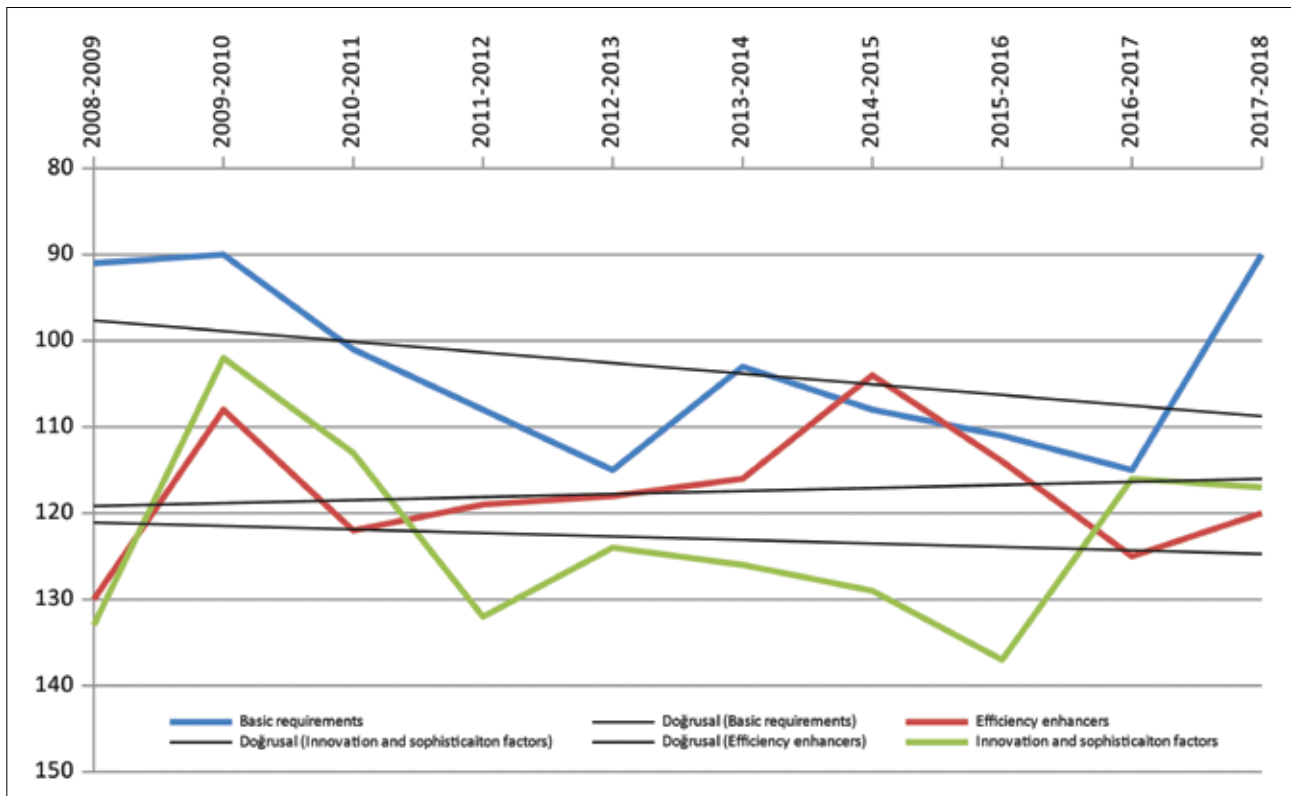
When the performance of Northern Cyprus in the three main subindexes is assessed in consideration of the GC country ranking, it appears that the country performs worse than the performance indicated by the score (see Figure 4). In the rankings of the past decade, as in the scoring, performance in the subindex of basic requirements tops the list while efficiency enhancers linger in the middle and business sophistication is at the bottom. Upon examination of the trend of the last decade, it can be seen that the performance in basic requirements is lagging behind compared to that of other country economies. This means that institutions, infrastructure, macroeconomic stability, and health and primary education are not as developed in our country as in others. The situation is relatively better in efficiency enhancers. In the past decade, efficiency enhancers has shown an upwards trend, albeit slightly, compared to the GC country ranking. Northern Cyprus

has performed worst in business sophistication and innovation factors in the three main subindexes by country ranking. The fact that the trend is downwards indicates that governments must develop policies that will enable business sophistication and promote innovation in the economy.

The competitiveness study by the World Economic Forum is especially important in that respect. It is inevitable that countries develop not only as a result of their domestic dynamics but also depending on other economies. In our globalized world, we need to enhance our competitiveness capacity not with respect to ourselves but to other countries in order to offer the goods and services produced to a greater number of markets and provide the desired prosperity for the society. Only by doing that will the market develop and generate income, hence create jobs for those just entering the labour market.

Our 2017-2018 score and rankings in respect of other economies in the three main subindexes show that that we rank 90th in basic requirements, 129th in efficiency enhancers, and 117th in innovation and sophistication. Comparison of this year's rating with the previous year's indicates that the 0.10 rise in the score in basic requirements has raised the country's ranking from 115th to 90th. In a similar trend, efficiency enhancers have also improved. Rankings in the three main subindexes have made Northern Cyprus only 109th in overall competitiveness rankings.

Figure 4. Progress in Three Main Subindexes of Competitiveness (Scores, 2008-2017)



Source: KTTO competitiveness calculations

Figure 5. Three Main Subindexes, (Rank, 2017-2018)



Source: KTTO competitiveness calculations

Northern Cyprus Competitiveness in Twelve Pillars: Decade-long Evolution (2008-2017)

In this chapter of the report, we will look more in depth into the twelve pillars which make up the three main subindexes used to measure competitiveness. In this assessment, data from the last decade will be used and the performance in the twelve pillars will be analysed under the three main subindexes; basic requirements, efficiency enhancers, and innovation and sophistication.

Basic Requirements

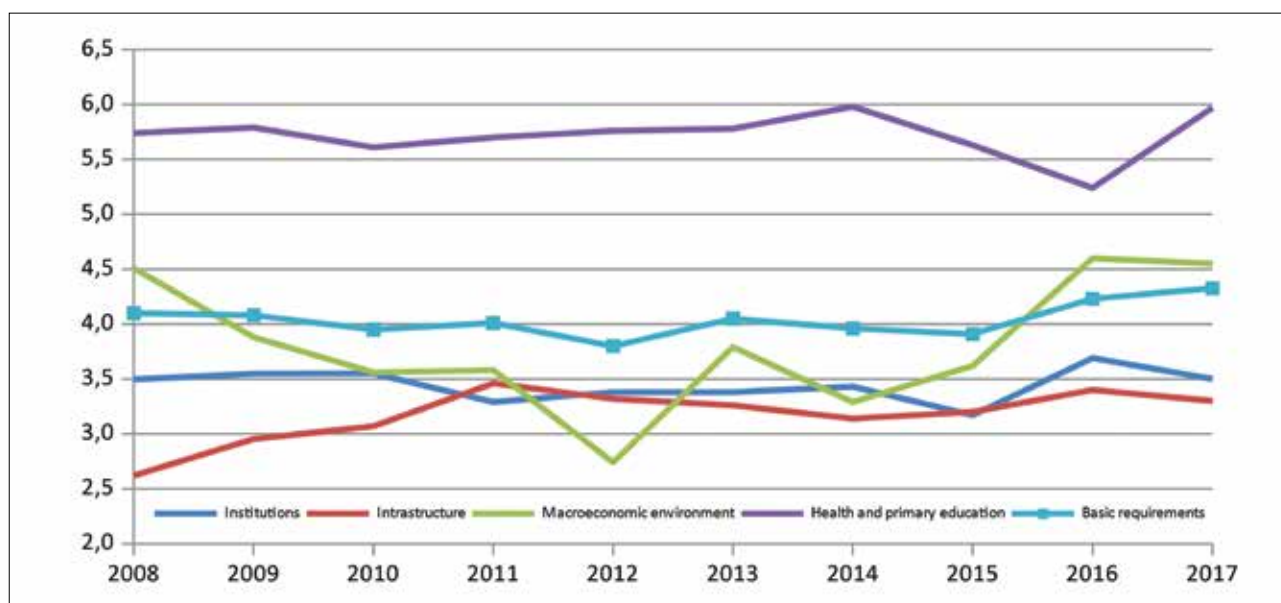
In country economies, there are certain social requirements in addition to the economic ones. Institutions, infrastructure, economic stability, and health and education are especially important in that respect. An assessment of Northern Cyprus' ten-year progress in basic requirements components indicates that the best performance has been achieved in health and primary education (see Figure 6). This score is above the overall average score for basic requirements.

Very few instances of malaria, tuberculosis, and HIV-AIDS and the fact that they do not have an impact on businesses lead to a high score in this pillar. Again, 100% primary education enrolment rate is also a factor for the high score garnered. Despite the 100% enrolment rate for primary education, executive opinion survey indicates that executives regard education as having a lower-than-desired quality. This demonstrates that there are problems in terms of quality in areas which perform well in terms of quantity. This suggests that measures must be taken quickly for primary education, the most important pillar of basic requirements.

Another one of the pillars, institutions, has shown a fluctuating performance in the last decade, its score varying between 3 and 3.70; however, it cannot be said that much improvement has taken place in this area. Especially irregular payments and bribery, favouritism, efficiency of institutional governance, and intellectual property rights have garnered low scores. Indispensable for well-functioning economies, the performance of the country in institutions and institutionalization have prevented its competitiveness from progressing. In fact, these issues are independent from the Cyprus, do not require much financing, and can be regulated quite easily.

Remarkably, in comparison with previous years, deterioration has taken place in business costs of terrorism, business costs of crime and violence, and an increase has been registered in the incidence of organized crime. Furthermore, reliability of police services has fallen from 4.35 to 3.88. In summary, business communities observe an increase in criminal activity and express that this adds to business costs.

Figure 6. Basic Requirements and Its Pillars (Score, 2008-2017)



Source: KTTO competitiveness calculations

Table 3. Northern Cyprus Competitiveness in Twelve Pillars (Rank, 2008-2017)

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Basic Requirements	Institutions	94	88	89	115	110	107	100	124	83	96
	Infrastructure	104	95	98	93	96	101	104	101	96	101
	Macroeconomic stability	99	111	125	139	142	124	136	123	74	79
	Health and primary education	49	42	73	68	66	67	55	75	103	57
Efficiency Enhancers	Higher education and training	92	70	90	108	100	92	88	88	99	97
	Goods market efficiency	123	109	105	131	130	130	111	127	124	120
	Labour market efficiency	100	90	110	118	96	129	107	123	135	122
	Financial market development	128	128	116	108	97	77	56	97	95	102
	Technological readiness	47	46	94	40	74	74	69	66	63	63
	Market size	133	130	135	139	139	143	142	134	137	137
Innovation and Sophistication	Business sophistication	129	110	106	140	141	139	134	141	125	127
	Innovation	132	101	120	115	98	109	115	137	102	100

Source: KTT0 competitiveness calculations and The Global Competitiveness Report (2008-2017)

The worst-performing pillar of the basic requirements subindex is infrastructure. Business community considers the infrastructure of the country to be highly insufficient and have given a score of 2.15 to quality of infrastructure, 2.11 to road quality, and 2.81 to port infrastructure. If the financing provided by Turkey is used correctly and timely improvement can soon be realized in this pillar. For this, project development capacity and use of the Turkish aid and financing need to be streamlined.

Macroeconomic stability subindex is the one that has performed the best among all the others in the last five years. Stable discipline ensured in public finances since 2013 and, as a result, national saving rates going over 20% has contributed significantly to economic stability. However, the ratio of the accumulated debt to national income reaching 165% has started to create a structural problem and a systematic risk for financial markets. Steps must be taken to overcome this problem and envisaged reforms must be realized so that at least the interests over the debts can be repaid. Furthermore, a double-digit inflation, caused by the depreciation in the Turkish lira as well as structural problems continues to cause instability in the economy as well as eroding purchasing power.

Table 3 shows rankings in the 12 pillars that make up the three subindexes by country. In parallel to the overall score garnered in the subindex of basic requirements, health and primary education is among the top-performing areas, and the

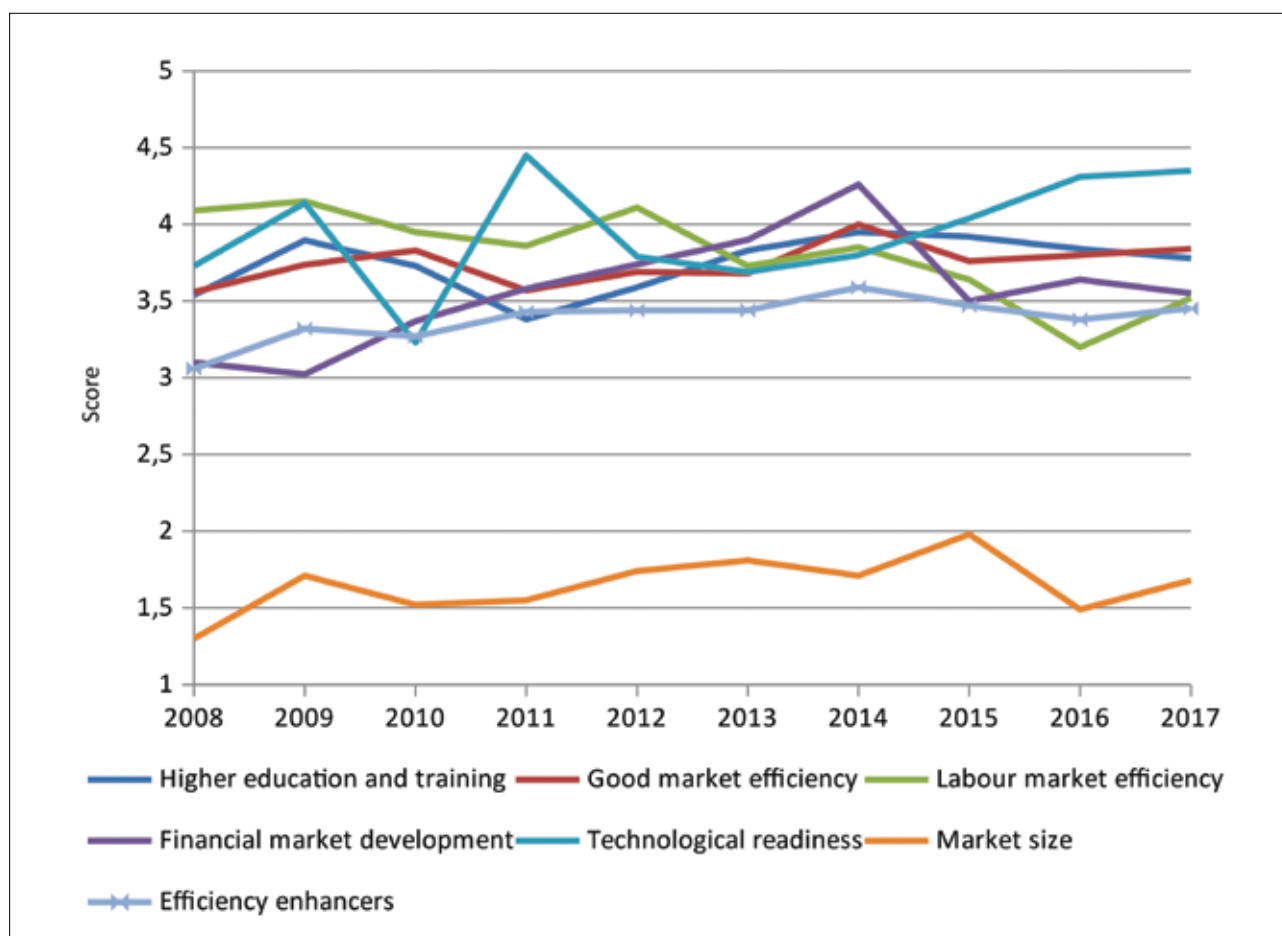
recent performance of the country in macroeconomic stability has carried Northern Cyprus up to the 79th place in this area. Infrastructure and institutions have deteriorated recently and have slipped back to the 101st and 96th places respectively.

