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**EMPLOYMENT AND THE FUNCTIONING
OF THE LABOR MARKET IN TUNISIA**

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Abstract

The main purpose of this paper is to study the functioning of the Tunisian labor market. The focus is on the key labor market and education institutions and regulations and their impact on the structure and segmentation of this market into formal and informal segments, on the one hand, and public and private segments, on the other. The paper also examines how the current regulations affect the ease of hiring and firing. In this context, it explores the gap and the mismatch between supply and demand of educated labor and examines the structure of employment by firm size and workers' skill composition. In Tunisia, the larger firms create most of the formal employment but are not growing fast enough in size and number, while informal employment is widespread partly because of inappropriate regulations that increase the cost of formal employment. This paper argues that the high cost of formality and weak law enforcement are the main factors that accelerate the growth of informal employment and that the greater the level of informal employment, the longer it takes to fight unemployment. The analysis comprises an important institutional component and relies on the data provided by the TLMPS 2014 and by other sources, mainly data from the National Statistics Institute (INS).

JEL Classifications: A14, D02, I20, I25, J08, J38, J46, J50

Keywords: Labor market, Institutions, Education, Labor market segmentation, Informal employment, Law enforcement, cost of formality

ملخص

الغرض الرئيسي من هذه الورقة هو دراسة أداء سوق العمل التونسي. وينصب التركيز على مؤسسات سوق العمل والمؤسسات التعليمية الرئيسية وأثرها على هيكل وتجزئة هذه السوق في قطاعات رسمية وغير رسمية من جهة والقطاعات العام والخاص من ناحية أخرى. كما يتناول الفصل كيف تؤثر اللوائح الحالية على سهولة التوظيف وإطلاق النار. وفي هذا السياق، تستكشف الفجوة والفوارق بين العرض والطلب على العمالة المتعلمة، وتفحص هيكل العمالة حسب حجم الشركة وتكوين مهارات العمال. وفي تونس، تخلق الشركات الكبرى معظم العمالة الرسمية ولكنها لا تنمو بسرعة كافية من حيث الحجم والعدد، في حين أن العمالة غير الرسمية منتشرة على نطاق واسع بسبب وجود أنظمة غير ملائمة تزيد من تكلفة العمالة الرسمية. ويرى هذا الفصل أن ارتفاع تكلفة الشكليات وضعف إنفاذ القانون هما العاملان الرئيسيان اللذان يسرعان نمو العمالة غير الرسمية، ويزيد من مستوى العمالة غير الرسمية، كلما طال أمدتها لمكافحة البطالة. ويتضمن التحليل عنصرا مؤسسيا هاما، ويتوقف على البيانات التي قدمها برنامج المسح التتبعي لسوق العمل في تونس لعام 2014، ومصادر أخرى، وبصفة أساسية بيانات المعهد الوطني للإحصاء.

1. Introduction

To what extent are the gap between demand and supply of labor and the skill mismatch caused by the inefficiency of the laws and institutions governing the labor market and the education system?

Inappropriate policies, institutional weaknesses and various forms of imperfections in the Tunisian labor- market (as well as in the financial market and other parts of the economy) are among the underlying explanatory factors for the high level of youth unemployment, the lack of good jobs, the low technological progress and the widespread informality. While, in principle, the same fundamental labor legislation applies to all forms of labor contracts the labor market is quite segmented as this legislation is only partly enforced, and there are specific laws for Government and state-owned enterprises (SOE) employees. Even within the private sector, there are discriminating regulations.

Well-established national tripartite (Labor, business, and government) social negotiations have contributed to the harmonization of national wage negotiations and social peace. However, the sectoral agreements, which are an outcome of these negotiations, are only partly enforced and have led to some significant disparities between sectors and to the development of the informal sector. Most of the unemployed youth prefer to queue up for good jobs in the formal sector.

So, informal employment refers to employment that does not comply with the country's labor laws: no contract, no social insurance, inadequate working conditions... According to ILO (ILO 2013, page 53):

“Employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labor legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.) for reasons such as: the jobs or the employees are not declared to the relevant authorities; the jobs are casual or of a limited duration (e.g., through on-call arrangements); the hours of work or wages are below a specified threshold (e.g., below that qualifying for social security contributions); the workers are employed by unincorporated enterprises or by persons in households; the employee's place of work is outside the premises of the employer's enterprise (e.g., outworkers without an employment contract); or regulations are not applied, not enforced or not complied with for any reason”.

The main purpose of this paper is to shed light on the regulations and mechanisms underlying the dynamics of the Tunisian labor market and to understand why the labor market has not been able to generate enough good jobs. The focus will be more on the key education and training institutions and legislations that directly determine the efficiency and the structure of the labor market. It explores how the current regulations affect the ease of hiring and firing, workers' skill composition, the degree of mismatch between labor supply and labor demand, labor mobility and retraining. It argues that the high cost of formal employment and the incomplete enforcement of regulations lead to the growth of informal employment, which, in the context of Tunisia, aggravates unemployment. The argument based on the differential between the cost of formality and on the incomplete law enforcement is drawn on the work of de Soto (1989), Loayza et al. (2005), Chen (2007) and Friedman et al. (2000) among many others.

Since the number and quality of the jobs created and the unemployment level do not only depend on the efficiency of the labor market mechanisms and regulations a brief description of the structural supply and demand factors will be given in the next section (section 3.2), with a special attention to the demographic and educational characteristics. Section three is the central one and is about the labor market institutions and legislations. The resulting segmentation of the labor market and informal employment are addressed in the fourth section.

The paper comprises a descriptive and institutional analysis and relies on the quantitative data provided by the Tunisia Labor Market Panel Survey conducted in 2014 (TLMPS 2014) and by other sources, mainly INS data. As explained in Assaad and Boughzala (2017), TLMPS 2014 was carried out by ERF in cooperation with the National Statistics Institute (INS). It builds on similar work previously undertaken by ERF in Egypt and Jordan.

2. The Structure of the Labor Market: An Overview

The Tunisian labor market is characterized mainly by its high and persistent unemployment, especially for educated youth and for women. According to INS data, for the last six years, more than 30 percent of youth have been unemployed, and the higher the education attainment the higher the unemployment rate. The overall unemployment rate fluctuated around 14 percent over the last two decades. Right after the 2011 uprising, it increased sharply up to 18.5 percent and then fell back to around 15.4 percent since 2013. As shown in detail in Assaad et al. (2017) and in Tables 1 to C, this average rate hides wide disparities mainly concerning youth, women, the educated and the lagging regions. The female unemployment rate is higher and is increasing faster. In 2006, the difference in unemployment between women and men was less striking, 15.1 percent for women vs. 11.5 percent for men. In 2014, it went up to almost 23 percent for women, nearly twice the rate for men. Women and educated youth face the strongest barriers to employment (Figures 3.1, 3.2 and 3.3). Overall, unemployment is due both to low demand and high supply of labor.

3.2.1. Labor Demand

Unemployment is first the outcome of low demand for labor. For decades, the economy has not been creating enough jobs. The relatively high average real GDP growth rate (around 5 percent) and investment to GDP rate (around 25 percent and even above 30 percent during the 1970s as shown in Figure 3.1) over the last five decades, were not sufficient to generate enough jobs.

