

The World Bank

Former Yugoslav Republic of Macedonia

# Employment and Job Creation

**Labor Market Assessment 2007-2011**

This labor market assessment is part of a multi-annual engagement on jobs with the Government of FYR Macedonia. The note aims at describing labor market developments in Macedonia since 2007, and at identifying potential policy levers. It will be followed by more in-depth analysis in the key priority areas identified in the note and concrete policy recommendations in these areas.

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# FYR Macedonia

## Employment and job creation

### Labor market assessment 2007-2011

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#### Summary

- 1. Improving employment opportunities is critical to improving social and economic outcomes in FYR Macedonia.** Although more than 60,000 jobs have been created since 2007, employment rates remain among the lowest in Europe, and approximately 30 percent of the active population is unemployed. Most jobs are low-earning and there has not been structural change towards higher productivity jobs. Some groups in the population are also particularly excluded. There are recent indications that the effects of the global economic crisis may continue to dampen economic growth in Macedonia, which will bring additional pressures to labor market challenges.
- 2. This note forms part of a broader engagement between the World Bank and the Government of FYR Macedonia on how to foster more and better jobs and make sure that more marginalized groups – women, low earners, skilled and unskilled youth, for example - can participate and benefit from those jobs.** It focuses on providing updated labor market diagnostics based on the Labor Force Surveys between 2007 and 2011. The findings will be used as a basis for further policy analysis. Three main conclusions emerge from the diagnostics:
  - Whereas employment has increased, many of the new jobs are low productivity-offering few possibilities for earnings growth- or in the public sector.** The global economic crisis, which began to be felt in 2009, has not resulted in a further increase in unemployment<sup>1</sup>; however, labor productivity has fallen, informal employment has grown, and wages have stalled for low earners, contributing to increasing inequality. Between 2007 and 2011, GDP growth averaged 3.4 percent, masking high volatility with growth in 2007 and 2008, a drop in 2009, and a very modest recovery in 2010 and beyond. Employment creation patterns, however, are partly disconnected from growth trends. In the same period, two out of three jobs were created in the informal sector, much of it in lower earning occupations in agriculture and retail trade with few opportunities for positive earnings dynamics. The remaining new jobs were largely created in the public sector where, while wages are high and growing fast, fiscal sustainability is a concern.
  - Employment and employability challenges are different across the population, and tailored policy responses are needed.** On the one hand, there is a divide across age

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<sup>1</sup> In fact, the most recent numbers show quarterly unemployment rates just below 30 percent.

groups. Those aged 45 and above have lower levels of skills and are less adaptable in a changing economic environment; they are often long-term unemployed. Youth have higher access to education, but many still drop out early and are confined to informal sector work. Those with higher education have access to better jobs but, in the face of the expansion in tertiary education, face more difficulties in finding adequate employment, resulting in increasing rates of unemployment for this group. Beyond age differences, certain groups remain particularly marginalized in FYR Macedonia's labor markets. In particular women, specific ethnic groups, rural inhabitants and those living in the eastern parts of FYR Macedonia, have very low chances of finding jobs.

- **The analysis points to four policy areas that can help foster employment and earnings in Macedonia:**
  - a. Strengthening the overall investment climate to foster labor demand in the formal sector – for large and small firms, and start-ups. Overall, investment levels remain comparatively low, and foreign direct investment has so far been concentrated in a few sectors, with limited employment impact. While many reforms have been undertaken, there may be remaining pockets of rigidity that could be particularly binding for firms with high-growth/high-employment potential. There is also a question of the extent to which employment and wage growth in the public sector hamper private sector job creation.
  - b. There may be a need to review disincentives for workers to work, especially in formal private sector, and for both low-wage earners and highly educated youth. Tax and benefit systems can influence these incentives. For example, estimates suggest that for an unemployed person taking up low paid work, the average effective tax rate – including lost benefits - is high. Highly educated youth, on the other hand, may be queuing for jobs in the public sector.
  - c. Possessing the right skills, or knowing how to acquire them, is critical to becoming competitive in a globally integrated world. In FYR Macedonia, firms reaching international markets and higher technology firms find skills find lack of skills – in particular work place skills – an obstacle to doing business. Efforts to provide quality education, to keep youth in school, and to encourage life-long learning, form part of a national skills development strategy.
  - d. Labor market institutions, including labor market regulations and active labor market policies, need to better serve vulnerable or disadvantaged groups and foster productivity.
- 3. **These policy areas are going to be further explored as part of the work program on employment and job creation in Macedonia.** In particular, follow-up analysis will focus on identifying the extent to which constraints in these areas-and possibly additional

ones- play a role in: (i) explaining poor overall labor market outcomes in Macedonia; and (ii) how do these constraints lead to particularly poor labor market outcomes among young and older workers, women, ethnic minorities and people in lagging regions. Finally, the work program seeks to propose specific measures that can help address these labor market challenges as part of a concrete employment strategy and action plan.

## 1. Introduction

4. **In the years after the 2001 political crisis, employment and income prospects stalled in FYR Macedonia.** Labor market opportunities did not improve between 2000 and 2006. After the political and economic instabilities surrounding the civil unrest in 2001, FYR Macedonia experienced steadily increasing economic growth rates between 2001 and 2006, mostly driven by manufacturing industries and services where respectively 25 and 50 percent of the employed labor force is working. Although job creation picked up, new jobs did not result in improved income opportunities, however. Whereas more people held a job in 2006 than in 2004, most of them had taken up work in agriculture, many as unpaid family workers. Most of those working did not improve their income prospects and as a result, poverty did not fall.<sup>2</sup>
5. **Since 2006, conditions for job creation have changed, and an updated view of labor market developments is warranted.** On the one hand, economic growth has become more volatile, increasing in 2007-2008, falling in 2009, and recovering moderately since then. On the other hand, FYR Macedonia has implemented significant reforms in the business environment in recent years to help increase labor demand in the formal sector and improve conditions for smaller enterprises.
6. **Economic growth rates increased further during 2007 and 2008, to 6.1 and 5.0 percent respectively, but since 2009, have fallen back in response to the global recession and remain vulnerable to external conditions (Figure 1a).** In 2007 and 2008, economic growth was driven largely by domestic private domestic consumption, and to a lesser extent investment and exports growth. As the crisis hit, private consumption as well as investment fell (Annex, Figure A 1a). On the production side, the services sector – public and private – has been the main driver of economic growth in recent years. Value added in manufacturing industries – a major employer in FYR Macedonia – has been vulnerable to swings in external demand and as such has fluctuated significantly between years, while the more capital intensive non-manufacturing industry, and especially construction, has contributed more to economic growth as of 2009, while employment has stagnated or been reduced (Annex, Figure A 1b). FYR Macedonia is considered to have met the crisis with sound macroeconomic management,<sup>3</sup> and economic growth has returned albeit to modest levels. However, a worsening in external conditions, and in particular stifled demand in Europe, poses significant threats to sustained recovery.
7. **FYR Macedonia's reform efforts have paid off in an improved business climate.** The Doing Business scores (Figure 1b) show that Macedonia's overall business climate in 2012 was considerably closer to the best performer (scores at 75%) than in 2005 (scores at under 60 percent of best performer). Most progress has been made in areas like starting a business, dealing with construction permits, credit and investor protection, while there has been less improvement in, for example, resolving insolvency or trade

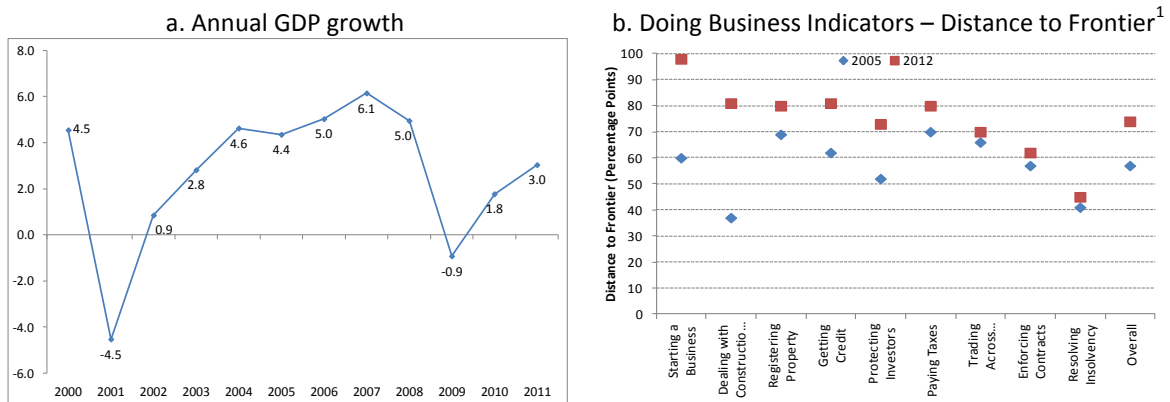
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<sup>2</sup> See World Bank (2009).

<sup>3</sup> International Monetary Fund (2012).

facilitation. The country has also undertaken important reforms directly in labor markets including, lessening restrictions on temporary contracts, reductions in income tax and in social contributions and the delinking unemployment registration and health insurance. The level of education in the population has also continued to increase steadily and the share of adults (15-64) with secondary education or more grew from 45 to 49 percent between 2007 and 2011. All of these changes are expected to impact labor market developments.

**Figure 1: Bar the crisis, growth performance has improved and reforms picked up**



Source: World Development Indicators. 1. Distance in score to the best performer in this particular area, across countries and over time.

**8. Increasing job opportunities and raising earnings and productivity remain critical challenges in Macedonia.** As this note shows, only 44.6 percent of adults aged 15-64 holds a job (formal or informal) and many jobs do not provide income opportunities that are sufficient to measurably increase living standards. Overall, the structure of employment has not changed significantly since 2007: one in five workers still works in agriculture. The main message emanating from this labor market assessment for 2007-2011 is that there is continued need to focus policy on creating better job opportunities overall, on increasing the employability of the population, and reaping the full potential of the work force by including disadvantaged groups:

- **Macedonia has seen some job creation before and during the crisis**, but mostly in informal jobs, predominantly in agriculture and (retail) trade, where productivity and earnings are low, or in the public sector, which in turn raises questions regarding fiscal sustainability. With two out of three jobs created in informal sector, labor demand in higher productivity and formal private sector thus remains limited.
- **As in many of the former communist countries, there is a generational divide in labor market challenges:** the older generation, with lower levels of skills and skills largely built for a different kind of economic system, is inactive, long-term unemployed or confined to low productivity work; the younger generation has mostly acquired more formal education but is facing difficulties in entering the labor market.

- **Across all ages, some groups remain more excluded than others**, especially women, ethnic minorities and those living in lagging regions, and particularly where these characteristics intersect. Since their challenges in terms of accessing jobs differ – across generations, gender, skills, and location – they need tailored policy responses spanning a wide range of areas tackling the multiplicity of employability barriers they face.
9. The diagnostics below are based primarily on data from labor force survey from 2007-2011.<sup>4</sup> These data thus include a period of comparatively high economic growth (2007-2008) followed by the economic crisis, whose impacts began to be felt more strongly as of 2009.
  10. **The remainder of this note is organized as follows.** Section two describes labor market developments since 2007 and the conditions prevailing in 2011. Subsequent sections address the remaining challenges and key policy options. The third section thus focuses on raising productivity – critical to national economic development and to ensure sustainable increases in earnings over time in Macedonia. The fourth section discusses the generational divide in terms of challenges in labor market opportunities for the younger versus older generations. The fifth section looks at workers that are particularly disadvantaged in the labor market with a particular focus on women. The sixth section concludes with the policy levers that may help Macedonia move forward on the jobs agenda.

