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AVRUPA ARAŞTIRMALARI ENSTİTÜSÜ
AVRUPA BİRLİĞİ İKTİSADI VE İŞLETME ANA BİLİM DALI

**THE PARTICIPATION OF PEOPLE WITH MIGRATIONS BACKGROUND IN
GERMAN LABOUR MARKET AND FUTURE PERSPECTIVES**

Yüksek Lisans Tezi

SEBAHAT SAKA

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Abstract

While people without migration background occupy more high-qualified sectors in the German labour market, people with migration background (PMB) have a high participation in low qualified sectors. Analyzes show that PMB have not equal chances as those without on an apprenticeship or a (high qualified) job in Germany. The first aim of this thesis was to determine the reasons of these differences based on migration background and the first hypothesis is therefore: There is a relation between the chances in the German labour market and migration background, which has a negative impact on PMB.

Subsequently, the demographic change in Germany and Europe was examined and it turns out that due to the declining fertility rate and thus the declining number of population and due to aging, high-qualified/ productive employees on the German labour market will be needed. So, the second hypothesis is: Based on the demographic change there will be a gap especially regarding to the high qualified sectors in the German labour market with consequences on the German economy and welfare. Following from this, the third hypothesis is: The participation of PMB in low qualified sectors will have additional negative effects on the German welfare based on the demographic change.

To determine the size of the gap future projections about the development of the population were presented and assuming different scenarios, the impact on unemployment and the number of labour force has been identified. The results show that according to every scenario, the number of population will decrease and the gap in the labour market will have negative effects on the (production) growth.

With regard to these results, it makes sense to counteract the effects of demographic change by addressing and enhancing the productivity of people with migration background and by preparing them for a high-qualified job, rather than relying solely on immigration with a long integration process.

Özet

Göç geçmişi olmayan insanlar Alman işgücü piyasasında daha yüksek nitelikli sektörlerde çalışırken, göçmen kökenli insanlar düşük vasıflı sektörlerde daha fazla yer almaktadır. Analizler, göçmen kökenli kişilerin, Almanya'da mesleki eğitim alamadıklarını veya (yüksek vasıflı) bir işte çalışma şansı olmadıklarını göstermektedir. Bu tezin ilk amacı, göç farklılıklarına dayanan bu farklılıkların nedenlerini belirlemektir ve ilk hipotez bu yüzden şu şekilde oluşmuştur: Alman işgücü piyasasındaki şanslar ve göç geçmişi arasında bir ilişki bulunmaktadır ve bu ilişkinin göçmen kökenli insanlara negatif etkileri vardır.

Daha sonra, Almanya ve Avrupa'daki demografik değişim incelenmiş ve azalan doğurganlık oranı ve dolayısıyla azalan nüfus sayısı ile Alman işgücü piyasasında yüksek nitelikli / üretken çalışanlara ihtiyaç duyulduğu ortaya çıkmıştır. Dolayısıyla, ikinci hipotez: Demografik değişime dayanarak özellikle Alman işgücü piyasasında, Alman ekonomisi ve refahına olumsuz etkiler ile sonuçlanacak, yüksek nitelikli sektörler açısından bir boşluk olacaktır. Bunu takiben, üçüncü hipotez: Düşük nitelikli sektörlerde göçmen kökenli insanların katılımı, demografik değişime dayanan Alman refahı üzerinde ek bir olumsuz etkiye sahip olacaktır.

Boşluğun büyüklüğünü belirlemek için nüfusun gelişimi ile ilgili geleceğe yönelik projeksiyonlar sunulmuş ve farklı senaryolar varsayılarak, işsizlik üzerindeki etkiler ve işgücü sayısı belirlenmiştir. Sonuçlar, her senaryoya göre nüfus oranının azalacağını ve işgücü piyasasındaki boşluğun (üretim) büyüme üzerinde olumsuz etkileri olacağını göstermektedir.

Bu sonuçlarla ilgili olarak, Almanya'da yaşamakta olan göç geçmişine sahip insanların verimliliğini ele alarak ve onları yüksek nitelikli bir iş için hazırlayarak demografik değişimin etkilerini ortadan kaldırmak, uzun bir entegrasyon sürecine sahip yeni göçmenlere güvenmekten daha anlamlı olacaktır.

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ABBREVIATIONS

<i>PMB</i>	<i>People with migration background</i>
<i>EU</i>	<i>European Union</i>
<i>GDP</i>	<i>Gross Domestic Product</i>



1. INTRODUCTION

Germany, the country with the rising economy after the Second World War. Not only in Europe but also in the whole world, Germany is an economic power. Germany launched this status and regained power after the reconstruction with the aid of foreign workers from Italy, Spain, Greece, Turkey, Morocco, Portugal, Tunisia and Yugoslavia. Since the end of the Second World War the economic recovery is positively related to the immigration rate.

According to the data of the Eurostat, Germany had with €3100 billion in 2016 the highest GDP between the members of the European Union (Eurostat, 2017) and was also the 4th best economy in the world (World Bank, 2017).

The focus of this thesis is rather on the very important but mostly overlooked and not addressed detail of the production chain: The people with migration background (**PMB**) in the German labour market.

Firstly, in 1955 workforce were recruited by Germany and most of the foreign workers worked in low qualified sectors. Now, is there a difference between the 60s and today of the sectors where PMB works? This thesis shows that many of them are still working in low qualified sectors. The question is why PMB have still a high participation in low qualified sectors. In following the problem of PMB in the German labour market will be highlighted, which may be the result of socio-economic reasons like education (language), social exclusion and reasons like xenophobia/islamophobia. Together with the future population change, this problem may also affect the German labour market in the future. Therefore, the intention is to draw attention to the fact that PMB should be integrated more into the high qualified sectors in the German labour market to reduce the negative effects of the demographic change.

In the first chapter the theoretical basics, definitions, characteristics and the functioning of the labour market related to the famous theory 'Neoclassical theory' are explained. This explanation is useful to understand the economic effects of changes in a labour market which will be explained in chapter five. However, secondly, a statistical view on the German labour market will follow with the main point on PMB and their participation in different sectors and their education status. The statistics show differences between PMB and Germans; however, what are the reasons of such kind of differences in participation rates? Possible individual-specific and country-specific reasons with a socio-economic view are explained in chapter four.

The participation rate differences are not only the issue of the PMB in Germany, but also of the state. With regard to the expected demographic change in Germany and whole Europe, the participation rates will be a difficult problem of the labour market, which will affect the whole economy. After the relation between future demographic changes and labour market are explained in chapter five, finally some suggestions to solve the problem of the participation of people with migration background in low qualified sectors and the future effects on German labour market in relation with the demographic change will follow in chapter six. The thesis will end with a short summary of all chapters and with a conclusion.



2. The labour market- A theoretical framework

2.1 Functioning of the labour market

The labour market is one of the different, but also interconnected markets that steer the direction of the economy. The strength of an economy is determined by the gross domestic product (GDP)¹, which includes also production activities on the labour market (Statistisches Bundesamt, 2017c, p.8). According to this connection between an economic growth indicator and the labour market, it is possible to say that positive or negative changes in the labour market would lead to changes in the economic growth. To understand the importance of labour market in the economy of a country, first an overview of the labour market is necessary. How does the labour market work? How it is defined and what are the important basics to know about the labour market?

Like other economic markets, the labour market has also its 'buyers' and 'sellers'. In this market, buyers are defined as employers and sellers as workers. Not all of them (employers and employees) do not permanently transact in the market, because there are always some who are not seeking for new employees or new jobs. Therefore, not all people over a certain age are considered as labour force of a country.

The category of 'labour force' includes all people over a certain age (which can differ according to each country) who are employed or seeking for a new job. Also, unemployed people are determined as 'labour force'. They are looking for work and are available as an offer in the labour market. People who are not in labour force are those who are not employed and are not seeking for a job, in short people who don't want to work (Ehrenberg and Smith, 2009, pp.26).

¹ The GDP is one of the most important indicators of the national accounts, which is also used as a measure for economic success of a country (Statistisches Bundesamt, 2017, p.8).

Table 1

Conceptual demarcation of the Labour Force

Population			
People of non-working age	People of working age		
	Not in labour force	Labour force	
		Unemployed	Employed

Source: Own illustration related to Ehrenberg, R. G./ Smith, R. S. 'Modern Labor Economics. Theory and Public Policy', 2009, p.27; Landmann, O./ Jerger. J., 'Beschäftigungstheorie', 1999, p.21.

According to Landmann and Jerger (1999, pp.21), firstly, there is a distinction related to the labour force depending on their age. People of working age are separated from people who are not of working age. Demographic indicators like fertility rate, mortality rate and migration rates have an influence on the population rate. Changes of such kind of indicators lead to changes in the labour market, which will be discussed in the next chapters. Secondly, not all of the people in working age are ready to work. The share of the labour force in the population is defined as the participation rate, which shows the labour supply of the households. Finally, as well employed as unemployed are defined as labour force. The relation between labour force and employed is determined as level of employment. Summerized, the population can be categorized either in employed (dependent or self-employed), unemployed, not in labour force or not of working age. The rates of these categories are always changing through flows between the categories.

Ehrenberg and Smith (2009, p.28) mention four flows between this categories:

1. *'Employed workers become unemployed by quitting voluntarily or being laid off (being involuntarily separated from the firm, either temporarily or permanently).*
2. *Unemployed workers obtain employment by being newly hired or being recalled to a job from which they were temporarily laid off.*
3. *Those in the labor force, whether employed or unemployed, can leave the labor force by retiring or otherwise deciding against taking or seeking work for pay (dropping out)*

4. *Those who have never worked or looked for a job expand the labour force by entering it, while those who have dropped out do so by reentering the labor force.'*

The participants of the labour market, workers and firms, have different goals. While the workers aim to sell the factor labour at the highest price level, the firms have the goal to buy labour as cheap as possible. These transactions between workers and firms are realized in a framework of rules set by the government. The outcomes in the labour market depend on these rules. For instance, the minimum wage law prohibits payments lower than the required payment per hour or safety regulations safe the health of workers through elimination of health-damaging work conditions. Therefore, the three actors workers, firms and the government are the most important participants of the labour market. All the subjects like the skills of the workers, the unemployment rate, the types of jobs etc. are determined by the deal between the actors, workers and firms, in the framework of the governmental regulations (Borjas, 2013, pp.2). The labour market is one of the important markets where firms deal. The other two are the capital market and good market. In labour and capital market, inputs are bought by the firms and in the good market the output of the firms are sold.

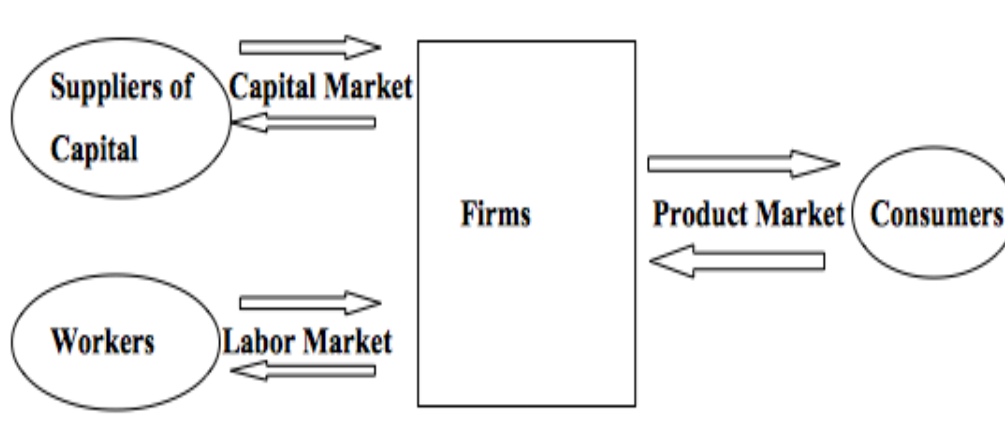


Figure 1.The markets in which firms must operate

Source: Ehrenberg, R. G./ Smith, R. S., 'Modern Labor Economics. Theory and Public Policy', 2009, p.27.

The labour market consists of labour demand and supply. The decisions about asking for labour of firms respectively employers, who constitute the demand side of the labour market,

are influenced by the circumstances in the three markets. The preferences of workers, who offer labour, how to take decisions to work must be noted also. Labour market outcomes based on the 'terms of employment' like wages or working conditions and 'levels of employment'. Different occupational, skill and demographic groups have to be considered by analyzing these outcomes. The labour market outcomes are always influenced by labour demand and labour supply, which will be discussed in more detail in the following chapter (Ehrenberg and Smith, 2009, pp.35).

2.2 Labour supply

The participants of the labour market, both employers and workers are trying to maximize their own benefit. Looking at the side of the labour supply, the workers play the main role. An economy's labour supply is related to the skills of the workers, to the decision to work or not and how to spend their time. Individual preferences lead to decisions to invest more time in work or in leisure. If the individual preferences are in line with improving the own living standards, then workers will spend more time in work with a higher payment, which means an increasing labour supply.

Improvement of living standards or maximize the own well-being implies to make a decision between consumption of goods and creation of more leisure. To make the decision in line with consumption of goods means to invest more time in work, which decreases the freetime and vice versa. This situation is called an economic trade-off (fig.2) (Borjas, 2013, pp.3).

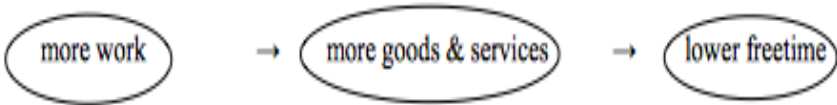


Figure 2. Economic trade-off in labor supply

Source: Own illustration.

While this decision making process, the main economic influence factor is the wage rate, which leads to decide for labour market or leisure activities. The labour force, which was mentioned in the first sub point, consists of employed and unemployed people. The sum of

both (numbers of persons employed and unemployed) implies the size of the labour force (labour force= employed + unemployed). The part of the population who are in labour force is defined arithmetical by the labour force participation rate (=labour force/population). The labour force includes next to employed person also unemployed person, who are looking for work and have the will to work. The rate of the unemployed people in the population is defined through the number of unemployed people divided by the labour force. There are also people, who are unemployed but not included in the category of unemployed. Such kind of unemployed person are not looking for work or have just little intention of working, to get the benefits of unemployment. These people are hidden employed and are not added in the unemployment calculations of a state (Borjas, 2013, pp.3).

If the subjective reasons of unemployment are not taken into account, objective consideration shows that unemployment arises through cyclical fluctuations respectively economic interruptions. The reason why people are not in demand is an important aspect of this thesis, because of the future demographic changes in Europe especially in Germany, which may lead to increased demand for labour. Under which conditions the workers will be asked later and which political and social changes have to take place will be discussed later, but to create a basis for the following chapters, the types of unemployment shall be discussed briefly.

Different types of unemployment are listed in labour market theories as frictional unemployment, seasonal unemployment, cyclical unemployment and structural unemployment. The frictional unemployment exists in every economy and is unavoidable. It is the period between leaving a job and beginning a new one, which is often a very short period. The reason of seasonal unemployment are climate conditions during a year or fluctuations in demand for instance in the tourism branch. Some sectors are during the year less used to capacity; however, this kind of unemployment goes back during the year. Cyclical unemployment occurs if the economy worsens and the overall demand on the good markets decreases. Firms terminate their employees and hire them back in an economic recovery, but the period of this unemployment cannot be defined exactly because it depends on economic happenings. The last type of unemployment, which is explained in this thesis, is the structural unemployment. This one includes different types of unemployment's like sectoral unemployment in the case of weak growth in a special sector, technological unemployment, because of new technologies in the production process. Another type is the qualification-related unemployment, which refers to mismatch in supply and demand of

qualifications of firms and workers. Age- and gender related unemployment means that the labour supply of persons of special age and gender are not in demand of firms (Sesselmeier and Blauermel, 1997, pp.15). The qualification-related and the age-related unemployment will be important aspects while analyzing the participation of people with migration background in the German labour market today and in the future.

2.2.1 Labour supply: A Neoclassical view

One of the most important labour market theories is the Neoclassical Theory. According to the Neoclassics the human is seen as a 'homo economicus', which means that every individual acts according to their own interest in the framework of the competitive principle, so that the conduct of every individual influences the overall economy and leads to the overall economic optimum. The 'homo economicus' decides according to his own preferences, which are influenced by market prices. The market prices (= wages) in turn are defined through demand and supply. The labour market has the same functioning like the good market and the main statements of the general balance theory are used for the factor labour, which states that every economic problem implies a decision making and a maximization problem and every individual makes a comparison of cost and benefit in his economic decisions and acts in order to maximize his benefit. This makes the Neoclassical labour market theory a special face of the general balance theory. Conditions respectively assumptions of the Neoclassical labor market theory are perfect competition in the labour market with no any competition or entry barriers, which lead to exclusion of market powers like monopoly or oligopoly etc. Labour is a homogen factor, so that discrimination of employees regarding to their productivity cannot be possible. Perfect information distribution is possible through market transparency. Moreover, wages are flexible, which adapt to demand and supply of labour. The employees are mobile and employers are always available to sell their output and reach maximum profit. This are the conditions to reach balance between demand and supply with a balance wage.

The Neoclassics use the theory of marginal utility to determine the labour supply. The relation between leisure and income defines the labour supply. If the income increases, then the leisure of an individual decreases and vice versa. Labour is only a way to get income and the leisure is seen as a special kind of good with benefit. By increasing real wages, the labour supply will increase too, because the price of the good 'leisure' will be expensive, expressed

differently, the opportunity costs of using leisure will increase and vice versa. The marginal consideration of the distribution of labour and leisure shows that the additional benefit, that is reached with the last additional unit of labour, implies the benefit of the last unit of leisure given up for it. If the marginal utility is higher than the lost marginal utility of leisure, then leisure must be substitute by labour until they are in balance. It follows a growing labour supply function of the real income. Changes in the population number of labour force rate etc. lead to shift of the labour supply curve. The theory does not consider any institutional barriers. Assumptions to determine the labour supply function are free and individual determination of the work hours and the relation between wage rate changes and labour supply, while increasing wage rates, lead to a decrease of the marginal utility of leisure and increase of the marginal utility of factor labour (Sesselmeier and Blauermel, 1997, pp.45).

2.3 Labour demand

'Labor market outcomes, however, depend not only on the willingness of workers to supply their time to work activities, but also on the willingness of firms to hire those workers.' (Borjas, 2013, p.84)

Important basis to analyze the labour demand of firms is first of all the production function of a term, which shows the produced output by a combination of capital (aggregate inputs like machines etc.) and labour (hours of work). There are two assumptions for the production function. One of them is that the working hours are given through the number of workers and the average number of the working hours per person. The other one is that workers with different skills like work experience or education, can be merged to a single 'labour', which is not realistic. Related to the production function, the marginal product of labour is an important aspect. It describes the change in output as result of hiring an additional employee, while all other inputs are constant. The marginal product of capital shows the change in output as result of increasing one unit of the capital stock c.p. The assumption is that both marginal products are positive, which means that hiring more employees or capital leads to more output.

The slope of the total product curve, which shows the relationship between output and the number of the workers hired by the firm with fix capital, is the marginal product of labor. The output, first, increases with increasing rate of workers. The reason of increasing marginal

product of labour is that the workers have special tasks, which increase the gain of the firm. The marginal product curve has a turning point, where the curve is sloping downward which means that an additional employee does not add more to the output of the firm than the already employed workers. If the capital stock is constant, additional workers are not efficient to the firm's output, because the first workers specialize in tasks, so that additional workers will not have any special tasks and cannot improve the production process with a higher output as result. The average product of labour is the amount of output produced by a worker. The marginal curve is above the average curve, when the average curve increases and the marginal product curve is below the average curve, when it is decreasing. The marginal product curve cuts the average product curve, when the average product curve has its highest point. (Borjas, 2013, pp.84).

Firms try to maximize their profit and therefore they try to make their hiring decision. In short run, where the capital stock is constant, it is possible for firms to define every additional output, produced by every single worker, through the marginal product curve. The value of marginal product, which is the dollar increase in revenue through an additional worker by fixed capital, implies the marginal product of 1 work hours. A firm with the aim of profit maximization would hire employees up to the point where the wage rate is equal to the value of marginal product of labour. For instance, the firm would hire workers at a profit maximization point. After the profit maximization point of the firm, the marginal gain of hiring an additional employee is equal to the cost of that hire and it is not worth hiring more employees, because the value of additional employees is falling. Until the profit maximization point, the firm would get more additional revenues for every additional employee than it pay for them (value of marginal product > wage). A firm with the aim of profit maximization would expand its firm and hire more employees; however, after the profit maximization point the costs of hiring would be higher than the value of marginal product (Borjas, 2013, pp.84).

Summarized, the wage is an orientation factor for firms to determine their demand. Moreover, there are many other aspects like the demand elasticity, the long run demand and the determination of the production function with not only two inputs (labour and capital), which is not realistically because other factors like the skills of the employees are in reality also important. However, this chapter aims to give a brief introduction to the labour market as a basis of the thesis. The main subject is the sociological and economic view on the labour market respectively the mutual influences of these views, which is the case of the following

chapters.

2.3.1 Labour demand: A Neoclassical view

The Neoclassic labour market theory uses the marginal productivity theory to determine the labour demand. The employer asks for employees according to their productivity based on the real wage and profit maximization. The production function shows the important factors for the employer. The labour demand depends on the real wage rate, because every labour and capital combination is depending on the possible relative prices. The labour demand curve of the firms have an increasing wage rate with a decreasing labour demand and vice versa. In the case of perfect competition, the firms or employers take the prices from the market. Therefore, the prices are given by the market and every employer can design his production to a given market price to maximize its profit. A firm hires so many employees until the marginal profit is in balance with the marginal costs (wage rate). If the wage is higher than the marginal profit, then the labour demand will decrease according to the neoclassical profit maximization principle (Sesselmeier and Blauermel., 1997, pp.50).

All in one, the Neoclassic model of the labour market says that markets with specific features reach always a balance in demand and supply. The model assumes that the participants of the labour market have special preferences and are perfectly informed (full transparency). The employees maximize their benefit depend on wage and leisure and employers try to maximize their profit. Labour is a homogeneously good, which means that all employees are equal in terms of their skills and productivity. The market is perfect with enough suppliers and demanders with perfect competition (without monopoly). All prices and wages are flexible, so that changes in labour supply and demand lead to changes of the wage rate on the labour market. There are no institutional, mobile or cultural barriers. Involuntary unemployment does not exist because every supply has its demand. Extern changes are compensated through wage rate changes. The wages are determined by the market price of the produced goods.

Indeed the assumption of 'perfect market' is not realistic. In reality, barriers like minimum wage law prevent the decreasing of wages by decreased demand. Moreover this model doesn't pay attention to the connection of the labour market and other social areas, for instance with no minimum wage law, poverty and social inequality etc. would increase (Abraham and

Hinz., 2005, pp.20).

2.4 Labour market equilibrium and the effects of minimum wages

'The interaction between workers and firms that occurs in the labor market determines the equilibrium wage and employment levels: the wage and employment levels that 'balance' the number of hours that workers wish to work with the number of employee-hours that firms wish to employ.' (Borjas, 2013, p.114).

According to the Neoclassics the labour supply and demand have their optimum on the labour market equilibrium point, where the labour supply and labour demand curves intersect. The assumption of 'perfect markets' and so that the labour supply will be equal to the labour demand, lead always to a labour market equilibrium. As explained before, the labour supply is upward sloping, which means that the workers supply more work-hours by increasing wages, because the price of the factor labour increases. Instead of losing higher wages through spending time in leisure, workers prefer to work to get this higher wages. So, increasing wages lead to higher labour supply of workers, which is defined as substitution effect of real wage changes. The other option is to invest more in leisure after the real wage's per hour price increases with increasing real wages, because the marginal utility of goods, which will be bought with the increased wage, decrease relatively the marginal utility of leisure (income effect). The intersect point of the upward sloping labour supply curve and the negatively sloped demand curve represents the equilibrium wage and employment level in the market. If the workers would get a higher wage level than the equilibrium, the firms would hire fewer workers and more workers would be looking for work, which means more competition on the labour supply side. This would lead to decreasing wages. If the wages would be lower than the equilibrium, firms would hire more workers, but only few workers would be available to work at a wage lower than the equilibrium and firms would compete for workers, which would increase the wages until the equilibrium. On the equilibrium point, the labour supply (amount of workers who are looking for work) is equal to the labour demand (amount of workers who want to be hired by the firms) (Borjas, 2013, pp.114).

However, such kind of perfect markets are not realistic as said before. In reality, there are many policies, rules and regulations of the government to protect as well the employers as the employees. One of such policy application to protect employees against low wages is the

introduction of minimum wages. Through globalization, the competition on the markets get stronger. The open markets allow access for international firms but also workers. Especially the free movement of workers in the EU removes the borders between the member states and employees get the chance to look for work in (other) rather better developed countries. Firms try to take advantage of this situation and hire workers from other countries, who supply labour for lower wage levels than the domestic worker. To protect domestic workers against dumping-wages of foreign workers, the minimum wage law was introduced in many countries of the EU like Germany, France, and Netherlands etc.