The demand for labor has been low and most of the jobs created by the private sector have been in rather low productivity activities based on mostly unskilled labor. Agriculture, manufacturing, construction, trade, business-services, transport, communications and tourism are predominately private. Private sector jobs are predominantly in small family type enterprises, and, contrary to the public-sector enterprises, they often do not fully comply with the labor law, sectoral agreements and decent work requirements. The private sector relies much less on university graduates and on highly skilled labor. Thus, the jobs offered by the private sector, especially the informal sector, often do not meet the expectations of the new graduates who prefer public sector jobs which offer more benefits and security (but not always better salaries). The share of public sector in employment is around 20 percent and is still quite important in three specific sectors: energy and utilities (100 percent of total employment), banking and mining. It is less important but significant in a few more sectors such as community services and communications. Despite the persistent unemployment, there are increasingly severe restrictions on all government recruitment, including by state-owned enterprises.¹

3.2.1.1 The structure of the private sector and the informal sector

Informal employment and lack of transparency are indeed pervasive, including within the formal sector. As per the ILO resolutions (ILO 2013), informal economic activities do not fit within a structured and well defined and organized form of labor division, and are characterized by a lack of precise contractual relationships and do not fit within the legal institutional set-up.

¹ Between 2011 and 2015, because of the uprising and the strong social demands, a 25 percent sudden increase, equivalent to 150 thousand jobs, was exceptionally allowed.

The informal sector comprises all the individual producers and enterprises characterized mainly by a weak level of organization, no or hardly any division of labor, no systematic accounts, no registration of the enterprise and/or of its employees, no conformity with the fiscal and labor regulation, and a very small size. For practical reasons, the size (smaller than a threshold of five to ten employees depending on the country) is used as the main criterion to define the informal sector because size is highly correlated with the other criteria. Larger enterprises form the formal sector. This implies that informal employment may be quite substantial even within the formal sector and that, exceptionally, employment may be formal in some small informal enterprises. In other words, almost all the employment within the informal sector is informal employment. 94.8 percent of the Tunisian enterprises are informal (with no more than four employees) and employ 37.3 percent of the labor force (See Table 3.4). The key question is: why is the informal sector so large and why is there such a weak incentive for firms to grow and to employ more workers?

The formal sector

Most of the formal private firms are SMEs. The number of large firms is very small but their contribution in terms of employment and production is relatively high, and they offer the most attractive jobs. More than half of employment is within firms employing at least 20 workers each and more than one third (36.4 percent) of employment is created by the less than 2000 larger firms employing at least 100 workers each and corresponding to less than 0.4% of the total number of firms.

Small and Medium Enterprises

Like in many other countries, SMEs (employing between 10 and 200 persons) are the backbone of the Tunisian private sector. Although their number corresponds to just 2.5 percent of the total number of firms this number is near ten times larger than the number of large firms, and they generate about one third of total employment and 43 percent of salaried employment. This is shown by the INS enterprise data (Institut National de la Statistique 2016). The same data gives the evolution of the number of enterprises by size and confirm that the numbers of micro and small firms grow much faster than those of medium size and large firms and that half of the SMEs are quite small and employ less than 20 persons. In 2010, firms out of 11,242 SMEs only 2613 are medium size employing between 50 and 200 persons each, but they provide 25 percent of total wage-earning employment, while the smaller SMEs account for a little less than 20 percent, and are likely to keep many more informal features, in particular in terms of human resource management and employment. The environment in which small firms operate is not always conducive to their growth and development. The larger enterprises are more likely to behave like the large modern firms; the higher the size the closer SMEs are to full formality.

Large modern firms

There is a concentration of large firms in the textile and clothing sector, which is labor intensive and based on simple technology and limited capital. The share of textile and clothing (TC) sector is however decreasing while the Electric and Electronic manufacturing (EEI) sector's is increasing. The latter is more capital and skill intensive and is likely to generate better jobs. The value added by worker in the EEI is equal to 45.84 thousand Tunisian dinars (TND) and is much higher than the manufacturing average, which is equal to 26.84 thousand TND. In 2005, the number of TC firms was four times the number of firms in EEI; in 2010 this proportion went down to two times (Institut National de la Statistique 2016). Growth in the EEI sector has been the fastest in terms of employment and more so in terms of production and value added; which almost doubled in real terms between 2005 and 2010 compared to a 38 percent overall growth rate.

The less than two thousand large firms existing in Tunisia provide more than 40 percent of salaried employment, and if we lump them together with the larger SMEs employing at last 50

workers each, we obtain less than 2,500 enterprises offering 66 percent of private sector jobs, and certainly the most stable jobs. This means that larger firms create relatively more and better jobs; which challenges the idea that small enterprises are best at creating jobs.

We can also show that the institutional set up and government capacity for law enforcement have not been conducive to the transformation of smaller firms into larger more modern firms and their transition from the informal to the formal sector.

The informal sector

The informal sector, per the ILO definition, comprises mainly the very small and micro enterprises. It is by far the largest and the fastest growing in terms of number of firms: it is growing yearly at 5.1 percent compared to 2.1 percent for the formal sector. Micro enterprises are characterized by a great deal of heterogeneity. They are typically the least structured and the most unstable, and they generate mostly low-quality jobs, and as already mentioned, the smaller the enterprise the less attractive the jobs it creates, at least from the employee point of view. Based on the national micro enterprise survey conducted in 2007 (INS 2007), 98 percent of these enterprises employ no more than two persons each and 87 percent have no employees at all. Their total employment is a little more than half a million persons, 80 percent of whom are men. This total number makes about 16 percent of the country total employment and only about 5 percent of wage earning employees. These employees make in average a little less than the monthly minimum wage (a little less than 250 Tunisian dinars TND per month in 2007) and generally without any social security. They may be making less than the monthly minimum wage because they do not have a regular full-time job. Female employees earn 30% less than male employees (in 2007, 182 TND per month for women vs. 262 TND for men).

Within the informal sector, wages are lower than in the formal sector but there are important variations. Wage is positively correlated with the size of the firm (Table 3.5).

The self-employed and/or employers have a higher income, more than twice the average wage. The informal sector is not attractive for the more educated, yet we find that 10 percent of the self-employed had a higher education and 80 percent had a primary or secondary education, the remaining 10 percent are illiterate.

Micro enterprises cover a large spectrum of activities but are concentrated in food, retail commerce, construction, transportation and automobile repair. Micro-firms have very limited access to formal financing and depend mainly on their self-financing (close to 90 percent). They also have very limited access to new technologies. For instance, only a minority (less than 10 percent) has access to the internet. Therefore, it is no surprise that they have a lower productivity, pay lower wages and do not grow fast enough.

Based on the ILO conventional measure and referring to Table 3.4, the informal sector size is around 40 percent. It would be 37.3 percent if we assume that only firms employing less than five persons are informal and 42.6 percent if all firms employing less than 10 persons are included. The 40 percent is between the two assumptions as no official definition is available. Since the available data is based on a 2007 survey, and given the rapid growth of the number of very small firms, this is probably an underestimate.

The size of informal employment (as per ILO definition) is certainly higher than the size of the informal sector. It depends on the criteria used to measure it. The TLMPS data indicates that around 50 percent of employments is without a valid contract and social security. The number would be higher if we include employment with no right to sick leave and to a paid vacation... The TLMPS data provide ample evidence about the frequency of the non-fulfillment of these conditions; and so does ETVA². TLMPS data (Table 3.6) shows that 53 percent of the

² ETVA 14: Enquête sur la transition de l'école vers la vie active, an ILO survey conducted in 2014.

individuals did not have a valid written contract. ETVA gives 55 percent just for youth. More than 60 percent have no paid vacation (Table 3.8).