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<sup>4</sup> There is much discussion on the measurement of labor market indicators, especially unemployment, in Macedonia. Part of the discussion is related to differences in the data source used (LFS versus unemployment registry) and another part to issues of interpretation of what constitutes a job in Macedonia. For this note, the team relies on primarily analysis from the labor force survey, which captures both formal and informal employment, and is the internationally accepted tool for measuring unemployment. The unemployment rate is estimated at 32 percent for 2011 with the LFS. The unemployment rate calculated using the registry of unemployed produces a similar rate, although the number has decreased significantly in recent months partly due to stricter enforcement of active search prerequisites. Cross-tabulations of the LFS data show that almost three quarters of the registered unemployed are also unemployed according to the ILO definition, while the rest is either informally employed (15 percent) or inactive (11 percent). However, one fifth of those unemployed in the LFS do not register as unemployed. This means that while the unemployment rate according to the LFS and the one obtained from the unemployment registry are of similar magnitudes, this is the consequence of errors of exclusion and inclusion that pretty much cancel each other. In the future, as the unemployment registry is further streamlined, it will be particularly important to focus on the LFS measure of unemployment. Beyond the data sources used, there is still a question on whether survey respondents in Macedonia report all types of employment, even if casual or informal. Calculations with the most recent time-use survey in Macedonia, which possibly captures better whether individuals carry out any type of economic activity, yields an unemployment rate of approximately 32 percent—that is, very similar to the one from the LFS. The team has also started a qualitative survey that will, among other things, try to better understand how people understand LFS questions and whether it fails or not to capture employment. All in all, it is clear that labor market attachment is a continuum in Macedonia, with flows from unemployment to inactivity and informality being quite common, and with employment masking significant under-employment. The existing evidence suggests that, even if the actual open unemployment rate is not exactly 32 percent is most likely still extremely high and not too far from this number.

## 2. Labor market developments 2007-2011

11. **Nearly 60,000 jobs were created in net terms between 2007 and 2011, resulting in an increase in employment rates and a reduction in unemployment.**<sup>5</sup> The share of employed persons in the adult population increased from 41.2 to 44.6 percent, while unemployment rates fell from 36 percent in 2007 to 32.7 percent in 2009, and continued to fall (albeit less) to 32 percent in 2011 (Figure 1a).
12. **Most jobs of the net jobs created were in agriculture (self-employment), trade (especially retail) and the public sector.** Sixty percent of the net jobs created since 2007 were in these sectors: 27.1 percent in agriculture, 13 percent in retail trade and 19.7 percent in the public sector (Figure 2b). These amount to two different sources of job creation – low skill, low productivity agriculture and retail trade (also with productivity below average)<sup>6</sup>; and public sector hiring, especially for the tertiary employed, which raises questions about fiscal sustainability and potential crowding out of private sector job creation.
13. **Half of all new jobs went to the tertiary educated.** Although they make up less than one quarter of the total employed labor force in Macedonia, the tertiary educated accounted for 51 percent of all net jobs created in the period 2007-2011. Many of these jobs went to the young tertiary educated (age group 25-34), although older workers, just before retirement, also increased their share of employment. All this reinforces the impression of a dual job creation process whereby some of the tertiary educated have been taking up jobs in the public sector, and some tertiary together with less skilled workers have been left to find jobs or create their own sources of living in the informal sector, especially agriculture and informal trade. Nonetheless, the tertiary educated were the only group that saw an increase in unemployment rates (Table A 3), reflecting an expansion in tertiary education that is not been fully absorbed by the Macedonian labor market.

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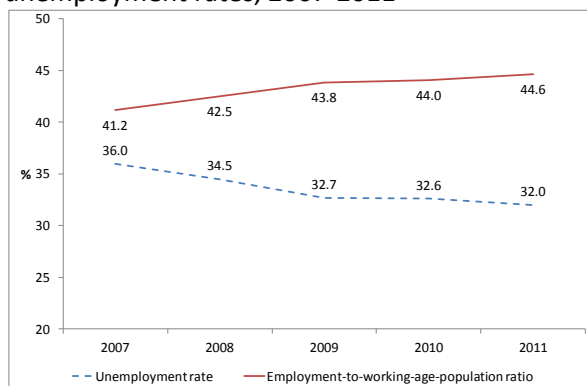
<sup>5</sup> Jobs are created and destroyed. We refer here to net job creation to indicate that this is jobs created minus jobs destroyed.

<sup>6</sup> Structural transformation analysis indicates that these sectors are below-average productivity in Macedonia. Indeed, on average, the sectors that expanded in terms of employment between 1997 and 2009 were not the most productive sectors.

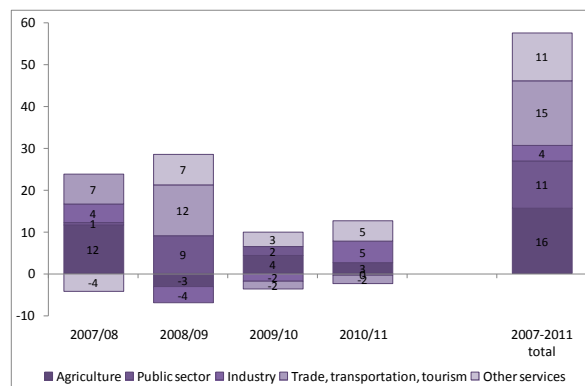


**Figure 2: Employment has increased but the formal private sector is not creating jobs**

a. Employment-to-population ratio and unemployment rates, 2007-2011



b. Net job creation by sector (thousands)

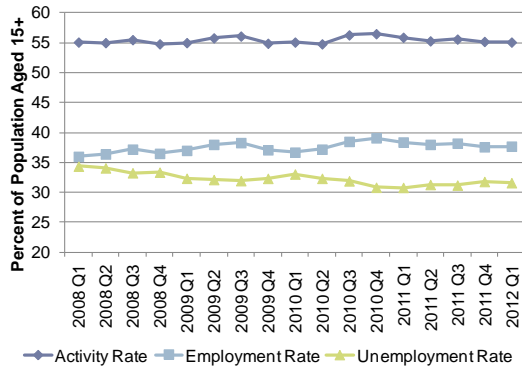


Source: Authors' calculations, based on Labor Force Surveys

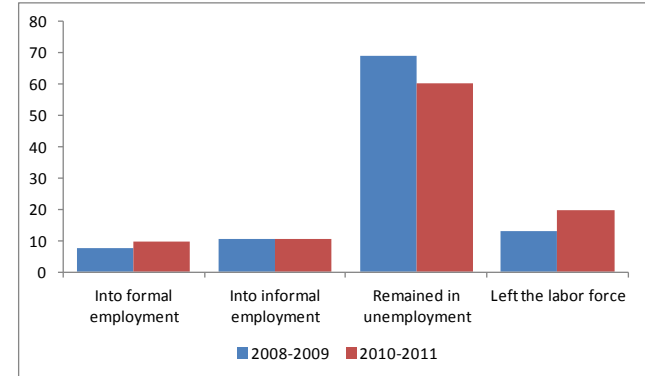
14. **The global economic crisis, which reached Macedonia in 2009, has affected labor markets less through open unemployment and more through productivity losses and a shift into more jobs with lower quality.** In comparison with other countries in the ECA region, the global recession has so far had a smaller impact on unemployment and labor market participation in Macedonia (Figure A1). While GDP fell in 2009 and grew at less than 2 percent in 2010, the economic crisis has not yet resulted in large lay-offs (on a net basis) relative to the shock. As seen in Figure 2b above, some 16,000 additional jobs were in fact created in 2010 and 2011, in spite of the worsening economic climate.
15. **As a result, unemployment has not increased markedly during the global crisis.** Quarterly data from the ILO show a limited rise around the end of 2009, when the crisis began to be felt, but this was subsequently reversed. Between the first quarter of 2011 and the second quarter of 2012 (most recent data), unemployment rates increased modestly from 30.8 to 31.2 percent (Figure 3a). However, panel data also shows that the tendency for the unemployed as well as the informally employed to drop out of the labor market increased during the crisis (Figure 3b). If the economic crisis deepens, unemployment rates may rise more decisively – or more low productivity jobs could be created.

**Figure 3: The global crisis has not translated into open unemployment in Macedonia but some unemployed have given up job search**

a. Quarterly labor market indicators



Transitions of the unemployed, 2008-2009 and 2010-2011



Source: ILO, not seasonally adjusted; panel data of LFS 2008-2011.

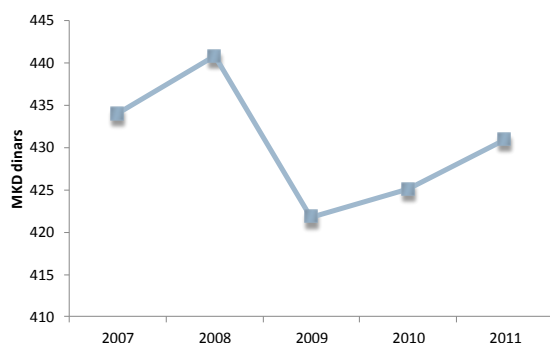
16. **Labor productivity, in contrast, has fallen in response to the crisis, and is yet to recover fully.** As there was no adjustment through job losses and unemployment, the negative output shock registered in 2009 and 2010 resulted in a marked fall in GDP per worker of about 5 percent. Although labor productivity has since been increasing, it has not yet recovered to the 2007 levels (Figure 4a).

17. **Informal employment increased markedly in response to the crisis.**<sup>7</sup> While unpaid labor did not surge in the wake of the crisis, the share of informally employed increased from 28 to 32 percent between 2007 and 2011 (Figure 4b). Informal employment in agriculture and retail trade, which is mostly informal, thus accounted for a significant share – over 40 percent – of net jobs created in this period. The shift into more informal forms of employment suggests that Macedonia’s generally poor labor market prospects, compounded by the effect of the crisis, may have led Macedonian workers to take up employment where they can find one. While many in the informal sector earn as much as those in the formal sector, the informal sector generally offers lower wages (Figure 4c).

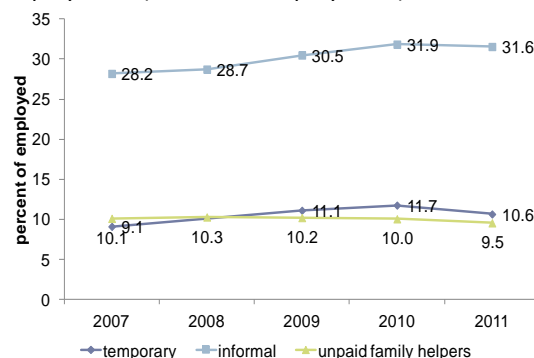
<sup>7</sup> Informal employment is defined as workers who are employed in unregistered businesses, who are without social security (specifically without pension insurance fund) or who are unpaid family workers.

**Figure 4: Adjustments in labor productivity and quality of jobs, rather than job losses**

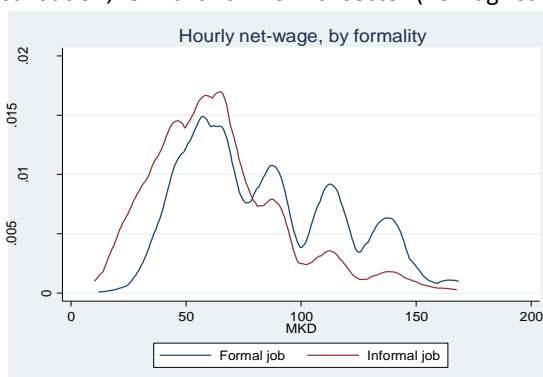
a. GDP per worker



b. Share of the employed in non-standard forms of employment (% of total employment)



c. Wage distribution, formal and informal sector (non-agriculture), 2011.