If the government sets a minimum wage at a point higher than the equilibrium, the economic effect would be a falling employment to a lower point than the equilibrium, because hiring of one additional worker would be more expensive. The unemployment rate would increase and high wages would attract more employees to the market, who would be added to the existing unemployment. Higher wages mean higher production costs for firms, so that they do not prefer to hire more workers, but unemployed workers prefer to work at the minimum wage. Increasing minimum wage would lead to higher unemployment dependent on the elasticities of labour supply and demand (more elastic demand and supply leads to higher unemployment rate) (Borjas, 2013,pp.115). Moreover, the increasing unemployment rate would include low employment opportunities for low skilled workers and workers with low experience, because all the low-paid workers would get raised wages at minimum wage level.

The minimum wage law does not aim only to protect domestic workers against dumping wages of foreign workers, but also to remove poverty. Next to the employment effect (which leads to higher unemployment especially of low skilled workers), the minimum wage law would be inefficient regarding to remove poverty, if people in poverty are not addressed by the minimum wage law, because they are mostly not employed (Ehrenberg and Smith, 2009, pp.109).

2.5 Effects of changes in the labour market on a country's welfare

Measuring the welfare of a country is not easy because the individual living standard depends on different indicators like education and health, but also other social indicators. However, the general opinion in the economics is that the Gross Domestic Product (GDP) gives a lot of information about a country's welfare status. The GDP measures the economic growth of a country via measuring the market value of the internal produced goods and services in a special period. Through growth, individuals have more economic options for instance a wider spectrum of consumption goods, which increases their individual welfare. Therefore, the overall welfare growth depends on individual preferences. The WSR summarizes the increasing welfare in following steps:

Increasing GDP → increasing economic capacity → welfare growth → higher living quality (WSR, 2011, p.8).

In other words, the GDP represents mathematically the value of all the (internal produced) goods and services in a special period of a country. The value is not defined as the quality of the goods and services, but only as the market price of them. This price-based calculation shows that goods and services, which are traded, are included in the calculation.² The changes in GDP between two periods show the economic growth in percentage. Because the economic activities within a country's borders are taken into account, it does not matter which nationality the workers have or where the producing firms are from.

There are different approaches to determine the GDP:

- The production approach
- The expenditure approach
- The income approach

The production approach uses the gross value added of the producer, while he subtracts the value of the inputs in the production process (raw material etc.). The other one, the expenditure approach, includes the value of the goods and services on the market, which implies the value (price) for the customers. This approach has following calculation:

² Usually the real GDP is preferred, which based on prices of the last year (not actual prices) to eliminate inflation and so to determine only the changes in production if the GDP changes. The inflation has no influence on GDP.

$$Y = C + G + I + (X - M)$$

$$\text{GDP} = \text{Private consumption} + \text{State expenditures} + \text{Investments} + (\text{Exports} - \text{Imports})$$

The summarizing of the consumption of the private households, expenditures of the state, domestic investments and the net exports (balance of trade) through deducting exports from imports, shows that the production and trade of (demand for) produced goods and services determines the growth rate of the GDP. The third method of calculation, the income approach, is based on totaling up the income generated by the production process during the period under review. It involves the aggregating employee compensation (in accordance with the national concept) and adding it to corporate income and property income. It produces the national income, which is also referred to as the "net national income at factor cost" (Lepenies, 2016, p.4). In short, the income approach is the calculation of the total income regarding to the people, active in an economy.

The GDP is included in the national accounts, which represents the economic behaviors of people and institutions via special accounts (consist of assets and liabilities). This are in turn important to determine the GDP. Such national accounts show the interaction of economic active people, for instance the relation between firms and workers. This relation has two sides, the production side and the monetary side. While in the production side the workers supply labour for firms, which is used in the production process of goods and services, in the monetary side the workers get wages from firms for their economic action, which are used for consumption of the produced goods and services. Both, the production and monetary side are included in the calculation of the GDP. Summarized, the GDP is an economic size of production. So, growth of GDP rate implies an increase in production of a country (Lepenies, 2016, pp.1).

As own remark, the relation with the labour market is well to see. The labour market is the production station³ in the whole trade process. Therefore, changes in labour supply regarding to the expected demographic change, will lead to changes in production and so in a country's GDP, which is also defined as welfare rate. The function of the GDP of the expenditure approach shows the dependence of the GDP from consumption, investments, state expenditures and net exports. A change in one of this indicator will change the whole growth

³ The labor market is not only the production station, but also plays a great role in the consumption of individuals depending on their wages.

rate. For instance, if the production or GDP will decrease (c.p.)⁴ in the case of decreasing labour supply, because of the economic relation between this indicators.

Decreased labour supply (labor demand > labor supply) leads to increasing labour demand, while the demand curve shifts to the right. Although demand is increasing with higher wages, it can not be in equilibrium with the labour supply because there are c.p. not enough employees (because of demographic changes) on the labour market. The production decreases. Higher wages imply higher wage costs for firms, that influence the prices of goods with a rise. This will lead to decreasing export rates and increasing imports in an open economy, because of the lower good prices in foreign countries where the production is more driven. The demand for goods will shift abroad than for domestic goods and the increasing import rates with decreasing demand for domestic goods will affect the domestic production negatively. Firms will close because the costs of hiring would be higher than the value of marginal product and they will not be able to compete on the international goods market. Moreover new investments will not be attractive for investors (c.p.), so that the investment rate will also decrease. All in one, if the state does nothing politically and does not intervene in the economy, the negative changes of the indicators of the GDP will lead to worsened welfare and a county's economy will no longer be able to stand or walk on its own.

Another fact, which affects the production and so the welfare of a country is the age-related productivity reduction, which is explained more detailed in the following chapter. However, as an introduction, the age-related productivity change has additional effect on the production respectively GDP or welfare regarding to the expected demographic change. According to Heywood and Jirjahn (2016, pp.353), the age structure of workers has a contrary relation with their labour productivity respectively with a firms productivity. With workers of older ages, a firm's productivity is lower than a firm which hires workers of middle ages. However there is no clear difference between the productivity of workers regarding to their age. There is only an effect, called 'pure age effect', which implies production errors regarding to their age. Indeed this failures can be disregard when the 'experience effect' of older workers is noted.

All in one, there is no clear difference of productivities regarding to their age. The age-effects depend on the firms and their managing. If a firm provides older workers through 'mixed-age working teams' or supplies special jobs for them, the difference would be lower or even

⁴ Changes in production or GDP because of decreasing labor supply rates while immigration, technological development etc. that could be solutions are excluded respectively constant.

complete eliminated. In addition, it depends on the competences and skills of older workers. Older workers do not like to use computers or are mostly not actual informed about the developed technology and such kind of firms, which hire more older workers, spend lower for Research and Development (R&D).

2.6 The labour productivity

Labour productivity of workers is related to different facts. This could be, as introduced before, the productivity over the life cycle, but also the skills and competences of a worker etc. In this chapter, labour productivity will be presented briefly, without any mathematical aspects. A definition and the relation with human capital will be shown.

According to the definition of the Eurostat, labour productivity implies the value of the outputs, produced by workforce respectively the value of production per input (worker) (Eurostat, 2013). Therefore, labour productivity shows the relation between output and the input, which can be determined as the amount of workforce and work-hours. To determine the productivity, the production per capita is not very useful, because independent of the number of workers, the quantity of work is an important factor. Therefore, it is more effective to measure the labour productivity based on the production per hour. The relation between labour productivity and income per capita of the employees results from the work hours, makes the production per hour to a more important measure (because workers as producers are also earners, who use their income for consume purposes which is the aim of the whole production process) (Ademmer et al., 2017, p.31).

Labour productivity is compared to other economic sizes like capital productivity a more important size, because economic facts such as growth, competitiveness of a country etc. are measured by the labour productivity. Changes in this size are explanations for important economic and social changes. Labour productivity is calculated through the division of volume measure of output (GDP) and measure of input use (work hours or total employment). While the volume of output includes the goods and services, which are produced by the workforce, the measure of input use represents the work hours, the competences and skills of this workforce. However, the work hours are used mostly for measuring the input (OECD, 2008, p.5).

All factors, which have an influence on the efficiency of the production, are a benchmark to determine labour productivity. This could be the equipment of the firms like machines, actual

technology, perfect organization and regulation, discipline etc., but also the equipment of the workforce plays an important role. In this case, human capital is addressed. Human capital is the combination of knowledge and skills, which a person owns. Human capital can be acquired from school or while working in a job. People invest time and material goods to improve their human capital mostly during their education and career via further education (Franz, 2013, p.77), which will be discussed in chapter four while explaining the individual-specific reasons for the differences in labour productivity and the participation rates in the labour market especially related to PIB.



3. Facts about the German labour market

The chapter before gave briefly, theoretical knowledge about the labour market which shall be a basis to understand the effects of the demographic change on economic welfare⁵ respecting the participation rate of PMB in German labour market. The labour supply and demand, but also productivity are connected with the production rate of a country, which determines the welfare. So, in this chapter the German labour market will be shown in numbers. What is the unemployment respectively employment rate? How many people are in labour force and how many are inactive? What is the education status of German workers and PMB and in which sectors are they employed? etc. Such questions and more will be answered partly with statistical quantities.

Before a general view on the German labour market, it is essential to make a terminological differentiation between the identifications of people as 'migrants', 'foreigner', 'with migration background' and 'with migration experience'. According to the Statistisches Bundesamt (2017, pp.15) the term 'migration background' includes also foreigners. Foreigners are people, who were born in Germany or migrated later to Germany. They are not 'German' with respect to the German Constitution article 116 paragraph. 1:

'Unless otherwise provided by a law, a German within the meaning of this Basic Law is a person who possesses German citizenship or who has been admitted to the territory of the German Reich within the boundaries of 31 December 1937 as a refugee or expellee of German ethnic origin or as the spouse or descendant of such person.' (Deutscher Bundestag, 2018, p.116)

In addition, people without any state and an undefined citizenship are identified as foreigners. People have a migration experience if they were born abroad. Finally, PMB are those, who were not born with the German citizenship or whose parents (or at least one of them) were not born with the German citizenship. The term 'people with migration background' is the summarize of the identifications foreigner, emigrants, naturalized people and people, who were born with German citizenship, but whose parents (or at least one of them) naturalized, foreigner or emigrants.

⁵ The term 'economic' welfare is used, because in this thesis welfare implies the growth of GDP. In reality social factors, which are not include in the calculation of GDP have also influence on welfare, however this are not subject of this work.

Analyzes based on people with migration background are important in the case of Germany. Only the view on the German population shows that their share is not insignificant. In 2016, the whole population was about 82.4 million (fig.3).

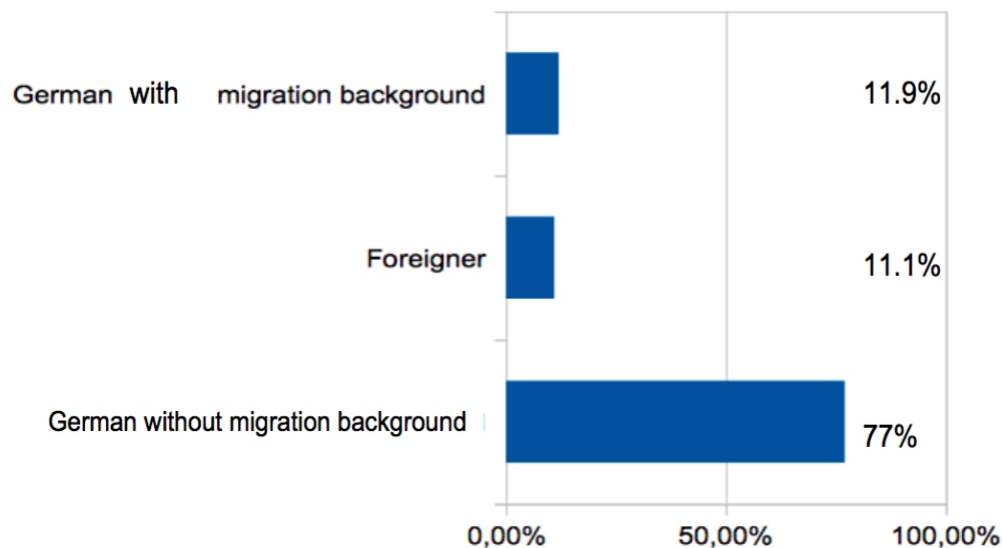


Figure 3. Migration background of the population 2016

Source: Own Illustration related to Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer', 2018a, p.7.

Germans without a migration background have a share of 77 % that is 63.8 million. German people with migration background (which addresses those who are naturalized) are 9.6 million of the German population and together with the people, who are identified as foreigner (9 million), they have a share of 23 % (18.6 million), which is nearly a quarter of the whole population (Bundesagentur für Arbeit, 2018a, p.7).

The amount of the PMB in Germany is not only the result of the reconstruction after the Second World War, but also of the deeper integration in the EU through free movement negotiations. Additional, the wars in the Middle East had an influence on the high share of PMB in the German population. However, this people are not always the passive part of the society, who only receive social aids respectively who only consume and do not produce. The German labour market consists as well of German workers as workers with migration background, so that they are also part of the production chain. Therefore, their importance in the labour market is remarkable as demonstrated in the following.

3.1 A general view

3.1.1 Employment

A general view will show the situation on the German labour market like how many people are employed or unemployed and in which sectors or status they are employed etc. without any differentiation in gender, age and nationality respectively migration background.

Based on numbers of 2016, a growth of the German economy is recognizable. The real GDP increased about 1.9% after an increase of 1.6% in 2014 and 1.7% in 2015. The economic growth is justified by the increasing consume through positive developments in the German labour market.

Figure 4 shows the positive relation between growth of GDP and employment. Together with an increase of 1.9%, the employment increased about 1.2% compared to the previous year. The increase in employment rates and real wages (because of increased labour demand of employers), but also low interest rates (decreased by the ECB from 0.05% to 0% to eliminate inflation and downturns of the economy) led to an increase of +2.0% of the private households. Additional, the state expenditures increased (about +4.2%) to care refugees financed by rising taxes. Another reason for economic growth were the investments, which increased about 2.5%. The employment increased about 538 thousand (1.2%) and reached 43.60 million, which was also the highest rate after the reunion. The number of employees with social insurance was in 2016 31.37 million (full time employment: 22.83 million; part time employment: 8.55 million) and represent the biggest part of the employees with 72.1%. Reasons therefore may be immigration, sectoral changes etc.

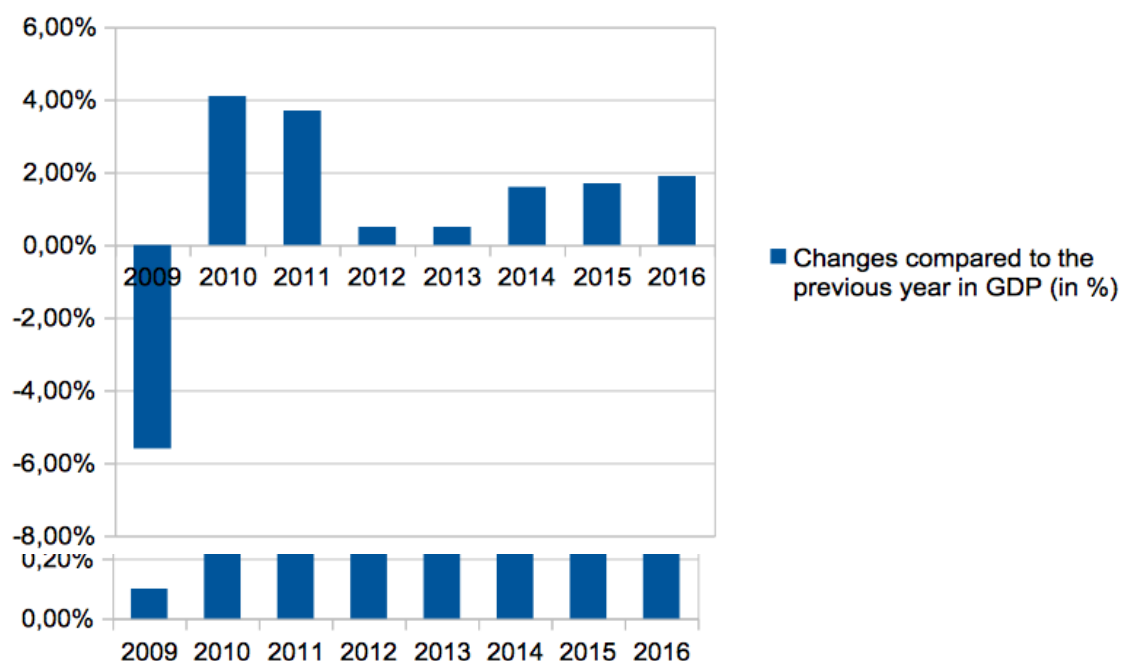


Figure 4. Growth of the real GDP and employment

Source: Bundesagentur für Arbeit 'Arbeitsmarkt 2016', 2017a, p.13.

A view on the changes in the employment rates related to the status of the employees shows that the number of people, who are self-employed decreased in 2016 about 0.6%, so that they reach a share of 9.9% of the whole employees in Germany. Furthermore, the number of employees with a minor employment decreases also about 0.8% or 38 thousand employees, which is connected with the regulation of the state in 2015, that prescribes a legal minimum wage of 8,50€ per hour. Otherwise, the number of officers and employees with social insurance increased definitely compared to 2015 by 10 thousand officials and 602 thousand employees with social insurance (see also figure 5).

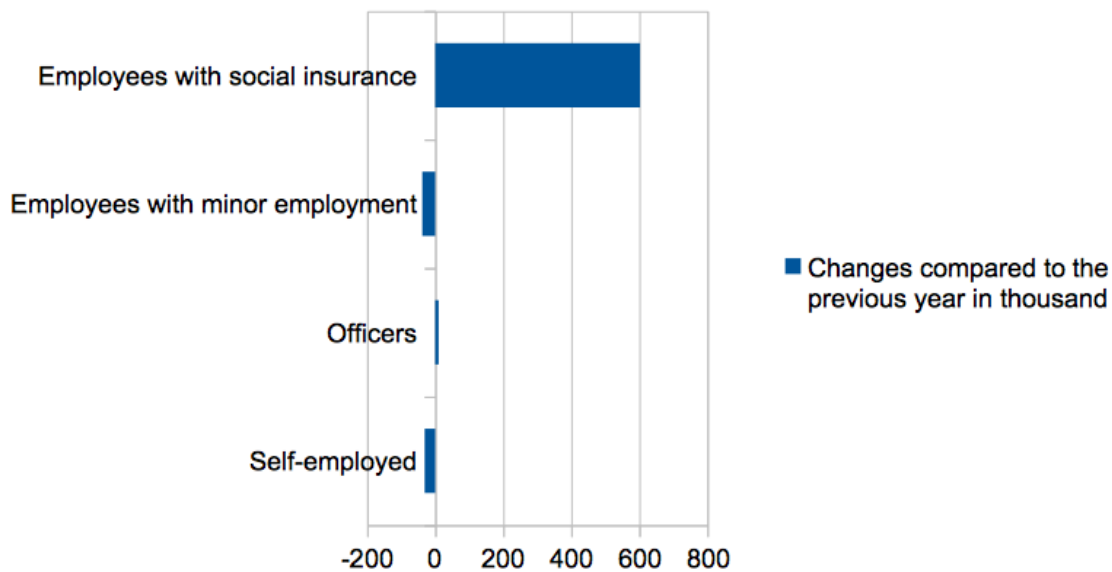


Figure 5. Employment according to the status in Germany 2016

Source: Bundesagentur für Arbeit, 'Arbeitsmarkt 2016', 2017a, p.15.

A more detailed view on employees with social insurance shows that there is no exact difference between the growth of the number of employees with social insurance in both East and West Germany. While the employment of these in West Germany increased about 2.0%, which implies 25.50 million people (from 2015 to 2016, this rate was about 1.9%) and so 5.87 million people in East Germany. All in one, the growth rate of these employees increased in all federal states, but the most in Berlin with 4.1%. The federal states in the east of Germany shows also a growth between 0.8% and 1.5%, but more lower than the west side with a growth rate between 0.4% and 2.7% from 2015 to 2016. A growth in the employment rate of people with social insurance is also recognizable. The highest growth rates are in the sectors 'Social matters and Care' with 5% and 'Other economic services' with 5.5%, while 'Financial- and Insurance services' shows a decrease of 1.1%, so that a shift to the service sector is recognizable. While in 2015 the participation rate of employees with social insurance was about 70.2%, this rate increased to 70.6% in 2016. All the sectoral growth rates from 2015 to 2016 are shown in figure 6.

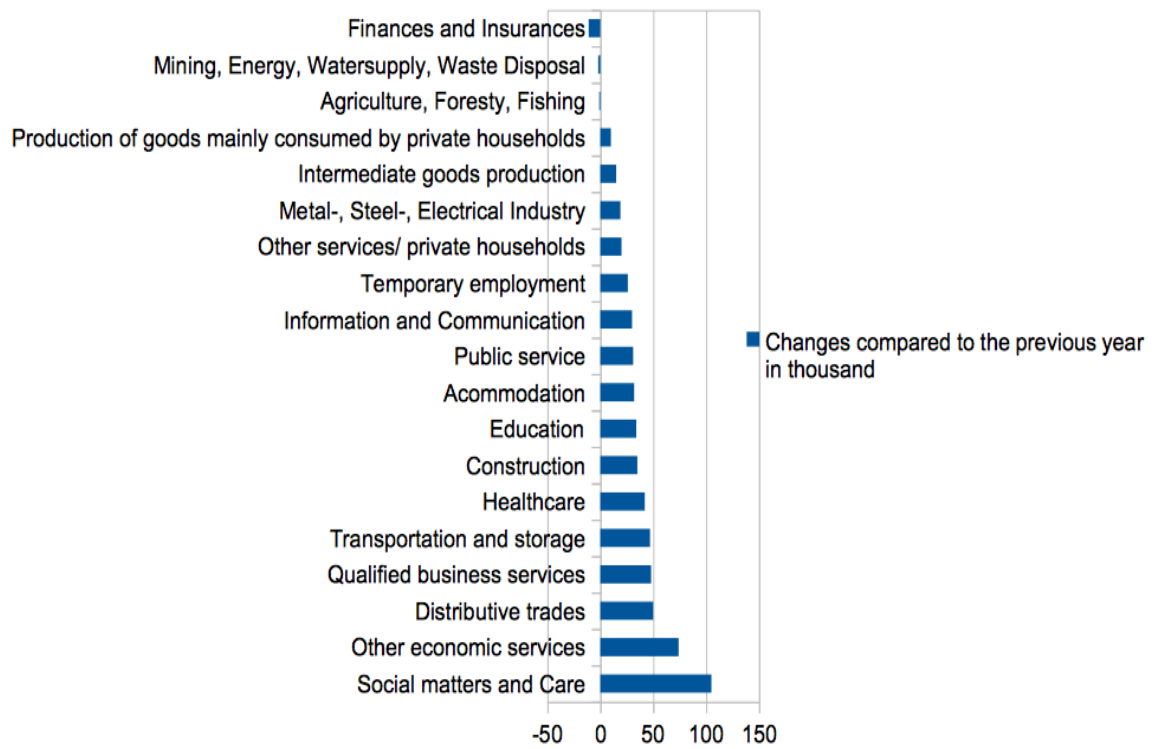


Figure 6. Employees with social insurance according to sectors in Germany June 2016

Source: Bundesagentur für Arbeit, 'Arbeitsmarkt 2016', 2017a, p.15.

Other sectors that demonstrate a growth are 'Distributive trades', 'Qualifies business services', 'Transportation and storage' etc. Sectors with a negative growth from 2015 to 2016 next to Finances and Insurances are 'Agriculture, forestry, fishing' and ' Mining, energy, water supply, waste disposal' with a weak decrease of 1% and 2% (Bundesagentur für Arbeit, 2017a, pp.13). The importance of employees with social insurance is that they determine the functioning of the social system in Germany through their contributions. The most important insurance systems of Germany the health system and the pension system based on a generation contract, which means that employed people pay for non-employed people. While in the case of pension system, the non-employed implies people in pension, in the health system these correspond for example family members etc. who are financed by employees working in a job with social insurance. All in one, the social system of Germany is closely linked to the labour market. Expected demographic changes will affect through problems in labour market also the whole social system in Germany, which may be the most important issue of the state. However, these aspects are not subject of this thesis.

Back to the situation on the German labour market, the labour demand of the firms increased compared to the previous year (2015). With an increase of 15% there were 655.000 jobs offered by firms in 2016. A view on the labour supply side shows that this rate increased from 2015 to 2016, too. The labour supply is influenced by demographic changes, migration and by the behaviour of the workforce. In line with the demographic change, the population in workforce is going to be older and the young workforce cannot replace the workforce, who retire. So, the number of people, who retire would be higher than the number of people entering the labour market. This would let to a decrease of the population in workforce about 290.000 employees. However, this decreasing labour supply could be stopped through rising labour supply of women and people in older age about 280.000 employees, which imply a change in the behavior of people in working age. Additional, through the increased immigration (mostly from the southeast) the 'possible' workforce population increased about 550.000 employees. Summarized, the potential labour force showed a growth of nearly 540.000 from 2015 to 2016 and reached 46.45 million (Bundesagentur für Arbeit, 2017a, pp.18).