The main explanation of the large size of the informal sector is in the difference between the cost and benefit of formality and in the preference for transparency vs. opacity. The two main costs of informality are well known: first, the difficult access to public services, legal protection, financial resources and advanced technologies and, second, the risk of paying high penalties for non-compliance with the regulations. The benefit of informality is to remain hidden and to evade paying for social security and taxes and for all other legal obligations (health and security standards...). It is vice-versa for the formal sector. Firms belonging to the formal sector have an easier access to financial resources, new technologies, public services and legal protection but do comply with taxes, social security and with all the other legal requirements. In Tunisia, repression against informal sector enterprises and on informal employment is very mild and consequently the risk of paying high penalties for noncompliance is small, which significantly reduces the cost of informality and creates a strong incentive to go and remain informal, and therefore to stay small. Indeed, it is easier to hide for small firms, while the larger firms are more visible, and the tax and social security administration would not allow them to evade their duties. The size of the informal sector also reflects the limited capacities of these administrations to enforce the labor and fiscal laws. The Tunisian government's enforcement capacity is not adequate and has arguably decreased since January 2011. This line of thinking has been developed by Kaufmann (2000), Loyaza (2005, 2016) and Loyaza et al. among others. Friedman et al. (2000) argue that the non-compliance factor, itself strengthened by the weak enforcement capacity of the government, is the key explanatory factor of the persistence and growth of the informal sector.

Unions also have not been able to impose enough compliance with the labor law. In fact, despite the major role they have played and of their strengthening since the 2011 uprising, their membership includes a minority of private sector employees, and they are seldom allowed to be represented within private firms. They are well represented in the public sector but, less than 4 percent of the private sector employees are formally union members according to the TLMP data. This has been the result of decades of repression by the government and the powerful business community.

Overall, informality is not costly for those who consider choosing between going formal or informal because it is not repressed by the government. The rationale for this leniency towards informality is arguably the illusion of job creation. It is an illusion because, as already presented in this section, microenterprises, which form the informal sector, create less jobs than larger enterprises and above all they do not create the right type of jobs. Indeed, the unemployed, especially the university graduates, search primarily for jobs in the formal sector and are not attracted by informal jobs. As shown in Boughzala (2004), the larger the informal sector the harder and longer it will take to combat unemployment. This statement is proved using a dynamic macro model where the labor market includes an informal segment and a formal segment. Migration from one segment to another is driven by the difference in expected income between the two segments; people move to where the expected income is higher, that is considering not only the wage level but also the probability to find a job, or the risk not to find a job³. The equilibrium is obtained when the expected income is equalized between segments. Hence, when more opportunities are created in the formal sector the formal sector expected income goes up workers not satisfied with their informal job migrate to it. More workers keep coming to the formal sector where most of the unemployed search for jobs. So, the larger the

³ This model may be extended to take risk into account in a more accurate way by allowing for not only the expected income but also its variance within each segment.

informal sector (and informal employment) the longer it takes to absorb all those who are not satisfied with their job and are hoping for formal jobs.

It is usually much easier to find a job in the informal which is rather flexible and freely accessible; Actually, there is no or little unemployment in the informal sector. The problem is with the quality of the jobs it creates, they are generally lower quality jobs compared to the formal sector jobs. In Tunisia, and similar countries, unemployment is indeed mainly a formal sector issue. People, especially the young and educated queue up for formal, primarily public sector, jobs; and, when they end up accepting low quality informal sector jobs they are often not satisfied and they would move out and search for formal jobs as soon as new vacancies are made available. Their transition from school to work is usually not completed until they find a formal sector job. The university graduates may stay unemployed for years (See Table 3.10) rather than settling in the informal sector. The only way to satisfy them is by creating decent formal jobs; but since this will attract those in the informal sector, reaching an acceptable rate of unemployment will be harder and will take longer when the informal sector is larger.

The labor market is also characterized by the structural inefficiencies in terms of low job quality and mismatch between the skills produced and those needed by the economy.

3.2.2 Labor supply

On the supply side, total population growth has slowed remarkably but the overall labor supply (labor force) has kept growing fast and may continue to do so. As explained and documented in Assaad et al. (2017), young women have outnumbered young men at school and have been performing significantly better, but they still have to overcome the strong barriers to entry to the labor market. One of the other major issues is that the supply of skills has increased rapidly but the quality of these skills has not kept pace with the quantitative increase. The low quality of the training offered by the education system is a major challenge for the country and is behind the mismatch between the skills produced and the skills needed.

3.2.2.1 Population

The persistent unemployment has been largely the outcome of the demographic constraints. Total population in Tunisia is about 11 million (10.98 million per the 2014 census), including nearly three million young persons between 15 and 30 years old (equivalent to 27.5 percent of the total population), almost equally distributed between males and females. Figure 3.2 shows that the Tunisian population had grown rapidly, at rates between two and three percent per year, until 1987, and then it started to slow down. In 2006, the annual growth rate was down to around 1 percent and, thus, the population started aging. In 1994, half of the population used to be 23 years old or less, this median age reached 31 in 2014.

Despite this demographic transition, total labor force kept increasing quite fast at around two percent, and it is expected to continue to grow at a rather high rate for the years to come. This is because the rate of participation in the labor force has been rather low (46.2 percent per the 2014 census) and is likely to increase, especially for women whose average participation rate has been too low and inconsistent with their education level. The recent small increase of women labor force participation rate, as indicated in Table 3.11, from almost 26.4 percent in 2005 to 27.4 percent in 2014 may be the beginning of this expected increase.

The high and increasing female rate of unemployment is slowing women participation; many of them end up staying out of the labor market. The prevailing social attitude towards women participation in the labor force strongly restricts women's mobility and access to work opportunities. Society expects women to accept only certain categories of employment compatible with their security and "modesty". Women are also discriminated against by employers who think they are costlier than men because they may ask for maternity leave, and may not be as available for work (anytime and anywhere) as men. The liberation of women from

these constraints is happening too slowly in Tunisia. Despite the remarkable progress made in favor of women's civil rights, not enough significant actions have been taken against these cultural barriers to women's employment, which cannot be simply reduced by freeing the labor market. They require more appropriate regulations; for instance, the provision of more and better daycare centers for children and a more systematic protection of women rights and security in the workplace may encourage more women to integrate the labor market, but these rights cannot be obtained through free market mechanisms.⁴

3.2.2.2 Education

The next important feature about the labor force is that eighty percent of the youth, and sixty percent of the labor force, has at least a lower secondary education, and the young illiterates are becoming a small minority (less than 4 percent) concentrated in rural areas. This is huge progress given that, in 1960, illiterates used to be the majority across ages both in rural and urban areas. In the 1960s and 1970s, university graduates used to be a small minority: 1.4 percent in 1975 and 3.3 percent in 1984 (Table 3.12). This rate reached 17 percent in 2011 and is currently above 22 percent. Females have rapidly caught up education wise, and they already outnumber males in schools. Free access to public schools for all and at all levels made this rapid progress possible.

The issue is that this effort has not been consistent with the real needs of the country in terms of quality of the training and satisfaction of labor market demand; which is associated with the rapid increase of the number of students compared with the supply of human and logistic resources allocated to higher education institutions.