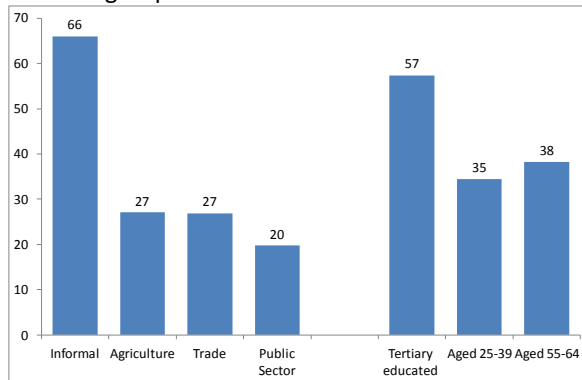
Source: Authors' calculations, based on Labor Force Surveys, and World Development Indicators

18. **The gender gap in employment rates remains largely unchanged.** As of 2011, 52 percent of all men aged 15-64 were employed, compared to 37 percent of all women (Annex, Table A4). As discussed in detail in Gamberoni and Posadas (2013), also part of this labor market assessment, the gender employment gap stems mostly from the very low labor force participation of women, especially among those with lower levels of formal education.
19. **The formal private non-agricultural sector is not creating sufficient jobs for the Macedonian population.** There is no transformation of labor markets in favor of higher skilled private sector jobs. Net job creation in 2007-2011 did not improve the situation. Most job creation was informal, in agriculture and trade, or in public sector (Figure 5a). This phenomenon is partly but not solely an outcome of the economic crisis, as informality and low quality job creation was on the rise even before 2009. In 2011, agriculture continued to absorb one in five employed persons, informality is rising and affects one in three workers, one in ten workers is an unpaid family worker, and one in ten is only temporarily employed.
20. **Limited access to employment and poor earnings prospects remain key problems for many groups.** Most of the new jobs were for those with tertiary education, but many of them took up jobs in lower skill sectors as well. Macedonia is still an outlier in terms of

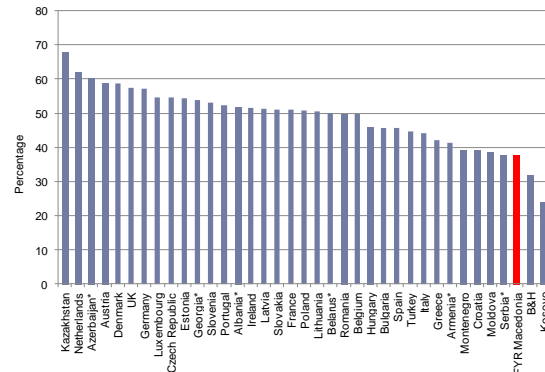
low access to employment (Figure 5b). As will be discussed below, beyond overall poor labor market outcomes, the exceptionally low participation rates of women in some areas, high youth unemployment and inactivity rates and low participation and earnings for older workers point to the difficult situation.

**Figure 5: New jobs created but employment rates remain low**

Contribution to net job creation (% of total) by different groups.



Employment-to-population ratios, 15+, Macedonia and ECA countries.



Source: Authors' calculations, based on Labor Force Surveys and ILOSTAT. Within trade, half of the net jobs created where in retail trade.

### 3. The remaining challenges: An agenda for action

- In spite of some important achievements (improvements in the business climate, higher growth until the crisis, broad economic reforms, including in the labor market), Macedonia is faced with continued difficulties in the labor market. There are key challenges on the labor demand and labor supply side. On the demand side, Macedonia needs many more private sector productive jobs that can pay better. On the supply side, more needs to be done to open up employment opportunities for the entire population, including more vulnerable or disadvantage groups, and particularly among young and older workers.

#### Challenge #1: Promoting sustainable, higher productivity, higher paying jobs

- Raising labor productivity is important to sustain competitiveness and earnings increases in parallel.** Growth in output per worker is important to support increases in workers' earnings together with international competitiveness. Labor productivity can increase through a restructuring of the labor market across sectors (for example, workers shift out of low productivity agriculture into higher productivity jobs in the non-agricultural sectors), through productivity increases within sectors (workers shift from low productivity to higher productivity firms or become more productive within the same firms), or both. Policy actions are needed to stimulate the creation of higher

productivity jobs, to prepare workers with skills so they can access such jobs, and also to increase productivity also in the low productivity sectors, where most workers are likely to remain within the foreseeable future.

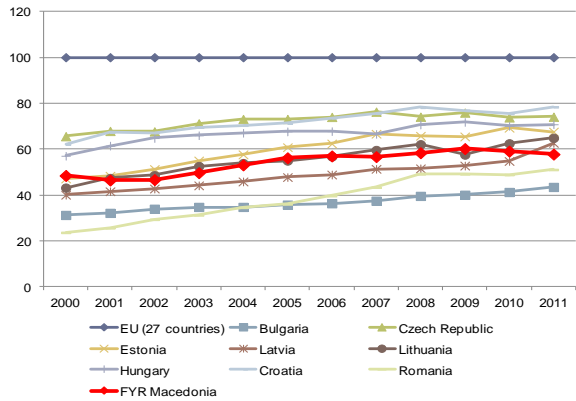
23. **Workers have not been moving into higher productivity sectors in Macedonia.** The employment structure in Macedonia has remained relatively static. Agricultural employment – where labor productivity is lowest in the economy - increased slightly, from 17 to 18 percent of total employment, while the share of industry fell from 33 to 30 percent of employment. Overall, agriculture and public administration accounted for almost half of all new jobs in the period. Lack of structural change in the labor market effectively holds back labor productivity growth. Disaggregated analysis shows that the employment structure did not change in favor of higher productivity and that labor productivity growth was in fact muted by shifts of workers into less productive activities such as agriculture and low productivity services (Annex, Table A5).<sup>8</sup>
24. **Labor productivity was beginning to catch up with that of European peers before the crisis, but convergence has slowed down.** GDP per person employed increased up until the onset of the economic crisis. Since the recession did not result in large lay-offs, at least on a net basis, employment was protected from the shock. Instead, labor markets adjusted through labor productivity which dropped in 2009. In spite of a modest recovery in 2010 and 2011, labor productivity remains comparatively low in Macedonia, at sixty percent of the EU27 average (Figure 6a).
25. **Wages have continued to increase, however.** As the economic crisis did not affect employment numbers, labor markets might have adjusted to output shocks through a reduction in earnings. However, median wages increased instead (Figure 6b)– indicating a loss in competitiveness over time (private sector) and issues of fiscal sustainability and incentives systems (public sector).

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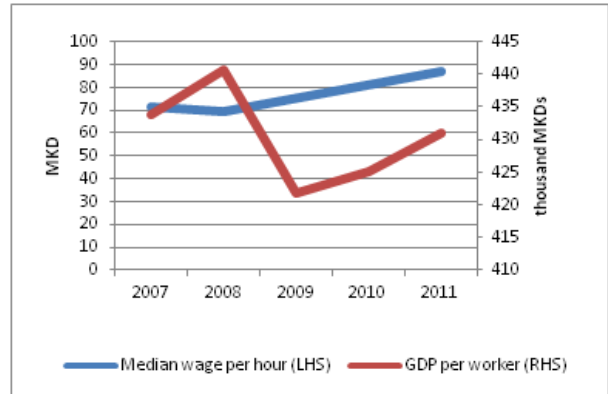
<sup>8</sup> This is also confirmed in regression and structural transformation analysis that is available from the authors.

**Figure 6: Labor productivity has not kept up with European peers, or with national wages**

a. GDP per person employed relative to that of EU 27 (% , 2000-2011)



b. Median wages<sup>1</sup> and labor productivity

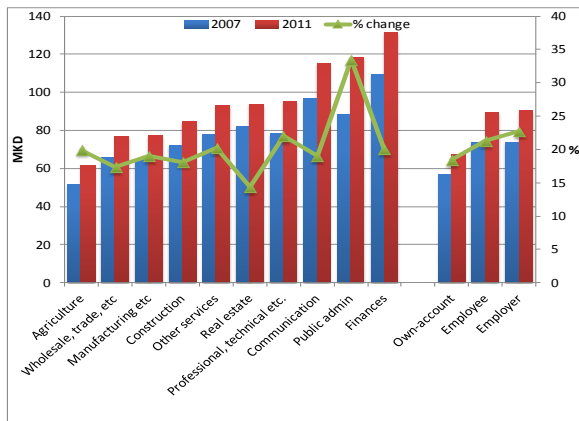


Source: Authors' calculations, based on Eurostat (a) and Labor Force Surveys (b). 1. Net wages as reported by survey respondents (including self-employed).

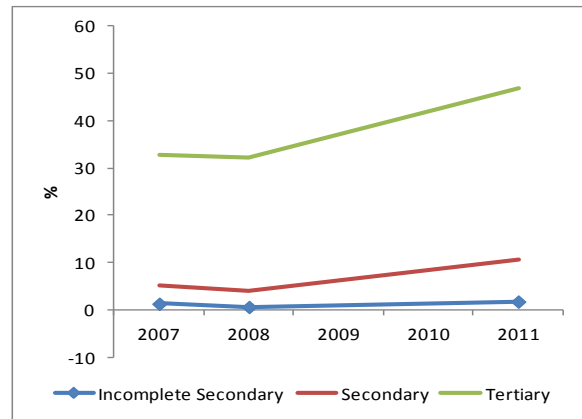
**26. Inequality in overall earnings also increased.** Median earnings increased most significantly in higher earning jobs, such as the finance sectors, and in the public sector. However, earnings remained more static for lower earning categories such as those employed in agriculture, trade or manufacturing (Figure 7a). Median wages are now fifty percent higher in public administration than in manufacturing, and growing significantly faster. These trends are also consistent with the pattern of an increase in “distress work” in low earning occupations, as additional inflows of workers without better opportunities may have been depressing overall earnings. Additional analysis shows that returns to education also have increased more for the tertiary educated than for less skilled workers, further emphasizing the divergence between higher earning and lower earning groups (Figure 7b).