The research of the Federal Office of Statistics (Statistisches Bundesamt) shows the employment situation in Germany from 2005 to 2014 compared with the EU. It is clear that the employment rate increased. While this rate was about 69% in 2005, in 2014 37.9 million

people were employed, which implies an employment rate of 78%. Despite the financial- and economic crises, Germany had with 78% the second highest employment rate in the EU. However, through the crises, the total employment rate of all countries was in 2014 about 69%, while this rate was 70% in 2008, which means a decrease in employment about 3.9 million people. In contrast to Germany, countries with the lowest employment rates were these, which were most affected by the crises: Greece, Italy, Spain and Croatia. In the following figure, all countries are listed according to their employment rates (fig.7).

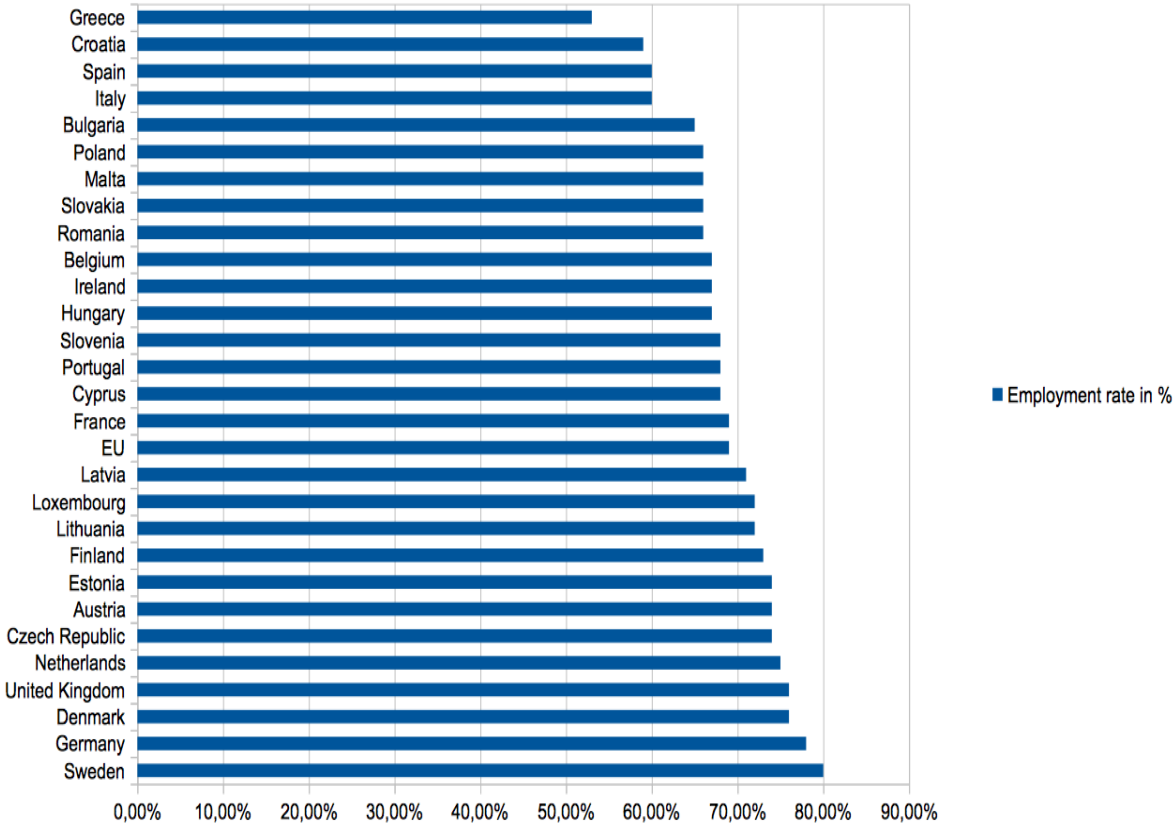


Figure 7. Employment rate of people in the EU in the age of 20 to 64 in 2014 in %

Source: Statistisches Bundesamt. 'Arbeitsmarkt auf einen Blick-Deutschland und Europa', 2016a, p.9.

The strong economy of Germany, the increasing participation of women in the labour market and the shift from industry society to service society, which reflects also the greatest part of the added value⁶, were possible reasons for the high employment rate (Statistisches Bundesamt, 2016a, pp.6). The most important positive effect of immigration in an economic view could be the development of the construction industry. To accommodate refugees in Germany, new buildings had to be built. This implies new job chances for people in this sector. Also in other sectors, like education, were persons needed to integrate refugees. Such details had an influence on the employment rate. Therefore, rising state expenditures in line with the refugee problem increased the GDP too and led to a stronger economy. Not the foreign consumption, but the domestic private consumption led also to higher GDP-rates. The high private consumption rate was due to high employment. Summarized, Germany used the 'problematic situation of refugees in the EU' well and converted the costs to investments and positive income and maybe profited the most from this problem, while other member states like Greece continued to fight the consequences of the crises.

A look at figure 8, which presents the population (people in working age (20 to 64)) and employment in 2015 compared to 2008, makes clear that in Germany the number of the population increased faster than the employment rate. Not only in Germany, but also in Czech Republic, Luxembourg, Hungary, Malta, Austria, Poland, Sweden and United Kingdom the situation is the same. The contrast case is visible in Italy, Denmark Cyprus and Slovakia, where the population increased and employment rate went down. The highest change in employment and population had Luxembourg. In other member states the population grew faster than the employment rate, however the employment grew also (France and Belgium). As a result of the financial and economic crises, Greece had from 2008 to 2015 the highest negative change in employment in the whole EU with -21.2%. This diagram of the Eurostat shows again the high employment situation in Germany (increase in employment about 1.56 million people) compared with other member states (Eurostat, 2016). Indeed a future problem, which will be discussed in the following chapters, is also visible here: The demographic change in Germany. There is a decrease of the population rate from 2008 to 2015, despite the immigration. A negative case could be a still rising labour demand while the population in working age (which is also statistically expected) is falling. The labour supply would not be

⁶ The added value describes in an economy the sum of all goods and services produced in a special period in the sectors of the economy. This value is also a base for the calculation of a country's GDP.

enough to meet the demand of firms and this situation would affect the whole German economy, however this is not the issue of this chapter.



Figure 8 . Population and employment 2015 as compared to 2008- % changes

Source: Gregorini, F., 'Employment and labour demand'. Eurostat. Reinforced role of social indicators, 2016.

The following figure (fig.9) makes the development of employment rates from 2008 to 2015 in the EU more recognizable.

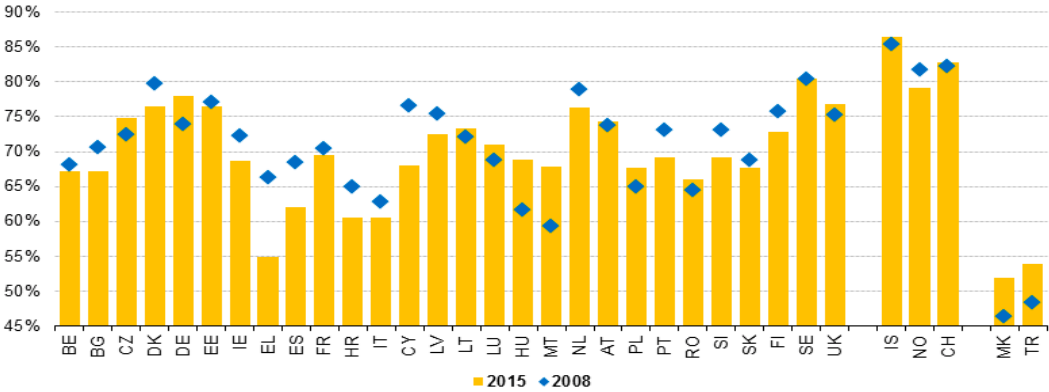


Figure 9. Employment rate 2015 as compared to 2008

Source: Gregorini, F., 'Employment and labour demand'. Eurostat. Reinforced role of social indicators, 2016.

The highest employment rates for the working age (24 to 60) reached Hungary with +7.3 percent points (pp) and Malta with 8.6 pp, while these countries were also two of the member states with the lowest rates in 2008. This increase may be justified in the case of Hungary by the right usage of the credits financed by the EU, World Bank, IMF, and reforms after the financial crisis and in the case of Malta the accession to the Monetary Union. Countries, most affected by the crises keep farther the consequences of the crises in the following years after 2008, so that they could not recover. These are Spain with -6.5 pp, Greece with a decrease of -11.4 pp and Cyprus with -8.6 pp. However, Cyprus (and 8 further member states) reached in 2008 the Europe 2020 target to achieve an employment rate of 75% in all member states. Germany reach after 2008 the target of the Europe 2020 with an employment rate over 75% in 2015. This diagram makes clear that countries with negative changes more than 3 pp from 2008 to 2015 are these countries, which did not fulfill the 75% target of Europe 2020 in 2008 (without Cyprus). This means that the economic situation of the countries with lower employment rates than 75% in 2008 worsened more after the financial crisis (Eurostat, 2016). Summarized, Germany was one of the countries, whose economy was not affected significantly by the crises. On the contrary, the economy is improved and this is reflected in the employment rates.

3.1.2 Unused labour force

Nevertheless, there is in addition to the working people a potential labour force, which is not used. In 2014 about 6 million people in the age of 15 to 74 would like to have the chance to work or to work more hours. The 'potential labour force' implies workers in underemployment, hidden reserves and unemployed people. Underemployed people are these, who work in full- or part time jobs. Hidden reserve are people, who want a job, but prefer to begin after a short period (Statistisches Bundesamt, 2016a, p.14). Unemployed people are according to the standards of the International Labour Organization; people who are seeking for a job for 4 weeks and who are ready to work within 2 weeks (Höhne and Schulze-Buschhoff, 2015, p.348). In 2014 there were 2.9 million people in underemployment (1.6 million of them in part-time jobs and 1.3 million in full time), one million people as hidden reserve and 2.1 million people unemployed in Germany. In total, about 6 million people (14% of the total labour force potential) would have the chance to work only or to work more hours. Compared with other member states of the EU, Germany had one of the lowest unused labour force potential in the EU. As shown in figure 10, the unused labour force potential in the GIIPS (Greece, Ireland, Italy, Portugal and Spain) countries is higher than the average of the EU (23%). Additional, in Cyprus 41% people had the will to work and were categorized as unused labour force potential. These were also the 'problem countries' during the Euro crises in 2010 (Statistisches Bundesamt, 2016a, pp.14).

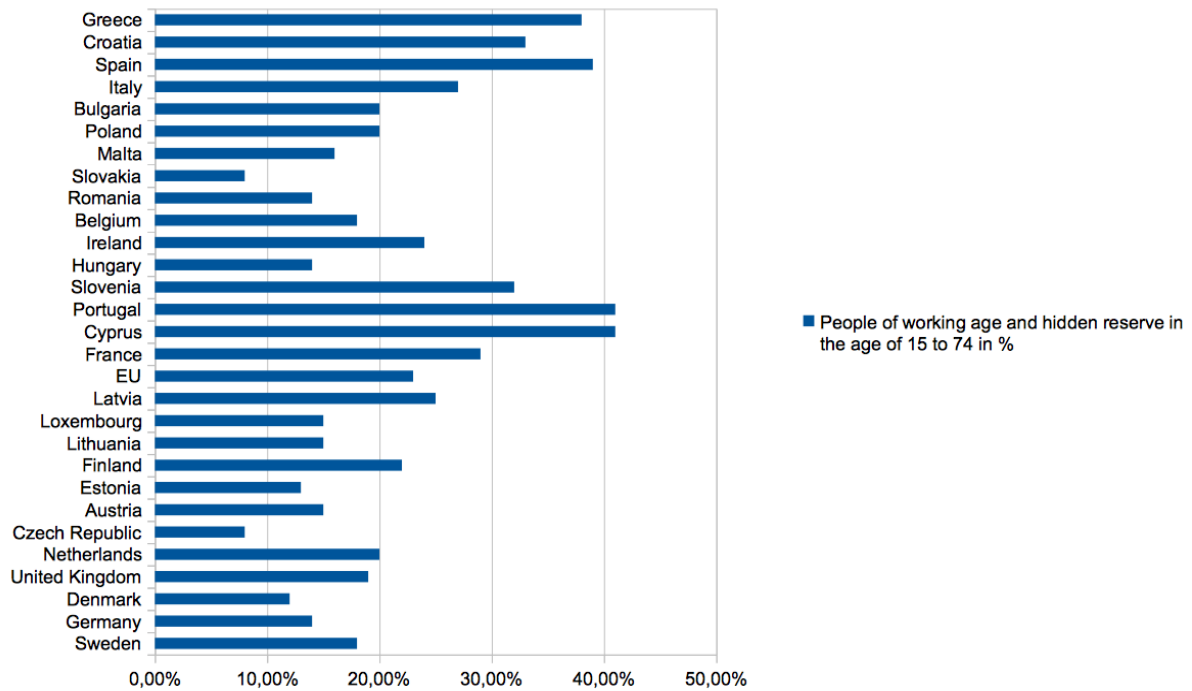


Figure 10. Unused labour force potential in the EU in 2014

Source: Statistisches Bundesamt. 'Arbeitsmarkt auf einen Blick-Deutschland und Europa', 2016a, p.17.

All in one, Germany has about 6 million people in the age of 15 to 74 in 2014, who have the will to work (more), however, this potential labour force is not used. Most of them are in underemployment. While part time jobs have positive effects on the participation of women in labour market, apparently they are for some people not enough to reach their desire life, so they prefer to work more. It can be concluded that Germany's employment policy is working well, compared with other EU-states. It influences the country's GDP positively, however the high employment rate doesn't imply a high living standard of all people, especially of the underemployed.

3.1.3 Inactive people

Not all people in working age have the will to work or in other words, not all people in working age are potential labour force. In the second chapter, the category 'people of working age' is divided in 'in labour force' and 'not in labour force'. Some people are not available to

the labour market. They are not active and are called 'inactive people'. The International Labour Organization defines inactive people as those who have not been actively looking for a job in the last four weeks or those who cannot work within two weeks. Hidden reserves are also inactive people divided in two further categories: job seeking people who are not available currently and not job seeking people who are available currently. People, who worked in the past, but are not seeking for a job or are not available in the labour market currently, are also called 'inactive'. Moreover, those who never worked or searched for a job and were never available are defined as inactive, too.

The number of inactive people decreased for women and men between 1999 and 2012. The decrease of the number of women was stronger. The number of inactive women decreased to 4.7 million and for men to 2.9 million. Therefore, inactive women had a share of 18% and inactive men a share of 12% in the population in the age of 20 to 64. In 2012, 69% of inactive women and 63% of inactive men were categorized as people, who worked in the past, but are not seeking for a job or are not available in the labour market and mostly the number of this kind of inactive people decreased. The number of hidden reserve and those, who never worked or searched for a job and were never available, is compared with 1999 higher in 2012, while the number of women remained largely unchanged. The reason of all of the changes in the number of inactive people could be the reforms of early retirement and the change of the attitude towards women as worker. Also the changes in the employment policy, which make work flexible (for instance through part time jobs) and give women the chance to enter the labour market (Rheinisch-Westfälisches Institut für Wirtschaftsforschung, 2014, pp.6).

The apprenticeship is a part of the German education system, in which people are according to the labour market determined as 'inactive'. The monthly report for June 2017 of the 'Bundesagentur für Arbeit' presents the number of registered apprenticeship as 495.900 apprenticeships between the years 2016 and 2017 and 488.700 applicants registered in 2016. So, from 2016 to 2017 the difference of offered apprenticeships and applications was about 7200, like the difference in the previous year, which was 7.600.

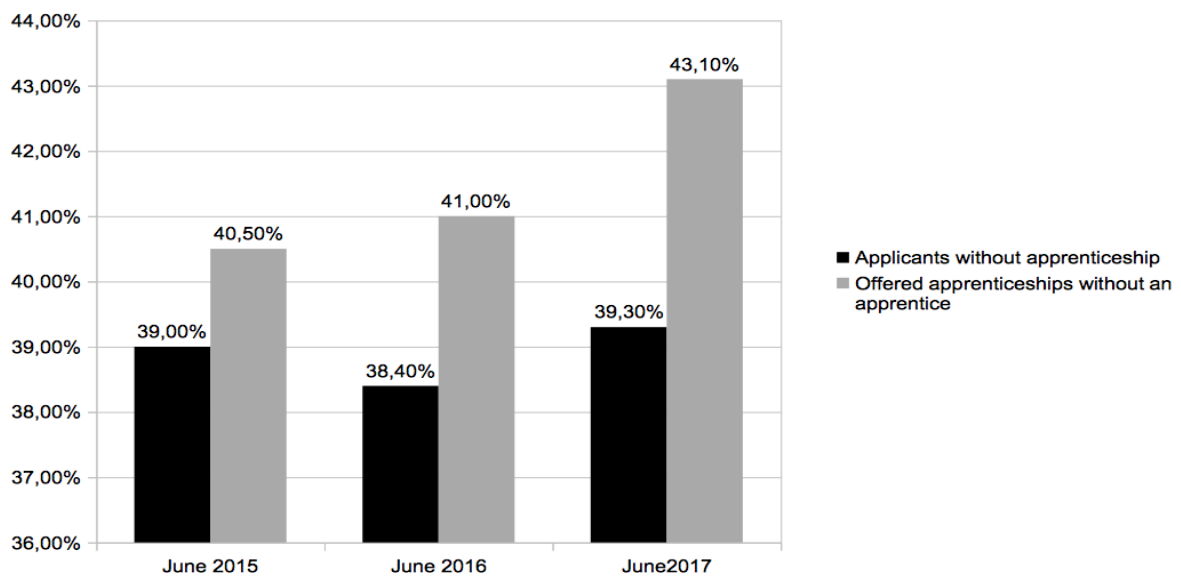


Figure 11. Registered offered apprenticeships and applications from 2015 to 2017 in Germany- in thousand

Source: Own illustration related to Bundesagentur für Arbeit, 'Der Monatsbericht zum Arbeits- und Ausbildungsmarkt in Deutschland', 2017b, p.29.

As to see in figure 11, only 152.300 applicants found a place for apprenticeship in 2017, which is equal to 31% of the registered applicants. In total, the number of the applicants and the offered apprenticeships were in 2017 higher than in 2016 but without a big difference to the previous year (Bundesagentur für Arbeit, 2017b, pp.29).

Apprenticeship is a very important part of the German economy to be competitive. Germany's economic success based on the well-functioning system with high quality of the apprenticeships, well transition to the profession and low youth unemployment rate compared to other EU countries. The report of the 'Bundesministerium für Bildung und Forschung' (2017, pp.8) presents that in 2016 the chance of apprenticeship improved through increased

supply of apprenticeship. However, the current demographic situation in Germany led to lower applications than offered apprenticeships. Additionally, there was a problem between applications and offered apprenticeships according to the demanded and supplied qualifications, sectors and regions (mismatch). In general, the offered apprenticeship remained constant, but there were more offers without applications. About 564 thousand offers were registered (newly concluded contracts and vacant apprenticeship places) in 2016, 43.500 of them were vacant apprenticeship places, which means 4.5% more than the previous year and the rest (about 520 thousand) were newly concluded contracts, which shows a little decrease about 0.4% compared with 2015. The number of applications decreased to 540.900 (2.100 fewer applicants compared with 2015). Because of the high rates in offered apprenticeship, the number of applicants with no apprenticeship was 20.600 (a decrease of 1.1%). For further success of this system, permanent developments are necessary. The system must be adapted to (expected) future situations. The offered vacant apprenticeship rates show a future problem of this system, that places stay vacant because of unsuitable candidates based on their qualification or no candidates because of the sector or region of the offered apprenticeship.

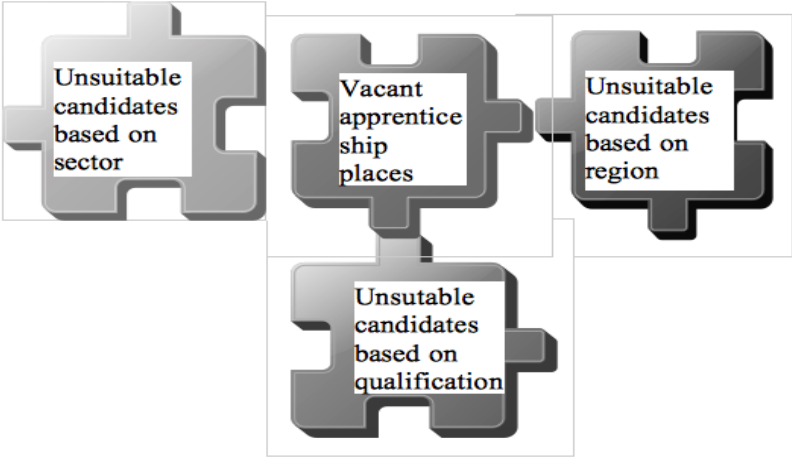


Figure 12. Impropriation of offered apprenticeship and applications

Source: Own illustration.

First of all, for further successful economy future potential applicants and 'experts' must be secured, because according to demographic numbers there will be lower rate of school leaver. Moreover, the apprenticeship must be adjust to the globalization with new technology and

digitalization through developed skills in this areas. Refugees are a chance for Germany, if the integration process works well. Most of them are in an age of lower than 25, who are addressed by the apprenticeship issue and could be a potential solution to this problem.

3.1.4 Unemployment

A general view on the unemployment rate in Germany shows a decrease during 2016. While the chance to be employed after an unemployment period improved, the risk to be unemployment decreased. In 2016, 2.691.000 people were registered as unemployed (4% lower than in 2015), which is also the lowest number since 1991. The following graphic (fig.13) presents the number of employed with social insurance and the unemployment from 1992 to 2016.

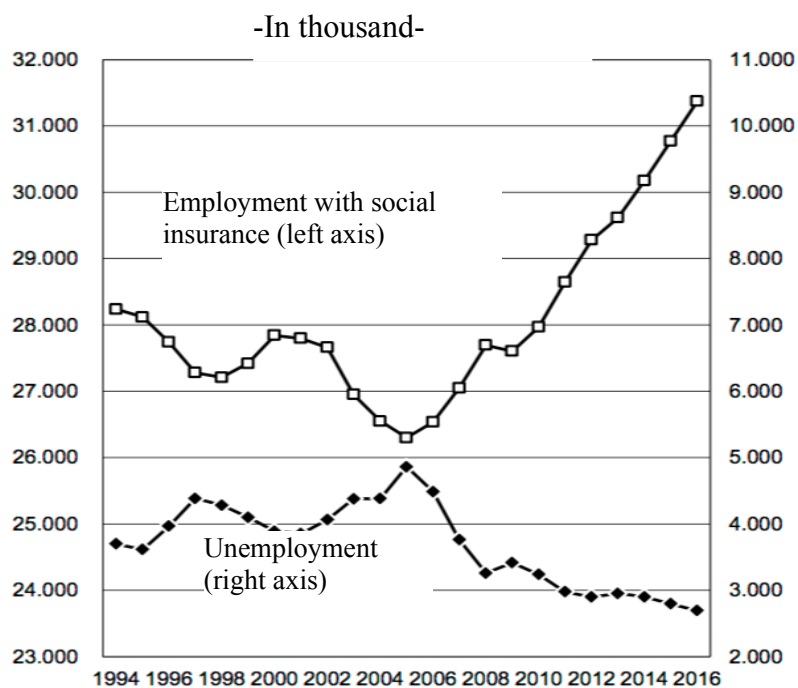


Figure 13. Number of employees with social insurance and the unemployment in Germany
Source: Bundesagentur für Arbeit, 'Arbeitsmarkt 2016', 2017a, p.20.

Justifiable with the effects of immigration from problematic countries like war countries, the unemployment of immigrants increased to 148.000 (about 95%). However, the unemployment without the immigrants from problematic countries decreased in 2016 about 6%. Between 2004 and 2006, Germany reached its highest unemployment rate since 1994. The increased

prices of raw materials, because of economic growth in China, the negative future prospects of the 'Deutsche Bank', who aimed to cut jobs, and panic savings of the German households through fear of becoming unemployed. The effects of the improved GDP in 2006 are represented in the increased employment and decreased unemployment rates. Main reason for this improvement were the high export rates, which still exist during the years since 2006 and affect the labour market positively (Bundesagentur für Arbeit, 2017a, pp.19). A differentiation between the people in the labour market according to their gender, nation, age and qualification will follow in the next part, which is a more detailed view on the German labour market.



3.2 A detailed view

3.2.1 Participation in the German labour market according to gender, age and migration background

First, the participation of women and men in the German labour market will be shown. The report from July 2017 of the Bundesagentur für Arbeit (2017c, pp.5) about the labour market situation of women and men in 2016 states that in 2015, 21.5 million of the people in labour force are men and 18.8 million women. Together with the unemployed, the number of people who are in working age was in 2015 in total 42.2 million. From 2005 to 2015, the number of women who are employed increased about one million, which had an important influence on the growth of the number of people in working age. While the number of employees increased about 3.2 million (who are in working age), 2.2 million of them were women and only one million men.