The total number of students in public universities has tripled between 1995 and 2010. In 2008/2009, it reached its highest level, 360 thousand students just for public universities (and around 370 thousand including private universities), and then it started decreasing. In 2014, the number was down to 292.3 thousand. This decreasing trend has started six years earlier for the number of students in secondary schools (which reached its peak in 2004). However, unemployment remains very high for tertiary education graduates; half of them wait for more than one year before finding their first job as shown in Table 3.10 based on the Tunisia Higher Education Graduates Survey (THEGS 2015) data.⁵ Females are almost two thirds of the graduates and have the biggest trouble finding jobs.

This gap between the training system and the labor market and the resulting mismatch and uneven distribution of employment opportunities for the educated have arguably reduced the value of the training in the eye of students and employers.

3.3 Institutions and Laws

To what extent the gap between demand and supply of labor and the skill mismatch are due to the inefficiency of the laws and institutions governing the labor market and the education system? How do these institutions shape the outcome of the labor market and how do the specific rules that govern the higher education system impact performance of the labor market? The purpose of this section is to try to answer these questions.

3.3.1 The Education system

The deep disconnect between the labor market and the education and training system, especially the higher education institutions are a major issue, and is the outcome of the inappropriate rules and institutions governing the education and training system and also of the low demand for skilled labor. As shown in the World Bank report on education in MENA (World Bank 2008), there is a consensus that the institutional and regulatory system governing

⁴ See Assaad and Boughzala (forthcoming) for more discussion of these issues.

⁵ 50.4% wait for one year or less; therefore, 49.6% wait for more than one year.

higher education does not generate the right incentives for quality assurance, the production of the right skills and the enhancement of the employability of graduates. These institutions and their staff (the teachers and researchers in the first place) have no incentive to be responsive to the needs of the employers, current and future, in the private and public sectors. The link between incentives, accountability and performance of the education system was the focus of this World Bank report, which shows that in the MENA countries, especially in Tunisia, policy makers paid more attention to engineering inputs than outcomes. Tunisia universities are constrained by the lack of autonomy and accountability; they are not allowed to decide about their inputs and are not accountable for their results and the performance of their students in the labor market. A more recent World Bank (2013) report on “Lessons learned from benchmarking university governance in MENA” indicates that they rank low from this point of view compared to other countries in the region as reflected by the following charts, not to speak of comparison with leading Western universities.

Despite the attempted reforms, public tertiary education establishments in Tunisia and their staff are not accountable to any of the stakeholders for the quality of the training they provide and the skills they produce. Their performance is not assessed in terms of quality of the training and the students’ access to employment.

They inform the Ministry about their vacancies but are not allowed to select their new faculty. Recruitment of the faculty follows a process centrally controlled at the ministry level. There are national selection committees empowered to evaluate and rank candidates, but the Minister remains the main decision maker regarding the assignment of new teachers to establishments. Higher education institutions are not allowed to select their students either, and they cannot impose any admission requirements on the students assigned to them. Faculty evaluation, income and promotion do not depend on the performance of their students in the labor market.

Overall, public tertiary education establishments have little control over their inputs and are not accountable about their outcomes, except vaguely in terms of numbers of enrolled and graduates. Some reforms have been attempted to modernize their management, but they remain partial and shallow and not enough to make them more responsive to the market demand for skills.

All private universities are profit driven while access to public universities is free. It has thus been very hard for them to compete with public universities and to deeply change the competitive environment. Consequently, they have not been able to change the structure of the supply of skills and thus significantly contribute to reducing the mismatch between labor supply and demand.

There are few attempts to measure the impact of the mismatch on the level of unemployment. For instance, Amara et al. 2013 applied the Diamond (2011) and Blanchard methodology to analyze its size and regional dimension but their finding is based on the very incomplete and biased data provided by the national employment agency. This is so because only few categories of job seekers and employers rely on its services, and its data reveals a very small part of the mismatch. A simple and more accurate estimate of the mismatch effect may be given by the share of tertiary educated and women unemployment who often prefer to remain unemployed for a long time until they obtain their first formal job. This share is about 40 percent of total unemployment.

3.3.2 Labor institutions

Based on OECD employment protection indicators, Tunisia ranks 63rd among 73 OECD and non-OECD countries in terms of protection of permanent workers against individual dismissal and 23rd in terms of collective dismissal, making its legislation quite restrictive for individual dismissal and mild so for collective dismissal. The fundamental laws governing the Tunisian

labor market are broad and valid for all types of labor transactions with specific rules for workers in the public sector. The Tunisian labor code and labor market institutions strongly regulate wage determination and negotiation, social security, hiring and firing rules and other important matter. The outcome is high employment protection in some segments and little, if any, in the informal segments.

3.3.2.1 Wage determination

The labor code guarantees minimum wages, but the minimum wage has been fixed at very moderate levels, near and sometimes below the equilibrium wage for unskilled labor. Hence, its enforcement has seldom been a major issue. As shown in Figure 3.6, it has hardly increased in real terms since 1990 and it even decreased between 1985 and 1990, while the country has enjoyed an average yearly growth rate around 5 percent during the 1990-2010 period.

This is not to say that no worker is ever paid less than the minimum wage, for there is still a highly vulnerable minority belonging to the informal sector with very limited opportunities. As will be explained in sub-section 3.3.2 and as indicated in Figures 3.8 and 3.9 based on TLMPS 2014 data, in 2014 around 20 percent of the employed labor force earn less than the minimum wage. Figure 3.9 shows that within this category, the majority make 60 percent of the minimum wage or more.

3.3.2.2 Collective bargaining

Collective bargaining has been a major institution in the Tunisian labor market and bargaining sessions have been systematically organized, separately for the public sector and the private sector. In the case of the public sector, national labor unions and the government negotiate wage adjustments for civil service and public enterprises employees. For each public enterprise, a specific agreement is obtained. In the case of the private sector, a round of national level negotiation is followed by sector-level negotiations leading to sector agreements (collective conventions). These agreements define nominal wages and specific benefits, which vary across sectors. Nominal wages are thus rigidly determined but real wages are rather flexible because of inflation.

For the private sector, collective bargaining was established in Tunisia in 1973 when partners agreed on a fundamental framework that states the basic guidelines and principles of the bargaining. Ever since, sessions have been regularly held and, starting in 1990, the bargaining sessions are held following a three year- cycle. The principles of direct wage negotiation between workers' unions and business representatives has been among the key principles governing wage determination in Tunisia.

The government has kept a refereeing role. In fact, until the January 2011 uprising, it had been more than a referee and imposed a strong hand on the negotiation process. Overall, the process was then relatively efficient but not very fair. It allowed for a reasonable degree of discipline and for periods of stability within the labor market, but it could not prevent the crises which happened mainly in 1978 and 1983. It was not fair and equitable because the balance of power was primarily on the employers' side. When unions tried to show some strength, as in 1978, they were crushed. However, since 2011, the balance of power has tilted towards the trade unions and the role of government has weakened. Thus, the process has become less efficient and it has become more difficult to reach a deal because disputes tend to last a long time. This inefficiency is costly in terms of productivity and labor cost.

3.3.2.3 Hiring and firing rules

The labor code sets the main rules and standards for all labor contracts and labor relations in the public and private sectors, including the legal requirements governing hiring and firing in general. Again, there are specific legislations for the public sector.