**Figure 7: Earnings are diverging**

a. Earnings by category



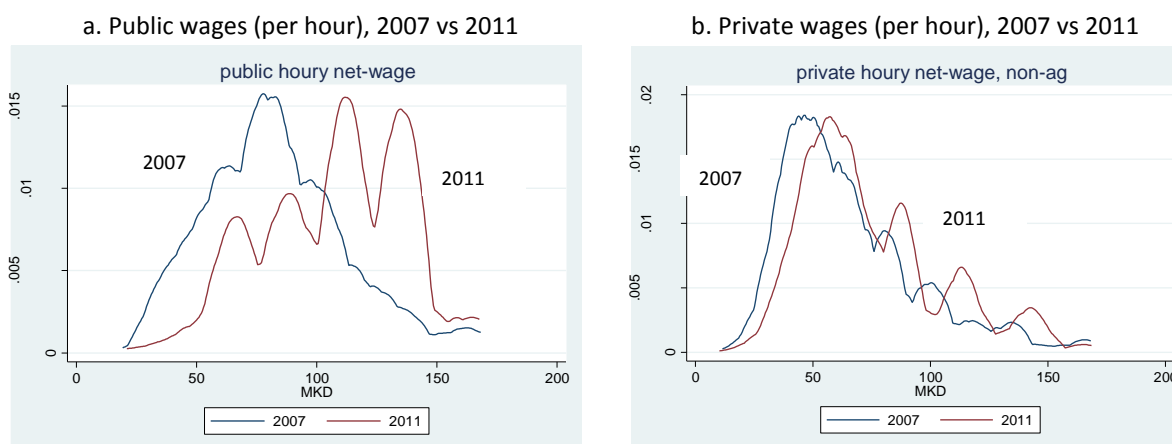
b. Returns to education, 30-40 year old cohort in 2011<sup>1</sup>



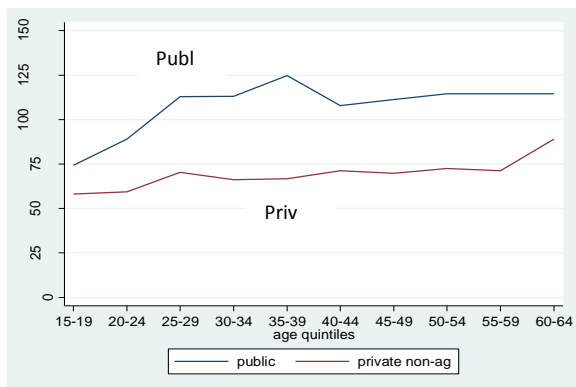
Source: Authors' calculations, based on Labor Force Surveys. 1. Returns to education are expressed relative to wages of workers with primary education or less. Returns are similarly high for older workers (not shown).

27. **The public sector may be crowding out private sector employment.** There is a significant public-private sector earnings gap in Macedonia, even without accounting for more generous additional pecuniary and non-pecuniary benefits and more job security in the public sector. As seen in Figures 8a and 8b, the wage gap has grown further in recent years as a result of the very significant increase in public sector wages.
28. **The relatively high levels and recent growth in public sector wages raise several questions.** First, whether Macedonia's public finances can sustain public wage increases at a time when the country is facing economic difficulties and the future looks uncertain. Second and related, whether wage increases should be a priority at a time when other forms of government spending to stimulate both demand and supply may be needed to avoid further recession and for stimulating long-term growth. Finally, such high wage increases in combination with public hiring, may be raising reservations wages- especially for the young and educated. In fact, the public-private earnings gap is higher for younger workers at the early stages of their careers than for older workers – that is, experience pays off relatively more in the private than the public sector or more productive workers move to the private sector after some experience in government (Figures 8a and b). This is particularly the case for women, who enjoy substantially higher wages and more equal pay with men in the public than in the private sector. Taken together with the expansion in public employment and the increase in unemployment rates among the tertiary employed, this begs the overall questions of whether (i) public wages have become a disincentive for younger and more educated workers to take up a job in the private sector; and (ii) whether the public sector is further crowding out the private sector by pushing wage growth above that of labor productivity and making the expansion of employment in the private sector simply uncompetitive.

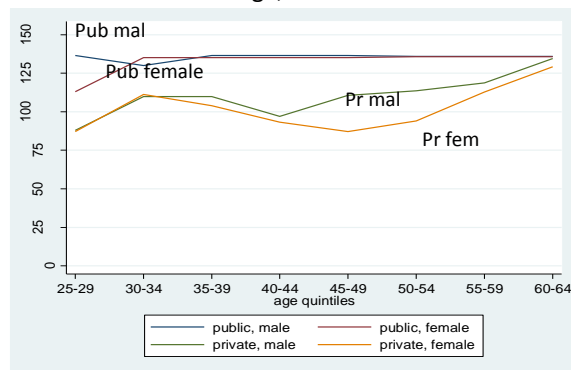
**Figure 8: Public wages have increased much more than private wages and are overall considerably higher – especially for the young and educated**



c. Public vs. private non-agriculture, 2011



d. Tertiary educated : Public vs private by gender and age, 2011



Source: Authors' calculations, based on Labor Force Surveys

29. **Low labor productivity and lack of dynamism in the private sector is still a major problem in Macedonia.** Workers are not shifting into sectors with higher productivity, and public sector hiring appears to have taken on the responsibility to absorb more of the tertiary educated – which may further distort incentives to accept less paid work in the private sector and encourage unemployment and queuing among the tertiary educated. Increasing labor demand in sectors with higher productivity and earnings is, therefore, necessary to improve labor market conditions.
30. **Investment levels (domestic and foreign) need to increase to sustain higher growth rates.** Notwithstanding improvements in the business climate, investment levels in FYR Macedonia remain at around 20 percent of GDP which is low in relation to comparator countries. The Macedonian economy has succeeded in attracting more foreign direct investment, but is still lagging behind other countries such as Albania, Bulgaria and Serbia (Annex, Figure A 2 a and b).
31. **Boosting labor demand is a key issue.** Past experiences suggest that higher growth is an important but not sufficient condition for the creation of more and more productive jobs. Beyond fostering investment, it will be vital to consider how to ensure that firms have the incentives to respond to stimulus with hiring, or that entrepreneurship, firm start-up and viability of high-growth firms are supported.

## Challenge #2: Providing employment opportunities for the younger generation

32. **Labor market opportunities and vulnerability to shocks differ between generations –** most significantly between those born into transition, and those who entered labor markets before the transition. There is a generational divide in endowments especially in level and kind of skills. Other studies of transition countries show that different cohorts have different views on the opportunities and value offered by the market economy



system.<sup>9</sup> In Macedonia, the youngest (15-24) and the older (45+) generations are less likely to be active and employed, but also proved more vulnerable to the economic crisis, showing a much higher propensity than the age group 25-44 to drop out of the labor market as conditions worsened in 2009 and 2010.

33. **A multifaceted approach is needed to address generational differences in labor market challenges.** Youth- both those with less education, and those with higher levels of education – need help to access jobs that provide useful work experience, sufficient pay, and potential for earnings mobility in the future. Older generations, stuck with different, often lower and less adaptable skills, similarly need help to improve their opportunities on the labor market.
34. **Youth is a heterogeneous group with some less educated, working in the informal sector, and some more educated, disproportionately affected by unemployment.** They confront different challenges and constraints. For the youngest labor market entrants, lack of skills and opportunities to gain work experience, means few good jobs are available. For young women, in addition, social norms and lack of flexible work arrangements, means that childbearing keeps them early out of the labor force.<sup>10</sup> For those with tertiary education, problems of relevance and quality of education, low labor demand in the private sector, and high reservation wages, slow down labor market insertion.
35. **Youth unemployment rates remain exceptionally high in Macedonia.** Affecting more than half (56 percent) of the active population aged 15-24, it is 24 percentage points higher than the adult unemployment rate. Macedonia's youth unemployment problem is an outlier in the regional context. While unemployment rates are highest among the very youngest (ages 15-19), this group only accounts for four percent of the total number of unemployed – most are still in school at this age. In contrast, those aged 20-29 account for one third of all unemployed (with the age group 30-34 accounting for another 13 percent). The rapid increase in the number of unemployed after age 20 is the result of inflows of more educated youth among the unemployed. These groups are likely to face different challenges.
36. **The youngest labor market entrants (as well as the oldest workers) are overrepresented in informal work, as a result of lack of other opportunities.** Less educated youth enter the labor market earlier than those who go on to university. Most of them remain unemployed, and those that find employed predominantly do so in the informal sector (Figure 9a). In fact, three out of four of employed youth with less than secondary education are in the informal sector. However, informal work is not necessarily a transitional phase to more productive and formal jobs, especially when conditions worsen as during the economic crisis. Since experience in the informal sector may be less valuable for the formal sector, or the experience is difficult to formalize – for example through trade certification – it may be difficult to move later to formal

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<sup>9</sup> The Pew Global Attitudes Project (2009).

<sup>10</sup> Gamberoni and Posadas (2013).

employment.<sup>11</sup> Between 2010 and 2011, youth workers (15-24) were four times as likely to drop out of the labor force compared as they were between 2008 and 2009. Their propensity to drop out of the labor market was also nearly four times as high as workers aged 25-44.

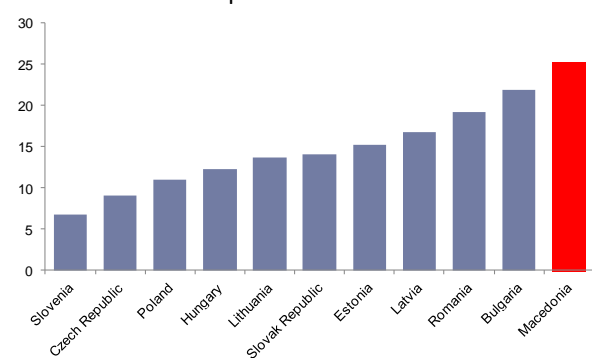
37. **More than one out of four youth is neither working nor studying.** There is little evidence that labor force dropouts are re-absorbed into the education systems. About 25 percent of those aged 15-24 are neither working nor studying in Macedonia. The share is higher than in other South Eastern European countries like Bulgaria or Romania (Figure 9b).

**Figure 9: Youth have little access to productive employment**

a. Share of population 15-64, of total employment, and of informal employment, by age group, 2011



b. Share of youth 15-24 not working and not studying, Macedonia and comparators.



Source: Authors' calculations, based on Labor Force Surveys, and Eurostat

38. **Unemployment rates of educated youth are increasing.** Meanwhile, the potential supply of highly educated workers has continued to increase: driven partly by an increase in education among younger generations, the share of tertiary educated in the working age population (15-64) increased by four percentage points between 2007 and 2011 and by 2011, half of the working age population in Macedonia had finished at least secondary education. Those with tertiary education are the only group to have seen an increase in unemployment rates since 2007, although they remain considerably lower than unemployment rates for those with secondary or lower levels of education.

39. **At the same time, most new jobs in expanding sectors<sup>12</sup> have been going to the younger and more educated generation.** Between 2007 and 2011, one in three new jobs (net) went to somebody aged between 25 and 34, although they make up only one fifth of the working age population.

<sup>11</sup> Transition matrices, not presented here but available from the authors, show that moving from informal into formal employment can be difficult in Macedonia (compared with, for example, in Serbia). Workers in the informal sector are also disproportionately likely to move into inactivity.

<sup>12</sup> Expanding sectors is defined here as sectors which have above-average labor productivity in the country and which also have been growing in terms of employment in a sustained manner (between 1997 and 2009).