Figure 14 differentiates the types of employment of women in percentage. People in employment or employed are those, who are employed in a job with social insurance, who works in a marginal employment, officers, self employed and assisting family members and people in work opportunities. The participation rates of women in such kind of jobs are presented in the following figure.

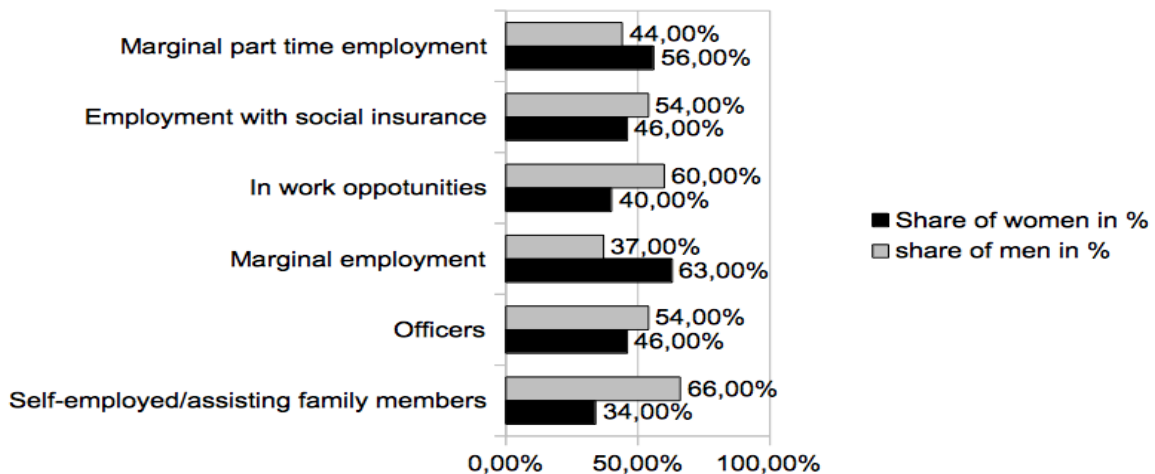


Figure 14. Participation of women according to different types of employment

Source: Bundesagentur für Arbeit, 'Die Arbeitsmarktsituation von Frauen und Männern 2016', 2017c, p.6.

It is noticeable that only 34% of the self-employed and assisting family members are women. Without the number of assisting family members (2%), 4.2 million women are self-employed in 2016. Compared with 2015 the number of women in the sector' officers' increased about 2% and reached 46% or 2 million women. While people in work opportunities are mostly men, the share of women in marginal employment is with 56% (in part-time job) and 63% higher than the share of men. The comparison with other European countries show that Germany has one of the highest share of women in employment. The EU- average of employment rate of men in working age was in 2016 about 71.8% and in Germany 78.5%, which is over the EU-average. The difference in employment rate between women and men is in Germany with 7.7% lower than the EU-average, which is nearly 11%. Germany, Netherlands, Denmark and Sweden are the countries with an employment rate of women higher than 70% and Malta, Italy and Greece are the countries with the biggest difference in employment rate of women and men.

A view on the age structure of employed women and men show that the share of women in the age of 15 was in 2016 about 40% and until 25, this share increased to 47%. The interpretation of this statistical solution may be that women choose to study than work. From 25 to 40 their share decreases because of their role and obligations resulted from their role in their family. After an increase in the age of 45, the share of women decreases until to the retirement age, while the share of men near the retirement age is definitely higher (Bundesagentur für Arbeit, 2017c, pp.6).

The development of the rates from 2005 to 2014 shows that the participation of older people in the labour market increased dramatically (fig.15). While the participation of people in the age of 60 to 64 years was about 28% in 2005, this rate increased around 53% in 2014. There is no high differences in participation of older women and men in the labour market; however, the share of men is definitely higher than women with a smaller difference since 2005. In 2005 21% women and 36%, men in the age category of 60 to 64 were employed and in 2014 this rates increased on 46% women and 59% men. This increase of both can be explained through the demographic change in Germany, respectively through aging. Low fertility and mortality rates lead to gaps in some sectors, which cannot be met by new workforce, so older people are and will be necessary in the German labour market.

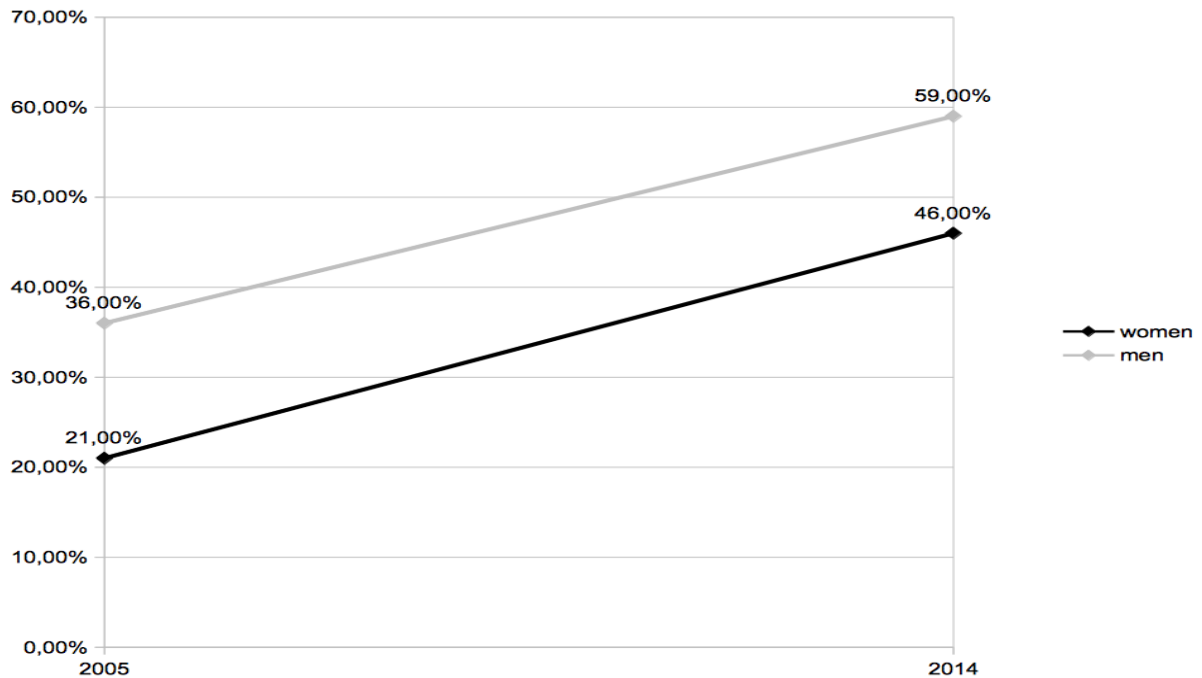


Figure 15. Employment rate of older people (in the age of 60 to 64) in Germany

Source: Statistisches Bundesamt, 'Arbeitsmarkt auf einen Blick- Deutschland und Europa', 2016a, p.68.

A view on the EU labour market shows also a high participation of people in the age of 60 to 64 (fig.16). Their participation increased since 2005 from 27% to 37% in 2014. A comparison between European countries shows that the highest participation rates are in Sweden (66%) followed by Germany with 53%. The employment of older people depends mostly on their qualification. Therefore, in 2014 most of the employees (54%) in older age in the EU were high qualified, followed by middle qualified (37%) and low qualified (26%) (Statistisches Bundesamt, 2016a, pp.68).

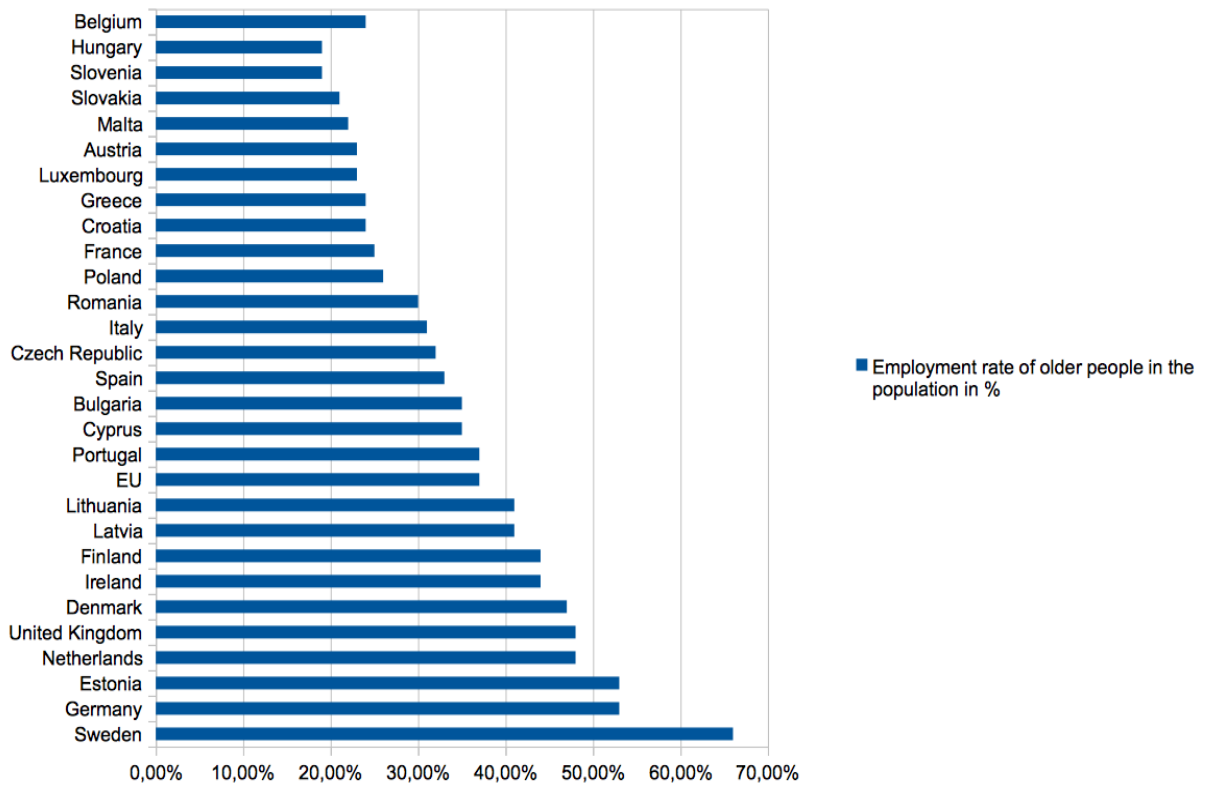


Figure 16. Employment rate of older people (in the age of 60 to 64) in the EU

Source: Statistisches Bundesamt, 'Arbeitsmarkt auf einen Blick-Deutschland und Europa', 2016a, p.71.

Despite the increasing participation of older people in the labour market, theoretically, their productivity is lower than that of the younger workers. Heywood and Jirjahn (2016, p.353), claim that people who are older than 25 are physical and mental worse than others are. They present some studies, which underline the influence of the age on the productivity of the firms. So, 'firm productivity increases with the share of young workers (relative to middle aged) and decreases with the share of older workers (again relative to middle aged).' (Heywood and Jirjahn, 2016, p.353). However, other studies show that there is no clear difference in firm's productivity according to the age of the workers, because of the advantage called 'experience' of older workers.

In other words, the demographic change in Germany, but also in other EU countries lead to a shift in the workforce age. More and more older people participate in the labour markets because of labour shortage caused by demographic change. Because of the high participation of older people with high qualification, it can be argued that the shortages are mostly in high-qualified jobs. Additionally, the productivity of older workers may be different than younger workers, so, that an introduction of younger workers in high qualified jobs could be necessary for the benefit of the German labour market in the future. The qualification and the influence of education on labour market will be shown in the following and a more detailed view on the effects of demographic change on German labour market will follow in the fifth chapter.

According to the statistics of the Bundesagentur für Arbeit (2018a, pp.8) the population in Germany in 2011 was nearly 82 million with a share of PMB of 19.5% (or nearly 16 million) and 8.8% foreigners (or 7 million). Nearly 43 million of the absolute population in Germany are in labour force and about 8 million of them have a migration background and 4 million are foreigners. As described before, not all people in labour force are employed. Also unemployed people, who are available for the labour market are defined as labour force. So, about 40 million of labour force are employed and 7 million of them are PMB and 3.5 million foreigners. The rest (2.5 million people) are unemployed with 741 thousand with migration background and 451 thousand with foreigner status. The number of foreigners increased on more than 9 million people in 2016. There is no big difference in the number of men and women and most of the foreigners (7 million) are in working age (15 to 65 years). In total, in 2016, 110 thousand people got the German citizenship. The increase in 2016 in the number of

people in working age is reasonable with the regulations in the EU regarding to the free movement of workers, but also the wars in Middle-East countries like Syria and the refugees from there, were reason for that increase. However, the number of German people in working age decreased. Figure 17 shows the employment rate of foreigners and German people in comparison.

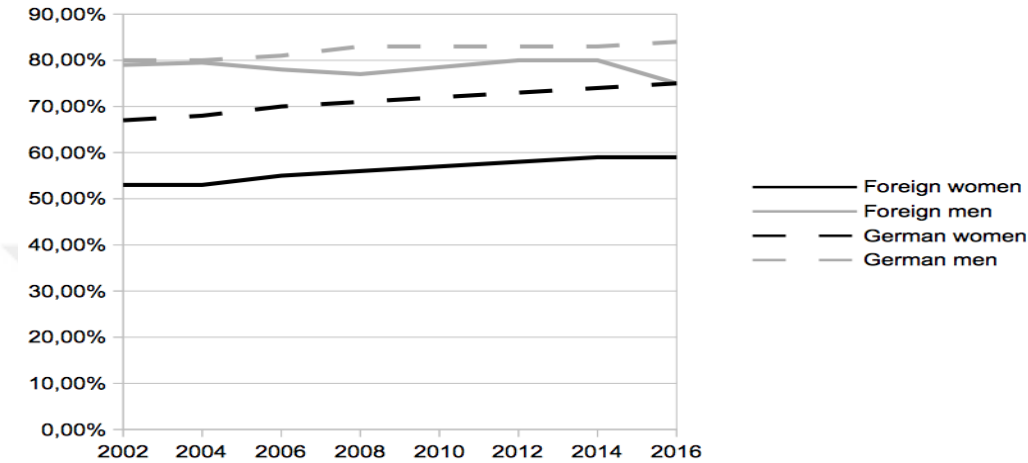


Figure 17. Employment rate of foreigners and German in percentage according to gender
Source: Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer (Monatszahlen)', 2018a, p.13.

The employment rate of German people was in 2016 definitely higher than foreigners (79.2% > 67.4%). The rate of foreigners decreased after 2015, because of the low will of foreign women to work and the increased population of the foreigners, whose integration and access in the labour market need time.

Regarding to the Turkish population in Germany respectively people with Turkish nationality, who represents the highest part of the foreigners in Germany with about 1.5 million people (in 2015), the employment in jobs with social insurance was in 2015 a little more than 500 thousand and in marginal employment nearly 130 thousand. About 140 thousand people of Turkish nationality were in 2015 unemployed. Reasonable with their high share in the whole population. Turkish people have the highest unemployment, but also employment rate compared with all other nationalities living in Germany. The share of people from other EU countries was 44.1% all nationalities together with an employment rate in jobs with social insurance of 53.2% and 31.8% unemployed. These rates can be explained with the deeper integration in the EU through free movement regulations. Other nationalities in Germany with

a high share are asian countries (16.5% of the foreign population) with 9.2% employment rate and 20% unemployment. A comparison between German and foreigners regarding to their growth rates in employment show that the growth of the German employees with social insurance from 2010 to 2017 stay constant, while the rate of foreign employees grew after 2014 and reached its highest point between 2015 and 2016. The employment of foreigners in Germany increased from 2016 to 2017 about 10.7% and the employment of German only 1.4%. The reason of this difference may be the immigration of refugees and the free movement of workers from other EU countries (fig. 18).

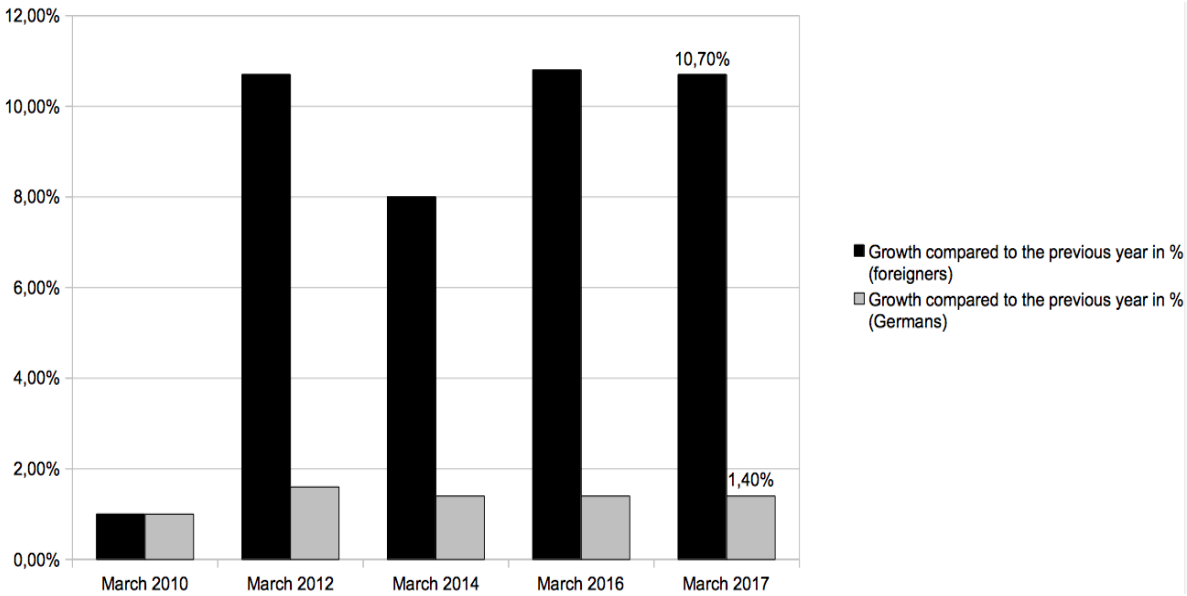


Figure 18. Growth in employment with social insurance of Germans and foreigners

Source: Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer (Monatszahlen)', 2018a, p.17.

However, the employment rate of Germans is still higher than that of foreigners (fig.19).

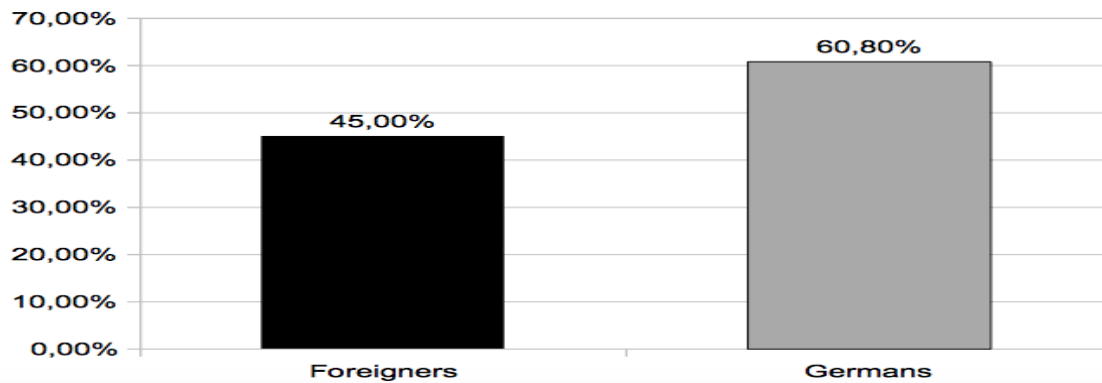


Figure 19. Employment rate of Germans and foreigners in % in 2017

Source: Statistik der Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer (Monatszahlen)', 2018a, p.21.

The rate of foreigners in employment with social insurance was in 2017, 45% and that of Germans 60.8% and so, definitely higher compared with foreigners.

In June 2017 there were nearly 3.5 million foreigners in Germany. An analysis of these according to their age, gender, qualification and work hours show that most of them (nearly 2.8 million) are in the age between 25 and 55; this implies 78.9% of the foreign population. The rate of Germans between these ages is 69.9%, about 9% lower than foreigners in these ages. The demographic change in Germany is recognizable through these differences. While foreigners have a higher share (11.4%) in the category of age from 15 to 25 than Germans (9.6%), the share of people in older ages (55 to 65) is absolutely higher than that of foreigners (20.5% > 9.7%). Summarized, these rates are the solution of aging German population and the falling fertility rate. The share of foreign women is much lower than that of foreign men, but in the case of Germans, there is no big difference between the rates according to their gender. Looking at the qualifications, it becomes clear that a large proportion of Germans have a completed apprenticeship (80.4%) and only 7.5% without one. In contrast, only 47.5% foreigners have a completed apprenticeship, while 3.3% are in an apprenticeship and 21.5%, nearly three times as high as Germans, did not complete an apprenticeship. The share regarding to the type of employment respectively work hours (full time or part time) of foreigners and Germans are nearly equal (fig.20) (Bundesagentur für Arbeit, 2018a, pp.8).

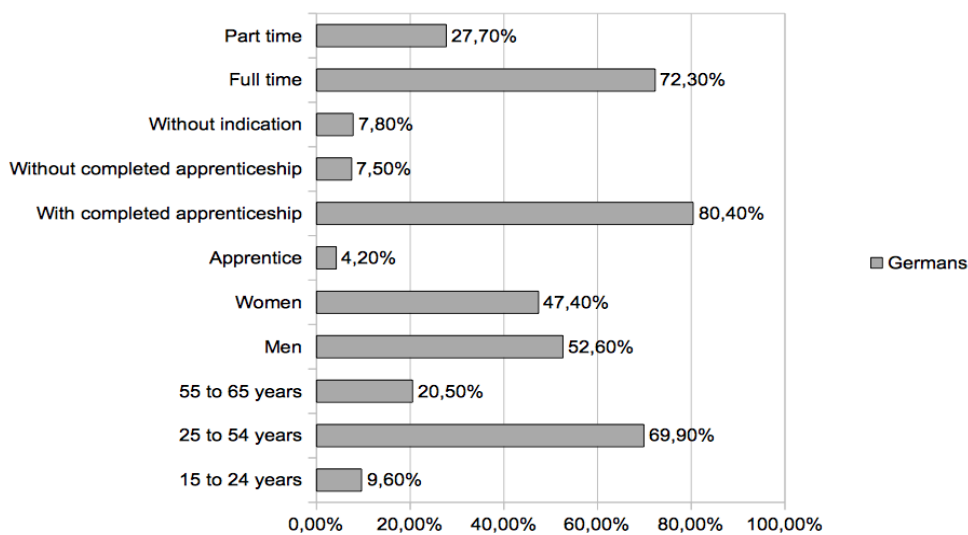
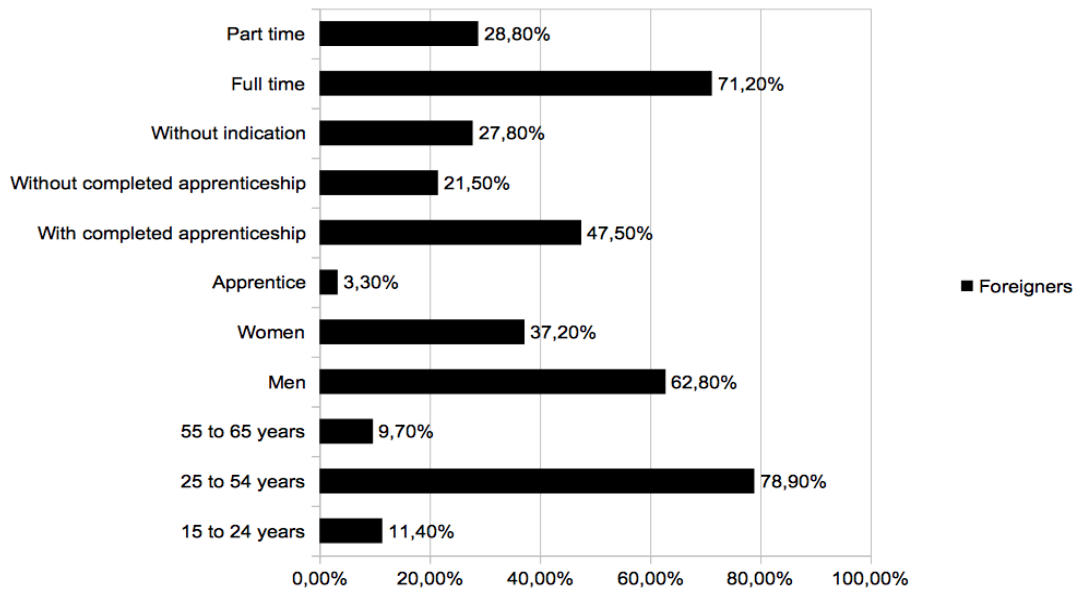


Figure 20. Differentiation of foreigners and Germans in employment with social insurance according to their features

Source: Statistik der Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer (Monatszahlen)', 2018a, p.23.