Hiring and firing in the private sector

In 1994 and 1996⁶, two amendments of the labor code were passed after being negotiated primarily by the private sector and the workers' unions. The purpose was more flexibility and less restrictive hiring and firing rules. These amendments allow for:

- More room for fixed term contracts and less reliance on permanent employment contracts,
- Simplified procedures in case of layoffs for economic reasons, and
- Rules setting a maximum severance payment in case of firing.

After four years, any fixed term contract must be transformed into a permanent contract. Obviously, this rule carries the incentive to lay off workers before the four-year term; which is indeed happening.

Layoffs, especially individually, still involve complicated procedures and may involve complicated judiciary institutions. In case of firing, employers claim that the severance payments remain high and unfair and that the judges are biased against them.

Nevertheless, labor market issues and costs are not a main concern of employers and are not an important determinant of their production and investment decisions. Based on the yearly survey conducted by ITCEQ⁷, labor comes way down on the scale of their major concerns and constraints. Political instability and lack of security, access to financial resources, market imperfection and illegal competition (mainly because of the informal sector), taxes and social security, corruption, administrative procedures and the judiciary matter more for most of the firms. Regarding labor, firms worry more about the availability of the right skills and competencies of their employees than about labor regulations or labor cost. This is not to say that labor market regulation does not matter, but that the flexibility issue is perhaps overstated. It is arguably true that if the regulation was less demanding it would have a positive impact on investment. However, this hardly matters for the large number of firms that do not comply with the labor laws, that do not pay social security for their employees and avoid giving them permanent regular contracts. TLMPS2014 data confirms that a large proportion of employees did not have any contract (Table 3.6), but when they did, they often ended up having a permanent contract.

Public sector specific legislation

The government and state-owned enterprises (SOE) employment legislations are rather systematically enforced. The employment of some categories of workers, such as teachers, university professors, medical doctors and engineer must abide by specific rules.

Central and local government staff and employees are governed by the civil service law (Law number 83-112 published in December 12/1983⁸). It is a general law, yet it allows for many exceptions. Judges, the army and the security forces have special statutes involving different rules and requirements, which, in fact, are often slightly different in terms of basic management principles and the ethical norms used. Commissions including members elected by their peers manage these matters. In principle, non-discrimination (based on political, philosophical or religious criteria) should apply to all public-sector employees with respect to recruitment, promotion, job location assignment, performance evaluation and rating...

Social security and retirement pension rights are guaranteed for all public- sector employees and staff. The law also guarantees equal pay for the same skills, experience and qualifications,

⁶ Two laws were enacted: No 1994-29 February 1994 and 1996 July 1996, "Journal Officiel de la République Tunisienne"; 1994 and 1996.

⁷ ITCEQ : Institut Tunisien de la Compétitivité et des Etudes Quantitatives.

⁸ Loi no 83-112 du 12/12/1983, portant statut général des personnels de l'Etat, des collectivités publiques locales et des établissements publics a caractère administratif, <http://www.cnudst.rmt.tn/jortsrc/1983/1983f/jo08283.pdf>

basically regardless of location and gender. Public sector also offers wide opportunities for a lifelong career. Starting incomes paid by the government may be lower than private sector wages but in terms of expectations and risks, government employment is better. Recruitment and promotions follow well defined requirements and are subject to open competition. Job openings must be published in the form of ministerial decrees, well-defined procedures must be followed, and merit is supposed to matter.

However, in practice the recruitment rules and procedures are often formally enforced often in a context characterized by a lack of transparency. Because the evaluation and performance criteria are fuzzy, the fundamental principles may well be breached. Regarding promotions, there is typically a very large number of candidates (hundreds and often thousands) for a very limited number of opportunities; which is likely to create a strong incentive for nepotism. Wages and financial benefits are fixed according to a set of criteria but hardly according to the effort exerted, skills and outcome.

Rewards and penalties are not linked to performances. Once a person is recruited, she/he may easily get tenure and all the usual benefits (working hours, paid vacations...) after a rather short probation period, regardless of the efforts she/he makes. Moreover, the work load and conditions are often less constraining and more comfortable than in the private sector.

The most attractive side of the public sector is assured benefits and employment security, as it is extremely difficult and rare to dismiss an employee. For the entire country, no more than few dozen per year are dismissed (out of a total close to 800 thousand). Wages are on average better in the public sector, but they are lower for officers and highly ranked civil servants (university graduates' cadres) who are typically paid less than half what they may be offered in the private sector when they have the right skills.

State-owned enterprises' (SOEs') employees may have additional benefits, including in terms of wages and insurance, as per their "special statutes". However, the main dispositions regarding their recruitment, promotion, and career management are almost identical to those applicable to government employees.

All of this makes government and public-sector employment more attractive than employment in the private sector. Because of this bias, and based on TLMPS data, 78.5 percent of the labor force would choose a government or a public- sector job.

3.3.2.4. Conflict resolution

The distribution of power has always been the main rule of the game, and this should never be ignored. What the country needs today is a new social contract with more appropriate new rules ensuring more stability and a better balance in terms of efficiency and equity through non-violent modes of communication and conflict resolution. Hopefully this could be reached through more dialogue between labor, the business community and government, and thus end the predominance of conflicts and insufficient cooperation.

Labor inspection, which currently oversees mediation and conciliation on top of its fundamental role of labor law enforcement, lacks the means for this highly important mediation and conciliation function, and has limited resources even for its fundamental inspection role. Other institutions are expected to contribute to the social dialogue and resolution of conflicts, but they are not effective. For instance, firm level joint commissions must be formed as a legal requirement and are expected to allow for dialogue between management and the firm employees, but they often either do not exist or are not empowered. Consequently, conflicts are quite frequent and are often not resolved peacefully. This is another source of inefficiency. The newly established National Commission for Social Dialogue might be the beginning of a positive turning point.

3.3.2.5 Social Security

Social security, including basic health insurance, is compulsory for all employees but there is no unemployment insurance yet. Contributions to social security are somewhere between 20 to 35 percent of total earning and entitles employees to various insurance benefits, including illness, work-related injuries insurance, old-age retirement, disability and death coverage.

While the public sector guarantees full coverage for its employees, the private sector, which comprises the remaining 80 percent of the total employed labor force, is increasingly complying with the legal social security requirement, but not fully yet. Around 40 percent of the labor force has no social insurance benefits at all. The management and design of social insurance is today a hot topic, but nobody claims that it is a luxury that the country could do without for the sake of less employment restrictiveness or more flexibility of the labor market. The issue is mainly in terms of sustainability of the pension funds and improving the quality of the service and the management of the national social insurance system.

Overall, the current institutional framework allows the main partners to meet and to discuss certain labor issues. It allows the government to control the wage level and to appease social discontent, at least to some extent. However, this process has not included all the private sector, and has not always been an efficient means to prevent conflicts. Disagreements and strikes at the firm level have been quite frequent: more than two hundred strikes per year, a number which has doubled after January 2011, as shown by the Ministry of Social affairs data. (Ministère des Affaires Sociales 2016). Workers often go on strike because they have not been fully paid, or have been paid wages smaller than what was agreed upon, or because they have less than the legal social insurance benefits, or for non-compliance with the collective agreements.