40. **Together with rising returns to tertiary education, including among youth, this suggests a segmented market even among educated youth:** some with good prospects and some with very poor ones. Several potential factors may cause such segmentation. One is a limited number of well-paid jobs, notably in the public sector, that are rationed among job seekers. Another is variation in the quality of education - including the provision of workplace and people skills - that is not reflected in years of education completed.
41. **As discussed above, public administration has been increasing employment and has particularly absorbed the educated youth 25+ group.** Educated youth have been taking up a relatively high share of new, high-paying, jobs, many of them in the public administration. The dominance of public administration hiring for this group in combination with the wage premium (at younger ages) for working in the public sector, may in fact be discouraging educated youth from looking for a job in the private sector or finding self-employment.
42. **Meanwhile, the private sector finds difficulties in recruiting the right competences.** A recent World Bank labor demand study showed that Macedonian firms find many young workers lacking essential skills, despite formal education. In particular, firms emphasize lack of workplace skills, such as team work, discipline and organizational capabilities (World Bank, 2010) over more technical skills. This is in line with other research which suggests that such non-cognitive or socio-emotional skills are at least as important as cognitive skills in determining as well academic success as socio-economic success over life time (Heckman, 2008). Critically, recent interventions have shown that such non-cognitive abilities can actually be developed and encouraged, beyond the very first years of a person's life.
43. **In conclusion, young school drop outs have few options in Macedonia today; they are unemployed, inactive, or stuck in low productivity jobs.** Those that can and do get a higher education still have trouble finding suitable employment, while at the same time, local companies face difficulties in identifying skilled workers among youth. Educated youth can benefit from a school system that is more geared towards providing the "right" skills for employment and productivity rather than just diplomas and that build broad skills that can be easily transferable across occupations and sectors. In addition, youth could benefit from more targeted assistance in identifying job opportunities, and signaling their competencies to potential employers. Early school drop-outs, which show up in unemployment statistics for 15-24 year olds, in high rates of informality, and low activity rates, need assistance in returning to the education system and finding other training opportunities to continue to build skills that can enhance their value on the labor market. The young generation thus faces challenges in both the area of skills development, and in accessing jobs:
- **Building labor market relevant skills development systems.** The case of Macedonia as well as the international experience suggests that formal education systems often are disconnected from labor market needs, that they lack focus on broad work place skills and practical application of learning, and that students are either unaware of, or lack incentives to choose, vocations that may have higher employment and earnings

possibilities. At the same time, returns to education have been increasing. Curriculum reform and improving information and labor market feed-back, including career counseling, together with a stronger involvement of the private sector in some of the skills development, may go some way towards reducing these mismatches.<sup>13</sup>

- **Help school drop-outs re-enter the education system.** While more youth stay longer in education than before, those who drop out early face dire work prospects, most likely with little earnings mobility over time. Means of avoiding drop-outs in the first place, e.g. by providing more information on returns to education, and of providing these students with “second chances” to re-enter the education system, or to find suitable vocational training, could play an important role.
- **Improving labor market information and incentives systems.** More work is needed to understand the extent of labor market mismatches and information gaps in Macedonia. Although low overall labor demand is the key issue, problems may be compounded if students and workers cannot signal competencies, or if there is a lack of interface between employers and employees. More demand for labor and improved labor market information will not be sufficient, however, if the incentives systems are not compatible with formal work. For example, the high and growing wages paid in and the expansion of employment in the public sector is likely to raise reservation wages for the educated; the tax system, discuss below, on the other hand, penalizes low-wage earners who are often youth.

### **Challenge #3: Helping the older generation get into work and remain working longer**

44. **Macedonia’s population is aging and there is and will be a need to prolong the productive working life of workers.** The old-age dependency rate is projected to increase: in 2010, the ratio of old age persons (65+) over working age (20-64) was still less than 0.2, but by 2030, the ratio is expected to have increased to 0.3 and further to 0.5 by 2050, according to UN population data. In the absence of a well-functioning public or private safety net systems for those of old age, lack of access to employment may mean significant reductions in welfare and high vulnerability for the elderly. With more appropriate and wide covering safety nets, however, early retirement is not fiscally sustainable. The implication is that workers need to remain active longer. Aging populations also raise issues of how to maintain productivity over the extended working life, both in terms of continued skills retraining and upgrading, and in terms of health.
45. **Older generations differ from younger generations in skills and labor market prospects.** People above 45 years of age are less educated and most entered the labor market before the transition to market economy began in the early 1990s. Hence, their skills set – both from school and from on-the-job training – and their flexibility to adapt to new

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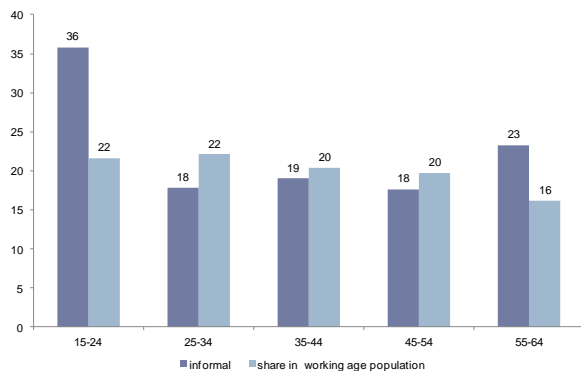
<sup>13</sup> Further work under this TA on skills measurement and institutional diagnoses in the education sector will help in further pinning down specific interventions that can be helpful in this area.

labor market challenges differs from that of more recent cohorts. Many are long-term unemployed, with more than 90 percent of the unemployed in this group, being unemployed for over a year and mostly for over four years. They have been disproportionately excluded from net job creation in the period 2007-2011, especially in expanding sectors. The differences to younger cohorts are most acute for workers above 55 years of age.

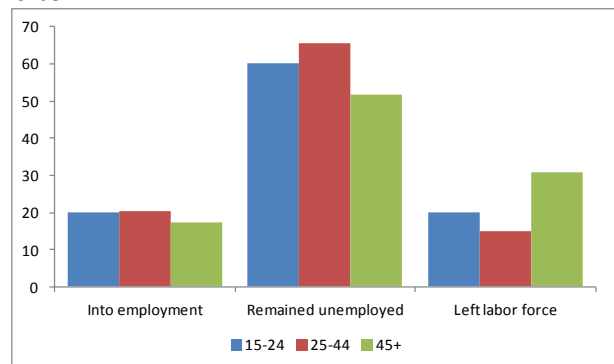
- 46. **Older workers are more likely to be out of the labor market all together.** Labor force participation rates for those older than 45 years old are lower than for younger generations (82 percent for those aged 25 – 44 versus 63 percent for those aged 45 – 64). The differences are more important for women than for men. For the age group above 55 years of age and below 64, participation in labor market drops significantly compared to others: only two out of three men in this age group and less than one in three women, are still active in the labor market.
- 47. **Those that work are confined to less productive jobs and are less able to move out of low earning traps than younger workers.** Those aged above 55 that are employed are more likely than other groups, except the very youngest, to work informally, with lower earnings and without job security (Figure 10a). Transition analysis shows that their labor market mobility (from not working to working for pay, or from low earning to higher earning jobs), is lower than for younger age groups.
- 48. **Older workers are more vulnerable in times of crisis.** Workers aged 45 or above, as the youngest ones, were particularly vulnerable when the crisis set in. Those in the 45+ age group who were unemployed in 2010 were twice as likely as prime-age workers to leave the labor force, and less likely to get a job; they were also three times more likely to drop out than they had been between 2008 and 2009 (Figure 10b).

**Figure10: Older workers are among the most vulnerable**

a. Share in informal work and share of working age population



b. Share of those unemployed in 2010 who by 2011 got a job, remained unemployed, or left the labor force



Source: Authors' based on Labor Force Surveys

- 49. **The main challenge with older workers is upgrading their skills to become active job seekers or self-employed, to prolong their productive working lives and to make a**

**gradual transition out of the labor force over time.** For many, however, the flexibility and capacity to be completely retrained for a new type of economic system, especially if long-term unemployed, must be considered limited. Thus, they face three particular challenges:

- **Fostering entrepreneurship and job search among those with recent work experience and skills that can be upgraded, and providing special assistance for the long term inactive or unemployed.** Older workers with some, albeit limited, work experience may with some support be able to tap into this to create their own firms. Promoting activities that address critical constraints to firm creation (including business skills and credit, but also rules and institutions that govern firms' bankruptcy procedures), and incentive systems that encourage formal work rather than unemployment or informal activities, are likely to be important. However, this approach is unlikely to succeed for those that have very weak labor market attachment. For this group, policy decisions are particularly difficult: There may be a role for industrial policy to identify sectors – for example, in the manufacturing sector – where the older generation's skill-set can be valuable and upgraded without high transaction costs but with employment being effectively subsidized. However, the cost of this approach would need to be carefully weighed against the social and economic costs of other options such as safety net dependence and inactivity.
- **Devising skills development strategies that address older workers' constraints.** This may include programs that offer training/retraining in market relevant skills. It may also include programs that help firms invest in continued skills building of their workers, on-the-job and through shorter training opportunities, including for older workers. Importantly, these retraining programs would need to be adapted to the needs and changes in the learning process that take place through the life-cycle.
- **Encouraging flexible work arrangements,** including part time work, for those that wish to reduce their work load but need to remain active to some extent.

#### **Challenge #4: Getting Women and Disadvantaged Groups into Work**

50. **While finding employment is difficult for a majority of Macedonians, there are significant inequalities in labor markets** – women, certain ethnic groups, and certain areas are disfavored, especially when these characteristics are intertwined. Women have less access to labor markets in the first place: they are less likely to be active but nonetheless face the same unemployment rates as men, meaning that their employment rates are about 15 percentage points lower than those of men. Moreover, employed women earn less on their jobs than men—even after accounting for differences in education, age, location, sector and occupation, although inequalities have been reduced over time<sup>14</sup>.

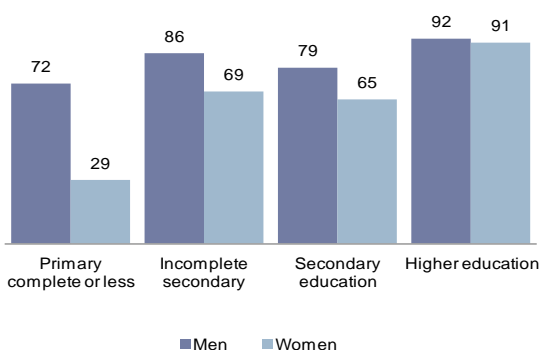
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<sup>14</sup> The gender analysis draws on Gamberoni and Posadas (2013), also part of this labor market assessment.

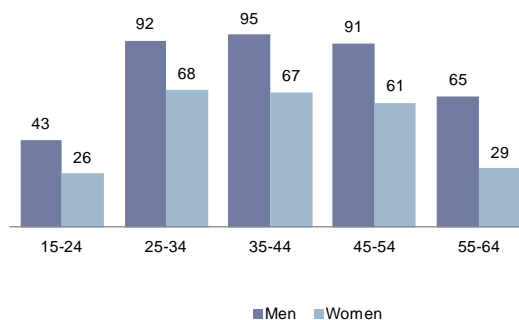
51. **Half of all adult women in Macedonia are not active in the labor market and the gap with men is high by international standards.** Partly, Macedonia's low employment rates are explained by the low participation of women. Almost three quarters of adult men are active in the labor market, which is about the same share as in as other countries in Eastern Europe and Central Asia (ECA). However, only about one in two women in Macedonia are active, compared to an average of about 60 percent in ECA.
52. **The participation of women varies dramatically depending on education, age, and ethnic group.** The least educated, the youngest and the very oldest women are the least likely to participate in labor markets (Figures 11a and 11b), possibly reflecting partly the impact of family and childcare responsibilities. In fact, women with tertiary education are just as likely as men to be active (91 percent). The gap to male participation is highest for the group with primary education or less, and for the older workers (45+). There are significant differences across ethnic groups (Figures 11c and d).