In summary, the pillars which make up basic requirements have not made considerable progress during the last decade apart from macroeconomic stability. Countries need institutionalization, a strong infrastructure, stability, and an educated and healthy labour force to attain growth and sustainable development. In this context, the government's policy priority should be strengthening institutions and improving infrastructure.

Efficiency Enhancers

An efficiency-driven economy, Northern Cyprus can effectively enhance its competitiveness by making progress in the six pillars in this subindex. In this pillar, which heavily focuses on efficient use of factors of production, efficiency of goods markets, efficient use of resources and market development, determine country's competitiveness. As can be seen in Figure 6, Northern Cyprus is stuck between 3 and 4.5 in all the six pillars apart from market size. In the last decade, no significant progress has been made in the mentioned efficiency enhancers. As a result, scores in many efficiency enhancers have steered close to the country score.

Figure 7. Efficiency Enhancers and Its Pillars (Score, 2008-2017)



Source: KTT0 competitiveness calculations

Despite high enrolment in higher education and training and the fact that the country ranks 9th in higher education and 66th in secondary education, businesses have a less-than-favourable perception of this area. Businesses think that the quality of the education system, maths and science education, and management and business schools are not at the desired level. Furthermore, businesses are of the opinion that research and training services are not relevant for businesses and do not meet their needs. In the GCI ranking, Northern Cyprus ranks 125th in the relevance of research and training services. On-the-job training for employees is rare in Northern Cyprus. The score in this pillar is 3.13 and country ranking is 130th in 137 countries (see Table 3). Insufficiency on-the-job training has also been clearly identified in survey conducted for the thematic study of this year's report.

Northern Cyprus' business community should cooperate with universities and clarify what qualifications they want in university graduates. They must also strive for innovation by identifying the research areas to develop their own capacities. Furthermore, the government must give the necessary support

to businesses so that they can extend on-the-job trainings.

Goods market efficiency has made progress in the last three years. The country score has risen from 3.76 to 3.84. However, the scores being such as they are, it will be hard for Northern Cyprus to enhance its competitiveness and move up to a superior tier. Low competitiveness in the domestic market, domination of certain firms in the market, barriers before trade and an excessive amount of customs procedures have a significant negative impact on goods market efficiency. Low efficiency in the goods market prevents the market from deepening and society from accessing affordable and varied goods. Among other factors, reducing market efficiency are costs and red tape associated with establishing a business. The tax burden is too high and the fact that arrangements regarding foreign direct investment are not incentivizing. These issues can be resolved with measures to be taken by governments.

There has been a continuous decline in labour market efficiency for the past four years. While the score for this pillar was about 4 points between 2008 and 2012, there

has recently been a significant decline in this pillar and country score has gone down to as much as 3.55. With this score, Northern Cyprus ranks 122nd among 137 countries. The worst-performing pillar following market size is labour market efficiency, regarding which businesses grieve of a low level of flexibility in setting wages and a weak linkage between productivity and recruitment, dismissal, and salaries. This perception has worsened from last year. This means that employers do not gain the efficiency they are expecting for the wages they are paying and that there is a decline in efficiency. According to the survey, the capacity in the country of retaining and attracting skilled people is low. This implies that business have difficulty finding people with the qualifications they are looking for, which drives up production costs. Another problematic factor businesses face is insufficient educated labour force. This shows that there is mismatch in Northern Cyprus' labour market. This issue is analysed in detail in our thematic work.

According to State Planning Organization (SPO) statistics unemployment has been going down for the past years, slipping as far back as to 6.4% in 2016. These situations as well as the responses to the surveys demonstrate that businesses are of the opinion that there is a problem in the supply side of the labour force. In addition, despite the recent improvement in perception of reliance on professional management and

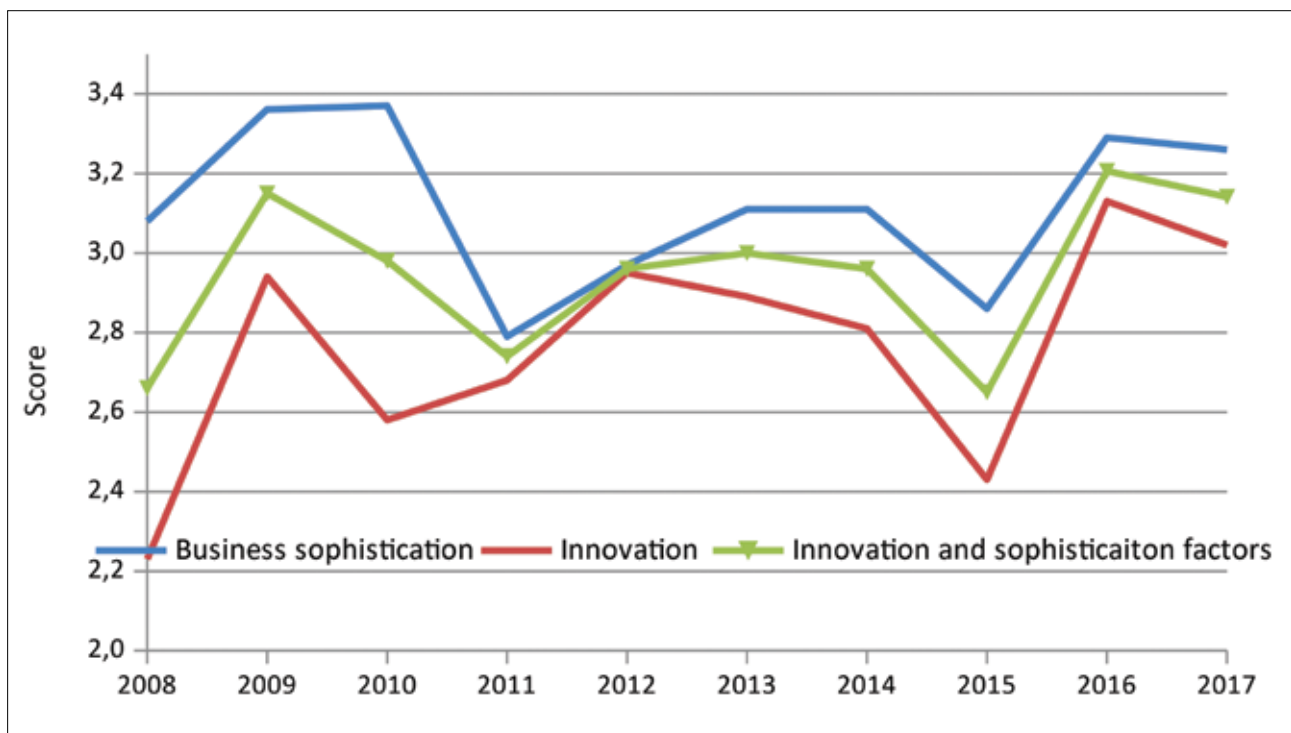
female participation in the labour force, we still occupy the 129th and 109th places in these issues respectively.

Cost-effective funding of business and household economic activities are related to the financial market development in the country. Financial market development has suffered a slight decline from last year. According to businesses, while there is a backsliding in availability and affordability of financial services, there is improvement in ease of access to bank loans and soundness of banks. This pillar, about which businesses do not seem to have formed a clear perception, is the fifth most problematic issue in doing business. This signals that despite the development in the sector and continuous rise in profitability, business people are still not absolutely satisfied and that businesses cannot access affordable financing.

Despite the problems in Northern Cyprus as regards availability of latest technologies, firm-level technology absorption, and foreign direct investment and technology transfer, good performance in broadband Internet, international Internet bandwidth, and a high number of mobile-broadband subscriptions have enabled the country's technology readiness score to be 4.35. This score puts Northern Cyprus in the 63rd position in 2017.

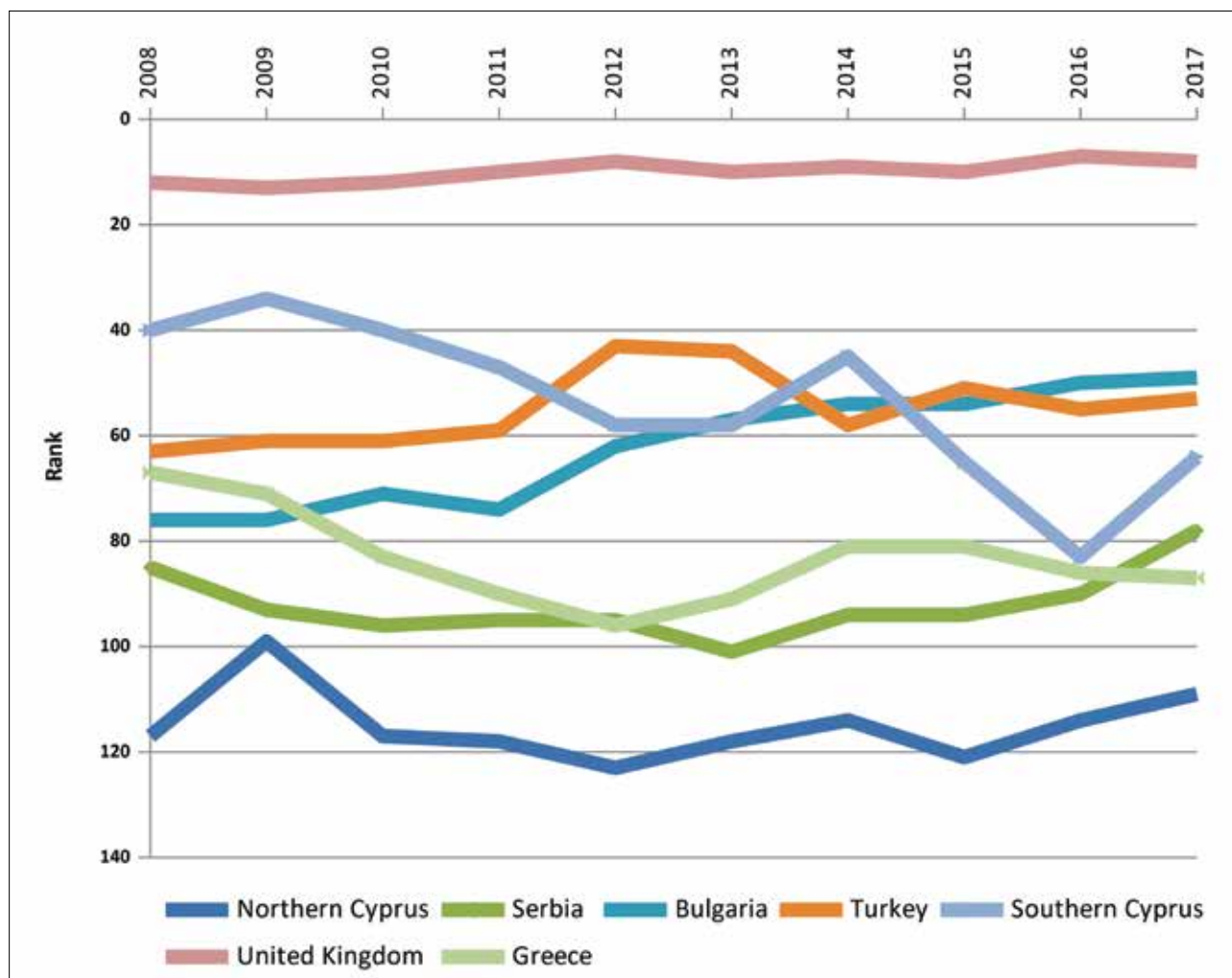
The deadlock in the Cyprus Issue has a negative impact on

Figure 8. Innovation and Sophistication Factors and Its Pillars (2008-2017)



Source: KTT0 competitiveness calculations

Figure 9. Northern Cyprus and Selected Economies (Rankings, 2008-2017)



Source: KTT0 competitiveness measurements (2008-2017), The Global Competitiveness Report (2008-2017)

the economy in the Northern part of the island and prevents its development. Businesses not having direct access to international markets and not being able to make good use of international demands cause the market to remain shallow. Being a serviced based economy, Northern Cyprus cannot market its services sufficiently due to transport restrictions and other domestic problems and overall cannot add depth to the market. Furthermore, the fact that the necessary input for services provided for foreign demand cannot be supplied from the domestic market and the necessary added value cannot be created causes the market to remain shallow. As a result of all these factors, the market size pillar could only garner a score of 1.5 to 2 and has lagged far behind the other efficiency enhancers.

The most important issue for Northern Cyprus as we go into the future must be increasing its market size. For this, specific policies and support programmes with a view to accessing large markets must be developed.

An overall assessment of efficiency enhancers tells us that technological readiness, financial market development, and higher education go above the Northern Cyprus overall ranking (109) but the performance in the remaining efficiency enhancers is below the overall ranking (see Table 3). Our worst-performing pillar, in which we are the last in the world ranking, is market size. Government policies need to be prioritized in view of these rankings.