Young people queue up for public sector jobs where laws are fully enforced, and job security is insured. Yet, public sector employees go on strike too, even though they do not face the same risks. There is indeed a wide room and urgent need for reforms for the sake of more effectiveness within the public sector. A more appropriate reward scheme creating the incentive for more effort and better performance is required.

The private vs. public segmentation and imbalance are also the outcome of the functioning of the private sector, which is still dominated by very small enterprises and a growing informal sector unable to provide enough decent jobs.

In conclusion, informality may be reduced by lowering the cost of formality, that is by creating more incentive to invest more in the formal sector and to create more decent formal jobs. Informal jobs do not satisfy the educated young women and men who form the bulk of the unemployed in Tunisia, they may at best provide palliatives but no a real solution to unemployment.

Lowering the cost of formality does not imply that for the sake of flexibility employees should accept any salary and any working condition and should do without social insurance and a paid vacation and that the usual benefits are luxuries that may be done without. The idea is that there is room for a more efficient and fair design of the labor market regulations, especially regarding the recruitment and downsizing conditions and procedures. The purpose should be a fair balance between labor market flexibility and efficiency on the one hand and job security and protection on the other hand. However, only a negotiated solution would work. It is always a country specific and evolving solution depending on economic growth and productivity.

Anyhow, the new balance requires deep reforms regarding taxation and labor laws and improving the government law enforcement capacity. The gap between labor supply and demand also reflects the inefficiency of the current education and training system. It is urgent to adapt the institutions and regulations governing the functioning of this system in order to

make it more responsive to the needs of the country and to establish a credible and effective partnership between it and the private and public employers.

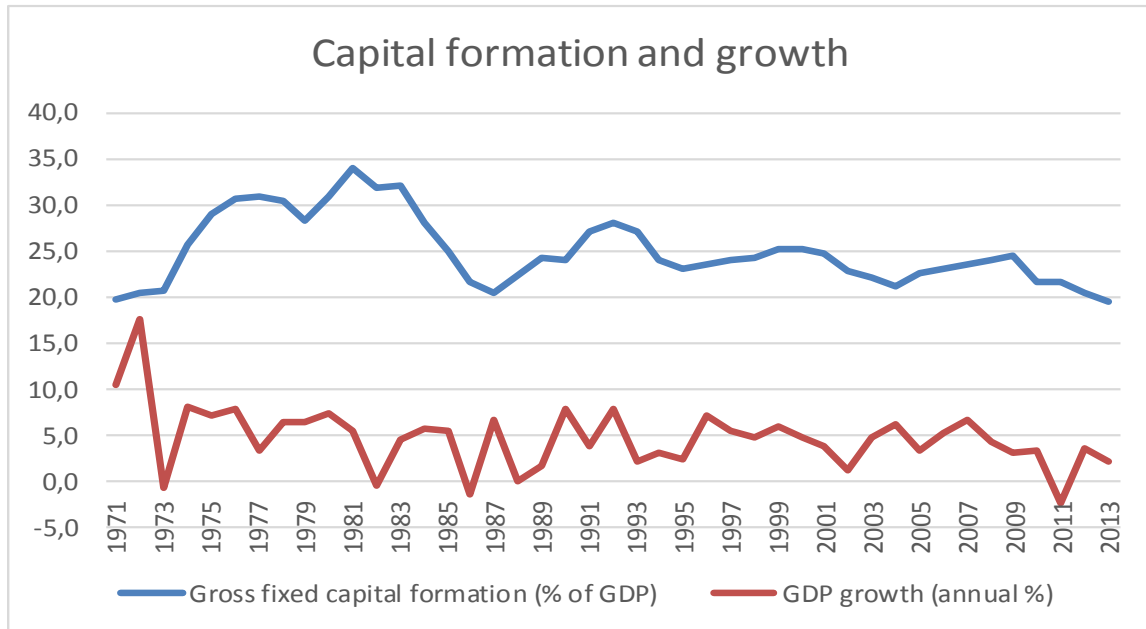
These are long term measures and outcomes. The country faces urgent and immediate challenges, mainly with respect to youth and female unemployment. Some specific plans may have to be designed to deal with these issues which cannot be quickly resolved through more labor market flexibility and private sector development.

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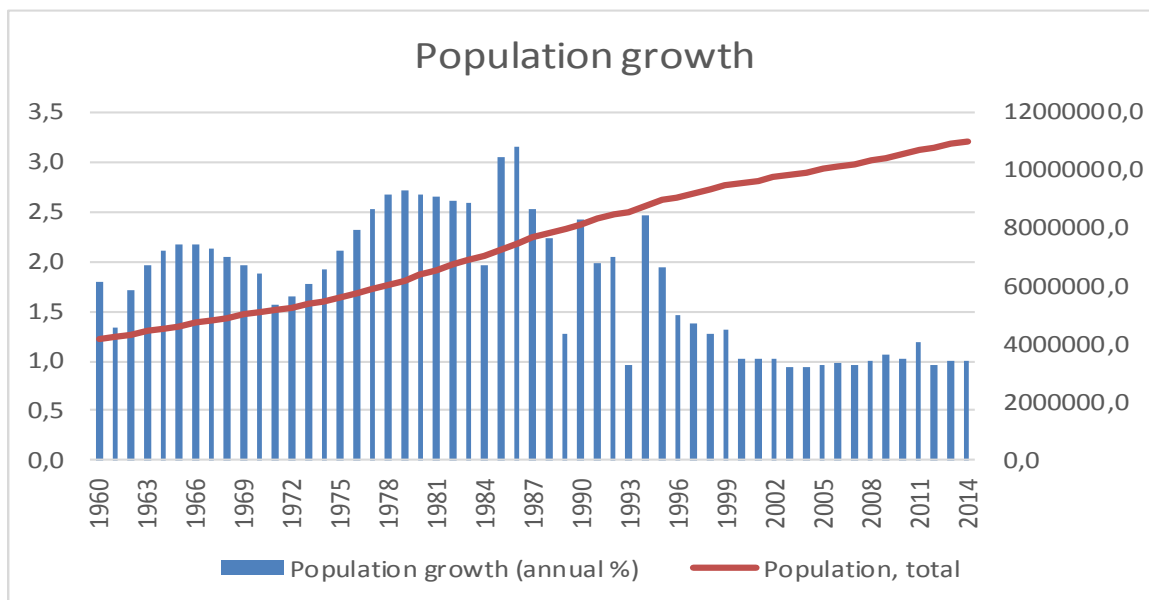
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Figure 1: GDP Growth and Investment to GDP rate 1965-2012