**Figure 11: Youngest, oldest, and low educated women out of the labor market; and labor market status differs significantly between ethnic groups – for both men and women**

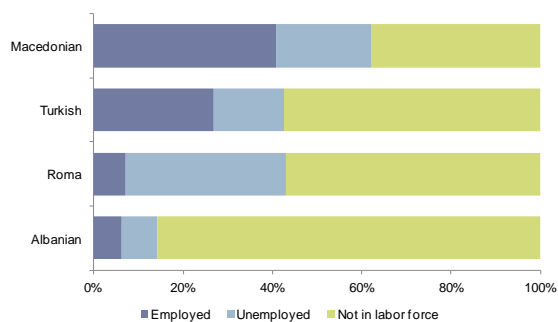
a. Labor force participation by gender and education



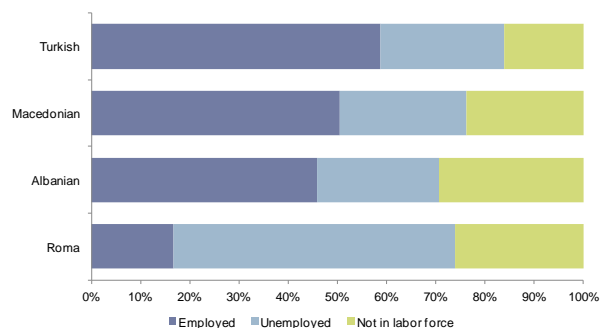
b. Labor force participation by gender and age



c. Labor force status by ethnicity: women



d. Labor force status by ethnicity: men



Source: LFS, 2011 (a, b) and LFS, 2006 (c, d)

53. **Women are constrained by family obligations.** While men reportedly stay out of the labor force to study or to retire early, women are more likely to be bound to the home by essential household and child and elderly care chores that are difficult to combine

with market work if there is no affordable child and elderly care services, few options for flexible work arrangements or very traditional social norms. Married women, especially with younger children, spend between 5 and 6 times as much time on domestic activities as men with the same family situation. Almost half of all women report to be inactive because of family reasons, compared to only a few percent of men. The role of household chores and family is mirrored, for example, in comparatively low enrollment in pre-school child care, with gross enrolment rates for the 3.6 age group at 25 percent.

54. **Much of the gender gap in labor force participation is driven by differences across regions and ethnic groups.** Data from 2006 show that while the gender gap is comparatively small in Southern and Western parts (Strumica, Bitola, and Shtip), it is exceptionally high in Northern and Eastern areas. In Tetovo (where many ethnic Albanians live), less than 20 percent of women are active in the labor market, resulting in a gap to men of over 50 percentage points.
55. **Different groups face different constraints and incentives in participating, however.** For example, both inactive women and men cite lack of access to networks as a reason for not looking for employment (World Bank, 2009). However, while women from Serbian and Macedonian ethnic groups point to age and marital status, ethnic Albanian women emphasize more significantly the restrictive role of traditional norms with regards to female employment. The same norms may also reduce girls' access to education as their future pay-off is not expected to be high. Highly educated women from these groups may also look for public sector work exclusively, with guaranteed benefits and what is considered more appropriate working conditions.<sup>15</sup>
56. **Once they work outside the home, there are also significant gender differences in employment choices/ options.** Although both men and women are most likely to be in wage employment than in any other form of work, there are gender differences. One in six employed women is still an unpaid family worker, less than one in ten is self-employed, compared to more than one in four men. On the other hand, women are less likely to be in the informal sector, although the differences are smaller for older workers. Women are more concentrated in manufacturing and in social sectors while men are in trade and construction. This means that women and men are likely to be affected differently by shocks. The recent decline of the industrial sector is likely to have affected women more, while the slowdown in construction is more likely to have affected men.
57. **Part of the earning gaps between men and women, among ethnic groups, and among regions are due to differences in their characteristics, but part of it remains unexplained.** The gender earnings gap has fallen from 18 percent in 2006 to 10 percent in 2011. If the influence of ethnicity, education, and different job characteristics are accounted for, the gap narrows but does not disappear. The remainder of the earnings gap is given by differences in returns to those characteristics. For example, the industries women work in do not, in general, pay worse (the opposite, in fact). But within those

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<sup>15</sup> Ongoing qualitative work on gender, labor markets and economic mobility in Macedonia will help shed more light into the barriers, and also opportunities, to increase female employability.



industries, women are paid less perhaps because they are in less well paid occupations, or because of discriminatory practices in wage setting. Although there are differences in educational attainment between different groups, employment outcomes are also affected by local opportunities. Regression analysis across these groups also leaves part of the different gaps unexplained.

58. **Differences in employment outcomes across regions have increased over time, suggesting a potential role for increased internal labor mobility.** In 2010, unemployment rates reached 63 percent in the northeast, compared to 32 percent for the country as a whole, which points to very limited labor mobility. Although more work is needed to understand the reasons behind this, the overall poor labor market prospects in Macedonia (even in relatively “better” performing regions) intertwined with the concentration of some ethnic groups in certain regions are likely to play an important role. This is one area where data constraints have limited a more in-depth analysis.
59. **These groups with poorer labor market outcomes need to be included and accorded special attention in labor market policy interventions.** More inclusive labor markets are not only good for social cohesion, but it is also good economics: good for overall productivity and living standards. The following areas deserve attention:
- **What is the role of labor market institutions?** Macedonian labor laws, for example, provide for long maternity leave, limited working time/shifts for women, and lower retirement ages for women. While intended to protect women’s rights, it may be important to understand the unintended effects that these regulations can have on female employment.
  - **What is the role of tax and benefit incentives and other determinants of reservation wages?** Reservation wages may be higher than the market wage due to tax and public safety net systems that disproportionately tax low-wage, part-time and second-earners; private safety nets in the form of subsistence farming or remittances can also be important, as also the public sector discussed earlier.
  - **What role does the lack of affordable child and elderly care services and flexible work arrangements play in determining labor market inequalities?** Beyond labor regulations and tax and benefit systems, women and disadvantaged groups appear to face additional barriers related to lack of complementary services and work environments that are suited to the different needs and preferences of non-male prime age workers. Judging from focus group responses, for example, the lack of pre-school options and elderly care affect female labor force participation as well as women’s lower access to further training, in Macedonia, but cultural constraints and different views on household responsibilities may also be binding. Revisiting the rules, institutions and incentives governing part-time, home-based or seasonal work, for example, can also be relevant.
  - **What constrains labor market mobility for certain groups?** As mentioned above, this is one area where further work is needed; what is clear, however, is that there is room for increased geographic mobility from lagging to leading regions. The international evidence suggests that constraints to internal labor mobility span from the functioning of

the housing and rental markets and the depth of the credit and mortgage markets to issues related to language, skills, infrastructure, industrial and regional policy, networks and information asymmetries.

- **Critically, updated and disaggregated labor market information will be necessary to understand and address these constraints.** Evidence-based policy making requires timely information. Existing data suggests, for example, that the extent and form of job challenges vary significantly across ethnicity and regions and that analysis based on national averages may in fact be misleading. Collecting and actively using labor market data representative of these groups to inform policy remains a challenge. Similarly, improving data collection on wages is important. Finally, quantitative data collection efforts need to be complemented with regular qualitative work that provides information on issues difficult to assess through quantitative instruments.

#### **4. What can policy do? An initial discussion**

##### **60. What policy levers are available to address the considerable challenge of providing more and better employment opportunities to the entire population in Macedonia?**

There is still room for significant improvements in employment rates and access to income opportunities. Business climate reforms have moved ahead in some areas, but less so in others. The population is becoming more educated, but at the same time, unemployment rates for tertiary educated have increased, while firms report difficulties in finding qualified workers. This suggests both skills and incentives can be an issue in slow employment creation. Four main areas for further analysis and policy development emanate from the analysis (

##### **61. Figure 1212):**

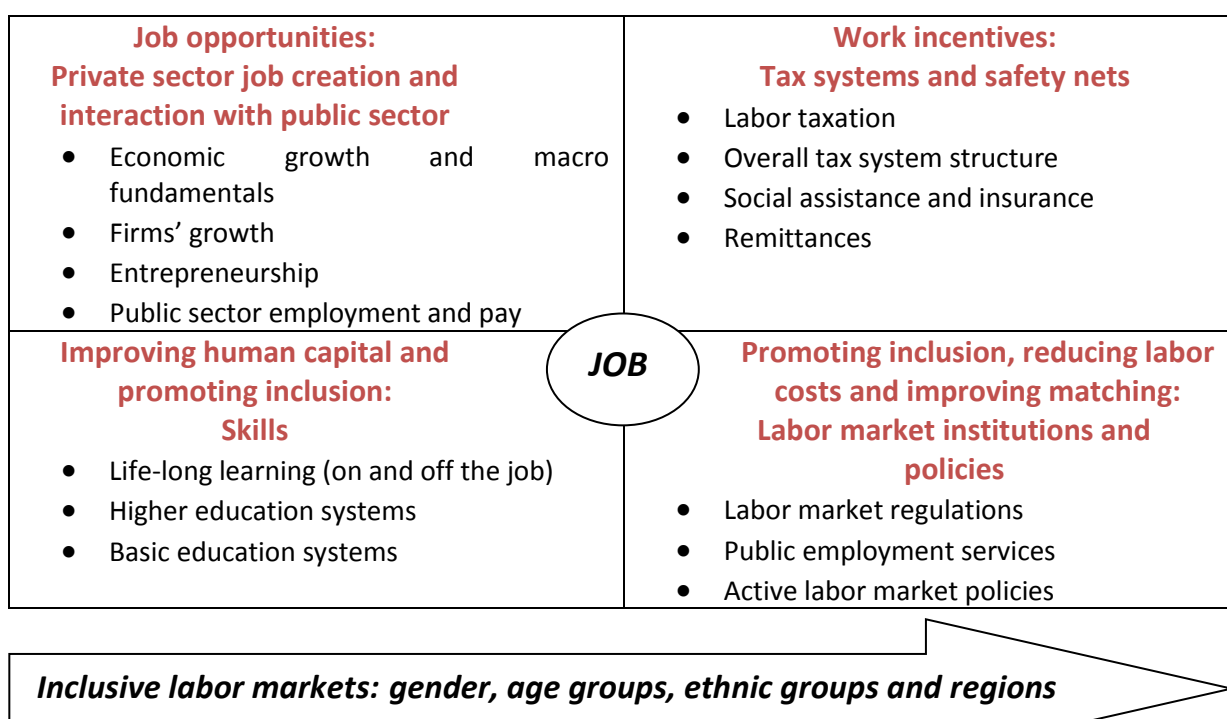
- How to provide an investment climate that fosters job creation in the private sector, especially among firms with high-growth and high-employment potential;
- How to increase incentives to work and to hire workers, especially through the tax and benefits systems;
- How to improve overall human capital and promote access to life-long learning for all groups;
- How to make labor market institutions, including labor market regulations and active labor market policies, better serve vulnerable or disadvantaged groups and foster productivity?

62. In addition, to ensure competitiveness, growth and improved employment outcomes, moving the structure of production and employment towards higher value added and higher productivity activities is critical. However, such a transition will take time, and not all workers will be equipped with the right skills, or will not be able to move to job creating areas and sectors. For the short- to medium term, much of the employed

population will continue to depend on low productivity activities. Ways of improving their situation – for example by looking at how to increase agricultural productivity, or addressing constraints for micro-firms and own account workers in the informal sector, will be necessary from both an economic, inequality and poverty reduction perspective.

63. **Improving data collection is a transversal theme.** As discussed above, the marked difference in labor market conditions across different ethnic groups and regions evident in earlier labor market data – and a well-known feature of today’s labor markets – also emphasize the need to continue collecting labor force survey data that can allow for analysis along regional and ethnic dimensions.