3.2.2 Qualification according to migration background

Table 2

The rate of German and foreign people, who began an apprenticeship between the years 2011 and 2015 in %

Year	Total	Germans			Foreigner		
		Overall	Women	Men	Overall	Women	Men
2011	58	60,3	49,6	70,5	35,4	31,8	38,8
2012	56.5	59	48,6	68,9	33,7	30,9	36,3
2013	54.3	56,9	46,8	66,5	31,7	28,1	35,1
2014	53.4	56,3	46	66	31,1	28,8	33,2
2015	52.4	56,7	46,1	66,8	26	26,2	25,8

Source: Bundesministerium für Bildung und Forschung, 'Berufsbildungsbericht 2017', 2017 p.49.

Table 2 shows the apprenticeship entry rate of Germans and foreigners from 2011 to 2015. It is noticeable that in 2015 the rate of foreigners, who entered in apprenticeship, was much lower (26%) than that of Germans (56.7%). While the rate of German men was 66.8%, the rate of foreign men was 25.8%. 26.2% of the foreign people who entered in apprenticeship in 2015 were women and 46.1% with German nationality. Compared to 2011 the rate of foreigners, who entered an apprenticeship, decreased about 20.6% and that of German about 9.9% in 2015. The strong decrease from 2011 to 2015 of foreigners, who entered in to apprenticeship may be explained through the increased rate of refugees, who increased also the number of foreign people in young age (who could be in apprenticeship). Also, a comparison of the ages of foreigners and Germans shows that foreigners, who entered an apprenticeship were generally 20.8 years old (entry in 2015) and Germans, who entered an apprenticeship were 19.8 years old (again entry in 2015). So, foreigners are at the entrance

time generally a year older than Germans. This clarifies again the long and difficult integration process of PMB in the German labour market, but also in German education system (Bundesministerium für Bildung und Forschung, 2017, pp.49).

Although PMB are trying harder for an apprenticeship, however they have a lower chance to get an apprenticeship place than people without migration background, because of their low qualifications. Also in the case of equal qualifications, people without migration background are favored than with migration background. Mostly people with Turkish or Arabic background have problems to get an apprenticeship, although they sent most of the applications for an apprenticeship. They are less often invited for an interview than people without migration background are. Firms do not prefer applicants with migration background for a trial work or internship, so they have lower experience in terms of an internship/ trial work than without migration background. In 2014, only 27% of the applicants with migration background got an apprenticeship, while this rate was about 42% in the case of without migration background. People from South-European states, but also with Turkish or Arabic background were least preferred than other (without migration background and people with East-European origin).

Normally, the success through entry to an apprenticeship depends on the qualification of the applicants. Better qualifications imply better chances for an apprenticeship.

However, the origin of the applicants plays also an important role, because firms distinguish in the case of equal qualifications between with and without migration background. The rate of a successful entry to an apprenticeship of PMB and with an intermediate school leaving is with 28% nearly 20% lower than that of without migration background and the same degree (46%) (table 3). In addition, the rates between PMB differs. People from East European countries with max. lower secondary school leaving certificates(29%) are more preferred by firms than South European people with the same certificate (18%). While the difference between them in the category intermediate school leaving is not remarkable, a distinction is clear between PMB with higher education/ subject-related entrance qualification. Eastern Europeans had an entry rate of 41%, which is clearly higher than that of the others and Turkish or Arabic people the lowest rate by 23%.

The reason in that case could be that high-qualified people changed their choice and started to study (Beicht and Gei, 2015, pp.7). One reason therefore could be the discrimination of PMB in the German labour market through companies. This is one of the biggest problems, called

'xenophobia', of the German education system, which affects the labour market. However, this subject will be discussed in the following chapters.

Table 3

Entry to an apprenticeship according to migration background and qualification in 2014 in %

Junction	Migrant groups from				Migration status	
	Eastern European countries, CIS countries	Southern European States	Turkey, arabic states	Other states	With migration background	Without migration background
In apprenticeship						
With Degree of lower Secondary Education	29	18	22	25	23	30
With Degree of Secondary Education	31	27	25	31	28	46
With University entrance	41	30	23	32	32	49
In apprenticeship overall	32	24	24	30	27	42

Source: Beicht, U. and Gei, J. 'Ausbildungschancen junger Migranten und Migrantinnen unterschiedlicher Herkunftsregionen' BIBB Report, 2015, p.9.

Applicants, who could not enter an apprenticeship try an off-the-job training, or begin to study at university. Most of the PMB continue their education at a school of general education or vocational school. A significant number of these leave the education system and work in a job (Eastern European origin) or is unemployed (Turkish and Arabic origin) (Beicht and Gei, 2015, pp.12). This shows that PMB have important problems in the German education system. As a result of this problems, they have worse chances to get an apprenticeship or a high qualified job. The German education system has lacks in terms of integration of non-German respectively non-European people. This lacks will lead to gaps in the German labour market

in some high-qualified sectors, together with the demographic change. In the following, two different sectors will be shown according to the workers nationality, age, and qualification etc. to make the difference between people with and without migration background clear.

Also, the results of the Statistisches Bundesamt (2017a, pp. 85) shows that young people between the ages 25 and 34 with migration background have differences to people without migration background in negative terms according to their qualifications. The difference is in the category 'without any school degree' about 6% additional more low qualified people have migration background in 2016. The difference in intermediate degree is also over 10%. Nevertheless, they are with 46% (PMB) and 49% (people without migration background) very close in the category 'higher education entrance qualification'. The difference between older people (between 45 and 54 years) with and without migration background are in the category 'without any school degree' very high (14% and 2% in 2016). Further analyzes of the Statistisches Bundesamt show that the degree of the children depend on the degree of their parents. Therefore, parents with low qualification have mostly children with also low qualification (fig.21). Children, whose parents have an apprenticeship, have a higher rate in intermediate qualification. Moreover, high qualified parents have more high qualified children respectively children, who visit the high school.

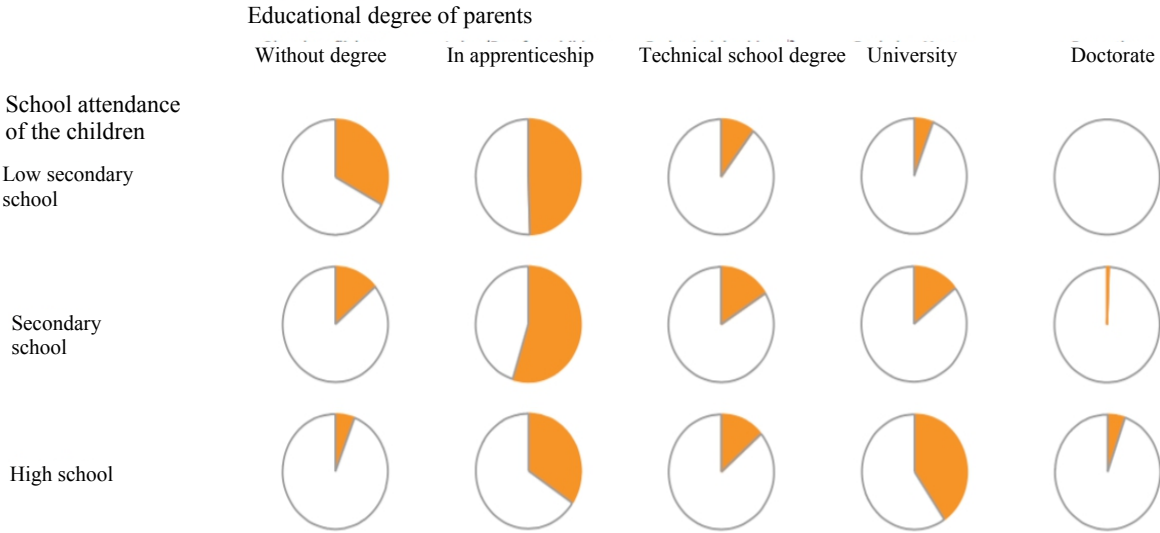


Figure 21. The relation between the degree of education and the qualifications of the parents in % in 2016

Source: Statistisches Bundesamt, 'Bildung. Statistisches Jahrbuch 2017', 2017a, p.87.

The influence of family, social status, social environment etc. on the qualification is a very

important factor, which affects the education and employment situation of PMB very strong and will be discussed in chapter four. Compared with people without any migration background, Germans with a migration background, whether with migration experience or without, have a higher share in the category 'no degree'.

As a result of their education status, the rate of people who have migration background and are unemployed respectively get social or unemployment benefits, is higher than that of without migration background (Statistisches Bundesamt, 2017a, pp.33).

All in one, the poor educational prospects of PMB influence their participation in the German labour market. The negative influence leads to bad career chances or even exclusion from the market. The low qualification of the parents affects the qualification of their children and the low qualification is inherited in a vicious circle, so that PMB must represent always the underclass in the society. The sectoral view underlines this statement by showing the allocation of people with and without migration background in the sectors.

3.3 A sectoral view

The statistics based on data of the year 2017 show that most of the foreigners are employed in the manufacturing industry (nearly 649 thousand), mostly in metal, electrical and steel industry with nearly 387 thousand people. At second place, they are employed in 'wholesale and retail trade; repair of motor vehicles' with nearly 385 thousand people and at third place accommodation and food service activities with nearly 338 thousand people. In sectors like financial and insurance activities, education, public administration and information and communication etc. the number of foreigners are lower than 100 thousand, which can be explained with the low education status and skills of PMB or foreigners. However, in percentage terms, the shares of foreigners in all employees are with 31.8% in the hospitality industry, with 31.5% in temporary employment, with 22.2% in agriculture, forestry, fishing the highest. Followed by other economic services (22.1%), transportation and storage (15.7%) and construction industry (14.9%) (fig.22) (Statistik der Bundesagentur für Arbeit, 2018a,p.24).

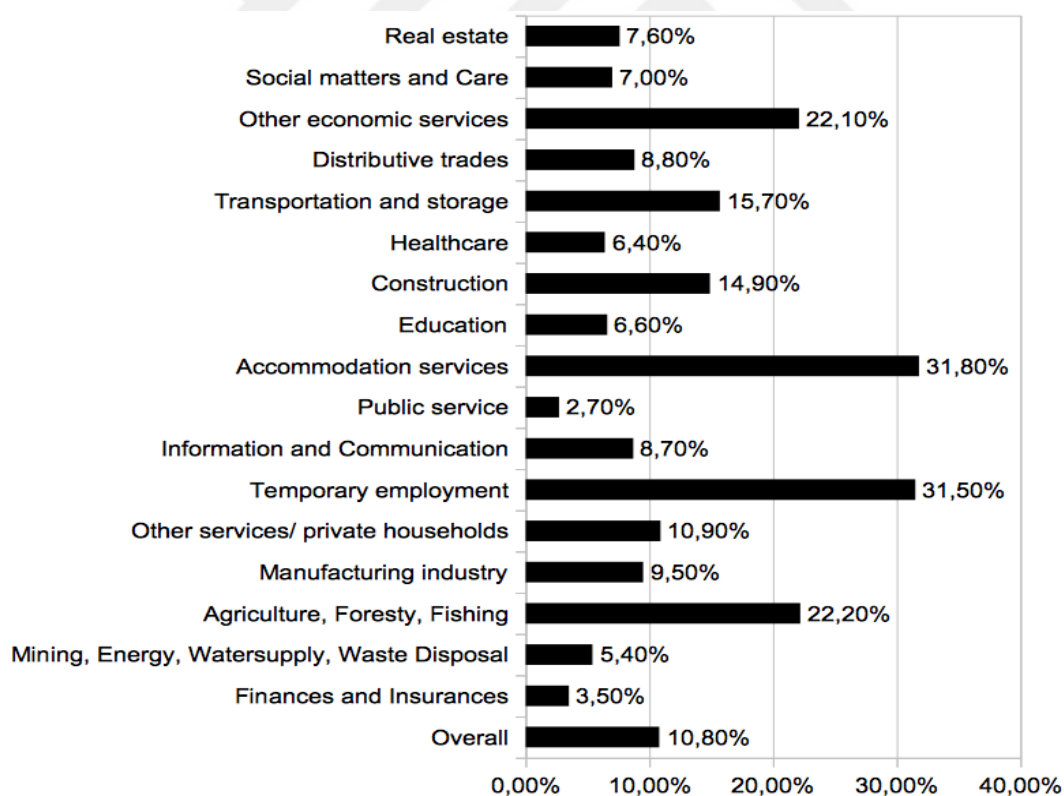


Figure 22. Shares of foreigners in all employees according to economic sectors in June 2017
in %

Source: Bundesagentur für Arbeit, 'Arbeitsmarkt für Ausländer (Monatszahlen)', 2018a, p.25.

As presented in figure 22, the shares in sectors like public administration (2.7%), education (6.6%), healthcare (6.4%), finances and insurances (3.5%), information and communication (8.7%) are all under 10%, which strengthens the statement that PMB are mostly employed in low qualified sectors because of their low qualification. These results are not recently emerged. The statistics of 2009 states nearly the same. Around 34% foreign men and 15%, foreign women participate in the manufacturing industry. Also in hospitality industry and 'agriculture, forestry, fishing' they have a high share. Germans are more in sectors like public administration, education and healthcare employed. Additional according to statistics from 2009, the difference in the status 'officer' between people with and without migration background is about 5%. People without a migration background are rather employed in this sector. PMB have more the status of worker (a difference of around 17%) (Seebaß, 2011, pp.39). This results show summarized, that PMB and people without migration background represent since years certain sectors. While people without migration background are categorized in sectors like information and communication or education, PMB are active in production and service industry. This situation concludes that there is a difference in qualification between two groups, so that PMB are disadvantaged in the German labour market. To emphasize this conclusion, two different jobs of two different sectors are considered closer in the following table.

Table 4

Comparison of high qualified and low qualified jobs

Public administration	Manufacturing industry
Officer (general internal administration-middle service)	Production helper
Apprenticeship needed (2 years)	No apprenticeship required
Qualification: Middle school graduation	Not specified. Further training opportunities require min. a secondary degree
Important subjects: German and mathematics	-
German nationality	Nationality does not matter

Source: Own demonstration based on Bundesagentur für Arbeit, 'Produktionshelfer/-in ohne nähere Tätigkeitsangabe', 2011; Bundesagentur für Arbeit, 'Beamter/Beamtin im mittleren Dienst der Allgemeinen (Inneren) Verwaltung', 2018b.

Another high-qualified job, which plays an important role in the labour market together with the development of technology the job of an Information- and Communication Technician. Access to this job is possible through studying at the university. Therefore, an university entrance qualification is a requirement (Bundesagentur für Arbeit, 2017d).

As presented the requirement for a high-qualified job like officer or in the IT area are higher than that of the low qualified job. Educational and language barriers let PMB work in low qualified and more physically exhausting jobs, because of no other chances. The German education system disadvantaged PMB so, that they have almost no career opportunities. However, it is shown below that, there will be 'expert' lacks in high-qualified jobs through the expected demographic change. Summarized, this people should be integrated successfully and be won, instead of being disadvantaged, so that they can get in the aging society a place in high qualified jobs and fill the gaps arose through aging. The problem of the German education system resulted as a disadvantage for PMB is described detailed in the following chapter.

4. Socio-economic issues of differences in participation rates

4.1 Individual-specific issues

4.1.1 The disadvantages in the German education system

The statistics presented in chapter three show that PMB are mostly lower qualified than people without a migration background. Through their low qualification, they can take part in the labour market only in low qualified jobs or apprenticeships or they leave school without a degree and stay unemployed. The negative future prospects of PMB are not formed during their education. According to the French sociologist Pierre Bourdieu the action of the individual in the social space and his whole lifestyle is determined by his position in this social space.

4.1.1.1 The influence of the social status and families on the (educational) career

According to Bourdieu, the actions (individual preferences, aspirations etc.) are determined by the 'social destiny' and influencing them is difficult to realize. It is an appropriation of the norms, values and style of the social environment in which the individual grows up. These may differ regarding to the social class. Bourdieu makes a separation between the upper, middle and lower classes. While the upper class tries to secure the social distance between them and the lower classes (in technical language: distinction), the middle class strives for a cultural adaptation to the upper class (pretention) and the lower class is mainly concerned with the existence (necessity). Individuals differ in their perception and behavior, depending on the social class to which they are assigned. Here, the 'optimal behaviour' is determined by the layer that prevails in the society and thus does not allow the other layers optimal behaviour. Belonging to a social class is determined by the volume of the existing capital of an individual, namely not only economic capital (money and wealth), but also social (social relationships, for example family name etc.) and cultural capital (Baumgart, 2008, pp.199). Bourdieu divides cultural capital into incorporated, objectified and institutionalized cultural capital. As incorporated capital, the education acquired and internalized in preschool familial socialization is characterized. This can have a positive effect on the duration of the acquisition process, if it gives the child a head start in the school and thus saves time. However, it can also have negative consequences if the correction of negative effects need more time. The internalization of cultural capital is social class-specific and capital contains traces of the

social space in which it was internalized.

The acquisition of cultural capital in the form of specific competences gives the person a 'rarity value', because this capital is layer-specific and not offered in all social classes. Thus, there is an unequal distribution of cultural capital that benefits individual, whose families are endowed with abundant cultural capital and pass it on to the child, thus making efficient use of the time of socialization. In families with little cultural capital, on the other hand, children in the early stages may also have little or no ability to acquire, returning to the child as a lost time. Objectified cultural capital is acquired through incorporated cultural capital and is materially transferable (books etc.). Institutionalized cultural capital refers to the academic title of an individual, which recognizes the available culturale competences (Bourdieu, 1992, pp.49, cited in Baumgart, 2008, pp.217).

The habitus is the sum of the attributes that are attributed to oneself and attributed to one' (Neuhaus, 2009, pp.82), which is dependent on the position of the person in the social space. Habitus can also be described as a form of life that, while always enduring, is constantly changing and can be developed and changed as the individual encounters new opportunities for action and situations in the socialspace or simply becomes more conscious. Bourdieu renames socialization into habitualization, which involves a process of appropriating the characteristics of the strata, from which the habitus results (Baumgart, 2008, pp.201). In the context of social origin, children with a migration background are more likely to be assigned to the lower class or the less educated families, in which reading and writing are only slightly promoted (Artelt, 2007, pp.50), because the parents of PMB appropriated their cultural capital, which they offer to their children, in a different social space, in a different social environment, and are therefore in the interaction process with their child disadvantaged compared to other parents (Kristen, 2008, pp.232). These differential influences of families on the socialization of their children, which are due to the layer-specific distribution of resources such as cultural, social and economic capital reasonable, have an effect, for example in the form of acquired literacy skills or reasing performances in the educational career of the child. The unequal chances at school entry determine the academic success or failure.

The influence of families on the socialization and the development of educational skills of the students is clear. Bourdieu introduced the concept of cultural capital, which is taken over by the social environment or by the family and affects the entire lifestyle of the child (individual decisions etc.). It also determines, in a layer-specific manner, the educational achievements of the children, because they inherit their abilities in the form of incorporated cultural capital from the family. The incorporated cultural capital as a family resource should now be observed in the following connection with the educational success.

Merkens and Wessel (2002) found in their analyzes of the influence of family's cultural capital volume on educational aspiration that there are correlations between the incorporated cultural capital and the parents' educational aspirations for their children (Gerleigner, 2013, p.51). Those parents who have a confident handling with high culture and accordingly have a high incorporated cultural capital, have higher educational aspirations than other parents (Merkens and Wessel, 2002, p.169, cited by Gerleigner, 2013, p.52).

Hinz and Gross (2006) examined the impact of cultural capital on teacher recommendations for grade level transitions and found that cultural capital volume influences teacher recommendations, as greater cultural capital and high levels of education of the parents indicate a higher chance for a high school recommendation (see Gerleigner, 2013, p.52).

Through his analysis of the impact of stratified and gendered cultural capital on skills acquisition, Georg (2006; 2011) found that there is a difference between the influence of cultural capital on reading performance in primary and secondary schools. There is a greater influence in primary schools. Overall, several analyzes determine the impact of cultural capital on academic achievement. For cultural capital, this means that it has a significant impact on children's school achievement, as it influences both teachers' recommendation and education aspirations, as well as children's academic competences (Gerleigner, 2013, pp.52).

Likewise, Bourdieu combines school success or failure with the cultural capital inherited from the family that greatly influences the child's development process. The cultural capital, in turn, is linked to the social background/ to the social class, to which the family of the individual belongs. Therefore, educational success is closely related to the competences in the

language of the education and students who had a successful humanistic education (socialization) will be successful (Bourdieu and Passeron, 1971, cited by Baumgart, 2008, p.236). Consequently, there are different chances to visit the university, because even the idea of this is influenced by the social origin and therefore individuals plan their educational career (Bourdieu / Passeron, 1971, p.19ff., Cited by Baumgart, 2008, p. 232ff.).

Krüger-Potratz (2013, p.18) emphasizes also the influence of families on education of their children and strengthens so Bourdieu's capital theory. Education begins in the family. From childhood to throughout the educational career, the family is one of the main influence factors on the education of their child's. The involvement of parents are during the primary school at most and decreases with the increase in the age of the child. However, both foreign parents and parents without migration background have the same aim that is that their children complete their education successfully. Parents without migration background have no problem to be active during the education career of their child's and to show their interest. Parents with other origin than German respectively foreign parents did not have any experience with the German education system before. They do not know how to take decisions about their children in problematic situations; they do not know how to improve the performances etc. because of the lack of experience with the German education system. Additionally, many foreign parents have low language skills in German, or some of them are scared about their uncertain residency permit. This could be some examples why foreign parents cannot show their support during the education career of their child and be more passive. The main reason is the social situation, which affects the involvement of parents during the educational career.

On the one hand, as result of the less knowledge and less connection to the institutions, parents of PMB think as if the educational institutions are responsible for the educational success of their children. On the other hand, the institution 'school' expects from all students a previous knowledge taught by the parents, who should have a close relation to the school. Through these mutual expectations, foreign parents think that PMB are disadvantaged. The interest of the parents is not perceived and the children's ability is underestimated. IGLU statistics are also in this direction. The results are connected with the social situation of the families. Children with previous knowledge for instance as reading skills from the upper layer

of the society, which implies qualified family/parents, need only 537 points (548 points is the average of German students) to be classified by their teachers on the high school. Children from the less qualified low class, like worker families, can reach the same classification through their teacher only with 614 points in reading skills (Krüger-Potratz, 2013, pp. 29). However, even if PMB are a part of the upper layer, according to the report of the Sachverständigenrat (SVR) they have only a little chance to visit the high school and in the case of a lower social class. The chance of PMB to go to the lower secondary education is higher than thus without migration background (fig. 23) and this shows that the social situation is not only responsible for the low educational success of PMB (SVR, 2010, p.143).