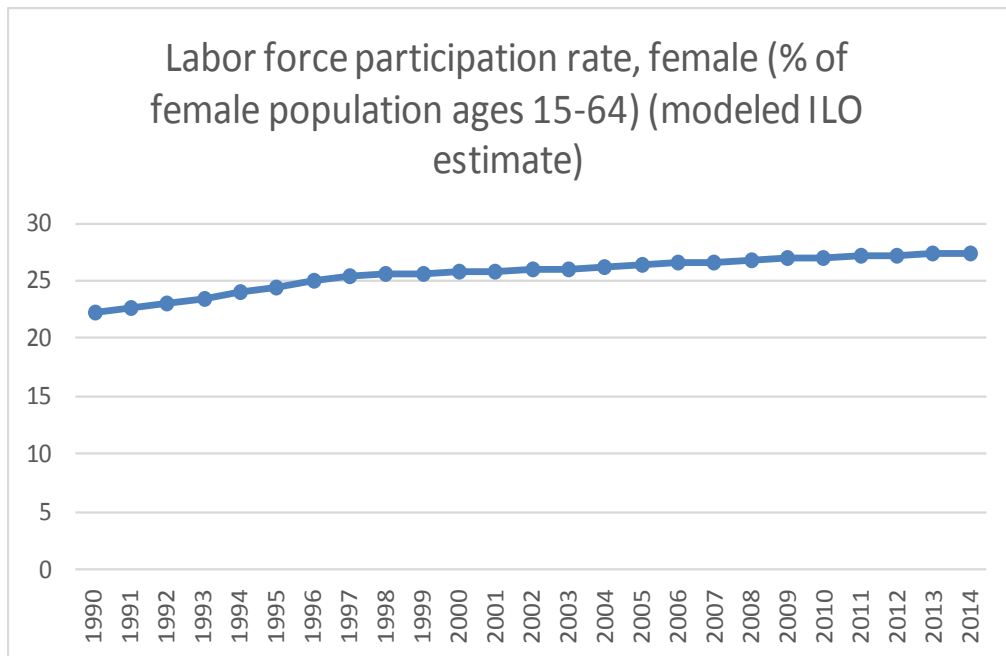
Source: The data used is from World Bank, World Development Indicators 2014.

Figure 2: Tunisia Total Population (Level and Growth) 1961 - 2014



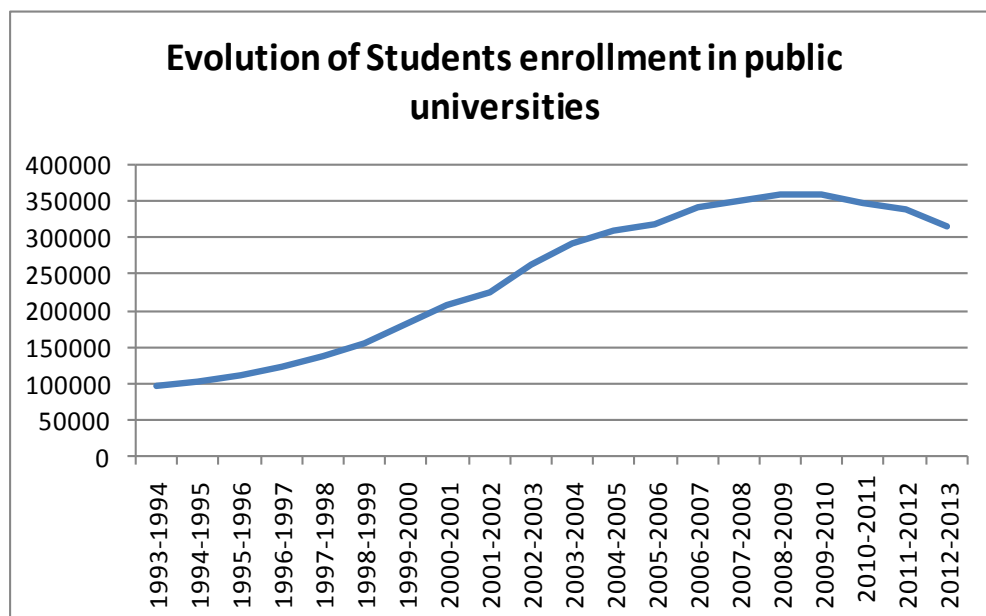
Source: World Bank WDI and INS.

Figure 3: Female Labor Force Participation Rate



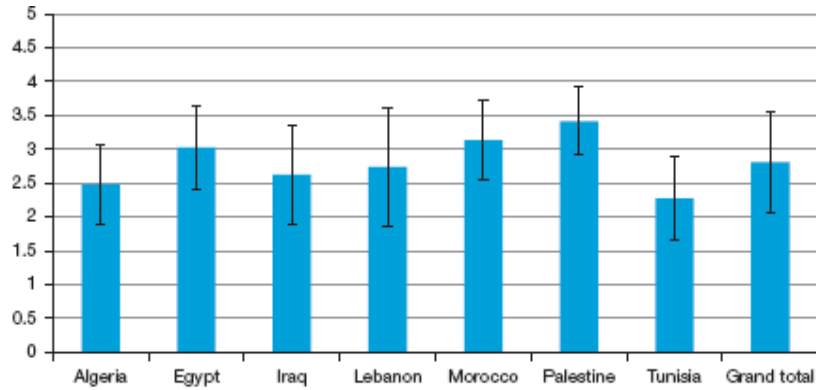
Source: World Bank, WDI 2015 data

Figure 4: Evolution of the Number of Students in Public Universities



Source: MHE, « Higher education and scientific research statistics 2012-2013 » and non-published MHE data.

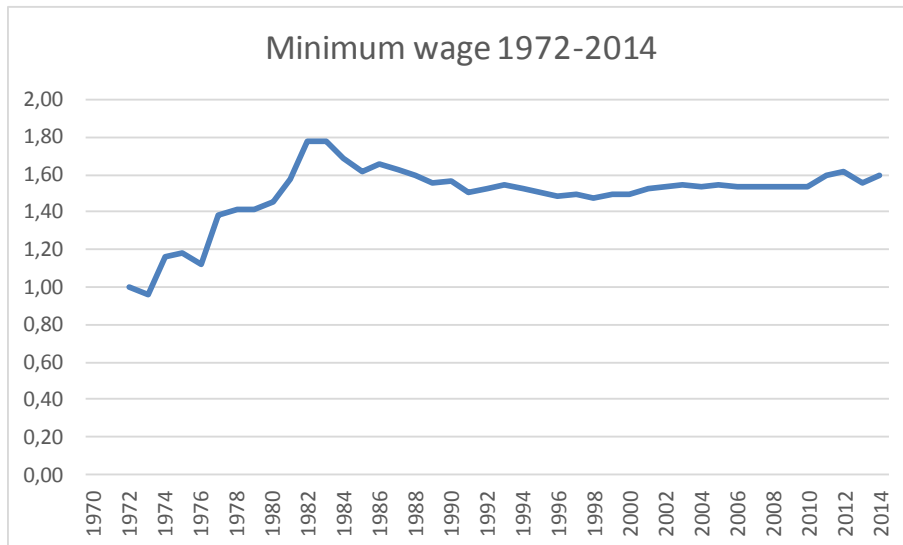
Figure 5: Average Scores on the Autonomy Axis by Country



Note: Error bars represent the standard deviation in each country sample.

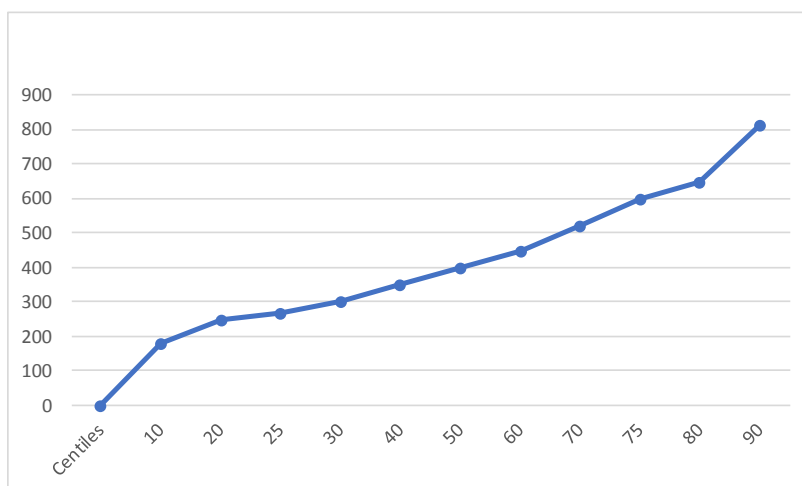
Source: World Bank (2013).