**Figure 12: Four Policy Levers for Jobs and Income opportunities in Macedonia**

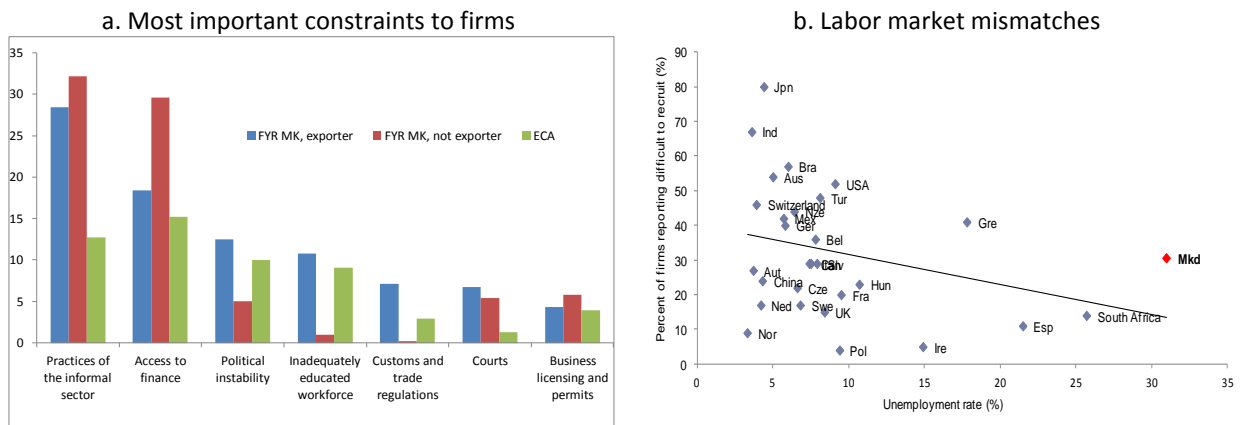


Source: Authors

64. **The remainder of the work program focuses on four different areas for further analysis.** The general labor market assessment presented in this note points to a series of possible constraints to job creation, employment and productivity growth. These will focus on both supply and demand issues, and will be explored more in depth over the coming months.
65. **What constraints do firms face to hiring workers, especially those that could have above average labor productivity and employment growth and that could offer job creation and better income opportunities?** Labor demand is, in part, a function of a favorable investment climate, including stable macroeconomic and political situation,

financial systems and rule of law. Enterprise surveys show that competition with the informal sector and access to finance are key obstacles to (manufacturing) firms (Figure 13a). Although the skills of the workforce are not a critical concern by comparison, there is still evidence of some labor market inefficiencies, beyond lack of labor demand. For example, a relatively high share of Macedonian firms report difficulties in recruiting workers at the same time as over thirty percent of the active population is unemployed (Figure 13b).

**Figure 3: Constraints to expansion, and to hiring labor**

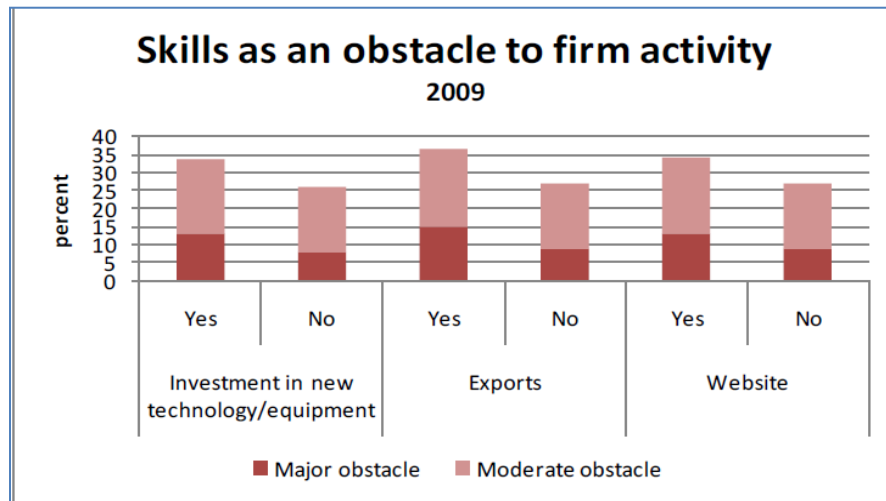


Source: Authors' calculations, based on World Bank Enterprise Surveys (left), OECD (2012) (right).

66. Further analysis will focus on understanding the characteristics of firms in Macedonia, which ones are creating jobs and which ones are leading in terms of labor productivity, what their constraints are, and what the constraints to entrepreneurship and productive self-employment are. This analysis will also need to look at the different skills needs that different sectors present, with a view to making labor market opportunities inclusive across age and other individual characteristics.

67. **How can skills be broadened and increased?** Technological and organizational change and innovation call for new types of skills, and the ability to change skills sets in response to changes. This is especially true for firms with international linkages and those closer to the technological frontier (Figure 14). Education and training systems need to be responsive to these changing skills requirements, and perhaps more importantly build the cognitive and non-cognitive skills that facilitate adaptability over the working life.

Figure 14: Skills constraining firm activity

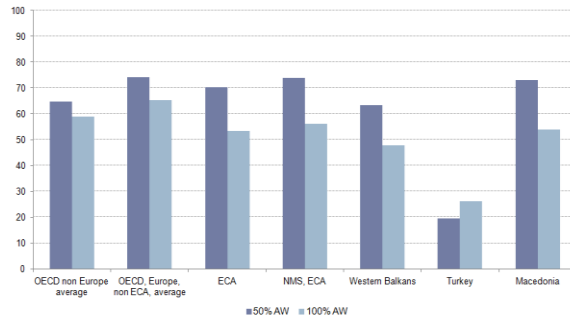


Source: World Bank (2010), Skills Demand Survey For Macedonia.

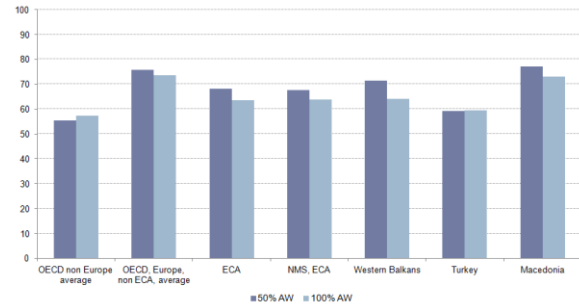
68. There is still not enough known about the kind of skills that are available – the survey quoted above suggested that lack of non-cognitive skills was a problem – what the skills mismatches are, or on how to encourage labor market relevant skills development in school, at work, and in non-formal or informal systems. Getting a better sense of what is the distribution of cognitive, non-cognitive, technical skills in different population groups, how do people usually acquire these skills, and which are the skills that are best rewarded in the labor market is critical. A skills measurement survey among households and employers is underway in Macedonia.
69. **What role do tax and benefit systems play in discouraging labor hiring or job seeking?** In spite of labor taxation reforms, remaining institutions may still undermine incentives to seek employment. Disincentives to leave social assistance or unemployment support and actively seek employment appear quite significant. The additional gain from taking up work is much reduced when taxes and benefits lost are taken into account, especially for low-wage earners (Figures 15a and b). Reforms to the reference wage that set a minimum social contribution for earners below half of the average wage can be explored. Further analysis will consider whether there are particular disincentives created by social assistance, unemployment benefits and labor taxation (especially for low wage, part-time and second earners), and how particular groups are affected by taxation and benefits. Labor market diagnostics also suggest the public sector is playing a potentially important role in discouraging private sector employment.

**Figure 15: Disincentives to work**

a. Inactivity trap: Average effective tax rate (% of gross labor income), 2010: at 50% or 100% of average wage



b. Unemployment trap: Average effective tax rate (% of gross labor income), 2010: at 50% or 100% of average wage



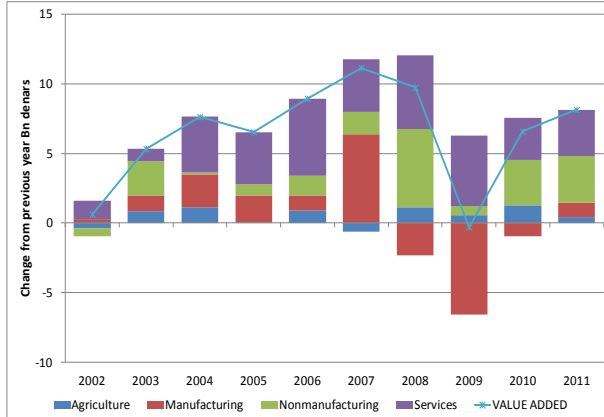
Source: Authors' calculations, based on OECD Tax and Benefit Model. For a one-earner couple with two children, it measures what share of gross income of the accepted formal job—including in-work benefits—is taxed away through personal income tax, social security contributions, and lost benefits (social assistance or unemployment benefits, family, and housing benefits).

**70. What labor market institutions and policies could favor or disfavor work creation in Macedonia?** Many reforms have been undertaken to lessen rigidity of labor markets. It is now time to evaluate what their impact has been, and what pockets of rigidity might remain, to both wage employment and self-employment. In the same vein, Macedonia also has implemented different sets of active labor market interventions to encourage job creation, also for vulnerable groups. What can be learnt from these experiences as well as those from other countries? Strengthening the monitoring and evaluation frameworks of these policies will be central to improving their effectiveness.

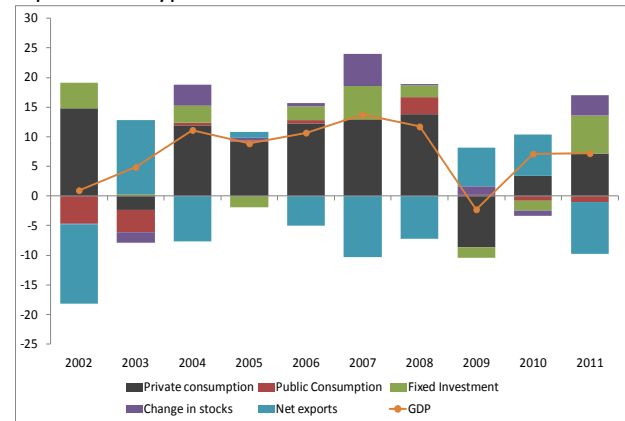
## ANNEX TABLES AND CHARTS

**Figure A 1: Drivers of growth: contribution to value added and GDP, 2002-2011.**

a. Contribution to change in value added (Bn Denars), by economic sector.



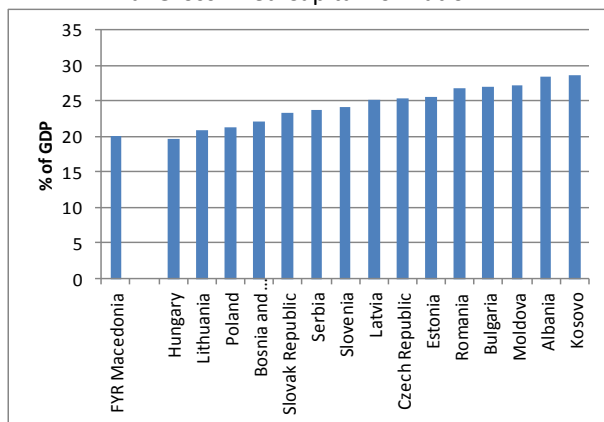
b. Contribution to change in GDP (Bn Denars), by expenditure type.