Innovation and Sophistication

The second most important problem for Northern Cyprus in the competitiveness index is business sophistication. In this pillar which has been drawn up solely based on the data coming from the executive opinion surveys, business executives have given very low scores for a pillar that was about themselves. As can be seen in Figure 7, the country score has trailed between 2.8 and 3.4 in the last decade and has not made real progress in this

area. Businesses, which think there is reluctance in terms of delegation and transfer of authority, production processes are underdeveloped, market dimensions are weak, and the number and quality of suppliers is low, have ranked 127th. Considering that Northern Cyprus can only develop through private sector development, businesses must be at a development level at which they can help this growth. For this, shortcomings in institutionalization, effectiveness, and development of businesses must be determined and financial and managerial arrangements must be struck in cooperation with governments. Especially in the innovation pillar, arrangements should be made to help businesses cooperate with universities for research and development. In this way, the innovation capacity of the economy would be raised and businesses would have easier access to scientists and engineers. Governments must provide incentives for R&D and lead the way in advanced technology procurement. Insufficient progress in the related pillars over the years has caused Northern Cyprus to rank very low and take the 100th place in innovation and 127th place in business sophistication in the GC index.

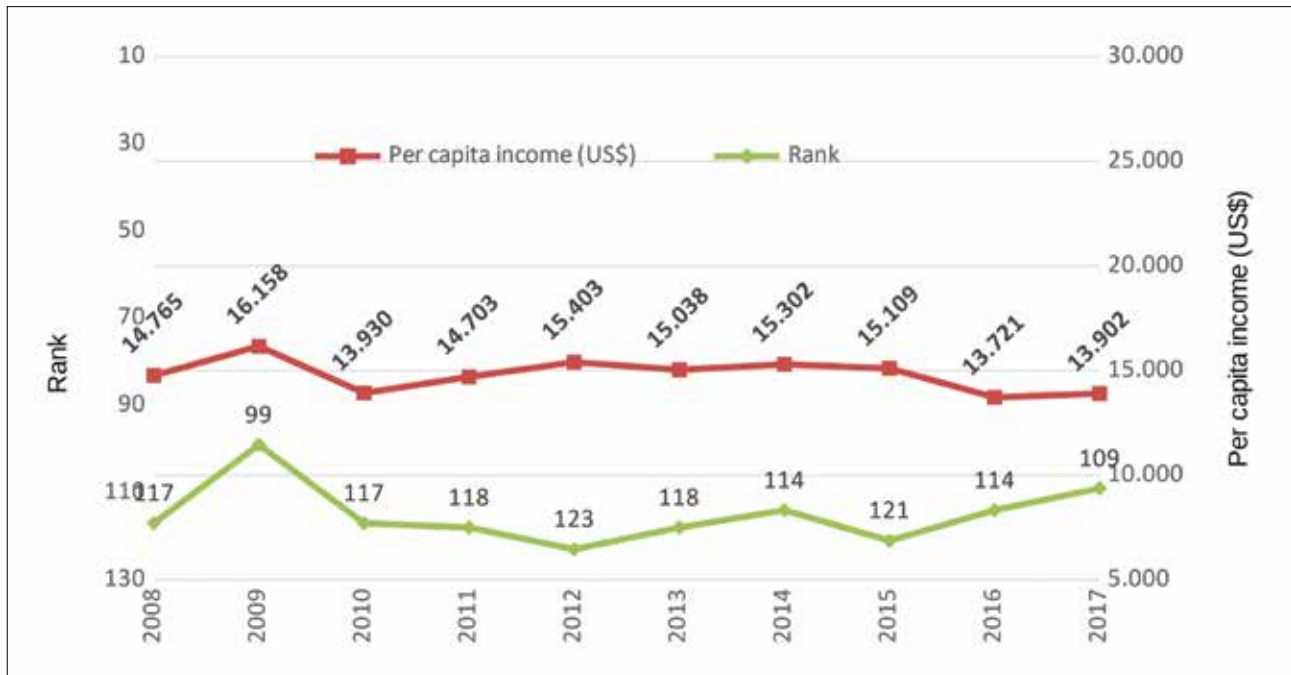
Northern Cyprus and Selected Economies: Comparative Review (2008-2017)

In order to identify the competitiveness of Northern Cyprus economy on the global scale better, a ten-year comparison

has been made with selected countries (see Figure 9). Among the six selected countries, Bulgaria and Serbia are in the same stage of development (efficiency-driven) as Northern Cyprus. In addition, the largest trade partner of the Northern Cyprus economy, Turkey, has also been added to the selected countries as the developments in the referred economy have direct effects on the island. Other two countries in the list are Southern Cyprus, with which we have economic interaction especially in terms of retail trade, and the United Kingdom (UK), with which we have economic activity in areas as tourism, housing, etc. Lastly, Greece, which is an EU member that is in the innovation-driven stage of development but has been performing badly in competitiveness, has also been added as another reference point. This assessment will provide an opportunity to compare the progress of the Northern Cyprus economy with the economies with which it economically interacts, in a certain given time period.

As can be seen in Figure 9, among the countries selected, the UK is the one which has had a consistently high competitiveness and ranks in top 10 in the GCI. Meanwhile, it is expected that the Brexit process will affect the country's economy negatively. However, it is a matter of speculation to what extent the new economic situation will affect UK's competitiveness. Bulgaria, which ranked 76th a decade ago but has since made good use of the EU membership process and made necessary reforms, has made the most significant progress among the

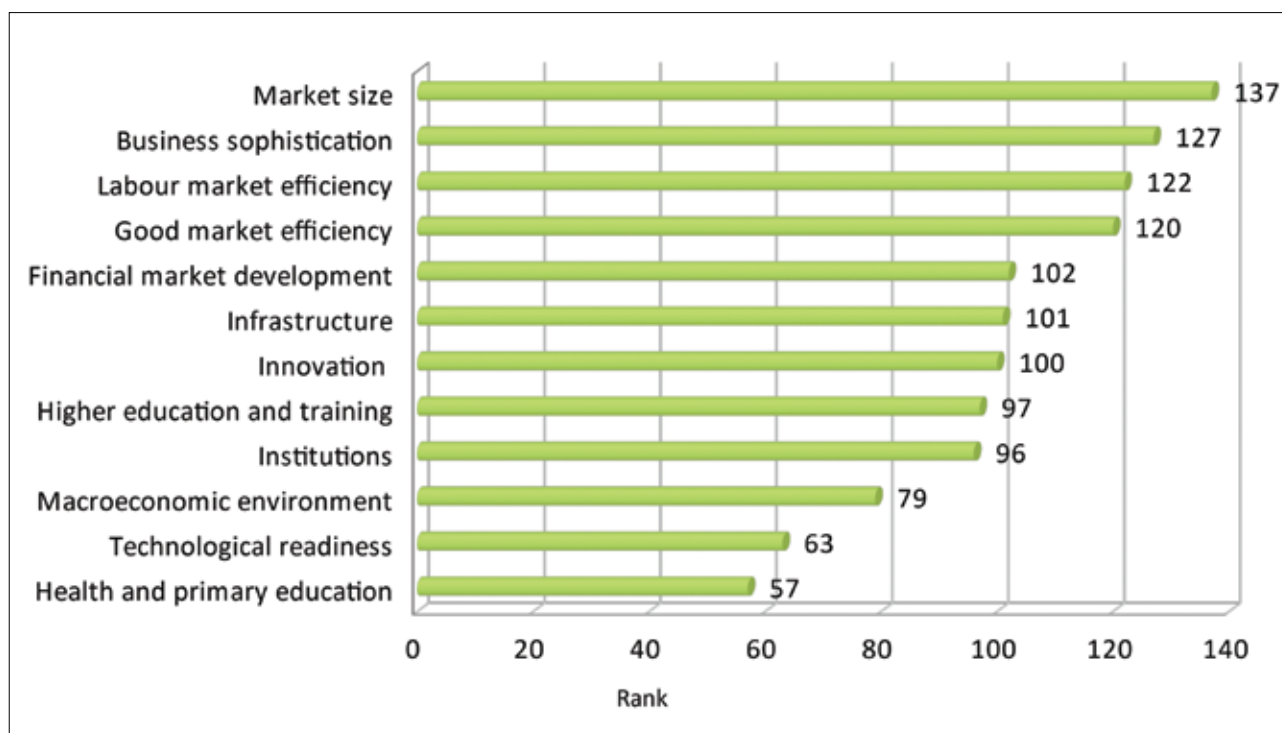
Figure 10. Competitiveness and Per-capita Income



Source: State Planning Organization (2017) and TRNC competitiveness measurements (2008-2017)

Note: 2017 per-capita income figures are State Planning Organization's estimates.

Figure 11. Northern Cyprus' Ranking in Twelve Pillars



Source: KTT0 competitiveness calculations and The Global Competitiveness Report (2017)

countries selected. It has succeeded in ranking 49th among 138 countries in the 2017-2018 world rankings. While it ranked close to Bulgaria in the 2000s and was engaged in economic transformation efforts, Serbia went down in the rankings until 2013 as a consequence of regional political problems as well as the impact of the global financial crisis. However, later, the country put forth an EU vision and the economic conjuncture improved, which has ameliorated Serbia's recent performance. Serbia has come a long way from its ranking ten years ago and now occupies the 78th place. While Greece was in a much better state than Bulgaria a decade ago, the negative impact of the global financial crisis as well as the country's fragile economic structure caused a long-term recession in the country, as a result of which Greece has given its worst performance in terms of competitiveness, slipping back 20 steps at once. Despite the considerable financial support it has received, Greece, defined as an innovation-driven economy, could not accomplish the necessary reforms needed to boost its competitiveness. The transformation expected in the Greek economy can only be accomplished in a much longer time period. Southern Cyprus, which experienced initially a similar economic recession, mostly implemented the reform package envisaged by the Troika and overcame the crisis in three years. Despite a significant step-back from 40s to 86th place in competitiveness, Southern Cyprus engaged

fast in the reform process, made good use of the aids and the support it received, and has gone up 19 places over the past year, now ranking 64th. While the non-performing bank loans continue to be a significant financial risk, it is trying to put on a good performance in such sectors as tourism, in which it is competitive, and reducing the overall market risk.

Turkey, with which Northern Cyprus has the most economic interaction, has shown a consistently upward trend in the past ten years. Having experienced the global financial crisis differently from other countries and improved its competitiveness, Turkey rose up to the 43th place in 2012. Using its potential for development and keeping budgetary discipline, Turkey is in the stage of transition to an innovation-driven economy.

Competitiveness in Northern Cyprus is in a much worse state compared to the selected countries. It will especially be difficult for it to compete with Turkey and Southern Cyprus, with which it economically interacts the most. Considering that Northern Cyprus is an efficiency-driven economy and it can only develop if it enhances its goods and services development capacity, it does not either have a regional competitive edge. What is worse, for the past ten years, there has not been a significant improvement in the competitiveness of the country. This demonstrates that unlike

the above-mentioned countries, Northern Cyprus could not bring about the necessary reforms and could not engage in a transformation that would boost its economic development. Assessment shows that in order for Northern Cyprus, which is in efficiency-driven stage of development at the moment, will need to focus on enhancing higher education and training, goods market, labour market, and financial markets to boost efficiency. In addition, overcoming infrastructural shortages and strengthening institutions, as related to basic requirements, will also contribute significantly to boosting competitiveness.

Competitiveness and Middle Income Trap

Competitiveness index shows that Northern Cyprus has acquired a score of 3.77 and ranks 109th in 138 countries. This ranking shows that Northern Cyprus is still lagging much behind among all the other countries. El Salvador, with a 4,300 USD per-capita income, has this year acquired the same country score of 3.77 as Northern Cyprus. Furthermore, Ethiopia, which barely reaches 1,000 USD as per-capita income, ranks 108th and has a competitiveness ranking close to that of Northern Cyprus. Taking into account the per-capita income in Northern Cyprus, it can easily be said that Northern Cyprus is not in such a dire situation and its income, infrastructure, education and health systems are in a much better state than the above-mentioned economies. As far as macroeconomic indicators are concerned, weakest indicators of Northern Cyprus are small size of its market, high inflation and debt stock. Lack of access to international goods, services, and financial markets is already a well-known problem. These problems, caused by both the political situation as well as inability to ensure the necessary domestic regulation and standards in which is necessary for accessing international markets, prevent progress in our economy and cause our competitiveness to remain low.

Another reason for a low competitiveness is that business communities do not perceive economic indicators positive enough. Business community's unsatisfied perception of political developments, economic decisions by the governments and the administration of the country causes many of the responses to the surveys to be negative. In summary, business communities do not have a positive perception of the economic management of the country.

Another disadvantage of the TRNC is made clearer in the competitiveness study. That is the fact that economy aid dependent. Despite a stable improvement in budget

deficits since 2013 and a decrease in financial dependency, especially the outstanding debt stock (debt to GDP ratio being 165%) is a continuing problem. Budget deficits are met through the financing coming from Turkey in form of aid and loans. External aids and loans correspond to about 10% of annual economic activities and 22% of the state budget, and therefore have an important effect in terms of the economic activity, added value, and ultimately in the per-capita income generated in the country. This situation in a way causes some indicators to be artificial (per-capita income) and not reflect exactly the realities of our economy (total added value generated). The competitiveness study measures the added value capacity of economies in real terms. That is one of the reasons why Northern Cyprus has a low value added generating capacity but has a high per-capita income.

The competitiveness studies of the past decade indicate clearly that the necessary steps to base the Northern Cyprus economy on strong foundations and to maintain that strong position have not been taken; and, as a result, inadequate value added could be generated. In the past decade, the country score has risen from 3.43 to 3.77 - a 10% increase. However, as other countries have also progressed, not much difference can be seen in country ranking. As can be seen in Figure 10, in the past ten years, TRNC has ranked between 100th and 120th places.

It appears that there is a correlation between per-capita income and country ranking. It seems that as there has been no improvement in country ranking; there has been no improvement in per-capita income and that it still trails between 13 and 15 thousand USD. This suggests that the economy was unable to boost its competitiveness, has also not been able to develop its value added generating capacity and hence its per-capita income has been stuck in the middle income level for the past 10 years.