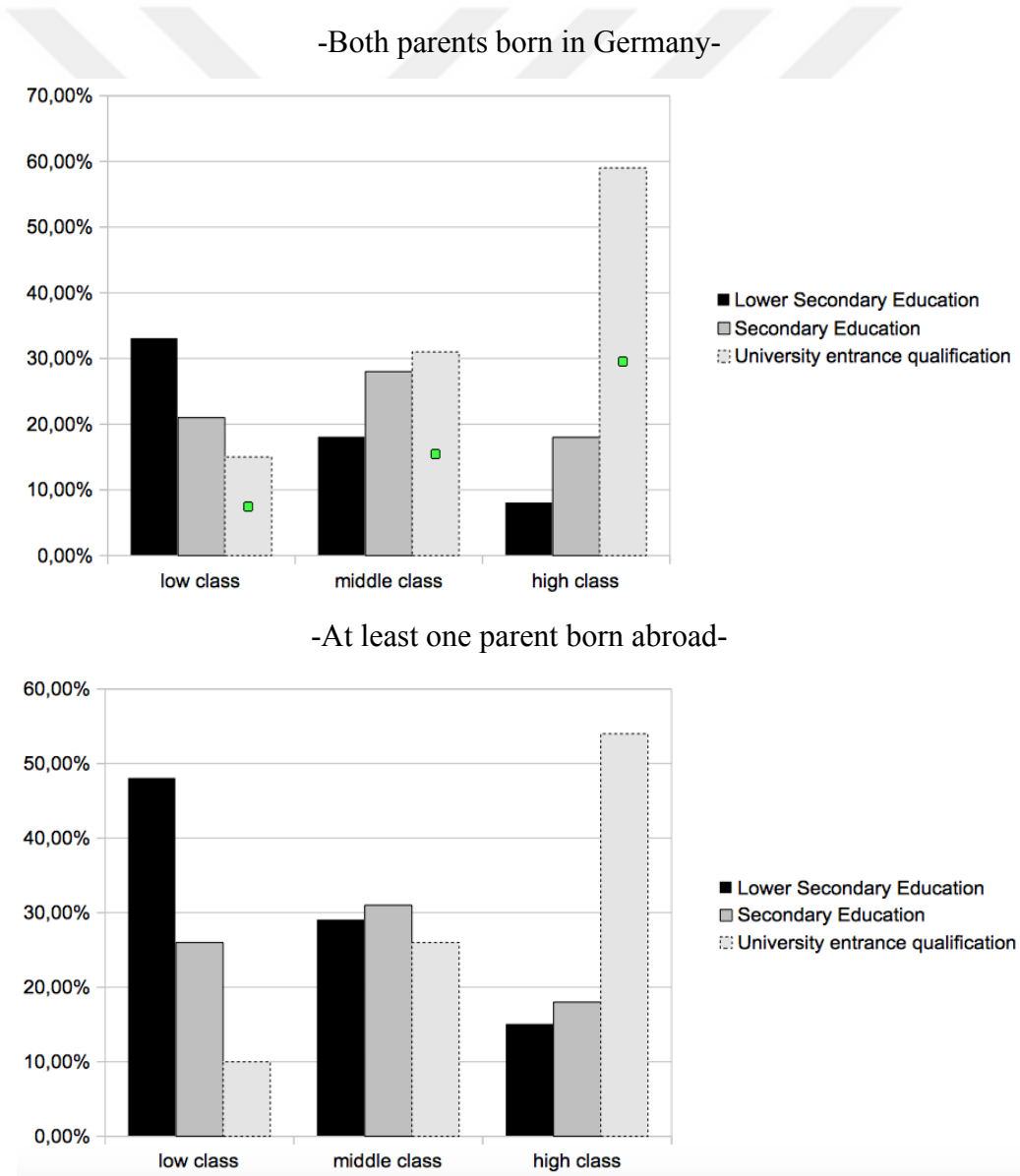


Figure 23.The relation of social situation and type of school based on migration background

Source: Sachverständigenrat deutscher Stiftungen für Integration und Migration, 'Einwanderungsgesellschaft 2010, Jahresgutachten 2010 mit Integrationsbarometer', 2010, p.143.

As explained through Bourdieu's capital theory, resources inherited from the family, which are defined by Bourdieu as 'cultural capital', are important for a successful education of their children. The German education system requires studying not only in schools, but also at home. Therefore, the qualification level of the parents and the active participation of them in educational institutions are important for a success of their children in the school. High-qualified parents can help their children with their homework etc. However, parents of PMB are mostly low qualified. Therefore, the parents of the second generation with migration background reached the lowest education level between 14 OECD countries. Moreover, parents of PMB have less knowledge about the German education system, because the education system in their country of origin differs from the German one and parents do not know how to take the best decision for their children or the importance to be active in the educational institution, because of insufficient skills in German.

4.1.1.2 Language as a barrier to success- linguistic discrimination

Language is an important barrier, which can not be overlooked. Skills in German language are a requirement for a successful educational career. PMB grow up in an intercultural environment, where more than one languages are spoken. Parents can prefer to speak their native language or only German or both, or another language with their children. Additionally, there is a language spoken between sisters, which differs from that of the parents. For instance, parents with less German language skills would speak their native language with their children, but sisters born in Germany would speak German or both among themselves. The multilingual growing up of the child must not imply an unsuccessful educational career. However, the mastery of the educational language is more important. Educational language is related to the written language and the skills are acquired at school based on the previous reading and literacy socialization in the family. People from low qualified families and people who grow up with more than one language, but with skills not more than everyday language, have the most problems during the learning process of the educational language. Language barriers have not only effects on the reading competences, but also on mathematic skills, because the language of the education is German in a high level. They may have problems to understand and solve the questions (SVR, 2010, pp.144).

The German education system expects that parents give their children prior knowledge in German language and other educational competences and builds new skills, information and material on this. However, the expectation that all students come with the same previous knowledge to school and are supported during their educational career (help with homework, learning for an exam etc.) at the same level is not realistic. PMB come mostly from families, who are assigned to the lower social class. It is known that these people came to Germany as simple workers without any qualification.

Based on own experience, as well as the first generation as the second generation were born in their country of origin and came in average while their puberty to Germany. Because of their qualification, they worked in low qualified jobs, in which developed language skills were not necessary. So, their social situation, which includes their job, wage, education level, but also integration level doesn't allow or give them no chance to express their interest in the

education of their children. It would be a subjective exclusionary statement to say that all children must have the same knowledge at the school entrance and to treat children equally. This would have consequently that PMB pass on their low qualification, less integration, low qualified job, summarized, their social situation in a vicious cycle. With some exceptions PMB will live excluded from the society and not integrated in their own groups consist of foreigners and will be always disadvantaged in the education system and so in the labour market, which is a disadvantage for the German economy considered together with the demographic change.

In her report about language acquisition and linguistic discrimination defines Springsits (2015, pp. 91) linguistic discrimination as a type of racism. Based on the definition of Dirim (2010, pp.91), that people who speak another language than the majority or who speak the language of the majority with a special accent are excluded from the society. Thus, they are classified in a lower social class, than the part of the population who are classified in the higher layer of the society because of their language. So, the linguistic discrimination lead to classifications in the society and to assignments in a social layer, which have different access to special resources (like wealth, education etc.). Discrimination because of the skin color for instance is no more relevant and acceptable today, however, discrimination because of the different culture is nowadays more relevant in the society. People with other culture, language etc. are in a discriminating society not welcome and the thought that they are at the wrong place and could not be successful at this place exists. Linguistic discrimination allows people to classify people based on their language skills in social layers, give them unequal access to resources, chances and rights and assign specific characteristics to them (Springsits, 2015, pp.91). Back to the educational career of the PMB, linguistic discrimination may influence their qualification, social layer and access into the labour market too. PMB who often grow up with more than one language are assigned to the group of, for instance, second language speakers, German language speakers etc. They are assigned to a group, because of their language. Then they are credited with the same characteristics, so that heterogeneity is excluded. These groups with people 'with clear characteristics,' which are all the same, are evaluated through the society and assigned to a social class. Their social position in the society is dependent on their language. According to this evaluation and classification of this people, it is determined, whether they are sufficient for special tasks, they have not the same

access to resources like other groups and they are excluded (Springsits, 2015, p.97).

PMB suffer from these prejudices and sanctions of the society. During their educational career, when entering the labour market or their social situation, they confront with the prejudices of the society, who are practiced. In the end, there is an excluded group that does not accept the associations of the society and create its own rules and give up everything like educational career, job chances and most importantly the integration. They form their ghettos at the expense of the society.

Another opportunity would be that PMB, who are discriminated because of their language, live in the groups assigned to them, work in the jobs assigned to them, and go the educational career that is assigned to them. They will live in the lower social layer, excluded from the rest without any advancement opportunities. As seen before in the sectoral view, most of them will work in low qualified sectors, because of their low qualification that go back to the social situation and qualification of their parents. The linguistic discrimination does not allow PMB to move outside the group, assigned to them and this situation is passed from parents to children.

According to Müller (2015, pp.105) a society, in which different classes play a role is far from meritocracy. The ideology of meritocracy is, in short, equal opportunities for the entire society. All people shall have the same chances in access to education, labour market and fair rules in the competition process, based on their talent, effort and success.⁷ However, the German society is separated through classes marked also by differences in wages and wealth, which theoretically should not play a role in educational access but in reality lead to unequal opportunities. Ideally, meritocracy should reign in a society, but the reality is far from the theory, so that people are disadvantaged through their cultural, material etc. resources, which determines the social situation, have not equal chances in the education system and so in the labour market.

More integration, no (linguistic) discrimination is needed in Germany to allow also PMB to expand their skills and to show that they can reach in a suitable system high qualifications, high qualified jobs and high layers in the society and so be a part of the society outside the assigned groups. A more migrant-friendly education system and labour market would have

⁷ Meritocracy is subject of sociology, which cannot be fully explained here so as not to deviate from the subject of this thesis. More information about meritocracy can be read in Müller (2015, pp.104).

benefits for the future German economy in terms of labour productivity.

The disadvantage of PMB in the German education system are connected with future living standards, while the educational degree is becoming more and more a determining factor for this. As presented the percentages of people with or without migration background, who reach only a low qualification or who stay without any educational degree, is not negligible. The educational degree as determining factor maintain access to the labour market, but also to reach a high position in the society is still difficult. This means disadvantages in their whole life. The exclusion of PMB, who have a high rate in the 'unsuccessful part of the society' returns as social assistance, paid by the other 'successful part of the society' (SVR, 2010, p.143).

Neither for PMB, nor for the other part of the society the exclusion cannot be related with any advantages. In attention of the demographic change related with an aging, the excluded part of the society will be an important factor in the German labour market, whose absence will create a gap in the economy. As presented before, high-qualified sectors are mostly occupied by people without migration background, because of the reasons explained in this chapter. However, not only low qualified, but also high-qualified sectors need offspring and the labour force lack in some sectors related with the demographic change will be noticeable in the economy and so in the welfare level of the whole population. As described before, human capital plays an important role in the labour market and has a remarkable influence on the production and so on the GDP. Human capital is also a benchmark for the labour productivity.

4.1.1.3 Human capital- an educational result with influence on productivity

Moreover, human capital is an important economic factor with influence on welfare. Research on economic growth shows that the production factor human capital add to economic development through higher consumer goods production, by increasing productivity. Investments in education and so the development of human capital, influence the labour productivity (Ademmer et al., 2017, pp.22). As shown before, labour productivity does not influence only the chances of people in the labour market, but more important, it has influences on the GDP and so on a country's economic welfare.

The human capital theory is a developed theory of the Neoclassics. It based on the demand-

supply-equilibrium statement, with the assumption that discrimination on the markets is forbidden and competition is completely. In the labour markets, people offer labour to get income. This income is flexible and determined by prices dependent on demand and supply. People invest in their human capital, which implies competences and skills to reach high income that covers the cost of living. According to the quality of their human capital, people show differences in their labour productivity. Labour productivity is an important factor for the opportunities on the labour market, career chances, wage level and so for the standard of living. The most significant investment to develop the own human capital is education. People's productivity and market value is measured by their level of education that is developed individual according to own expectations in life. Therefore, people invest in their human capital with thoughts of their future costs and expected standard of living respectively welfare. They decide on an education investment that is sufficient for an income that can cover the future costs. Summarized, the reason of different income of different groups is explained by the different investments in education and so in human capital. According to the human capital theory the inequality in education investments are explained through different supply and demand functions. The supply and demand functions based on the investment costs and chance of success that differs from social class to social class. The lowest class of the society suffer most from the cost of education, because in relation to the income the costs are higher for this class than for other classes of the society. Participation and demand in the education system remains low among the low class. As mentioned before, the existing human capital in the family is significant for the development of the own one. In larger families with multiple children, parents must divide their existing human capital, resulting in lower capital for the children (Teltemann, 2015, pp.88).

According to Abraham and Hinz (2005, pp.34), some people who expect a lower income in the future, also invest less in human capital. They mention two reasons for the different investments respectively different expectations regarding to income. Firstly, the interruption of employment, which mainly concerns women and lead to as well human capital differences as income differences. The second factor is discrimination. For instance, PMB do not expect high future income, because of wage discrimination of employers towards them. Employers pay for high-qualified jobs a lower wage for foreigners, also in the case of same productivity level, so that foreigners do not expect high income in the future and invest during the

educational career less in education. Such kind of discrimination according to people's culture, origin etc. stronger is called 'xenophobia' and will be discussed in the next chapter.

Granato (2003, pp.29) stresses in her book the connection between migration and human capital and indicated again that human capital is dependent on migration for two reasons. First, through migration, human capital may decrease in value if the person does not own skills and competences (for instance language skills), which are necessary in the destination country. Moreover, the quality of education differs also from country to country, so that a person's human capital from emerging country would lose value when he immigrates to an industrialized country. The economic and educational differences of the countries make it difficult for the PMB to adapt. This factors resulting from the difference of the countries, lead to human capital differences and so to lower chances on the labour market of the destination country.

4.2 Country-specific issues

4.2.1 Xenophobia

According to the analysis of the Statistisches Bundesamt, about 5.6% employees on the German labour market feel discriminated. Compared with other European countries this percentage is higher than the average. While most of them feel discriminated because of their age (2.7%), 1.5% people (mostly women) feel discriminated because of their gender. The percentage of people, who feel discriminated because of their nationality, cannot be disregarded, because they are in third place with 0.8%. Religion based discrimination exists in lower percentage, but still 0.3% (Statistisches Bundesamt, 2017b, pp.14).

The background of discrimination is 'xenophobia', which is defined by ILO, IOM and OHCHR (2001, p.2) as 'an attitudinal orientation of hostility against non-natives in a given population'. Kleinert (2004, pp.82) summarizes xenophobia in her book as a negative attitude and behavior towards strangers. While for some scientists, xenophobia is understood as negative behaviors such as violence, other scientists have different definitions of xenophobia like Hess (2004, pp.83), that exclusion and discrimination of people through exclusion of services or status for instance, are included in the definition of xenophobia. Although xenophobia is determined as a fear of the stranger, it can lead to hostility respectively hostile attitude towards the stranger. Hostile attitude can appear directly as discrimination (Kleinert, 2004, pp.85). A discriminated person will be excluded or disadvantaged compared in terms of migration background with native people.

Forms of discrimination, how the discrimination is carried out depends on the strength of the discrimination. Prejudices and insults may be classified as harmless as opposed to violence. Furthermore, there is indirect hostility, which can be explained as 'social distancing'. People stay far from strangers and have no any connection to them. Such kind of behavior would also lead to exclusion and disadvantages in the labour market. People must not indirect insult, as insult in a conversation with a third person or to vote for a xenophobic party also count as acts of indirect hostility. In this work, the discrimination of PMB in the labour market, but also in institutions, because of their origin or religious interest is relevant.

Therefore, the differences in human capital must not be the only factor for the different participation of PMB in the German labour market. Discrimination is also an important factor. Discrimination in the labour market exists, when the employee is evaluated through features that does not have any influence on his productivity. Granatio explains, based on Gray S. Becker's 'tastes for discrimination theory', that prejudices can lead to discrimination. People in the labour market do not want only to maximize their profits, but also their benefits. According to this theory, people can have ethnic preferences that influence their behaviour in the labour market to maximize his benefits. Employers for example, hire employees with influence of the ethnic preferences, which influences again the hiring decision or the wage level of the employee. Employers express their discrimination in form of wage discrimination and hire only employees, if they can pay them lower for the same productivity.

The discrimination of other employees is in form of separation between employees, based on nationality. Employees without migration background desire higher wages than PMB; because they think that higher wages could cover their mental costs (costs of prejudices). In companies with employees without any migration background, they would have no mental costs, so that employees with ethnic preferences would change to these companies to maximize their profits and benefits. The discrimination of employees will lead to separation of employees.

Customer discrimination is another form of discrimination in the labour market. Customers, who have ethnic preferences and buy a product from an employee with migration background, face mental costs that make the product more expensive. Employers must pay PMB lower wages to balance the mental costs of the customers with the wage costs of the PMB.

The Crowding-Modell of Bergmann reflects also the discrimination in the labour market based on two sectors, each with hiring discrimination. One sector only hires employees without migration background. PMB follow the other sector and apply there. The surplus of employees in this sector lead the employer to set lower wages, because of the assumption of wage competition between the sectors. The discrimination in the hiring process leads to wage discrimination and disadvantages for the PMB in the labour market.

Incomplete information and statistical discrimination are also helpful to explain the discrimination in the labour market. Employers have no information about the productivity of the applicants. They estimate their productivity by focusing on the quality of their education. The expectation of a high productivity is higher at a high education level than that at low levels. Employers can also estimate the productivity of applicants by assignment to a group, which is defined as statistical discrimination. Because of previous experience, prejudices etc. the productivity of applicants of a special group can be rated low (Granato, 2003, pp.30).

Wilp (2007, pp.147) also does not rule out, in his work, the unequal chances of PMB in the labour market as a result of discrimination. Qualification is an important factor, however based on studies about the labour market access in Netherlands and Germany, he cannot rule out discrimination in the labour market. Employers in Germany and other European countries may take hiring decisions based on prejudices and this kind of discrimination lead to problems of PMB in the labour market especially for younger PMB, either who would be excluded from the labour market under such an understanding or who would try their chance to participate in society in low qualified jobs. Both would not only be disadvantageous for PMB, but also for the success of the German labour market and economy with reference to the demographic change.

Imdorf (2010, pp.200) explained in his writing based on Anglo-American discrimination research, the discrimination of employers against employees/potential employees firstly in the context of productivity. Because of the high costs of determination of productivity, employers make general assumptions based on their feelings and beliefs and come to the conclusion that PMB would have low productivity. Additionally, the management department prefers well manageable staff who can be subordinated. However, they think that this would be a difficulty for the foreigners. Employers also rely on the interest and preferences of customers and staff while the hiring decision, because of the motivation of the staff and to win/ not to lose customers.

In addition to the discrimination in the labour market, there is also an institutional discrimination, in which PMB are disadvantaged in the educational system. These disadvantages are explained in the chapter before, however these disadvantages resulted from the education system. Now the disadvantage is justified in the context of discrimination. Discrimination in the case of migration background appear in form of 'unequal treatment' Based on IGLU 2001 studies Hormel draw attention to school recommendations after the fourth grade, which are influenced by the migration background. So, like described before, people with migration background are ranked worse despite the same reading performance than without migration background. In addition, teachers can have prejudices about PMB, that can influence discriminatory the grading and recommendation of the students.

Summarized, the unequal educational chances cannot be explained only through extracurricular factors (language skills, social class etc.), but also the discriminatory differentiation in the education institute between people with and without migration background plays an important role in the case of unequal chances in the education system. Indirectly institutional discrimination is available through the assumption 'equal rules for unequal people', because not all people meet the expectations and requirements of the institution and thus a difference is created between people with and without migration background, which affects the educational career.

Previous language skills as requirement at school entry is another discrimination of the education system in Germany. Instead of recognizing multilingualism as a resource or a chance, it is seen as a barrier to educational success. However, it is important to consider the multilingualism in the school, rather than to expect the mastery of the language of instruction as the basis of educational success. The student group, who enters the school is characterized with homogeneous properties (as far as the language is concerned), but this characterization or expectation of the education system is not realistic, because it is the task of the school to bring all students to the same language level. So, the German education system creates discrimination by the expectation of homogeneity right from the beginning.

In the chapters before, it has been noted that foreign families respectively PMB tend to work in low qualified sectors and are assigned to the underclass. The disadvantages of PMB in the German educational system based on their social status. Discrimination reappears here when students are expected to have pre-school skills that the school does not teach. As explained earlier, creating homogeneous conditions for a heterogeneous group is discriminatory and unrealistic. Again, the teacher is influenced by the social situation of the students in the grading and school recommendation and while students from the underclass are likely to be graded with actual performance, students of the middle and over class are overrated. The differentiation between the classes in the education system and through teachers indicates discrimination (Hormel, 2010, pp.178).

Fereidooni (2011, pp.23) defines institutional discrimination also as the unequal treatment of people by the educational institution for example. Discrimination must not be expressed directly like violence or insult, but can also be realized by exclusion and devaluation. Institutional discrimination is not necessarily exercised by a person, but by an organization and implies indirect discrimination, because of the systematic discriminatory act of the organization. He argues based on OECD results that the weak performances of PMB are not caused by themselves, but by the education system. For instance, PMB visit mostly a special school, because of the system, which is not available to teach and improve the language skills of them. The discrimination of PMB lead to improved educational status of the other, because there is a fix number of places in the educational institutions, which must be filled and because PMB fill the low qualified places, the high qualified are filled by people without migration background. This example seems to be like the sectoral distribution of employees according to their migration background in the labour market. After the guest workers came to Germany, they occupied the low qualified sectors and the Germans had the chance to ascend and to reach high-qualified sectors. Therefore, the disadvantage of the PMB lead to advantages for the rest of the population

4.2.2 Islamophobia

Next to the fear of strangers, called 'xenophobia', the fear of Muslims or members of the Islamic religion are also a widespread topic in Europe and a problem of Muslims in Europe. It is not only interesting for sociological research, it has implications for other areas such as the economy in our context, because the effects of Islamophobia ensures discrimination against Muslims in the education system and labour market, which will have together with other factors negative effects on the economy. 'Islamophobia consists of violence against Muslims in the form of physical assaults, verbal abuse, and the vandalizing of property, especially of Islamic institutions including mosques, Islamic schools, and Muslim cemeteries. Islamophobia also includes discrimination in employment, where Muslims are faced with unequal opportunities (...)' (Abu Sway, 2006, p.13).

High-developed human capital indicates high productivity and according to this, employers take decision in the labour market and for an apprentice. As seen before, qualification is not only an influence factor when entering the labour market like in the case of PMB. As in the case of xenophobia, here employers can also make hiring decisions, in addition to qualification and human capital, based on their individual criteria and thoughts. Individual assignments of characteristics to persons of different groups can influence these thoughts. These types of hiring decisions are referred to as ethnic discrimination. Results of the transition panel of the 'Deutscher Jugendinstitut' show that 80% of the main students surveyed have a religion, while one third of the PMB belong to Islam.

The responses to the post-school transitional education indicate that Muslims are more likely to go to school than to start education. The reason for this could be the fear of discrimination and disadvantage in the workplace or in the application process, which they want to avoid. Similarly, the families of PMB have lower qualifications and inactivity (mostly women) than other religions, which also influences the educational decisions of them. Table 5 shows the decisions of students after school in relation to their religion. Muslims have the highest rate in the category 'vocational preparation' with 38% and in 'not in employment/ not in education' with 11%, while for instance Catholic students mostly taking their decisions in line with an apprenticeship. The results suggest that a Catholic and Protestant student has more chance of being in an apprenticeship than a Muslim.

Table 5

Decisions of students after school in relation with their religion in %

Variable	Catholic	Protestant	Islamic	Other	Non-denominational
School	35	38	38	52	31
Career preparation	26	26	33	29	24
Apprenticeship	32	27	18	16	33
Not employed/ not in apprenticeship	7	9	11	3	12

Source: Granato and Skrobanek, 'Junge Muslime auf dem Weg in eine berufliche Ausbildung- Chancen und Risiken', 2007, p.243.

Summarized, there is an influence of religion on the educational career and the chances in the labour market (Granato and Skrobanek, 2007, pp. 231).

The exclusion of women wearing a hijab/ headscarf, which make their religious affiliation clear, is a clear discrimination, which has not been discussed here. Both men and women who want to fully live their religion find it difficult to adapt to the German labour market. Men show by their beard and women by their hijab, that they are members of the Islamic religion. Employers don't prefer such employees because of prejudices or the interest of their customers. Since the 11th September and the later attacks the fear of Islam has grown. Most of them based on prejudices, no knowledge about Islam, presentation of the media. Islam is not welcome in many European countries. Discriminatory organizations like 'PEGIDA' were created to drive Muslims out of Europe and to show that they are not accepted. This attitude of the people also affects the educational career and above all the employment opportunities of Muslims. A woman, who knows that she is not accepted with her hijab in an apprenticeship, continue to study, perhaps to gain better positions through their qualifications. However, through the explained situation of the education system and the difficulty of obtaining a high degree as PMB some are leaving work and educational life.

It has to be said afterwards that there are not enough studies and statistics on the topic of religion and education or occupation to be able to make a more peculiar interpretation. The mappings of PMB are based on assumptions.

5. Influence of future demographic changes on German labour market and economy

5.1 Expected population rates in Germany

The effects of labour productivity on the labour market were explained in the chapters before. Human capital plays an important role in this. Statistics show that PMB reach only low positions in the society and low levels in their educational career. The qualification status and other factors like discrimination through xenophobia and islamophobia lead to a human capital of PMB, which is according to scientific analyzes (in the eyes of the employer) less valuable and indicates less labour productivity than that of without migration background.. For this reason they get only place in the low qualified sectors, so that considering the demographic change, the gaps in high qualified sectors will not be filled. This result of discrimination or disadvantaging by the German labour market and education system will create economic problems in the future, which will be discussed in this chapter. According to the statistical analyzes of the Statistisches Bundesamt of the base year 2013, Germany is in the process of the demographic change.