Figure 6: Minimum Wage in Real Terms Evolution 1972-2014 (1985 level set to 1.00)



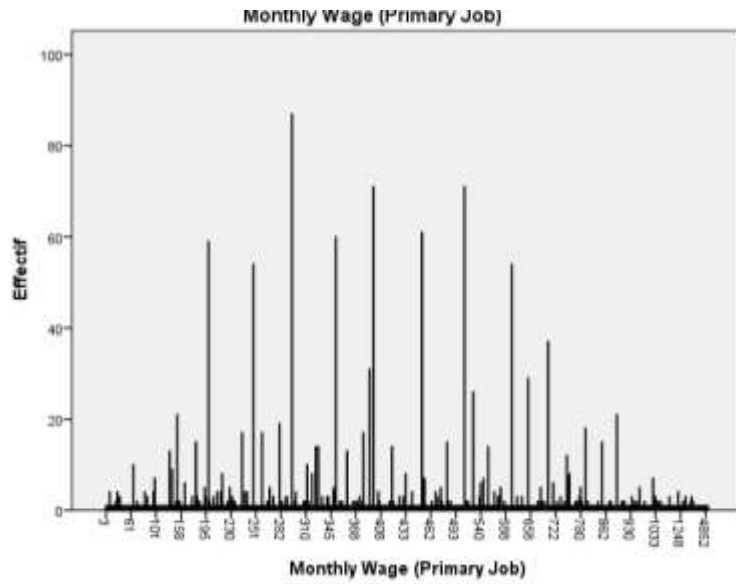
Source: Based on ITCEQ data.

Figure 7: Distribution of Monthly Wage (in 2014 TND)



Source: based on TLMPS 14.

Figure 8: Monthly Wage Frequency



Source: based on TLMPs 14 sample data

Table 1: The Unemployment Rate by Sex

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Men	11.5	11.3	11.2	11.3	10.9	15.4	14.1	13.9	12.5	12.5
Women	15.1	15.3	15.9	18.8	18.9	28.2	24.9	23.3	21.6	22.6
Total	12.5	12.4	12.4	13.3	13.0	18.9	17.0	16.5	15	15.4

Source: INS. based on labor survey data.

Table 2: Youth Unemployment

Age	2007	2008	2009	2010	2011	2012
15-19	29.3	29.6	33.6	28.7	43.6	35.2
20-24	27.3	27.9	29.9	29.7	41.8	38.7
25-29	21.8	22.9	25.7	24.2	34.5	32.7
15-29	25	25.7	28.2	26.7	38.2	35.2

Source: INS based on labor survey data

Table 3: The Rate of Unemployment of the Tertiary Educated by Sex

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Men	11.3	12.9	13.9	14.6	15.8	22.6	20.6	21.7	21.2
Women	26.0	27.4	30.0	34.9	32.9	44.2	47.5	41.9	40.8
Total	17.0	18.7	20.6	23.4	23.3	33.1	33.2	31.9	31.4

Source: INS.

Table 4: Firm Size and Employment Distribution: (1996-2010 Annual Average)

Number of workers (the employer included)	Number of Firms	Firms as share of total number of firms (%)	Number of jobs	Employment as a share of total employment (%)	Share of firms cumulative (%)	Share of employment cumulative (%)
1	344684	83.30%	345753	28.18%	83.30%	28.18%
2	29318	7.46%	56290	4.76%	90.76%	32.94%
[3. 4]	16505	4.07%	53696	4.44%	94.83%	37.38%
[5 . 9]	10223	2.52%	64010	5.29%	97.35%	42.67%
[10 . 19]	4657	1.15%	61661	5.12%	98.50%	47.79%
[20. 49]	3077	0.77%	94056	7.83%	99.27%	55.62%
[50 . 99]	1362	0.34%	95241	7.92%	99.61%	63.54%
[100 . 199]	898	0.23%	126078	10.55%	99.84%	74.09%
[200 . 999]	636	0.16%	228812	18.93%	100.00%	93.02%
>= 1000	51	0.01%	86874	6.98%	100.00%	100.00%
Total	405843		1191822		100.00%	100.00%

Source: INS.

Table 5: Correlation Between Wage and the Size of the Micro-Firm

	Pearson correlation	Size of the firm (Number of employees)
Wage	0.450**	0.000
	Sig	

Source: based on TLMPS 2014 data

Table 6: Share of Employees with a Valid Contract

	Percentage
Employed with a contract	46.6
No contract	53.4
Total	100.0

Source: TLMPS 2014.

Table 7: Distribution of Young Employees According to Contract Incidence

Type of contract	Males		Females		Total	
	Numbers	%	Numbers	%	Numbers	%
Written	173 302	36.3	133 235	63.8	306 536	44.7
Oral	302 984	63.5	74 711	35.8	377 695	55.1
None	505	0.1	962	0.5	1 466	0.2
Total	476 791	100.0	208 907	100.0	685 698	100.0

Source: ILO. ETVA2013

Table 8: Incidence of Paid Vacations

	Percentage
YES, for paid vacations	39.7
No paid vacations	60.3
Total	100.0

Source: TLMPS 2014

Table 9: Labor Union Membership Frequency

	Percentage
Union members	3.9
Not union members	95.9
NA	.2
Total	100.0

Source: TLMPS 2014 data.

Table 10: Unemployment Duration before First Job

Group	Public Institutions	Private Institutions	Total	Total cumulated
Immediate	22.8	38.4	24.0	24.0
One year	26.6	23.1	26.4	50.4
Two years	18.6	13.5	18.2	68.6
Three years	12.4	7.7	12.0	80.6
Four years	8.4	5.8	8.2	88.8
Five years	4.3	3.8	4.3	93.1
Six years	3.4	0.0	3.1	96.2
Seven years+	3.5	7.7	3.8	100.0
Total	100	100	100	

Source: Tunisia Higher Education Graduates' Survey (THEGS 2015).

Table 11: Labor Force Participation Rate by Sex (Population Ages 15-64) (ILO estimate)

Year	1990	1995	2000	2005	2010	2011	2012	2013	2014
Female	22.20	24.40	25.70	26.40	27.00	27.10	27.20	27.30	27.40
Male	79.60	77.80	75.60	72.70	74.60	74.90	75.20	75.50	75.80
Total	50.80	51.10	50.50	49.30	50.60	50.80	51.00	51.20	51.30

Source: World Bank, WDI 2015 data.

Table 12: Evolution of the Labor Force by Education Level

	1965	1975	1984	1994	2001	2006	2011	2014
Higher	1.2	1.4	3.3	7	10	15	17	22.1
secondary	7.1	12.8	20	29	30	31	38	38.4
Low (Primary or illiterate)	91.7	85.7	76.8	64	60	54	45	39.5
Total	100	100	100	100	100	100	100	100

Source: INS.

Table 13: Employment Preference by Sector

	Percentage
Government	9.1
Public sector	69.4
Private sector	20.1
Other	1.4
Total	100.0

Source: TLMPS 2014