In literature, economies which have succeeded in obtaining high growth rates and gone up to the middle income level but cannot rise up to the high income tier are known as having fallen into the "middle income trap". Northern Cyprus elevated its per-capita income, which stood at 3 thousand USD at the start of the 2000s to 14 thousand USD by the early 2010s but then became stuck at that level. Not being able to increase its per-capita income for the past 10 years, Northern Cyprus can be accepted to be in the "middle income trap". It must get out of that trap to be able to enhance the quality of life and living standards of its people. Especially in this issue, the competitiveness report as well as others can provide guidance.

Economic assessments clearly indicate that the country is not taking steps to genuinely solve the structural problems in the country but is rather acting in a pro-cyclical way. There is a great deal of work to do but little has been done. However, development requires significant amount of transformation. Therefore, politicians' efforts need to be guided by a will to change. Otherwise, it will be impossible for TRNC to leave behind the middle income trap.

In order to be able to escape from the middle income trap, the conclusions of the competitiveness study need to be taken into consideration. In this context, governments must have an economic vision that is internalized and on which there is a consensus. This economic vision should be comprehensive and aim for sustainable development, support the idea of a social state, and must strengthen the middle class. In order to ensure production of high value added products, the country must focus on an economic model that is innovative, knowledge based, easily adaptable to new developments and be export-oriented. Service-driven sectors (tourism, higher education) must be the leading sectors and be supported by such complementary sectors as agriculture and light manufacturing industry. This accomplishment can only come through with an effective management of the economy. Political will and an internalized vision, strong institutions and active participation of the relevant stakeholders are preconditions for the process to be sustainable and long-lasting.

Policy development priorities must be set in accordance with the ranking in Figure 11. As can be seen in the figure, the pillars in which Northern Cyprus is lagging most behind according to the GC ranking are market size, business sophistication, labour force efficiency, goods market efficiency, financial market development, infrastructure, institutions, and others. Many of the badly-performing pillars are under the subindex of efficiency enhancers. As an efficiency-driven economy, Northern Cyprus must focus on boosting efficiency in factor and goods markets to enhance its competitiveness. Only then the country can set itself free from the middle income trap.

CHAPTER III

Performance Assessment Matrices

Drafted as a separate chapter of the report, the performance assessment matrix aims to track the developments that have taken place in this period and measure the performance. In this framework, in the table below an assessment matrix which summarizes what measures have been taken and what progresses have taken place by using the groupings previously developed.

Performance assessment matrix shows that despite that the competitiveness reports have been emphasizing the weak areas in the economy; the governments have not made serious efforts and not engaged in rigorous work to dispense the deficiencies in the economy from one report to the other. No real progress or effort has been made in many of the areas cited in the matrix.

Under general issues and physical infrastructure development areas, we see that the action plan for combatting informal economy and the related e-government practices are continuing to be implemented and in specific e-tax system has been put into use. This development has a positive impact on budget revenues and budgetary sustainability. An important issue in this area is the fact that financial problems of local administrations (municipalities) have continued to become more and more intractable and are currently in an unsustainable state.

An important positive development in the matrix is the streamlining and continuation of the Turkish-financed interest-backed loan programmes that are run under Ministry of Economy KOBİGEM (Centre for Development of SMEs). Furthermore, grant programmes implemented in a similar system for industry, agriculture, and tourism also constitute an important milestone in the country to utilize Turkish financing in an effectiveness-oriented manner.

One of the most significant effects of the bottleneck in the country's economy, the public debt stock continues to create risks in the financial markets as well as disrupting its efficiency. Furthermore, efforts have not been made to lift the barriers before the improvement of the investment climate in the country, which must be the most important driving force in solving the problems in the economy. Even though problems in this respect are clearly outlined in the country's Doing Business Reports, the current structure is becoming more and more unwieldy.

In summary, 2017 will probably be remembered as an election year in which inadequate steps have been taken towards solving the enormous amounts of structural problems where the country is facing.

Tablo 3.1

Main Area	Recommendation		Realization 2017
		2017-2018	2017
General Issues	1) Development of inter-institutional cooperation in the public sector		(2) Despite being formed in 2013, the Economic Coordination Board and Real Sector Advisory Board are still not operational. (4) EU harmonization process has gone down on the list of priorities in the public sector. (5) Due to frequent elections, the existent human capital in the public sector has continued to erode. (6) The action plan for combatting informal economy and the related e-government actions are continued to be pursued and the e-tax system has started to be used. This process has a positive impact on budget revenues and budgetary sustainability. (8) Problems have become more and more intractable and are currently in an unsustainable state. (9) Legal process has been started for the establishment of an autonomous statistical institute.
	2) Institutionalization in macroeconomic management		
	3) Development of macroeconomic policies		
	4) Acceleration of EU harmonization processes		
	5) Establishment of continuity in the bureaucracy and prevention of nepotism		
	6) Reduction of informality	√	
	7) Enhancing efficiency in the public sector		
	8) Administrative, financial, and supervisory restructuring of local administrations		
	9) Establishment of a statistical infrastructure	Δ	
Physical infrastructure development	1) Technical and service-oriented improvement of ports and airports		(1) No serious efforts have been made to enhance the administrative and technical capacities of sea ports. (2) The model is present on the agendas and programmes of all political parties. (3) No steps have been taken and arrangements made to attract new technologies and so the existing technology in use continues to be old.
	2) Public-private partnership build-operate-transfer models		
	3) Enabling new technology in the area of communication		
Increasing market efficiency of goods and services	1) Energy efficiency		(1) Efforts have not been made to solve the problems; unit costs of energy continue to have a negative impact on the competitiveness of businesses. (3) Revision of legal and institutional regulations to re-channel incentives and subsidy programmes towards high value-added and efficient areas is on the political agenda. (5) Despite the problems it causes in the market, the current structure is maintained. (6) Even though problems are clearly outlined in the Doing Business reports, the current structure is becoming more and more unwieldy. (8) Grant and loan programmes for SMEs have been diversified and extended. (9) Restrictive practices in respect of imports drive prices up in the market and put additional burden on households. It has become have to readjust the import regime by taking into consideration today's economic conditions to maximize public welfare.
	2) Achieving independent and institutional execution through the competition law		
	3) Restructuring subsidies		
	4) Regulation of tax policies, system, and rates		
	5) Marketization of public monopolies		
	6) Ease of establishing a company		
	7) Bankruptcy process and its cost		
	8) Development of SME policies	√	
	9) Foreign trade regime		
Increasing the effectiveness of the labour markets	1) Increasing labour force participation rate in the local labour market		(1) Current problems persist while efforts are not taken by the public sector to improve labour market efficiency; problems are only solved temporarily, such as through amnesties. There has been a slight improvement in the labour participation rate. (4) Current inefficient system causes such problems like huge overtime payments in the budget.
	2) Incentives for on-the-job training		
	3) Cooperation with universities on vocational courses		
	4) Public sector working hours		
Access to loans in financial markets	1) Risk perception-reducing regulations for the banks	√	1) New banking law has entered into force. (4) Public debt stock continues to pose risks in the sector and disrupt the efficiency of public banks in specific and the financial markets in generally. (6) Grant programmes and low-interest loan opportunities are further enhanced. (7) Financing opportunities at the Credit Guarantee Fund have been enhanced, which has paved the way for businesses to access more affordable financing.
	2) Restructuring problematic loans		
	3) Restructuring the debt enforcement and bankruptcy system and acceleration of the judicial process		
	4) Limitation of the public sector's use of banking resources		
	5) Low-interest loan programmes	√	
	6) Grant programmes	√	
	7) Development of financial instrument alternatives	Δ	
Measures that encourage use of technology	1. Incentives for technology usage and production		
	2. Legislation and supervision on information technology		
	3. Development of information technology aided education		

Key: √ Action Δ Partial action

Mismatch in Turkish Republic of Northern Cyprus Labour Market

Introduction: General Considerations of 'Mismatch'

Overall Measurement

Analysis of TRNC Labour Market

Turkish Cypriot Chamber of Commerce 2018 Survey Data

Conclusion and Policy Implications

Introduction: General Considerations of 'Mismatch'

One of the most problematic factors in competitiveness calculations in TRNC has been 'unskilled labour force' faced by employers. The factor "effectiveness of the labour market" has constantly received a very low score in competitiveness score and ranked very low compared to other countries. As a result, we decided to concentrate on labour market as part of this year's thematic work. In this part of the report we specifically focus on labour market mismatch in TRNC. First we analyse the human capital characteristics of different groups of people in the population using SPO survey data and then calculate the degree of mismatch by using another data set. We also measure different kinds of mismatch other than education mismatch by using similar data. Finally, at the end of the report we will make some policy recommendations.

Labour markets operate in a very dynamic framework. In any given time period, there are people who loses, changes, or finds jobs and those who drops out of or enter into labour force. A key cause of this kind of dynamism is 'labour market mismatch'. Unemployment is the most direct mismatch (demand and supply are not equal), but it is not the only type. Due to asymmetric information between the employers and the employees, an exact match between a worker and a job is unlikely at the first instance. Even if everybody who wants a job is currently working (which is not possible), there are still other issues that needs to be considered. If an employee is overeducated/over-skilled for the specific position he/she is working at (skill/education mismatch), or if a person is not satisfied with certain job characteristics (such as work hours, wages, relationship with managers), such a person is more likely to look for another job. On the other side, if a person is under-skilled, or the employer is not happy with the performance, then there is the risk of termination of job. Regardless of type of mismatch, however, if a mismatch is not resolved in the long run, it could create inefficiency¹.

There is also a pool of potential workers who are currently Out of Labour Force (OLF) who could be considered both victim and solution for mismatch in the labour market. In situations where the potential employees give up searching for a job because they don't think that they can find a job anymore, they drop out of labour force and thus are not co-

¹ For a related literature on causes of mismatch, see Lambert et. Al. (2001) and Bockerman and Ilmakunnas (2012).

ded as “unemployed.” This type of so called hidden unemployed could underestimate the unemployment statistics of a nation. On the other hand, there are some individuals (students, housewives, early retirees) who would want to work in the labour market but they are not in a hurry to get back. Although they are not part of the labour force for official statistics, they could become a part in a matter of time (especially during economic downturns). These individuals could possess the skills required by the firms and hence decrease the mismatch problem in the labour market. Thus, it is also necessary to evaluate their qualifications.

An important question in this line of research is how to best capture a mismatch in the labour market. While trying to measure education mismatch, one needs to know the education level of the worker and the education requirement of the position. Although the former is easy to obtain, the “quality” of the education also plays an important role which cannot be easily assessed. Current education requirement of the post is also not straightforward to assess. Skill mismatch is even more complicated to measure as it requires an attempt to measure skills set a worker possesses and a job requires. Researchers have used different measurement methods such as self-reported, normative and statistical measures and each has its own strengths and weaknesses (See Verhaest and Omey (2006) and Desjardins and Rubenson (2011) for a review of different methods). The measurement of mismatch notwithstanding, researchers have calculated labour mismatch and its potential impacts on the labour markets in various countries and they find negative impact on labour productivity, per capita output and positive impact on unemployment rate. Such findings should be of concern for policymakers and they should take labour market mismatch seriously.

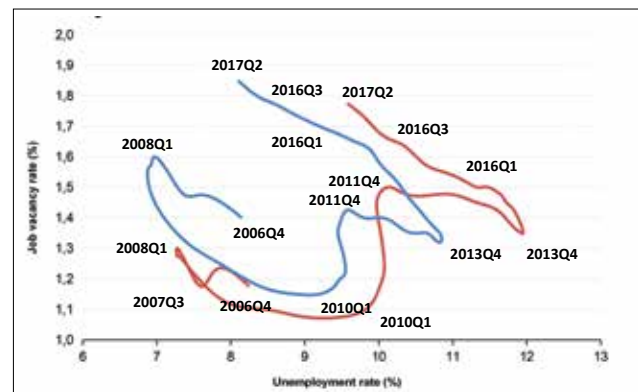
TRNC labour market is no exception to the mismatch problem. One of the major complaints of employers is the lack of supply of domestic labour. Given that there are about 45,000 registered foreign workers in TRNC, even if all the unemployed and OLF members who are looking to re-enter the labour force (total of 19521 people in 2006) are hired, there will still be a demand for foreign workers. Reducing the mismatch problem, if it exists, will not only improve the efficiency of labour market but also minimize the demand for foreign workforce. In this part of the report, we measure the degree of mismatch in TRNC labour market where we focus on different types of mismatch. Mainly we are interested in education and skill mismatch, but other types

are also considered such as difference in desired and actual wages (wage-mismatch) and hours of work (work-hour mismatch). We also focus on duration of unemployment and education characteristics of OLF population.

Overall measurement

Before we introduce more direct measures of mismatch in TRNC, we discuss one of the more aggregated and standardized method of analysing the mismatch in a labour market. Beveridge Curve shows the relationship between unemployment rate and job vacancy rate². If there is no mismatch problem in the labour market, then we would expect low vacancy rate in times of high unemployment rate. The curve for the Euro area for 2006-2017 is displayed below.

Figure 1. Beveridge Curve



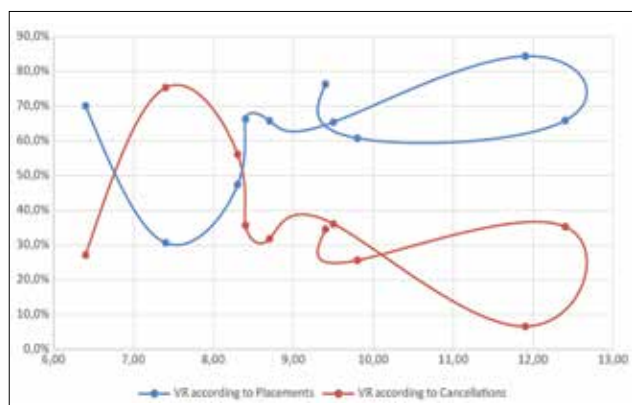
Source: Eurostat³

The following figure shows the Beveridge Curve for TRNC for 2007-2016. The horizontal axis shows the annual unemployment rate released by SPO and the vertical axis represents the vacancy rate (VR). We calculate the latter rate in two ways. First we use the number of placements during a year to calculate the number of unfilled positions and divide that with total number of job postings by the Employment Office. The second approach uses the number of job cancellations to calculate the vacancy rate. The two approaches actually reveal very different graphs.

2 One of the major shortcomings of Beveridge Curve is the quality of information on job vacancy rates. To calculate this rate, we need to know the number of all job openings in the economy as well as the number of posts that are filled during a specific time period. Most of the posts are not announced at the local or national Employment Offices. Employers choose other outlets such as internet or word-of-mouth to advertise their openings. Therefore, a rate calculated based only on posts advertised through Employment Offices could be biased.