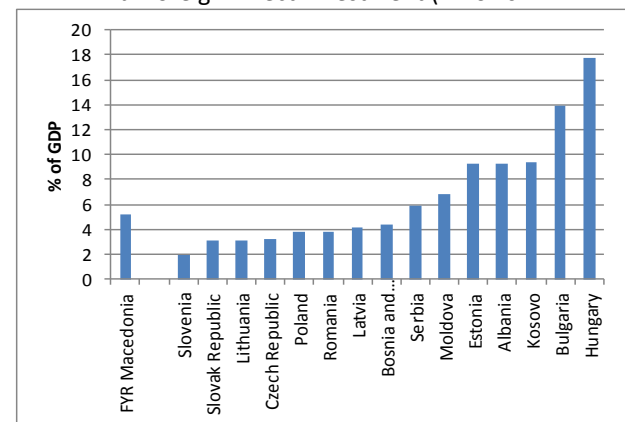
Source: Authors' calculations, based on World Bank (2012)

**Figure A 2: Investment levels as % of GDP: averages for 2007-2011.**

a. Gross Fixed Capital Formation



b. Foreign Direct Investment (Inflows)



Source: Authors' calculations, based on World Bank (2012)

**Table A 1: Key Labor Market Indicators, 2007-2011**

	2007	2008	2009	2010	2011
Unemployment rate (%)	36.0	34.5	32.7	32.6	32.0
Broad unemployment rate (%)	38.6	36.5	34.7	34.6	34.3
Employment to Working age population ratio (%)	41.2	42.5	43.8	44.0	44.6

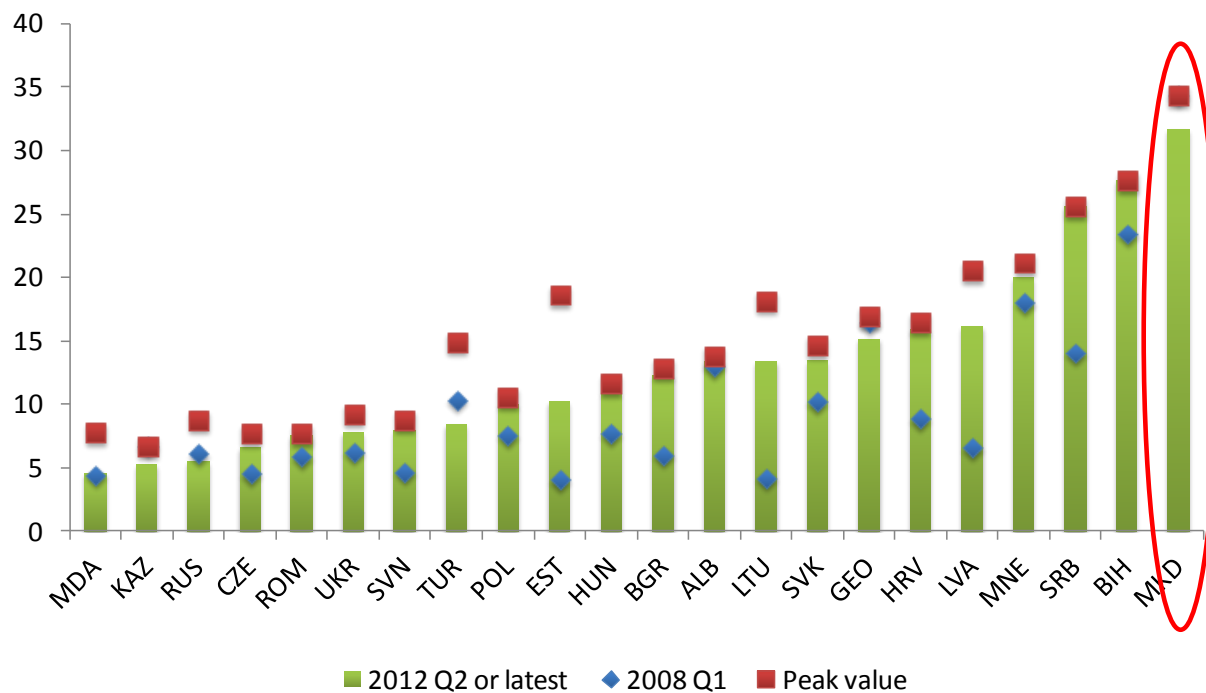
Source: Authors' calculations, based on Labor Force Surveys

**Table A 2: Hierarchical Decomposition of the Labor Force (Levels), 2007-2011. In thousands**

	2007	2008	2009	2010	2011	% change	In-crease (Thsds)
Total population	2 042	2 044	2 046	2 051	2 055	0.1	13
Children (0-14)	379	376	372	366	361	-0.6	-18
Elderly (65+)	249	252	250	255	260	1.2	11
<i>B2a Employed</i>	9	8	8	9	7	-7.6	-1
Working age pop (15-64)	1 415	1 416	1 424	1 430	1 435	0.1	20
C1. Inactive	505	497	498	496	493	-1.5	-12
<i>C1.a Discouraged</i>	38	30	29	28	32	-21.5	-6
C2. Active	910	919	926	934	941	1.0	32
<i>C2.a. Employed</i>	582	602	624	630	640	3.4	58
<i>C2.b. Unemployed</i>	327	317	302	305	301	-3.3	-26

Source: Authors' calculations, based on Labor Force Surveys

**Figure A 3: Limited Impact of Crisis on Employment Numbers. Quarterly Labor Market Indicators, 2007-2012**



Source: Authors' calculations based on ILO



**Table A 3: Unemployment for different groups**

	Unemployment rates by group						Share of all unemployed				
	2007	2008	2009	2010	2011	Change	2007	2008	2009	2010	2011
Total	36	34	33	33	32	-2	100	100	100	100	100
<b>Gender</b>											
Male	35	34	32	32	32	-1	59	60	60	61	61
Female	37	35	34	33	32	-2	41	40	40	39	39
<b>Age group</b>											
15-24	58	56	55	54	56	-2	21	21	21	19	19
25-54	33	31	30	30	29	-2	71	70	70	71	70
55-64	30	30	27	29	29	0	8	9	9	10	11
<b>Education</b>											
Primary or less	45	43	40	40	39	-2	36	38	34	33	32
Incomplete secondary	41	36	37	35	34	-5	15	13	14	13	12
Secondary	34	33	31	32	32	-1	39	39	41	41	41
Tertiary	21	22	22	22	23	1	9	10	12	13	15

Source: Authors' calculations, based on Labor Force Surveys

**Table A 4: Employment for different groups**

	Employment-to-population ratio by group						Share of all employed				
	2007	2008	2009	2010	2011	Change	2007	2008	2009	2010	2011
Total							100	100	100	100	100
<b>Gender</b>											
Male	49	52	53	53	52	3	61	61	62	62	61
Female	33	36	36	37	37	4	39	39	38	38	39
<b>Age group</b>											
15-24	15	16	17	16	15	0	9	8	8	8	7
25-54	53	56	58	57	57	4	81	80	80	80	80
55-64	40	43	44	45	45	5	10	11	12	12	13
<b>Education</b>											
Primary or less	27	30	30	31	30	3	25	26	25	24	24
Incomplete secondary	48	53	51	52	52	4	12	12	11	12	12
Secondary	47	50	50	49	48	1	43	43	43	42	41
Tertiary	71	71	72	71	70	-1	20	18	20	22	23

Source: Authors' calculations, based on Labor Force Surveys

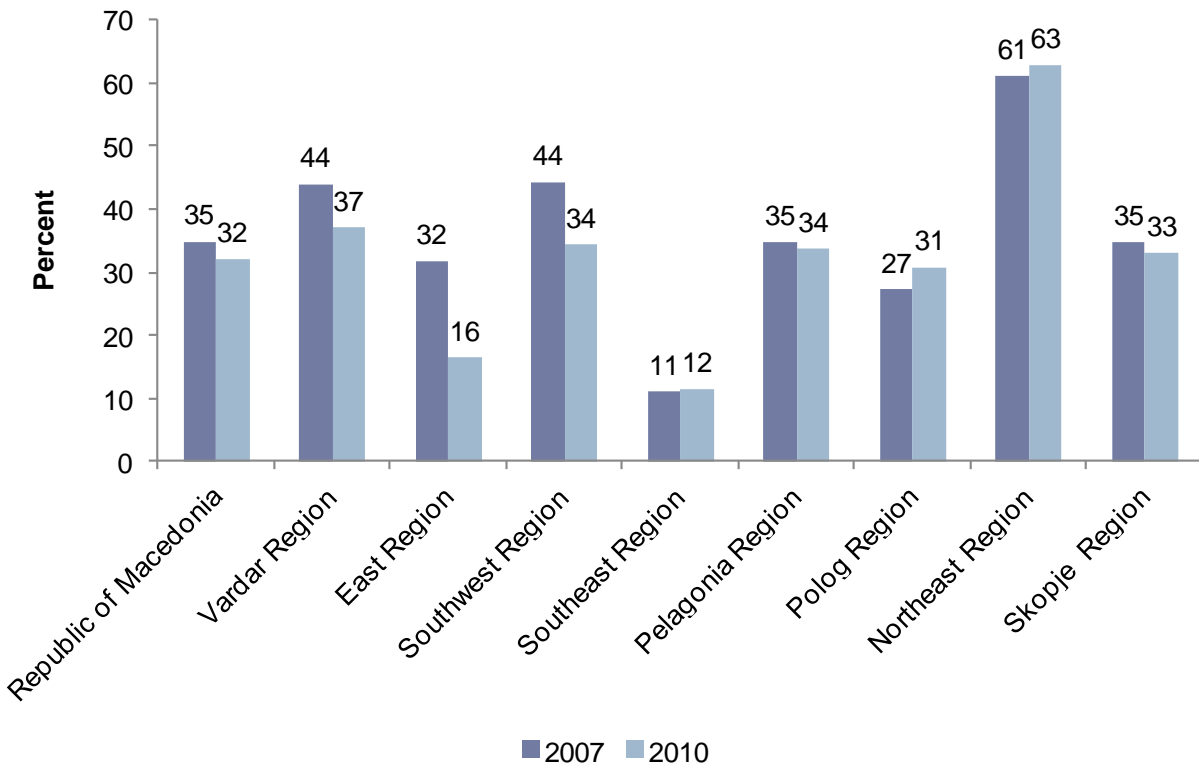
**Table A 5: Value Added, Employment and Labor Productivity  
(total and main economic sectors)**

	2007	2008	2009	2010	2011
<b>VALUE ADDED</b>					
<b>In constant million MKDs</b>					
Agriculture	20	21	22	23	23
Industry	74	78	72	72	74
Services	107	112	117	121	125
Total	201	210	210	216	222
<b>Share in value added</b>					
Agriculture	10	10	10	10	10
Industry	37	37	34	33	33
Services	53	53	56	56	56
<b>EMPLOYMENT</b>					
<b>In thousands</b>					
Agriculture	100	111	108	113	115
Industry	190	195	191	189	194
Services	292	296	324	328	331
Total	582	602	624	630	640
<b>Share in employment</b>					
Agriculture	17	19	17	18	18
Industry	33	32	31	30	30
Services	50	49	52	52	52
<b>LABOR PRODUCTIVITY</b>					
<b>In constant thousand MKDs</b>					
Agriculture	199	189	199	200	199
Industry	390	398	375	382	379
Services	365	378	360	368	378
Total	345	350	337	342	346
<b>Relative productivity*</b>					
Agriculture	0.58	0.54	0.59	0.58	0.58
Industry	1.13	1.14	1.11	1.12	1.10
Services	1.06	1.08	1.07	1.08	1.09

\*Share in Value Added / Share in Total Employment.

Source: Authors' calculations, based on Labor Force Surveys and World Development Indicators

**Figure A 4: Important regional difference and divergence in labor market outcomes.**  
(unemployment rates by region)



Source: Authors' calculations, based on Labor Force Surveys

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