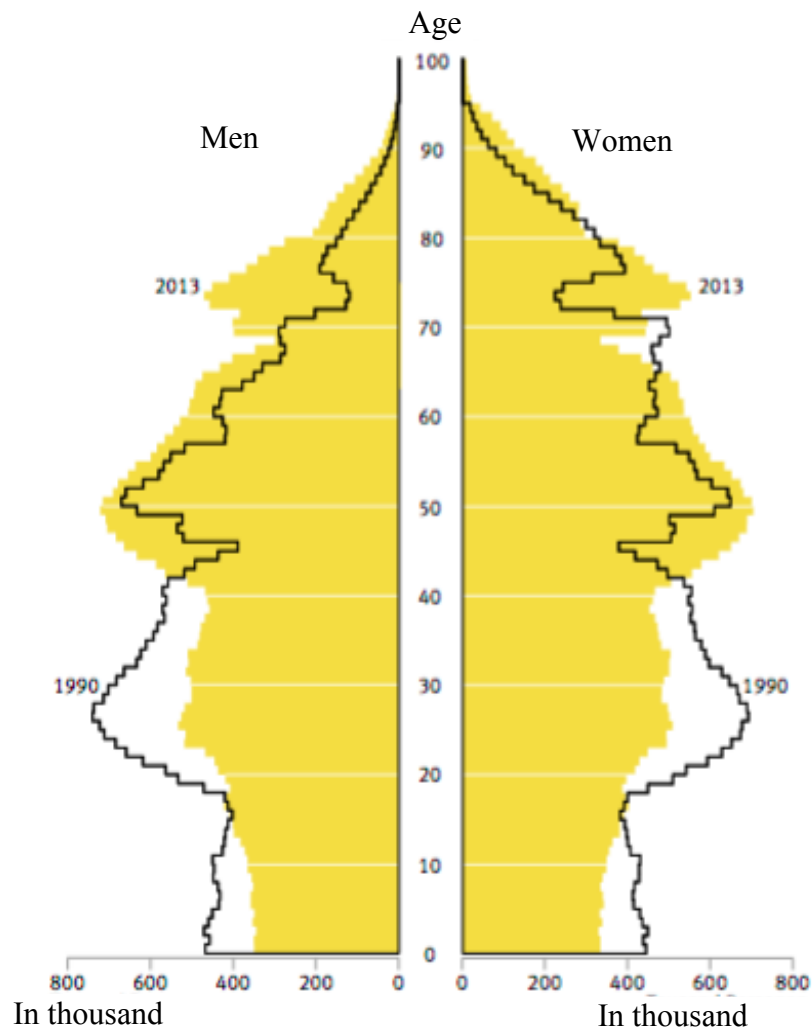


Figure 24. Comparison of the structure of the population in Germany in 1990 and 2013
Source: Statistisches Bundesamt, 'Bevölkerung Deutschlands bis 2060. 13. koordinierte Bevölkerungsvorausberechnung', 2015, p.11.

Figure 24 presents the population structure in 1990 and 2013 in Germany. As can be seen from the population pyramid, the population has shifted to the upper half of the pyramid and the number of the lower half has declined.. Especially the population in the age between 20 and 40 years has decreased, while the population in the age between 70 and 80 years has increased extremely. The young people between 20 and 40 years in the 1950s/60s have become older and have moved up in the pyramid. The population aged 70 and over has grown by five million, from 8.1 million to 13.1 million people. Meanwhile, the number of fertility has steadily declined. The average age of the population has come from 37 to 45, which also

became older. According to the analysis both women and men are getting older.

Based on the year 2013 the fertility rate, which is expressed as children per woman, implies 1.4, while the average age at birth is 30.7. The life expectancy at birth based on the years 2010 to 2012 is for boys 77.7 and for girls 82.8. The life expectancy at the age of 65 years is for men 17.5 and for women 20.7, so that women have a longer life expectancy than men. For following interpretations about the economic effects of the demographic change, the number of people in working age (20 to 64 years) is important. In the base year 2013, 49.2 million people were in the working age. The ratio of people of retirement age to those able to work, was in 2013 for every 100 persons of working age between 20 and 60, 50 persons over and equal to the age 61 were present. In addition, for the persons of working age between 20 and 65, 34 persons were present, who were 65 or older (Statistisches Bundesamt, 2015, pp.11). Future expectations show that this ratio will be higher, so that 100 persons of working age will be present for more people in retirement age, because of the changing age structure.

The demographic change (fertility < life expectancy; higher life expectancy and lower fertility) can also be seen from the 2014 data. In 2014 Germany's population was about 81.2 million people with 22.2 million in the age of (or over) 60 years, which implies 27% of the population. As already mentioned, the proportion of women is higher in old age. 56% of the people over the age 60 were women and only 44% men. Around 63% women reach the age 80 and men just have a share of 37%, which decreases with the age. People with 100 years and older were in 2014 around 85% women. This is explained through the high life expectancy of women, but also through the Second World War, where most of the men in Germany lost their lives. The share of PMB, who were in 2014 65 or older, was 9% which is justifiable by the low immigrations in the 1960s. The share of PMB in working age was 20% and under 16 years 33%, which indicates a high share of PMB in the future population (Statistisches Bundesamt, 2016b, pp.10).

This population structure will continue to change. Predictions about the demography in 2030/2060 say that the population rate of Germany will decrease after a few years; however, the number of people in the age of 60 and over will increase. In general, an older population is expected. The statistics suggest that the fertility will be 1.4 per woman and the life expectancy at birth for boys 84.8 years and girls 88.8 years and net migration will be after 2021 about 200 thousand (the number in 2013: 500 thousand). Aging of the population can be explained by different reasons. One is next to the high life expectancy, that the 'babyboom' generation retires after 2020 and the decreased fertility after this generation leads to a smaller population at a young age.

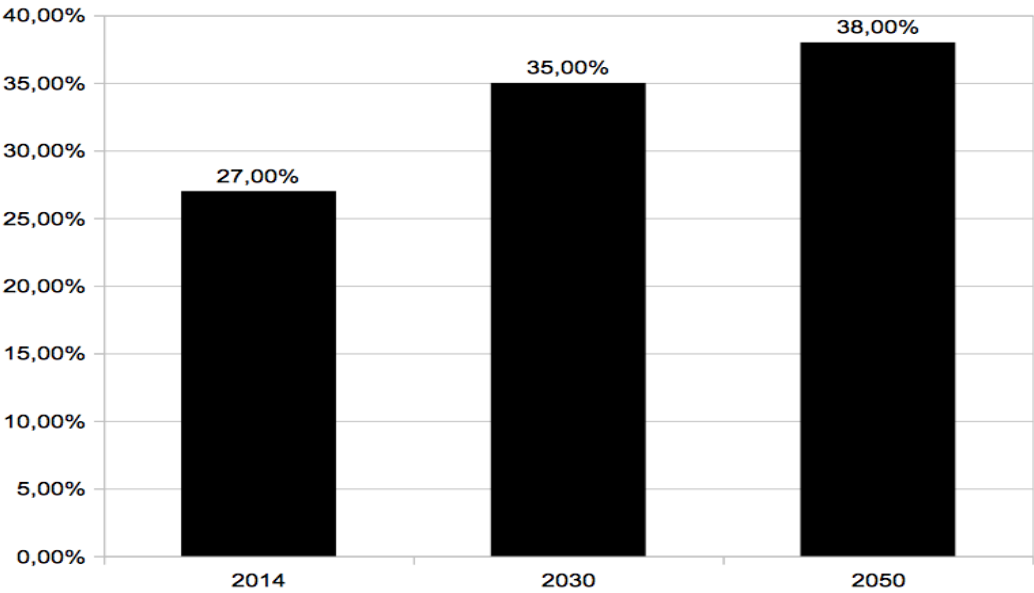


Figure 25. Share of people in the age of 60 and over in the total population in %

Source: Statistisches Bundesamt, 'Ältere Menschen in Deutschland und der EU, 2016b, p.15.

The number of older people in the age of 60 and over increases from 2014 to 2050 around 11%. In 2014, they had a share in the total population of 27%, in 2030, they will have 35%, which implies 28 million people and in 2050, their share will reach 38% (fig.25). The share of people equal/ older than 80 will increase also. While this rate was 6% in 2014, it will rise to 8% in 2030 and to 13% (9.9 million) in 2050 (Statistisches Bundesamt, 2016b, pp.14).

It turns out that the population, which was 80.8 million in 2013, will decrease after 2023 and will reach 67.6 million (or 73.1 million depending on the immigration strength). It is justified by the mortality, which is greater and will be greater than the fertility. So, it would not be possible to replace the low fertility through immigration. The population balance (= fertility-mortality) was in 2013, 212 thousand and will increase up to 500 thousand until 2050. The generation after the 'babyboom generation' will be older and the mortality, but also fertility will decrease. In 2060, it is expected that compared to the fertility, 500 thousand more people will die, because of the aging. The structure of the population is in 2013 determined by an 18% share of children and young people, 61% by people in the working age and 21% by people in the age of 65 and over. The population structure in 2060 will be as shown in figure 26.

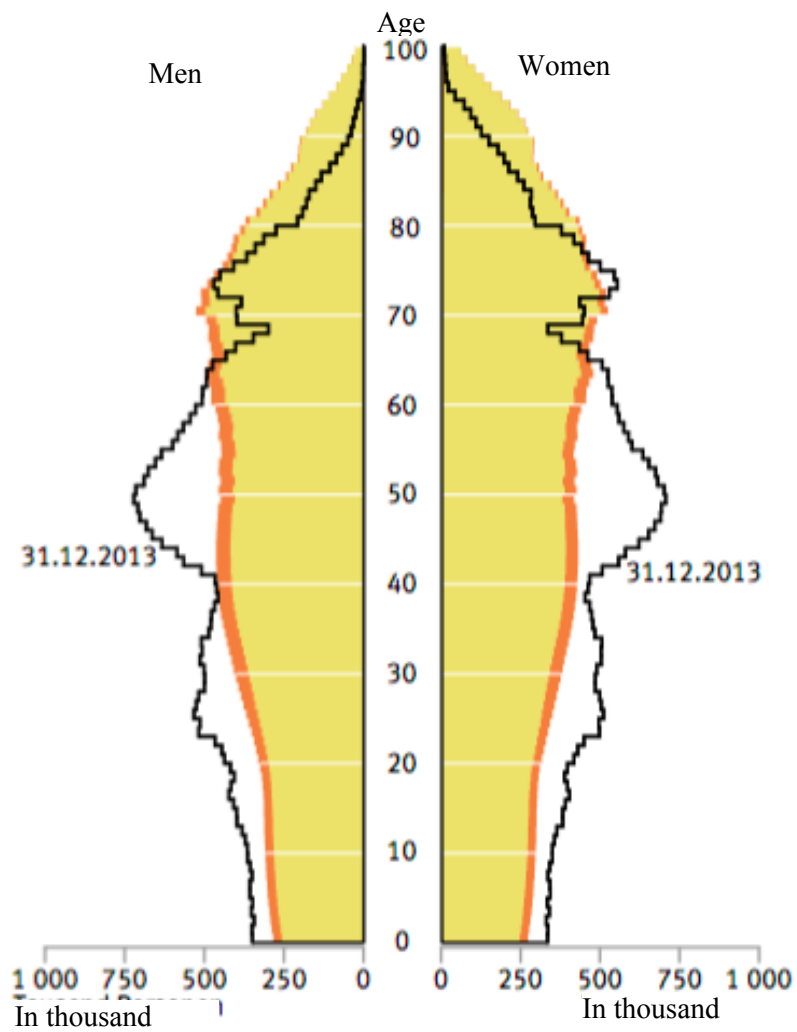


Figure 26. The expected population structure in 2060 with attention to the immigration strength

Source: Statistisches Bundesamt, 'Bevölkerung Deutschlands bis 2060. 13. koordinierte Bevölkerungsvorausberechnung, 2015, p. 18.

With the assumption of a continuous development of the demography and an immigration in long term of 100 thousand people yearly, young people and children will have a share of 16%, the people in working age 51% and that of 65 years and over 33%. The number of 70 years old people will be twice the fertility. The stronger immigration with 200 thousand people yearly can reduce the decrease of the population, especially in the working age around 3.6 million people more than a weak immigration. However, the population would continue to decline. In 2013 there were 14.7 million people in young age (20 and younger), but this number will decrease around 18% or 26% (dependent on the immigration strength) until 2060. The number of children around the age of 4 will decrease until 2060 around one million, the number of young people between 6 and 17 years will decrease (dependent on the immigration strength) about 1.5 or 1.9 million.

Critical in relation to this work is the development of the number of people in working age. It was already received shortly afterwards and now, this group of the population is to be analyzed in more detail. While 49.2 million people were in working age in 2013, this number will decrease until 2030 about 5 million and will be equal to 45 million and until 2060 then only 38 million people (a decrease of 23%), if the strength of immigration is strong (200 thousand yearly) until 2021. In the case of weak immigration (100 thousand yearly) the number of people in working age would decrease extremely to 34 million, (a decrease of 30% compared with 2013). This number can be 36 or 40 million in 2060, if the working age is expanded on 67 years. A more detailed view shows that the number of people between 20 and 29 years will be decreased around 3 million in 2060, between 30 and 49 years around 5 million and between 50 and 64 years also about 5 million people. (Statistisches Bundesamt, 2015, pp. 15).

Aging and low fertility lead states to set goals to eliminate or reduce the effects of demographic change. For instance, Germany reached its goal until 2020 of participation of older people (between 55 and 64 years) in the labour market already in 2011 with a participation rate of 60% and exceeded this goal with 66% in 2014. However, the participation rate included the younger people from 15 years up to 64 is with 74% higher than that of the older alone in 2014. This increase in the participation of older people is justifiable with the laws on retirement, but also with the high qualifications of older people, which facilitates the longer survival on the labour market. Therefore, 78% of the older people in 2014 participated with a high qualification in the labour market, while the participation of low qualified remained low (48%) (Statistisches Bundesamt, 2016b, p.22).

However, after the people retires in the age of 65 the high-qualified jobs need also to be replaced by new employees, so that the laws of retirement could not be a final solution of the problem of demographic change. The low fertility will lead to low offspring of high-qualified employees, because considered in connection with the low qualifications and participations of the PMB in the labour market, the declining population will lead to low labour demand. The small offspring is not sufficient to counteract the problems (to fill the gaps in the labour market) and as analyzed the PMB are not seen as a chance to solve future problems and are not equipped for it.

Instead of the PMB, the participation of women in the labour market increases. They don't participate like men, but older women in the age between 55 and 64 have a participation of 60% and men 71% in 2014. In 2005 this rates were much less (38% women and 54% men). Although the age for retirement is regulated by law as 65 years, the average age of people who retired in 2013 was 62 years and mostly because of health (Statistisches Bundesamt, 2016b, pp.23).

In summary, the fertility decreases, the life expectancy increases, however there is only a small number of offspring, which will lead to the shrinking of the population in Germany. Even with immigration, the fertility will not exceed the mortality, so, that this could not be the solution of the negative effects of the demographic change. The statistics show that PMB are mostly employed in low qualified jobs and they have only a small participation rate in older age. An important number of them are unemployed, have no apprenticeship, which implies social assistance from the state respectively from the people who work. In part because of the listed reasons in the chapters before, they achieve lower educational degree/ human capital compared to people without a migration background. This shows that the potential workforce 'PMB are not used effectively with regard to the future economic situation.

It could be an idea to use the rights of the European Union given in the Treaty of the Functioning of the European Union (TFEU) article 45 paragraph 1: 'Freedom of movement for workers shall be secured within the Union.' (Official Journal of the European Union, 2012, p.65). For this reason, the demographic situation in other EU member states is considered below.

5.2 Expected population rates in the EU

Compared to other continents, Europe will be the only continent with a shrinking population. While mostly in Africa and South East Asia the population rates will grow, only every 14th person on the earth will come from Europe, whereas now it is every 9th. The rate in whole Europe will be less than a quarter (700 million people) of the population in China and India alone (3 billion people). The proportion of Europe in the world population in 2008 was 11% and will be in 2050 only 7%. The growth in Africa from 14% to 22% in 2050 is noticeable. Other continents will have the same proportion or with a small decline, which is less significant than that of Europe. Noticeable is also the high life expectancy in all continents. Even in Africa, the rate of the people between 65 and 79 years will increase from 2.9% in 2005 to 6% in 2050. In Asia and North America, each will increase from 5.2% and 8.9% to 12.9% and 14%. In Europe, the population in this age will increase from 12.4% to 17.8%. The share of older people in the population in Europe is much higher compared to other continents in both 2005 and 2050. In numbers, the European population will decrease in general from around 730 million in 2005 to around 690 million people in 2050 (Behrend, 2011, pp.8). Aging can be seen in the forecasts in all continents. The life expectancy will increase the most (up to around 13 years) in Africa, however according to the statistics the oldest people will be in North America (82.7 years) and Europe (82 years) in 2050 (Hoßmann et al., 2008, p.3). A look at the development of the population according to their age in Europe shows that from 2005 to 2015 the number of people in the age of 65 and older increases in ten years from 82 million to 96 million, which implies 19% of the whole European population. Additionally, the number of people equal/older than 80 years increased in this 10 years about 7 million and reached 27 million. The reason of the high life expectancy could be the developed technology especially regarding to medicine and the improved living standards. A comparison between EU countries makes it clear that Germany is after Italy the country with the highest share of older people (65 years and older) in the population with 21% (Italy: 22%) (figure 27).

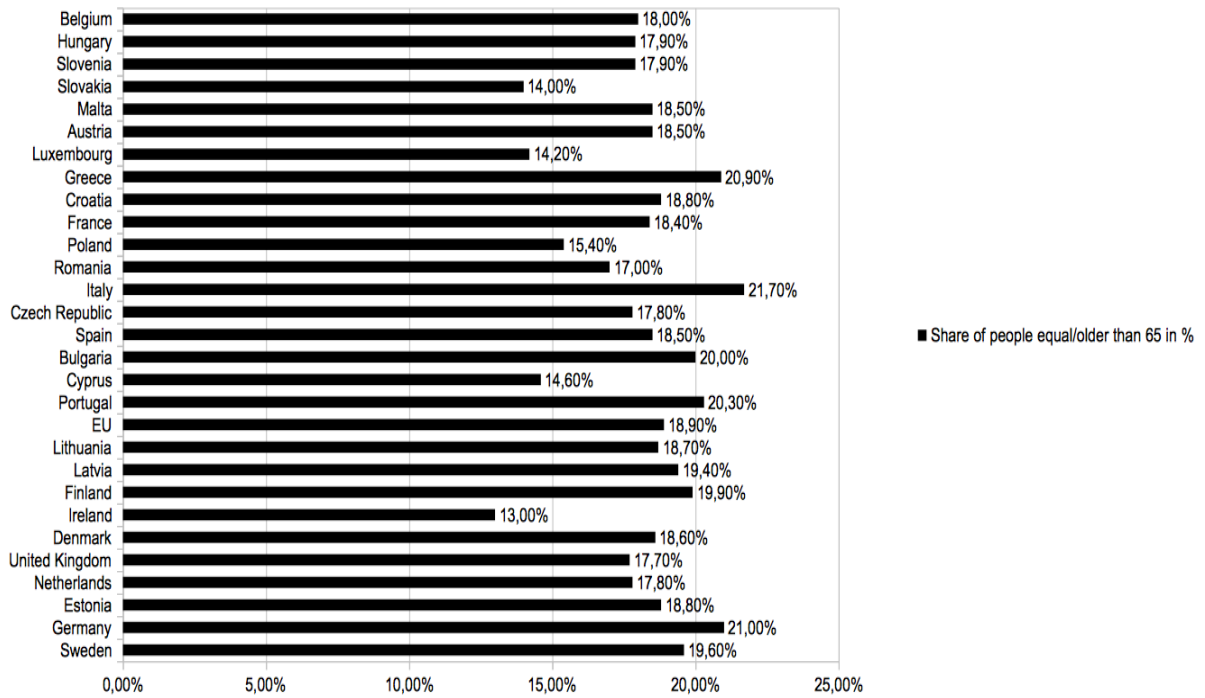


Figure 27. Share of people equal and older than 65 years in the population of European countries in 2015, in %

Source: Statistisches Bundesamt, 'Ältere Menschen in Deutschland und der EU', 2016b, p. 18.

Although Ireland has in general a very young population with a static share of old people, the fertility rate decreases since 1975 and will lead to an older population in the future. United Kingdom was below the EU average (18.9%) in 2015 with 17.7%. However, while the share of young people decreases, the share of older people increases.

All in one the European population rate is decreasing. Decreasing fertility rate and increasing life expectancy will lead to low share of young people in the population and high share of older. Statistics show that the share of people in the age of (and older than) 60 years in the whole European population will reach 31% in 2030 and then 34% in 2050, while this share was in 2015 still 25% (figure 28).

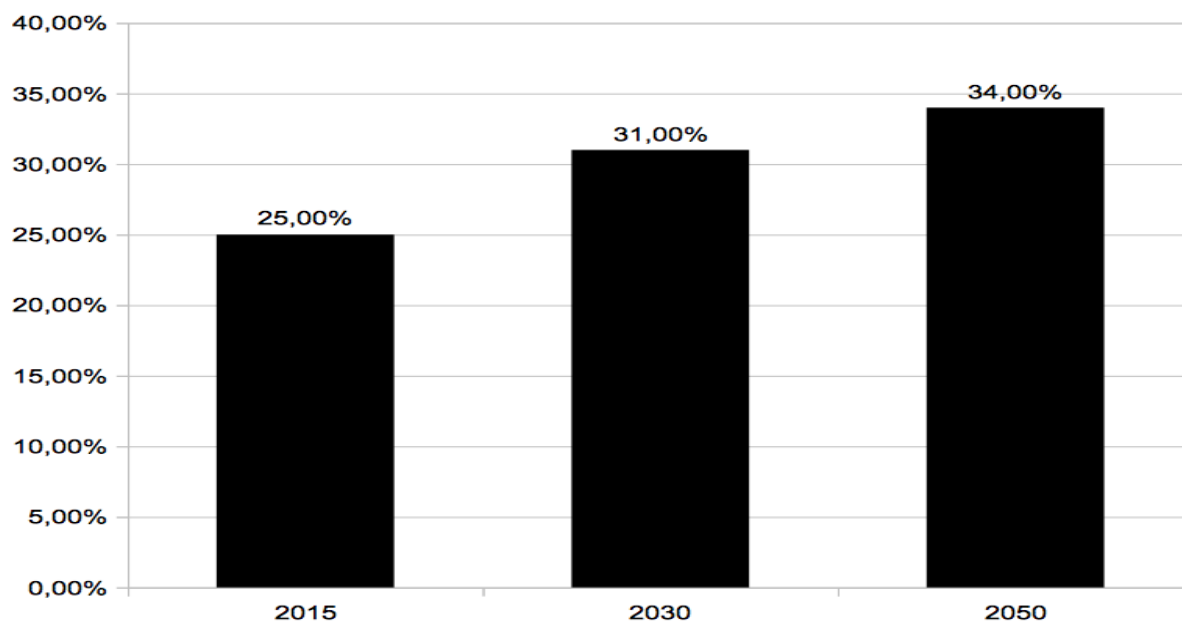


Figure 28. Share of people in the age of 60 (and older) in the European population (in %)

Source: Statistisches Bundesamt, 'Ältere Menschen in Deutschland und der EU', 2016b, p. 21.

The share of people 80 years and older will also increase from 5% in 2015 to 7% in 2030 and then to 11% in 2050, because of the high life expectancy and mentioned reasons. This will lead to a high participation of older people in the labour market of European countries as well as in Germany. The share of people in the age between 55 and 64 years increased from 2005 (42%) until 2014 to 52%. Germany was in the second place regarding to the participation of older people with 66% in 2014 (an increase of 20% since 2005) after Sweden with 74%. Despite aging, many older people (less than 50%) were not working in countries like Greece, Croatia etc., because of the weak economy, but also because of the country specific retirement regulations.

Also in the EU, the employment in older age depends on the qualification level, so that high-qualified people are more preferred than low qualified. The participation in the labour market after the 65th age differs in Europe. In countries like Portugal and Romania 11.7% and 10.8% of them had to work in 2014, because of their sector 'agriculture'. Germany was a little above the European average (5.3%) with 5.8%. In general people retires with the 65th age, however some of them have to work because of economic or social reasons (Statistisches Bundesamt, 2016b, pp.18).

All in one, both in Germany and throughout Europe the fertility rate is decreasing since many years. There are no offspring like 30-40 years ago. In addition, the population is aging due to the high life expectancy, which is based on factors such as modern technology or increased welfare. Thus, not only Germany is in the middle of demographic change, but also several European states and some are currently at the beginning. Even if the participation of older people in the labour market is remarkable, in Europe most of them tend to enjoy their retirement. Even if a high life expectancy is predicted for older people, they will eventually have to leave the labour market. The demographic situation shows also that the regulation 'free movement of workers' of the TFEU between members of the EU could not be an option for Germany to fight this problem, because not only Germany will have the gaps in the labour market, which will be problematic for the functioning of the economy.

The demographic situation and the forecasts mean that all member states will need workforce to be able to produce and make trade; however they all will have problems to find high qualified workforce. This implies not only a lack of workers in the German labour market, but also a possible reduced trade respectively export to other European countries, if they will all have economic problems.

In general, the European population will shrink and this is and will be the most problematic challenge of European countries in maintaining the functioning of the labour market and the maintaining of the whole economy, but also for Germany the current health and retirement systems. Due to lack of space, only the effects of demographic change on the labour market and the economy are discussed here.

5.3 Demographic change as a challenge for the German labour market and the economy

Following the European Commission's announcement on demographic change, economic growth in Europe will be affected. The growth of the GDP will decrease from 2-2.5% (2005) to 1.25% in 2040. The low fertility rate in Europe is the main problem, because an economic growth is not possible without a growth of population. Productivity depends on lifelong learning, participation in the labour market, fertility rate and immigration (European Commission, 2005, pp.3). Loss of human capital respectively people of working age (together with decreasing fertility rate), which determines productivity, will therefore negatively affect economic growth in whole Europe, which makes the topic 'demographic change' important for EU institutions.