3 http://ec.europa.eu/eurostat/statistics-explained/index.php/Job_vacancy_and_unemployment_rates_-_Beveridge_curve

Figure 2. Beveridge Curve, TRNC (2007-2016)



Source: Job postings, cancellations and placements are obtained from the Employment Office, TRNC. Unemployment rate is obtained from SPO, TRNC.

As we discussed above, there are various ways of measuring labour market mismatch. Although Beveridge Curve provides a general picture, it cannot be used for policy purposes. Therefore, for a more insightful analysis, we rely on other methods to measure the degree of mismatch. We are especially interested in skill, education, work-hours, and wage mismatch in TRNC labour market. We also consider characteristic of unemployed and OLF.

Analysis of TRNC Labour Market

Data:

We are going to utilize two sets of data in this report. The first set is Household Labour Force Surveys (HLFS) conducted annually by the State Planning Organization (SPO) of TRNC. These surveys contain information on employed, unemployed and OLF individuals in TRNC. We will be able to compare the education levels and other demographic characteristics of these three groups. This survey has been conducted annually since 2004, but we will mainly focus on the most recent time period of 2012-2016. However, since some information is not available for this period, we also use earlier periods in some cases. Also aggregate data released by SPO will be utilized.

The second set of data comes from Cyprus Turkish Chamber of Commerce (CTCC). The Chamber outsourced a survey in January 2018 that collected information on workers' self-reported education levels required for workers' current jobs (the questionnaire in Turkish is available in the appendix). By using this data, we are able to measure the education mismatch as well as wage- and work-hour mismatch in the TRNC private sector. There is also a survey of

100 firms in the private sector (who are registered at the Chamber) which ask about employer's perspectives. We report some key findings from this survey as well.

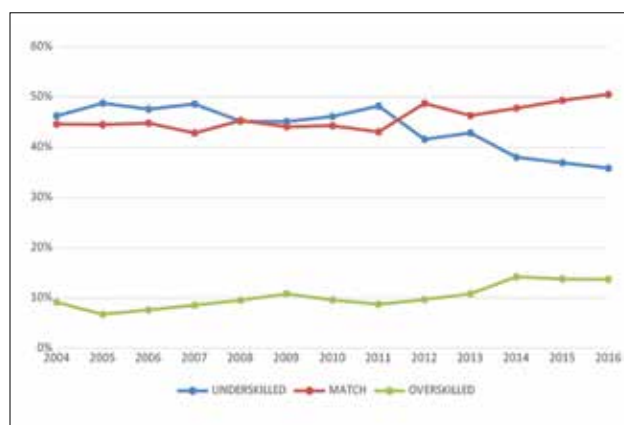
Trend of Skill/Education Mismatch in TRNC

We use HLF surveys to obtain a picture of education-mismatch trend in TRNC. We first classify skill demand according to occupation (ISCO) codes as high, medium and low, and then skill supply is coded into three levels by using the highest education level of the employees. The difference is defined as the level of education mismatch. A negative value for the difference indicates that an employee is "under educated/skilled" for that position whereas a positive difference indicates "over educated/skilled". A value of zero shows that there is an exact match between the employee's educational level and skill level required by that job. The classification of occupations into various skill levels is done ad-hoc (ILO 2014)⁴. However, we experiment with two different classification options which are both shown in Table 1.

Table 1. Skill Classification based on different ISCO groups

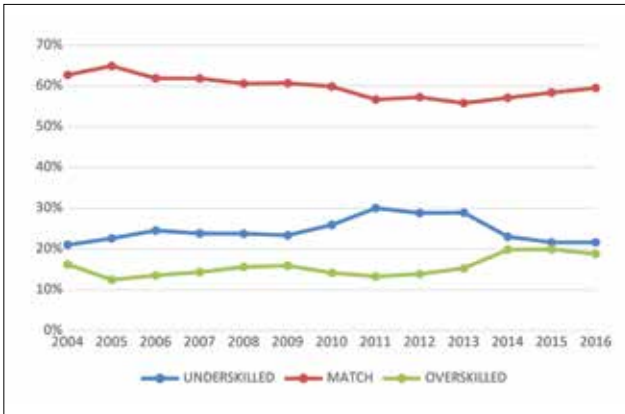
Skill Level	ISCO Value (Option 1)	ISCO Value (Option 2)	ISCED Value
Low Skill	1,2,3	1,2,3	1,2 (Elementary)
Medium Skill	4,5,6,7,8	4,5,6	3,4 (Secondary)
High Skill	9	7,8,9	5,6 (Tertiary)

Figure 3. Trend of Education-Mismatch in TRNC (2004-2016), Option 1



⁴ The occupations for each 1-digit ISCO code are provided in Appendix

Figure 4. Trend of Education-Mismatch in TRNC (2004-2016), Option 2



Although two options lead different results, they show a similar pattern. The skill-match probability started to increase after 2011 which probably indicates institutionalization of the labour market in TRNC over the recent years. Although there is a decrease in under-skilled workforce after 2013, there is still %20-40 under-skilled workers in the private sector. We need to remind the readers however that these figures use a subjective measure of skill composition. (Low education does not always imply low skill!). Table below shows values from other countries that uses the first option (ILO 2014, p.23).

We also tested a more quantitative classification. We measured the average education level within one-digit ISCO codes for each year along with standard deviation. The average cap-

Table 2. Some Comparison (2008) According to Option 1

	%Over-educated	%Under-educated
Republic of Cyprus	17.9	20.6
Turkey	7.7	55.2
UK	13.7	33.6
TRNC	9.5	45.2

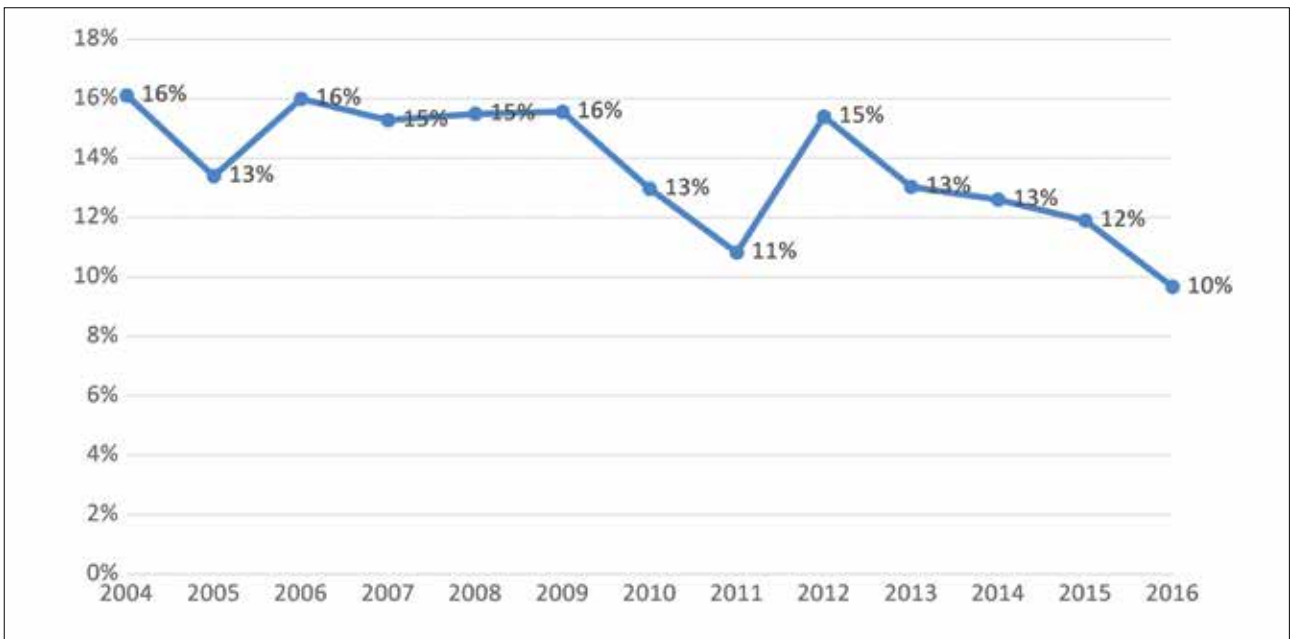
Source: ILO (2014) (except TRNC values)

tures the educational requirements for that occupation in the market. Then, if the respondent's education is within one standard deviation of the average, he/she has exact skill match, otherwise there is a mismatch (ILO, 2014). The mismatch ratios calculated according to this method are significantly higher than previous two options (the figure is presented in Appendix A). But more importantly, this method revealed a high proportion of over-skilled employment in the TRNC labour market which is contrary to previous pictures. This justifies the need for a more detailed analysis on this topic.

Out of Labour Force

As we discussed above, the members of this group could

Figure 5. The Proportion of those who are OLF (but ready to work) to Employed



Source: SPO 2004-HHLF survey bulletins

Table 3. Out of Labour Force but willing to work (2012-2016)

Education	2012	2013	2014	2015	2016
Elementary	37.3%	30.2%	32.0%	31.9%	36.8%
Secondary	11.1%	15.2%	12.0%	13.2%	10.6%
Upper Secondary	38.6%	39.4%	41.7%	42.2%	38.2%
Tertiary	13.1%	15.2%	14.3%	12.7%	14.5%
Age Group					
18-24	20.6%	22.2%	18.8%	24.9%	19.3%
25-34	27.0%	29.8%	27.1%	22.9%	24.4%
35-44	24.7%	20.5%	21.2%	24.6%	24.4%
45-54	14.0%	16.4%	16.8%	15.4%	17.0%
55+	13.7%	11.1%	16.2%	12.3%	14.8%
Have prior work experience	49.0%	53.2%	52.3%	54.1%	54.8%

Source: HLFS 2012-2016, Author's own calculations

potentially be used to eliminate the mismatch problem in labour market. The following table shows the ratio of those who are OLF but could start working to total employed individuals. Over the last 12 years, this ratio averaged 12% which indicates that there is significant amount of individuals who are willing to work if they find it worthwhile. Of course the policymakers are more concerned with those who are currently unemployed (not shown in the following graph), but for more efficient workings of the labour market these individuals should also be considered. The key information needed is under what conditions will these people go back to labour force? Is it wages, flexible working hours or good match? By the way, 60% of the individuals in this group are females. Given the low female participation rate in the labour market, there is a good potential of women willing to work.

The following table shows those who are OLF but willing to work if an opportunity arises. These individuals have low education levels. About 47% have elementary or second-

dary education. But these individuals also tend to be from the younger group (around 45% less than 35 years of age). What's more interesting is half of these individuals have prior work experience. Thus there is a potential supply of workforce in the population who is young, low-educated but with some prior work experience.

Unemployed (2012-2016)

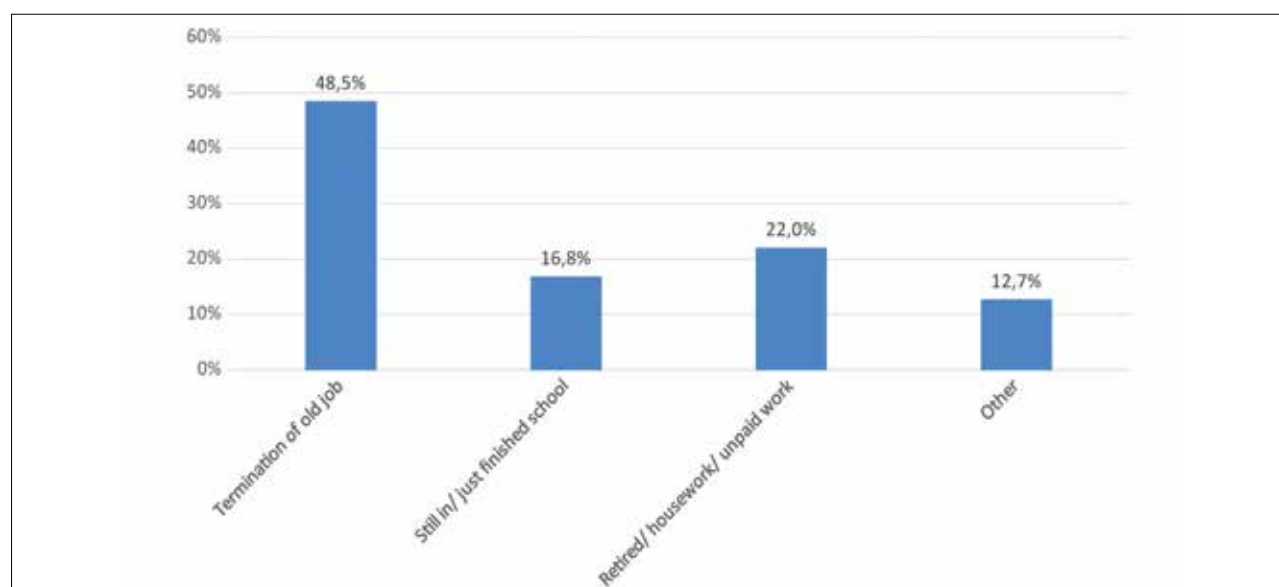
In this section, we analyse the labour market characteristics of the unemployed in TRNC during 2012-2016 period. Although most of the unemployed have low education levels, there is still a significant proportion of unemployed with university or higher education. Furthermore, this proportion has increased from about 22% in 2012 to 34% in 2016. At first thought this may not be a problem if these individuals are

Table 4. Characteristics of Currently Unemployed (2012-2016)

Education	2012	2013	2014	2015	2016
Elementary	37.3%	30.2%	32.0%	31.9%	36.8%
Secondary	11.1%	15.2%	12.0%	13.2%	10.6%
Upper Secondary	38.6%	39.4%	41.7%	42.2%	38.2%
Tertiary	13.1%	15.2%	14.3%	12.7%	14.5%
Age Group					
18-24	20.6%	22.2%	18.8%	24.9%	19.3%
25-34	27.0%	29.8%	27.1%	22.9%	24.4%
35-44	24.7%	20.5%	21.2%	24.6%	24.4%
45-54	14.0%	16.4%	16.8%	15.4%	17.0%
55+	13.7%	11.1%	16.2%	12.3%	14.8%
Have prior work experience	69.2%	62.5%	69.6%	71.2%	66.7%
% LONG TERM	45.0%	50.4%	45.4%	38.7%	28.5%

Source: HLFS 2012-2016, Author's own calculations

Figure 6. The reasons why unemployed have been looking for a job



only suffering from frictional unemployment. Since around 70% of the unemployed have prior work experience, this means most of them are not first time entrants (e.g. Students) into the labour market. In 2012 45% of the unemployed were classified as long-term, but this ratio decreased to about 28% in 2016 which is a remarkable decrease. The age distribution of the unemployed also show that most of the unemployed individuals are at the early stages of their work life (younger than 35).

A closer look at unemployment duration reveals some interesting trends. It turns out that the average unemployment duration of high educated workers is around 13 months in 2012 and

12 months in 2016 which can be classified as long-term unemployment. These are rather high averages which might be due to outliers in the sample. So, in the bottom half of Table 5, we show unemployment duration of the sample within certain intervals. In 2012, 21.7% of all the unemployed have been searching for a job for at least a year and at most two years. This percentage decreased to 13.5% in 2016⁵. There are even some individuals who have been unemployed for more than five years which in most cases these individuals would have been discouraged and stop searching (and become part of out of labour force).

Following figure shows the distribution of currently unemployed (2009-2011 combined) according to their reasons of why they were looking for a job in the last 4 weeks⁶. Most of these individuals were employed and their job was terminated for one reason or another. Around 17% are new entrants to the labour market but another 22% are coming from OLF (re-entrants to labour market).

Currently Employed

In this section, we discuss some of the human capital characteristics of the currently employed individuals. The figure below shows the distribution of employed individuals according to various education categories. The figure shows all the employed individuals in public and private sector as well as self-employed. Thus, this may not be an accurate picture of the labour market in North Cyprus' private sector.

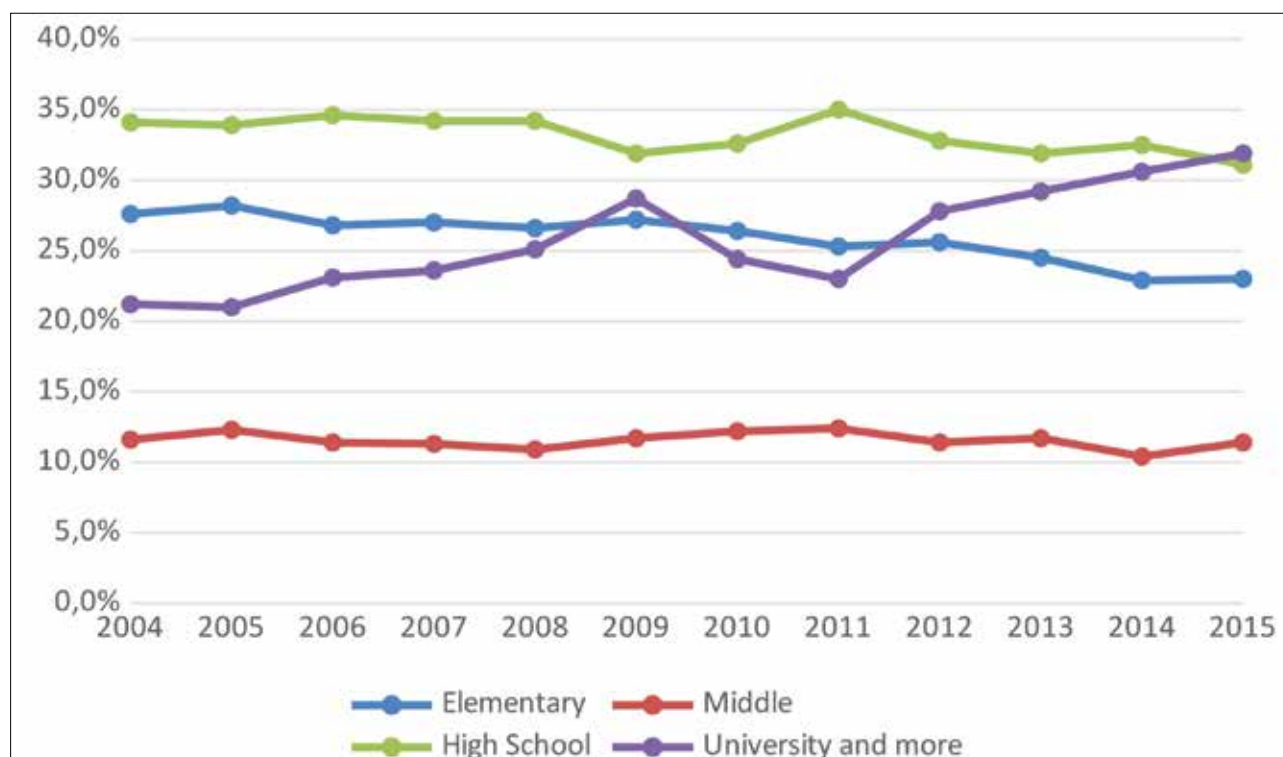
Table 5. Average unemployment duration (months)

Education	2012	2013	2014	2015	2016
Elementary	15.2	17.7	17.2	10.7	8.3
Secondary	9.1	9.9	11.3	11.3	11.5
Upper Secondary	13.1	16.3	14.1	12.6	9.3
Tertiary	13.3	17.6	15.9	14.4	12.6
ALL Unemployed	13.1	16.3	15.1	12.5	10.6
Unemployment Duration					
<12	55.0%	49.6%	54.6%	61.3%	71.5%
12-23	21.7%	20.3%	19.9%	17.1%	13.5%
24-35	10.4%	13.2%	11.6%	9.6%	8.3%
36-47	6.3%	8.7%	5.2%	6.5%	1.0%
48-59	3.8%	2.5%	2.0%	1.5%	2.1%
60+	2.9%	5.8%	6.8%	4.0%	3.6%

⁵ We provide long-term unemployment statistics for some other countries in Appendix Figure A3

⁶ We do not have this data for 2012-2016

Figure 7. Education level of currently employed in TRNC (all sectors)⁷



Source: SPO 2004-2015 HLFS Bulletins

In the next table, we only show the education distribution of salaried employees in the private sector (2012-2016). As we can see, the ratio of high educated employees is less in the private sector compared to the total which indicates that more of the educated individuals are currently employed in the public sector (or self-employed).

The next table shows the difference between actual and desired hours of work by private sector employees. This table basically shows the degree of 'work-hours mismatch' in the labour market. About 40% of employees are not satisfied with their work hours. When divided by education of the employee, 2012-2016 average shows (Table 8) that the lowest educated workers would like to work on average 6.7 hours less per week whereas those with university education and more would like to work on average 4.4 hours less per week.

In this section we have shown a snapshot of TRNC labour market. The key takeaways from this section are the following:

- i. There is a huge potential of workforce who are cur-

⁷ Totals do not add up to 100% because of 'illiterate' numbers

Table 6. Characteristics of Salaried Private Sector Employees

Education	2012	2013	2014	2015	2016
Elementary	33.1%	34.1%	32.2%	31.3%	30.1%
Secondary	12.0%	13.4%	11.8%	12.6%	14.2%
Upper Secondary	32.5%	30.8%	32.1%	30.8%	30.6%
Tertiary	22.4%	21.6%	23.9%	25.4%	25.1%
Age Group					
18-24	8.5%	8.3%	7.4%	8.6%	9.8%
25-34	32.5%	32.7%	33.2%	30.7%	30.8%
35-44	31.2%	29.2%	30.4%	30.1%	30.8%
45-54	19.8%	21.9%	19.6%	20.6%	19.8%
55+	8.2%	7.9%	9.4%	10.1%	8.8%
Firm Size					
1-10	51.8%	54.6%	52.2%	50.2%	48.0%
1-19	14.6%	14.5%	13.1%	14.6%	14.7%
20-49	10.0%	10.3%	10.8%	10.6%	9.5%
50+	23.6%	20.6%	23.9%	24.6%	27.9%

Table 7. The Difference between actual and desired hours of work in private sector (work hour mismatch)

	2012	2013	2014	2015	2015	ALL
<0	4.7%	3.9%	2.9%	3.6%	3.7%	3.8%
Zero	56.4%	61.1%	64.1%	58.2%	62.2%	60.3%
1-5	6.3%	5.6%	5.5%	6.2%	4.2%	5.6%
6-10	12.0%	8.9%	10.0%	10.7%	8.9%	10.1%
11-15	5.3%	4.0%	4.1%	5.2%	5.0%	4.7%
16-20	5.5%	6.1%	4.8%	6.4%	5.4%	5.6%
20+	9.9%	10.5%	8.6%	9.8%	10.6%	9.9%

Table 8. 2012-2016 Average actual and desired hours of work

	Actual	Desired	Mismatch
Elementary	50.4	43.7	6.7
Secondary	51.4	44.5	6.9
Upper Secondary	49.8	43.9	5.9
Tertiary	47.1	42.7	4.4

rently OLF but are willing to come back. This group consists mostly of females and have low educational attainment.

ii. The unemployment in TRNC is rather serious. A significant portion of the unemployed do stay in unemployment for long time (more than 12 months). Even for the high educated, the average duration is almost a year. The existence of long-term unemployment in an economy where job vacancies are not being filled is an indication of labour mismatch.

iii. The salaried employment in private sector consists mainly of low to medium educated workers who are more than 35 years of age. In other words, it is unlikely that these individuals will acquire more education thus their advancement is riskier.

iv. About 40% of the currently employed are not satisfied with their work hours and would like to work fewer hours. This is more serious for lower educated workers.

We have high educated individuals who are unemployed (which shows lack of demand for these individuals) and lots of lower educated individuals willing to come back to work (large supply). Furthermore, those who are currently working are not satisfied with their work hour requirements which pose a turnover risk for the firms. These indicate a serious mismatch in the North Cyprus labour market. To better measure the mismatch, we use the self-reported answers from the workers in the next section.

Turkish Cypriot Chamber of Commerce 2018 Survey Data:

In order to measure the skill and education mismatch in the TRNC labour market, we are going to use the TCCC 2018 data. As we explained in the previous sections, this data contains information on employees' self-reported required education and skill levels for the position they are working at as well as actual employee data on education and work experience. By comparing these answers, we construct the skill and education mismatch values for each employee in our sample.

We use question #3 to classify the respondent's skill level. The first three categories are coded as HIGH SKILL, the next three (4,5,7) are coded as MIDDLE SKILL and remaining categories (6 and 8) are LOW SKILLED employees. Education has 4 categories namely ELEMENTARY (including no schooling), SECONDARY, UPPER SECONDARY, and TERTIARY. The distributions of overall skill level in our sample as well as distribution by educational attainments are shown in the next two figures.

Figure 8. Distribution of ad-hoc defined skill levels

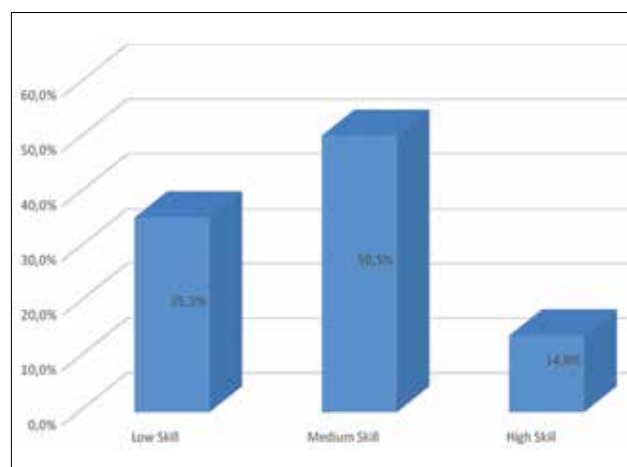
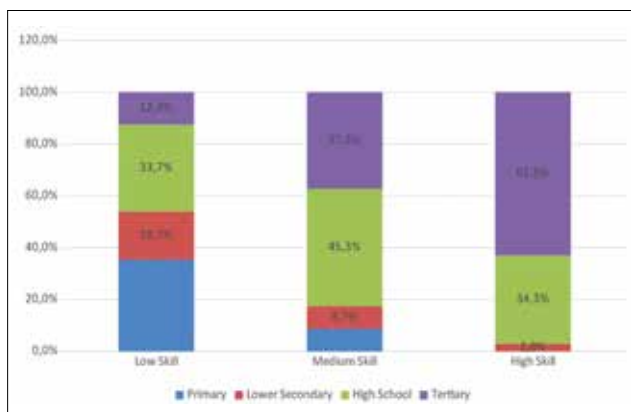


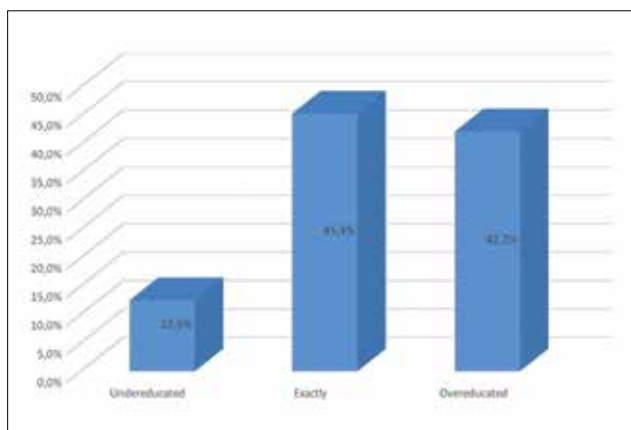
Figure 9. Educational attainment by skill Levels



Education Mismatch

Education mismatch is calculated in two ways. First, we compare the highest grade attained with the self-reported required minimum education at a similar post (#7). If there is any difference in self-reported answers, then we code it as a mismatch. Figure 10 below shows the degree of education mismatch where around 55% of the sample have reported a different education level required for their current job than what they have obtained. In fact, 42.2% thinks that they have more formal education than required by their position.

Figure 10. Ratio of self-reported education mismatch

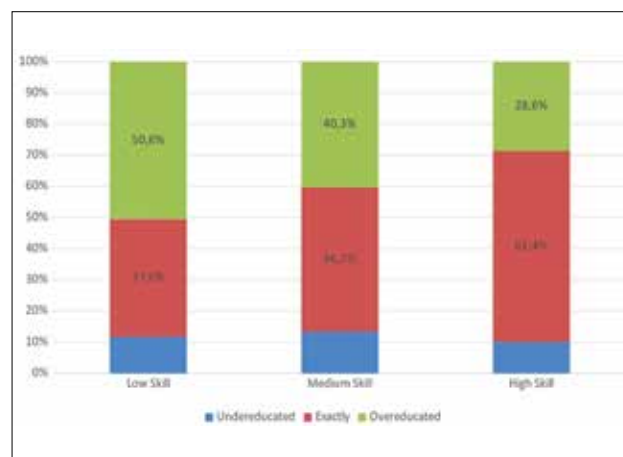


The second approach asks respondents directly whether they think their highest education level obtained is enough for the current requirements of the job or not? (# 10) In our sample, 45% of the respondents think that their education and current requirements of the job are not the same. But only 25% thinks that when they first entered, there was no mismatch (answers to #9). This means that the responsibilities of the job have been increasing during their tenure and degree of formal education could not keep up with the requirements of the job.

There are also two follow-up questions which measure if more education is needed to advance at the current job (#12A and 12B). Among those who reported that they would like more responsibilities at workplace (only 39%), 20% reported that they don't have enough education and 9% do not have enough Work Experience for such extra responsibilities. These are rather low numbers which show that workers have the necessary self-confidence for more advancement in the workplace.

We then analyse how self-reported education mismatch varies within various skill levels. It can be seen in Figure 11 that education mismatch is higher in lowest skill levels. In fact, those who are working in low skill occupations are more likely to be overeducated for the job. High skilled occupations have the highest match (61.43%) probability.

Figure 11. Mismatch by skill levels



Wage-Mismatch

Next we look at wage mismatch. Respondents are asked to report their monthly salaries and in case they rejected, they are asked to report a range they fall under. We were able to classify 94% of all the participants into one of 10 categories. Then we also asked the participants to select the wage band that they think they 'deserve'. The difference between these two tells us the degree of wage mismatch in the labour market. The next figure displays this information. Only 23.4% thinks that they are getting paid what they deserve (only 3% thinks they should be getting paid less). The majority of the people think they deserve higher wages. Figure 13 shows the degree of wage mismatch by different skill levels. As can be seen, there is greater wage mismatch among lower skilled workers.

Figure 12. Difference between desired and actual wage band (Wage mismatch)

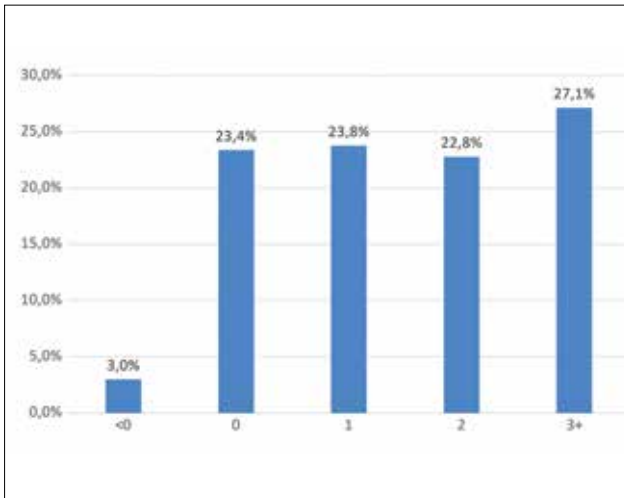
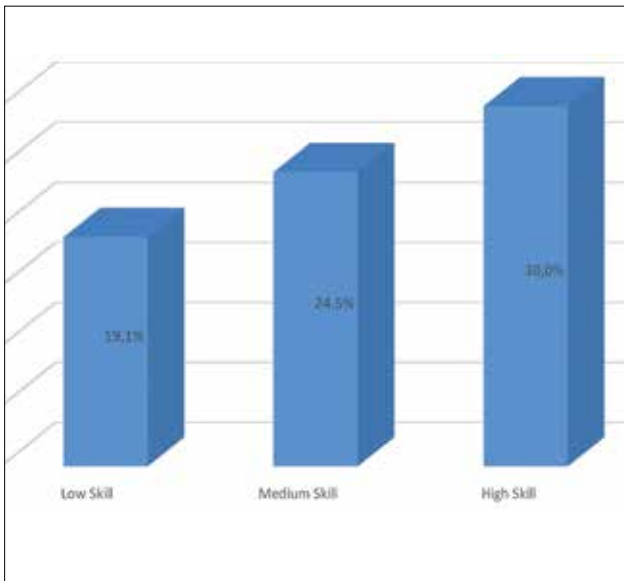


Figure 13. Percentage of those whose actual and desired wage band EXACTLY matches



Work-Hours Mismatch

We have mentioned before that another kind of mismatch that could create inefficiency in the labour market is work-hours mismatch. If a worker works more than he wants to, this could have detrimental impact on his productivity. According to our survey, in 2018, an average worker in the private sector works 49.4 hours/week and 40% of the sample works more than 45 hours per week. These are long work hours compared to other European countries and especially public sector in TRNC. In fact, 54.65% of these workers responded that they would like to work fewer hours than they already do (the difference between #21A and #21B). Table 9 below shows the average number of hours wor-

ked per week by full-time employees in selected European countries (public and private sector combined).

Table 9. Average hours worked per week (2016)

Country	Average Hours/week (2016)
Southern Cyprus	39.2
Malta	38.6
Turkey	46.8
UK	36.6
Greece	42.3
EU Area (19 countries)	36.5

Source: Average Number of usual weekly hours of work in main job, Table lfsq_ewhun2, EUROSTAT, ec.europa.eu/Eurostat.

Table 10 below shows the discrepancies in desired and actual work hours for some subgroups. The discrepancy is the highest among low skilled occupations and low educated employees. Interestingly, those who believe they are over-educated for their job are also more likely to desire fewer work hours. In other words, not only these individuals think they have education mismatch at their current workplace, but also they wish to work on average 10 hours less. This kind of an environment will ultimately make this person unsatisfied at workplace and start looking for another position (labour turnover).

Table 10. Average Hours worked and Work-Hours Mismatch by different groups

Skill	Hours worked	Work-Hours Mismatch
Low Skill	51.5	11.5
Medium	48.6	8.1
High	46.9	7.6
Education		
Primary	49.1	11.3
Lower Secondary	51.5	10.7
Secondary	50.4	9.5
Tertiary	47.2	6.8
Education Mismatch		
Undereducated	47.7	8.9
Exactly	48.2	8.7
Overeducated	51.1	10.1

Job Satisfaction

Finally, we look at satisfaction level of respondents with some of the workplace characteristics. Questions #13 to #18 ask about satisfaction regarding different job aspects. As we discussed previously, a mismatch could lead to dissatisfaction which could cause lower productivity and ultimately lead to turnover/layoff. Interestingly, despite long work hours and higher desired wages, 91.4% of the respondents are satisfied with their current job. The lowest satisfaction (53.7%) is regarding the wages followed by work hours (77.8%), but still these numbers are rather high considering the actual conditions.

Table 11. Subjective Satisfaction levels of workers (#13-18)

Satisfied with	Strongly Agree/ Agree
Co-workers	92.4%
Job duties	86.4%
Wages	53.7%
Manager's behavior	88.3%
Work Hours	77.8%
Overall	91.4%

Conclusion and Policy Implications

In this section we have attempted to measure labour market mismatch in TRNC. There are various dimensions of mismatch and measurement of each aspect is not straightforward. We have utilized various data sources and used definitions consistent with prior literature in this area. Our results can be summarized as follows.

i. The unemployment duration in TRNC is, albeit a significant decrease over the last two years, very long compared to other nations. The roots of this problem are not analysed in this report, but if individuals cannot find a job within reasonable period, they could become discouraged and drop out of labour force. Although this reduces unemployment rate, it implies that there is a structural problem in the economy.

ii. There is a young, low-educated supply of potential workforce with some prior work experience who is currently out of labour force but willing to enter the labour force if an opportunity arises.

iii. Currently employed is also suffering from mismatch problem. Although our recent survey indicates high job satisfaction, it is not enough evidence for efficient labour markets. TRNC labour market suffers from overeducated workforce where high educated individuals are working in positions that require less education. This reflects in lower desired work hours and higher wages which cannot always be compensated by the firms.

According to our results, it is fair to say that there exists some degree of mismatch in TRNC labour market. Most of the mismatch is related to differences in required and actual formal education levels, work hours, and salaries. These results indicate that there is significant waste of human capital resources which has a negative impact on overall competitiveness of the country. Policymakers are urged to come up with macro policies in order minimize such structural problems in the labour market. Obviously more focused and extensive measurement on these issues are necessary before going any further where annual household labour force surveys could be used as a quick, consistent and low cost tool in this endeavour. Other targeted surveys especially at firm level could provide much more valuable information. Although there will always be a need for foreign workforce in TRNC labour market, if working conditions and mismatch is improved, there could be lower demand for that group.

We provide below some policy recommendations based on the results of our limited analysis:

1. According to self-reported answers in 2018 survey, 75% think that they had the necessary education for their current position when they first started, but only 45% think the same for current responsibilities. This implies that the job requirements have increased over time, thus firms should invest in formal or on-the-job training. The state could partner with the universities in TRNC to provide certificate programs that could increase formal education through quicker means. The state should provide some incentives to the firms while firms should provide flexibility to their employees to attend to these programs.

2. The state resources that are being to subsidize higher education areas that are not really imperative for the development of the economy should be reconsidered and channelled into occupational and labour development areas. Such measures could increase the likelihood of unemployed to find a job as well as those who are out of labour force to come back to the labour market.

3. There is a significant pool of supply of people who are currently out of labour force but are willing to work if conditions are right. The related offices of the government should work with the private sector in order to match these individuals to the available positions. This could be accomplished by having privately operated employment offices in addition to already existing public services.

4. Education mismatch is higher in low-skill occupations. This shows that firms are hiring overeducated individuals for low skill positions, but this is not sustainable in the long run as these individuals have a higher risk of turnover. Policymakers should focus on educating employees at early stages of their work-life about the requirements of specific jobs. IN particular, those who plan to attend to post-graduate institutions should be fully informed about the requirements of various jobs so that they can make better informed decisions and update their expectations accordingly. On other hand, employees should be more careful in their recruitment process and maybe spent more resources to attract the 'right' worker. Otherwise, they will not be able to utilize the workers efficiently and ultimately lose a mismatched employee.

5. There is also a work-hour mismatch. Low-educated workers are working on average 10-11 hours more than they desire, and even high educated workers are working 7 hours more than they desire. Such long work hours could reduce worker morale and efficiency in the long run. Of course, 'desired' hours are a rather subjective value and we are not suggesting that firms should give the employees what they want. However, if firms do not address this issue, they could have efficiency losses in the longer term and thus we suggest that they see this as a potential problem.

6. A more controversial issue is the wage-mismatch.

Once again, it is not straightforward to capture true productivity of a worker without accompanying firm-level data. But if workers are highly dissatisfied with their wages (about 75% would prefer higher wages), this could once again cause problems for the management.

7. "Job guaranteed Occupational Programs" should be initiated immediately with the participation of the occupational unions and chambers.

8. Occupation certificate system should be initiated with necessary support (regulatory, human capital, financial) provided by the state.

This will increase the efficiency and competitiveness of the labour market by minimizing skill mismatch.

9. Flexibility in a labour market is another key policy instrument that could help to adjust to the changing technological and production processes. Flexibility could both increase labour force participation and reduce unemployment rate. The state is urged to discuss and implement "flexible security" (flexicurity) measures laid out in Lisbon Strategy documents. Necessary regulatory framework should be immediately implemented. Other policies include modifications in tax and social security requirements that will encourage flexible and secure work environment in TRNC.

In this last section of the competitiveness report, we have measured labour market mismatch in TRNC using supply-side information and provided some policy instruments in this regard. Obviously, the demand side's (employers) perspectives are very important for this topic. Cyprus Turkish Chamber of Commerce also had a survey conducted to 100 firms registered by the Chamber and asked several questions to measure the demand side mismatch. For example, when asked firms about their hiring intentions, about 61% reported that they have no intention to hire anybody currently. Those who do are mainly looking for blue-collar workers. Also, 60% of firms said that in the past year they had difficulty in filling appropriate positions in their workplace and again they were mostly looking for low educated workers. Managers also reported that education is not the most important selection criteria; instead they focus more on work experience (skill mismatch). In other words, we can safely assume that, in TRNC labour market there is a high demand for low educated, low skilled individuals with

some prior work experience. In our study, we have shown that there is a high ratio of high-educated unemployed individuals in the labour market but at the same time many low-educated, young, willing to work out-of-labour-force individuals exist. We believe that it is necessary to obtain more information from the demand side in order to better measure the labour market mismatch. We hope that policy makers and related associations will tackle this issue further in the near future.

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ANNEX

Annex: ISCO-08 Occupation codes and definitions

Code	Definitions
0	Armed forces
1	Legislators, senior officials and managers
2	Professionals
3	Technicians and associate professionals
4	Clerks
5	Service workers and shop and market sales workers
6	Skilled agricultural and fishery workers
7	Craft and related trades workers
8	Plant and machine operators and assemblers
9	Elementary occupations

The figure below shows the skill classification of respondents by taking into account the mean and standard deviation of education levels within each ISCO classification code displayed above. If an individual's education is within one standard deviation of the occupation group he/she belongs to, then that person is classified as MATCH, otherwise there is a skill mismatch.

Figure A1. The trend of skill-mismatch in TRNC using quantitative classification (2004-2016)

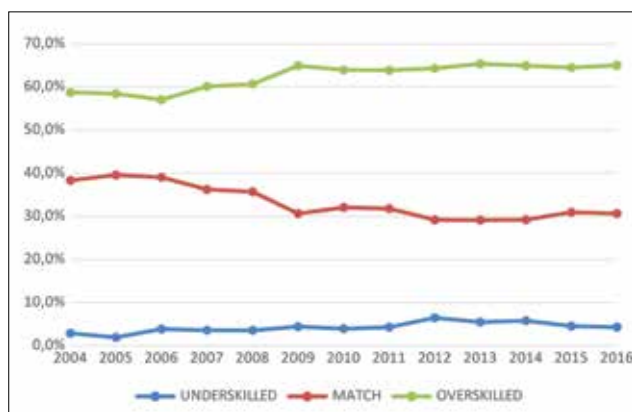
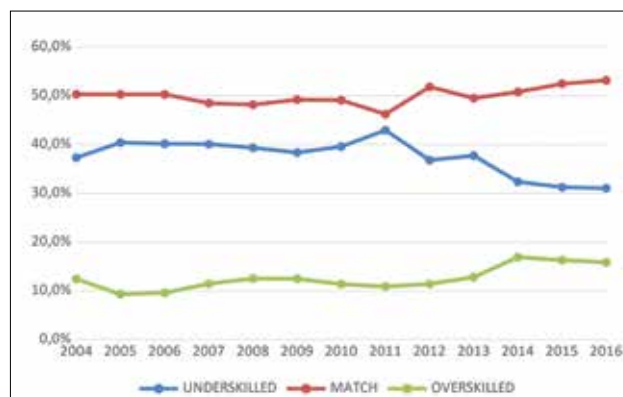


Figure A2. The trend of skill-mismatch in TRNC using a different ISCO classification (2004-2016) (Option 3)



(Low Skill=8,9; Medium Skill=4,5,6,7; High Skill=1,2,3)

Figure A3. Long-term Unemployment Ratios



Source: OECD (2018)

ANNEX

Annex: Summary Statistics of Important Variables in TCCC 2018 survey data

Firm Size	
10-19	39.0%
20-49	20.8%
50-99	8.9%
100+	31.3%
Education	
Elementary	20.4%
Secondary	13.3%
Upper Secondary	38.2%
Tertiary	28.1%
Skill Level	
LOW	35.5%
MEDIUM	50.5%
HIGH	14.0%
Age Group	
16-24	9.2%
25-34	37.6%
35-44	29.0%
45-55	24.2%
TRNC Nationality?	
NO	36.0%
YES	64.0%
Gender	
Male	69.1%
Female	30.9%
Normal Hours Worked	49.4
Desired Hours of Work	40.1
Size of Household	3.25
AGE	37.1

Self-Reported Education Mismatch by Subgroups:

Figure B1. Self-Reported Education Mismatch by Age Group

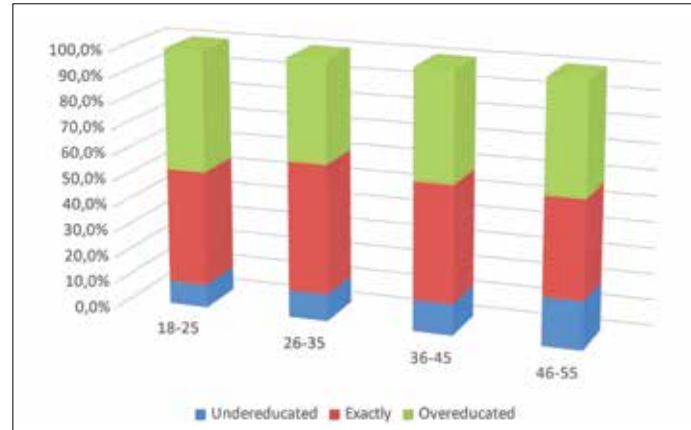


Figure B2. Self-Reported Education Mismatch by Nationality

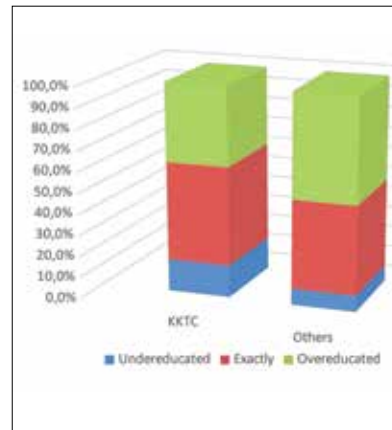


Figure B3. Self-reported Education Mismatch by Gap-Salary

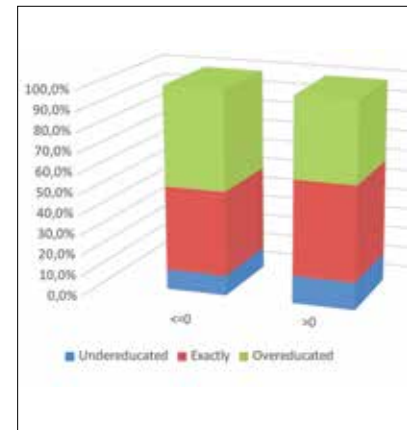
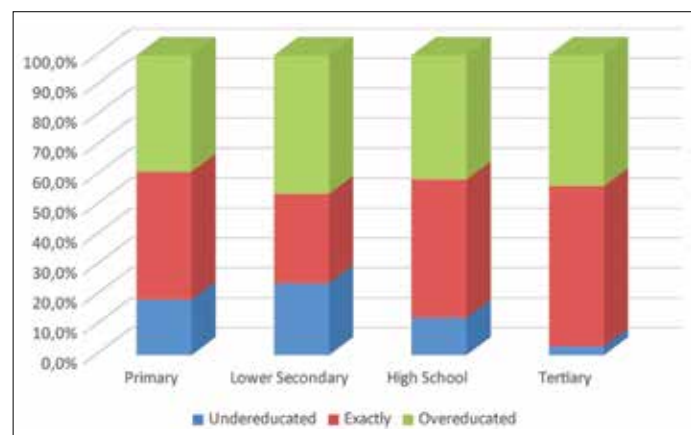


Figure B4. Self-reported Education Mismatch by Current Education Level



ANNEX I

Annex 1: Macroeconomic Indicators

	2009	2010	2011	2012	2013	2014	2015	2016
Real Growth Rate (% change)	-5,7	3,6	4	0,5	1,3	4,9	4	3,6
GDP (Million TL)	5.376	5.614	6.508	6.955	7.607	8.858	10.226	11.601
GDP per capita (Current prices. US\$)	13.292	14.611	15.285	15.123	15.357	15.140	13.737	13.897
Consumer Price Index (CPI, %)	5,7	5,7	14,7	3,6	10,2	6,5	7,78	10,2
Exchange Rates (TL/€)	2,15	2,06	2,06	2,30	2,53	2,91	3,02	3,34
Exchange Rates (TL/\$)	1,55	1,51	1,51	1,80	1,90	2,20	2,73	3,02
Total Deposits (Million, TL)	6.505	7.067	8.403	9.284	10.684	11.774	13.951	16.635
Total Deposits / GDP (%)	126	126	133	132	140	132,9	136	143
Total Loans (Million, TL)	3.976	4.189	5.402	6.288	7.870	9.557	10.399	12.763
Total Loans / GDP (%)	77	75	85	90	103	108	102	110
Loan / Deposit Rate (%)	61	59	64	73	78	81	75	77
Balance of Public Budget / GDP (%)	-18,4	-15,4	-14	-8,8	-7,2	-4,8	-3,7	-1,7
Public Debt Stock / GDP (%)	130	139	141	139	154	149	157	165
Foreign Trade Balance (Surplus + / Deficit -) (Million US\$)	-1.255	-1.507	-1.547	-1.583	-1.579	-1.650	-1.383	-1.452
Foreign Trade Balance / GDP (%)	40,2	45,6	47,8	47,3	45,7	48,6	43,2	43,3
Current Account Balance (Surplus + / Deficit -) (Million US\$)	-65,4	-275,8	-173,1	-125,1	-44,7	-12,6	271,6	289,9
Current Account Balance / GDP (%)	-1,9	-7,4	-4,5	-3,2	-1,1	-0,3	7,2	7,6
Total Employment	91.550	93.498	97.103	99.117	101.181	103.149	112.811	118.387
Public Administration Employment	27.627	27.244	29.695	27.141	30.266	31.276	32.218	32.236
Active Insured Persons	66.685	70.331	71.144	74.869	77.334	79.711	84.793	92.917
Number of Unemployed	12.941	12.619	10.411	9.174	8.929	9.320	9.043	8.075
Minimum Wage (TL)	1.237	1.300	1.300	1.300	1.415	1.675	1.730	1.834

	State Planning Organisation
	Calculated using data from the State Planning Organisation
	TRNC Central Bank
	Calculated using data from the State Planning Organisation and TRNC Central Bank
	Ministry of Labor and Social Security

ANNEX II

Annex 2 : Technical Notes and Sources for Competitiveness Report Hard Data

	Unit	Source / Method of Calculation	Amount	Implied GCR Rank	Comments / Reliability of Estimate
Investor Protection Index	Investor Protection Index 0-10 (best)	CTIDA Doing Business Report / 2017	5,7	66	
Available Seat Kilometers	Scheduled per week originating in the economy (in millions)/2016	Calculated using data from Civil Aviation Office	26,60	118	This estimate is based on all scheduled flights from Ercan Airport plus %20 off the available seat km in the Greek Cypriot community since Turkish Cypriots use those airports too
Mobile telephone subscribers	per 100 population / 2016	Calculated using data from SPO	239,78	1	Mobile telephone subscribers (2016): 804.345 Population: 335.455
Fixed Telephone lines	per 100 population / 2016	Calculated using data from SPO	26,8	37	Fixed telephone lines (2016) 89.967 Population: 335.455
Government Budget Balance	As percentage of GDP	SPO	-1,7	42	
Gross National Savings	As percentage of GDP	SPO	23,4	52	
Inflation	Annual percentage change in consumer price index / 2016	SPO	10,19	124	
Government Debt	As a percentage of GDP / 2016	SPO	165,4	136	
Country Credit Rating			n/a	n/a	
Malaria incidence	per 100,000 population / 2016	Calculated using data from the Health Authority	0,90	19	Malaria incidence (2016) : 3 persons
Tuberculosis incidence	per 100,000 population / 2016	Calculated using data from the Health Authority	4,50	5	Tuberculosis incidence (2016): 15 persons
HIV prevalence	as a percentage of adults aged 15 - 49 years / 2016	Calculated using data from the Health Authority	0,019	1	HIV prevalence (2016): 40 persons
Infant mortality	per 1000 live births / 2016	SPO	0,8	1	
Life expectancy	at birth years / 2016	Calculated using data from the SPO	82,7	7	Life expectancy(2016): Male: 80.8 Female 84.5
Primary Education Enrollment Rate	net primary education enrollment rate 2016	SPO	100	1	
Secondary Education Enrollment Rate	gross secondary education enrollment rate 2016	Calculated using data from SPO	94	66	Secondary Enrollment (2016): %100, High School and Vocational High School: %87.92
Tertiary Education Enrollment Rate	higher education enrollment rate 2016	SPO	85,8	9	
Total tax rate	%of profit tax, contribution and other taxes	CTIDA Doing Business Report / 2017	48,6	104	

Annex 2 : Technical Notes and Sources for Competitiveness Report Hard Data

	Unit	Source / Method of Calculation	Amount	Implied GCR Rank	Comments / Reliability of Estimate
Number of Procedures Required to Start a Business	number of days	CTIDA Doing Business Report / 2017	17	136	
Time Required to Start a Business	number of procedures	CTIDA Doing Business Report / 2017	26	110	
Trade - Weighted Tariff Rate	the average rate of duty per imported value unit/2016	Calculated using data from Finance Authorities	1,24	33	Calculated based on total tariff revenue divided by total value of imports for that period. Total tariff revenue at current prices (2016):58.593.780TL Imports (2016): 4.716.925,389TL
Imports as a Percentage of GDP	as a percentage of GDP /2016	Calculated using data from SPO and Trade Office	40,6	76	Imports (2016): \$1.557.200.000 GDP: \$ 3.837.908.052
Redundancy Costs	weeks of salary		n/a	n/a	
Female Participation in Labor Force	ratio to men /2016	Calculated using data from SPO	0,63	109	Female participation in labor force (2016): 39.5% Male participation in labor force (2016): 62 %
Legal Rights Index	index on a 0-10 (best) scale	CTIDA Doing Business Report / 2017	6	49	
Internet users	percentage of internet users/2016	Calculated using data from Information Technologies and Communication Authority	128,7	1	Internet users : fixed + mobile broadband total 431,615
Fixed-broadband Internet Subscriptions	per 100 population/2016	Calculated using data from Information Technologies and Communication Authority	33,3	16	
Internet Bandwith	kb/s/user / 2016	Calculated using data from Information Technologies and Communication Authority	100,47	43	ITCA (2016) 42,350 Mbit: 43.366.400(Kb/s) / internet users
Mobile-broadband Subscriptions	per 100 population/2016	Calculated using data from Information Technologies and Communication Authority	95,4	24	
Domestic Market Size Index	(GDP + value of imports - value of exports) normalized on a 1 - 7 (best) scale /2016	Calculated using data from SPO	1,34	136	
Foreign Market Size Index	value of exports of goods and services normalized on a 1 - 7 (best) scale /2016	Calculated using data from SPO	2,69	132	
GDP (PPP)		Calculated using data from SPO	4,99	134	
Exports % GDP	as a percentage of GDP/2016	Calculated using data from SPO	40,12	55	
PCT Patents	applications/million population / 2016		n/a	n/a	

ANNEX III

Annex 3 : How to Read Economy Profiles?

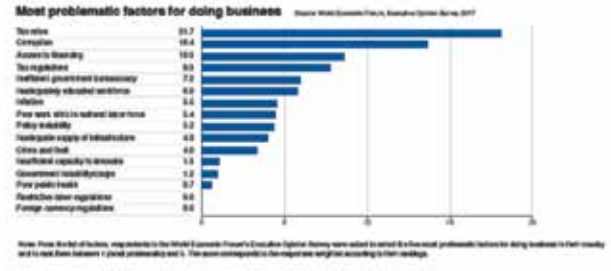
How to Read the Economy Profiles

1) Key indicators

The first section presents a selection of key indicators for the economy under review. All data in this section are for 2016 and sourced from the April 2017 edition of the International Monetary Fund (IMF)'s World Economic Outlook (WEO) Database.

2) Performance overview

This section details the economy's performance on the main components of the Global Competitiveness Index (GCI). The table at the top of this section shows the economy's overall GCI rank and score, and its evolution since the 2012–2013 edition (or the earliest edition available). Below, the left-hand side shows a table with a breakdown of the economy's performance in the 12 pillars of the GCI. The right-hand side charts the economy's score in each pillar (blue line) measured against the region's average scores



3) The most problematic factors for doing business

This chart summarizes those factors seen by business executives as the most problematic for doing business in their economy. The information is drawn from the World Economic Forum's Executive Opinion Survey (the Survey). From a list of 16 factors, respondents were asked to select the five most problematic and rank them from 1 (most problematic) to 5. The results were then tabulated and weighted according to the ranking assigned by respondents.

4) The Global Competitiveness Index in detail

This page details the country's performance on each of the indicators entering the composition of the GCI. Indicators are organized by pillar. For indicators entering the GCI in two different pillars, only the first instance is shown on this page.