The effects of the demographic change on the economy in Europe can be observed using the example of Germany. Decline in the number of people in working age because of the retirement of the babyboom generation and the low fertility rate will lead despite the mentioned immigration forecasts for the first time in Germany after the Second World War to a decrease of labour supply. The decline in labour supply would shift the labour supply curve to the left and would lead to increased real wages and a decrease in unemployment rate in the case of constant labour demand. If the investments increase in the future, the labour demand will also increase and the labour demand curve would shift to the right, which implies again increase in real wages and decrease in unemployment rate. However, an unemployment rate of 0% is impossible even if the supply goes back and the demand exceeds labour supply, because of the mismatch problem in the labour market, which is a problem of matching the offered jobs and the skills/preferences of the jobseekers.

Very high real wages are also not possible, this would lead to shift of the demand curve to the left and the supply curve to the right and unemployment would increase again. The aging population implies a shift in the age structure of the workforce upwards and this could influence the labour productivity regarding to the cognitive and physical performance. However, this could be compensated by increased experience in the labour market. In the following, potential developments of labour demand and supply and productivity are presented.

The labour supply corresponds in the forecasts of the Sachverständigenrat to the number of labour force. Labour force consists of the number of unemployed and employed people. The forecasts indicate that the share of labour force in the population will decrease until 2060 for the group of young people, first, because of the low fertility and secondly, because of the long education career that people will go in the future. The trend of low fertility will influence also the participation rate of women in the labour market, which will rise for women between 25 and 45 years.

The participation of women and men in the age of 50 years and older will increase drastic until 2060, because of retirement regulations such as fixing the retirement age at 67 years. In connection with a net migration of 100 thousand yearly, the labour supply will decrease from 2010 until 2060 to 31 million people. The forecasts in 2011 for the yearly decline of the labour supply in 2015 were around 100 thousand people. Furthermore, this number will increase until 2030 to 400 thousand yearly and after 2040, it will be around 250 thousand every year. On the one hand, aging will lead to a share of young labour force (in the age of 15 to 56 years) in the population of 76% in 2060, which implies a decline of 11%. On the other hand, the share of people equal/ older than 56 will increase around 11% to 24% in 2060.

The future labour supply depends not only on the fertility rate, but also on the net migration to Germany. In the case of a net migration of 200 thousand people yearly the labour supply will decrease around 22% (8% less than the decline in the case of 100 thousand people yearly). To reach the same labour supply like in 2010 a net migration of 400 thousand people yearly is needed until 2060. Next to the number of potential labour supply, the qualification of the labour force plays also an important role, because high qualified labour force means high labour productivity and would lead to an economic growth. So, the labour force participation rate of academics was in 2009 76%, while that of people without an apprenticeship was only 39%.

Summarized, the labour supply will decrease until 2060, because of the decline of the people in working age or the rate of the labour force. Immigration could be an alternative solution, but despite an immigration of 100 or 200 thousand yearly the population would shrink. In addition, immigration could not be a definitive solution, because the own population of the country would not have offspring, the risk of returning of migrants would exist and the integration process would be a hard and long contest for Germany. Moreover, survival in the labour market requires human capital that is high qualified. Even if the labour demand exceeds labour supply, mismatch problems would create unemployment and the resource 'labour force' could not be used effectively. Regarding to PMB and their chances in the German labour market, can be said that they are not used effectively as a human capital resource for more productivity. Their qualification would be needed in the future and would be a better option than immigration for high-qualified jobs, because the integration process would be easier and language barriers could be overcome more easily.

The presentation of the development of labour demand depends on future labour market reforms and other factors, so that it is not easy to estimate the demand. However, studies of the Insitut für Arbeitsmarkt- und Berufsforschung, show that the labour demand will not have in general a significant change until 2025. The demand differs from sector to sector; important is the increasing demand for academics and in the service sector. In contrast, the demand will decrease in the manufacturing industry. The demand for high-qualified employees increases as a result of globalization and the technological development. Low qualified labour force have therefore a share of 20% in the unemployment rate since the 1990s, while this share is 3% for higher qualified labour force. The decreased qualified labour supply will increase the real wages of qualified jobs and consequently the people will tend to get higher qualifications to earn higher wages. The social and unemployment assistance in Germany makes Germany to a country with immobile labour force. Aging will reinforce this and unemployment will be inevitable. However, the presented labour supply development until 2060 will lead to a decrease in unemployment and in employment rate.

The GDP is negatively influenced by this development, if the (lost) labour productivity is not increased respectively compensated. The productivity can be determined in different ways, to see if the declining productivity can be compensated by the productivity of the older ones.

One is the efficiency wage theory, which states that high wages lead to high productivity will. The idea behind this is that newly hired employees earn less than their productivity level and over the years, the wage increases and reach a level over than their productivity. They don't want to be fired, because a new start in another firm would mean again a lower wage than their productivity. To determine the productivity using the wage amount does not make sense because the wage increases over the years independent of the productivity.

The determination of productivity through evaluation of employers is another way, but does not make sense too, because of the possible prejudices. In contrast, studies based on the productivity of the firms, that hire people of different ages show that the productivity reach its highest point in the age between 30 and 50 years. The productivity of academics can be high until the 60th birthday.

A separate view on the productivity of older employees show that the productivity of them is lower than that of young employees with the same experience. Indeed, it is believed that the experience of older employees compensates the age related negative physical and cognitive effects on the productivity (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, 2011, pp.91).

In my opinion, productivity of older people depends on the employed sector and job. For instance, in the manufacturing industry, people above a certain age cannot do physically demanding work and this would reduce their productivity. To employ older people for a longer term high qualifications are important to improve firm's productivity by using their experience together with their high qualification. According to the views in the previous chapters the productivity of older employees is estimated as low and because firms prefer to employ high qualified people the value of qualification in terms of employment, productivity and the effects on GDP and so on the welfare is significant. In addition, high qualified people for example academics have a long-lasting productivity, which shall underline the importance of qualification for a high production potential.

The demographic change influence the production potential through the change in the number of people in working age, which are called quantitative effects and through the change of the age structure of the population, called structural effects.

The quantitative effects are for instance the high costs (wage costs etc.) for employers because of decreased number of people in working age in the population (decreased labour supply). This would have saving effects for the firm or the firm would leave its location. This shows the negative relation between the number of people in working age and the labour productivity. Another effect is the relation between the fertility rate and education investments. In the case of low fertility, people prefer to invest more in education and vice versa.

Structural effects are effects of aging on the saving rates and labour productivity. People save money while they work and they spend it during their pension. This implies in the background of aging a decrease in the saving rate and in the investments too (investments depends in an open economy on world interest rates that influence the investments and are to be distinguished from interest rates in a closed economy).

The effects of the volume of work are another influence factor, which depends on the education level of the employees. Higher qualifications lead to a more effective human capital. The volume of work shows the average of the productivity of employers respectively the work volume of goods and services, which are produced in the given work hours by the given labour force. The decline in labour supply respectively the decline in the number of people in working age lead to a decrease in the volume of work and so in the economic growth (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, 2011, pp.124). After these theoretical explanations the expected development of the production potential in medium term is considered below.

The production potential is defined in the economy as a production level that can be reached by normal utilization of production factors. The difference to the GDP is that the potential production shows the possible (expected or calculated) production and the GDP the real production. A comparison of both shows whether the capacities are fully utilized and from this the economic situation of a country can be interpreted (Duden Wirtschaft von A bis Z, 2016). The production potential indicates the economic development of a country and according to it, the activities in other markets such as the financial or capital markets are shaped. The production potential is influenced by different components. One of them is the volume of work, which consists of the number of the labour force, employed and the work hours.

Three scenarios are assumed, the base scenario with a net migration of 100 thousand people every year, a fertility rate of 1.4, and a decrease of the unemployment rate to 5% after 2020, the optimistic view, which includes a net migration of 200 thousand and an unemployment rate of 3.5% and the pessimistic scenario, which estimates no net migration and an unemployment rate of 6.5%. Based on all these scenarios the number of labour force and employed people and so the labour supply will decrease, because of the demographic change as seen in the previous chapters. The work hours have been going back for years, because of the trend of part time employment and this will continue. Based on the base scenario the volume of work a decline from 2010 to 2020 about 3.2% is expected. According to the optimistic view, this rate will be nearly constant if the participation of women in the labour market with a full time employment increases and the unemployment rate decreases between the years 2010 to 2020. The pessimistic view estimates a decrease of 6.1%. The decline in the number of labour force will have negative effects on the volume of work, however if the unemployment rate decreases this negative effect can be weakened.

The capital stock is another influencing factor of production potential. The amount of the capital stock, the capital intensity will increase, because of the decreasing volume of work, which is measured by the work hours, which will also decrease. So, in the case of decreasing labour intensity the capital intensity increases.

Therefore, the potential growth depends on this and further production factors, which are not presented here because they do not submit a change. The negative growth of the volume of work (based on the demographic related decline of the labour force) will weaken the growth around 0.2pp yearly. If the unemployment does not decrease and a net migration of 100 thousand is expected, the growth will be greatly reduced and according to the pessimistic scenario even by 0.5pp. In the optimistic scenario the negative effects of the volume of work would be compensated through the decline of the unemployment rate to 3.5% until 2020 and the potential growth would be 1.2% between 2010 and 2020 (while it will be according to the base scenario 1%) (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, 2011, pp.128).

Finally, the demographic change effects the growth of GDP negatively. The low fertility rate and the changes in the age structure of the population will lead to a decreased number of people in working age respectively labour force. This will bring with it a decline in labour supply. The development of the labour demand depends on labour market reforms and on the attractiveness of the labour market for investments. According to the labour demand, the unemployment rate will change. So, an increase in investments (while the labour supply is decreasing) would decrease the unemployment rate, but there are also mismatch problems, problems of match of employers and potential employees, which makes the decline difficult. The decline in labour supply and the increase in labour demand will not lead to high wages, which could promote people to higher qualifications, because the demand would decrease again and the unemployment rate would increase.

However high qualified labour force is demanded and needed in the labour market because of their productivity. The productivity of older people becomes an issue due to aging. There are different opinions and analyzes according to the productivity of older people; however studies determine that an employee has his highest productivity between the ages of 30 and 50 years. Academics, who are high qualified, show a high productivity until the 60th age. So, qualification is seen as a measure for productivity respectively volume of work and labour productivity (and volume of work) in turn influences the production potential, which shows the potential (expected) growth.

All in one, a negative growth of the GDP and of the German economy will be the result of the changes in the labour market because of the demographic change. As explained in the first chapters the GDP is a measure of welfare. The decline in labour force and the aging population will lead to the listed economic effects in the labour market. The effects can be summarized as a decrease of GDP, which implies a decreased production level. According to the previous explanations of the GDP, the indicators of the GDP will be influenced negatively. These are the decline in exports, because of lower production level and the same situation in other European countries, whose purchasing power will sink. On the other hand, the decline in investments if the labour market reforms are not adjusted to the demographic change and the decline in private consumption, because of the decline in income per capita (justifiable with the decreased work hours and labour force). The GDP will be negatively effected, because the production capacities will not be fully utilized with the employees in older age and the decline of labour force. In addition, other economic markets such as the financial and capital markets are also depend on the production potential, which is not explained further in this thesis.

Welfare loss cannot be compensated through immigration from other member states of the EU by using the regulation of free movement of workers, because the demographic situation in other member states will be nearly the same. Additionally, the GDP and so the welfare will probably decrease in all countries in the EU, so that the free trade and the exports of Germany could be impaired.

In candidate states like Turkey, the population will increase about 25% (19 million people) between the years 2005 and 2030 (European Commission, 2005, p.5). Based on the Association Agreement between the Turkey and EU, Turkey could be an opportunity to compensate the losses of the demographic change, but this opportunity will be discussed as a digression later. Further suggestions to alleviate the negative effects of the demographic change are proposed below.

6. Suggestions to alleviate the negative effects of the demographic change

The economic effects of demographic change in Germany are clearly visible. Also other European countries will be affected by these. The effects of the decreasing fertility rate will create gaps in the labour market respectively in the production and will have negative effects on GDP. These gaps must be filled to reach a positive growth in the future and to alleviate the decrease of productivity and production potential. In the previous chapters the participation of PMB in the German labour market are presented. A weak integration, the representation of the underclass of the society, the not necessarily successful educational career and employment in less qualified sectors are the marks of the PMB. The scenarios of the demographic change show the positive effects of immigration on the number of population, however before immigration can be seen as a solution, PMB in Germany must be seen as an opportunity in the context of population decline. The integration of new high qualified immigrants would have positive effects, but their integration process would be longer than that of the people who already live in Germany, go to school, speak the German language (also faulty). As said before, productivity depends on human capital, which can be enriched by education. Employers ask and will ask for high qualified labour force regarding to their productivity. Before immigration comes into question, PMB who cover the low qualified part of the labour market because of their qualifications and for reasons such as discrimination, should be integrated, educated and admitted to the labour market.

Immigrants are a chance for the economy and they have an effect on the national income. Most of the immigrants and PMB in Germany are weak integrated and the problem is that the cultural capital, low qualification and less integration of their parents is passed on to their children (Hoßmann et al., 2008, p.10). This vicious circle must be stopped. Since it is not just about the PMB, but is a problem of the education system and also a social problem, more migration-friendly (educational policy) steps must be taken. The education system must be reformed so that all people have equal educational opportunity and the labour policy must be reformed so that all people have equal access opportunities. In the following are some suggestions to adapt the education system and the labour market to PMB:

- Expand the budget for education respectively for preschool education would give the chance to all people especially the families of the underclass to visit a nursery school. This would have positive effects on the cultural capital of the children and they would have an improved preparation for the school. Better integration and higher qualification would result. Therefore, the state must invest more in the elementary area of the education system.
- Promote multilingualism rather than seeing it as a barrier is an important aspect. Studies show that children who grow up with multiple languages make linguistic and cognitive developments, which represent a base before entering the school. Often nursery schools take on the task of care; however, they should have the function of preparation for the school. While this process, they should not use only German as communication language, but also the native languages of the children to develop their linguistic and cognitive skills (Fereidooni, 2011, pp.137). This should not only be the task of the preschool institutions, but also of the school during the educational career of the children. Instead of focusing only on German, other languages and cultures should be included in the lessons for instance through project weeks based on culture, cultural or language related presentations or topic papers etc.
- All-day schools have a positive influence on school performance and reduce the difference between the social classes of the society. This was evidenced by various studies especially by IGLU (International Primary School Reading Examination). Reforms of the education system and an extended budget to increase the number of all- day schools are needed (Fereidooni, 2011, pp.142).
- Furthermore, to focus on the parent's integration, because of the influence on their children, the participation of them should be increased. Parent's specific programs and courses such as cooking courses, computer courses, language courses and activities like hiking, picnic and project weeks will strengthen the relationship between parents and school. School introduction weeks not only for students but also for their parents could be useful for deepening parents' knowledge about the German education system. Also project weeks, where parents participate and present a special food of their culture for example would be a step to integration.

- The program 'Integration and Qualification-IQ' is one of the efforts to integrate PMB into the labour market. This program is carried out in the cooperation of the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung) and the Federal agency for work (Bundesagentur für Arbeit) and aims to reduce the unemployment rate and to successfully integrate them into the labour market. The main tasks are an improved structure of the support for recognition and qualification consulting for qualifications acquired abroad, adaptation qualifications for recognition of qualifications from abroad and training programs for acquiring intercultural competence for institutions connected with the integration process of PMB and refugees etc. Moreover, specialists are active to prepare expert reports on labour market policy fields of action for example vocational language training, development of intercultural competence, anti-discrimination etc. (Bundesministerium für Arbeit und Soziales, 2017).
- To eliminate discrimination in the labour market, financial support from the state to the firms can be helpful. In this case, firms that hire PMB would get financial support from the state to promote the integration of PMB through state-paid occupational training, language courses during and before entering the job. Therefore, the state would promise firms to finance the preparatory courses, which would increase the productivity through developed technical and language skills, if firms accept to hire PMB.

6.1 Digression: The Decision of the Association Council 1/80

Another suggestion that would compensate the decline of people in working age in the German/European population is the Decision of the Association Council 1/80 (1980). The Association Council Decision No 1/80 builds on the Decision 2/76 with development purposes of the regulations regarding to the free movement of workers. This decision includes also further details about the free movement of agricultural products; however the concentration of this thesis is on the first one. The main aim of this decision is to improve the economic and financial cooperation between Turkey and the (then) EC.

The Decision 1/80 consists of two chapters. The first chapter is about the agricultural decisions and the second one is based on the social area. Article 6 of the second chapter clarifies the conditions and rights of the Turkish worker who participates in the labour market of a member state. First, the Turkish worker has the right of renewal of the work permit with the same employer, if he has been working properly for one year. After three years properly employment, he has the right to apply for the same job with another employer and finally after four years he can apply for a job and an employer of his choice.

Article 7 is about the removal of family members of the worker who is properly employed in a member state. Family members, who have permission to live in a member state by moving to the working family member, get the right to apply for any position if they have been resident for three years in the member state. If they live there for five years, they can take any paid (salary-based) employment. The children of Turkish workers who are employed in a member state have the right to apply anywhere with the requirement, that they have a completed vocational training. The declared articles are based on the assumption that the Turkish worker has been granted a work permit in one of the member states and include the rights after approval and during the working phase. The following article is in relation with the demographic change in Europe an interesting point for this work.

'1.Should it not be possible in the Community to meet an offer of employment by calling on the labour available on the employment market of the Member States and should the Member States, within the framework of their provisions laid down by law, regulation or administrative action, decide to authorize a call on workers who are not nationals of a Member State of the Community in order to meet the offer of employment, they shall endeavour in so doing to accord priority to Turkish workers.' (Association Council, 1980, art.8/1)

Article eight of the decision says in other words that if the demand for employees can not be met and if the member states choose to get employees from third countries, the member states should try to get these from Turkey respectively should give Turkish employees priority. And furthermore:

'2.The employment services of the Member State shall endeavour to fill vacant positions which they have registered and which the duly registered Community labour force has not been able to fill with Turkish workers who are registered as unemployed and legally resident in the territory of that Member State.' (Association Council, 1980, art.8/2).

When there is a need for employees in the member states, Turkish workers residing in a member state, who are registered as unemployed, should be preferred. Based on these two articles of the Association Council Decision and with regard to the expected effects of the demographic change, member states of the EU must be addressed to Turkey respectively Turkish employees in the case of immigration. The presented scenarios show that without an immigration the decline in the number of population can not be compensated. In addition, high-qualified immigrants should come to increase the productivity and the welfare. This decision would lead to compensate the decline in population rate and reduce the unemployment rate of PMB (Turkish) in the German labour market because it gives priority to unemployed Turkish people in the EU countries. The falling fertility problem could be solved through immigration of Turkish employees. The aging and productivity problem could be solved through young Turkish employees with high qualifications and as the scenarios showed, the decrease in growth would be weakened.

This decision is a way to solve the demographic problem, if it can not be solved among the

member states and they will not be able to help one another by taking advantage of the free movement of workers because, as shown, the population across Europe will shrink and the member states will have gaps in their own labour markets and economies. In contrast, the situation in Turkey will be different. An increasing population rate is expected, which implies a high number of people in working age. In view of the future economic situation, this would be a good opportunity for the EU and in the case of this thesis for Germany. However, because of the immigration of refugees in the recent years, immigrants are seen more as a burden than an opportunity. PMB are also mostly low qualified and have a significant unemployment rate in the population, so that the label by the discriminating part of the population as a social burden is thereby occupied.

Even if article 10 of the same decision is about excluding discrimination in the labour market regarding to the wage levels and further working conditions, firms already discriminate in hiring the PMB. This article should be protective against discrimination, however firms don't do it officially if they take their hiring decisions based on prejudices, because this is not provable. And also this decision prefers Turkish employees between third populations, but not between employees of member states. The article says '1. Should it not be possible **in the Community to meet an offer of employment** by calling on the labour available on the employment market of the Member States (...)' (Association Council, 1980, art.8/1). From this, it can be concluded that in the labour market of the member states, first the employees of the member states come into question, which also constitutes an indirect discrimination against Turkish citizens residing in a member state. In connection with the demographic effects, this case must be excluded because of the decline in population number in all European countries. However, the elimination of discrimination and the priority given to Turkish citizens would improve the qualification level and the status in the labour market of them, so that it would benefit the member states.

In conclusion, according to the Decision 1/80 of the Association Council in 1980 the need for employees in the member states should be covered, if not mutually possible, by Turkish workers. As stated, immigration will be needed in the future, but whether it will be a labour migration (from Turkey) or the migration of refugees, who will then be selected for their qualifications, is questionable. In the case of high-qualified refugees, EU member states have no discrimination restrictions on pay for example. These could compensate the decreasing labour supply, and increase the productivity through their high qualifications. There is also article 8/2, which gives priority to unemployed Turkish labour force, however the control of this and the elimination of discrimination is not easy. Nevertheless, the scenarios have shown that despite immigration, the population both in Germany and throughout Europe will be shrink. High-qualified immigrants, based on the decision preferred from Turkey, will be an important step to alleviate the negative development, but not the first step. First, the integration of existing migrants or PMB must be done. The process of integration is often hard and takes a long time. New immigrants have neither come into contact with the language nor they have had any experience with the German labour market. PMB born or come to Germany at a young age can speak the German language even if it is faulty. They make experience with the German education system and the culture at an early age. If their integration succeeds, they can become successors of the older high-qualified employees and can contribute to the production growth in Germany and in other European countries.

7. Conclusion

Summarized, the changes in the labour market will influence the economic growth of Germany and Europe. These changes will be in labour supply affected by the demographic change. The first chapter's describe the functioning of the labour markets based on the activities of workers and firms respectively the labour supply and demand. Their relation also affects the outcomes of the market. Labour supply depends on qualifications/ skills and individual decisions of workers, which are taken regarding to the preferences of living standard and leisure. They compare the costs and benefits of their economic decisions and act in line with maximization of the benefits.

The firms also aim to maximize profit, while making hiring decisions. For this, they decide on the number of workers in the firm when the wage equals the value of marginal labour production. The wage thus serves as an orientation for the decision-making process. However, other aspects like the skills of employees play also a role and this makes the neoclassical assumption that the factor labour is homogeneously unrealistic. Labour productivity (the value of production per input) varies from person to person and does not fit the neoclassical assumption 'homogeneity of factor labour'. Therefore work hours are important to measure the labour productivity, however individual factors like qualification plays also a role.

The skills and competences of individuals are summarized as human capital. This can be acquired from school or while working in a job and determines the degree of the productivity of a worker. Because of the significant influence on the output level respectively production, there is a close relation between labour productivity and the economic growth, measured by the GDP. Although human capital determines productivity, not all individuals have the same opportunity to expand their own human capital. As a result, there are differences in the participation of people with and without migration background in the German labour market.

The first hypothesis that there is a relation between the chances in the German labour market and migration background, which has a negative impact on PMB is strengthen through the statistics and analyzes of the German labour market that show that PMB are mostly employed in low qualified sectors like manufacturing industry. Their share in high-qualified sectors such as education, public administration, financial and insurance activities etc. are very low. Also their entry in an apprenticeship is difficult. They have a lower entry rate than Germans. The

reason of these participation differences is generally the qualification. According to the Federal Office of Statistics the share of PMB in the categories 'without any school degree' and 'intermediate degree' is higher than Germans. They get more social and unemployment benefit from the state than other. The low qualification depends on the integration level, language skills in German and their social situation in the German society.

Theories state that educational success is dependent on cultural capital, which develops in the family and is inherited by the parents. Most of PMB have a less developed cultural capital, because they come from low qualified families. Also the less knowledge of parents about the German education system and language barriers influence the educational success of their children. The German education system, which requires a preschool knowledge in German and extracurricular education activities such as homework and the unacceptance of other languages than German, is not necessarily migration-friendly and creates barriers for PMB instead of involving them. Even in the case of equal qualifications, people without migration background are favored in the German labour market. This indicates the problem of xenophobia and islamophobia, which implies prejudices about the productivity of PMB and leads to discrimination.

The disadvantage of PMB in the German education system and labour market will also have negative effects on the German economy in the context of demographic change. This statement represents the third hypothesis that the high participation of PMB in low qualified sectors will have additional negative impact on German economy and based on the demographic change there will be a gap especially regarding to the high qualified sectors, again with consequences on the German economy and welfare, which is the second hypothesis of this work. The statistics show that the population in Germany will shrink until 2060. Low fertility will lead to a decline in labour force and aging will create productivity problems. Based on the presented dates, people are productive in older ages, when they have a high qualification (academics), otherwise the productivity will decrease in old age. However, at a certain age, everyone has to retire and there will be gaps in the labour market. The negative effects on the production growth and the GDP will affect the welfare in Germany.

The free movement of workers between members of the EU will not be fill this gaps, because the demographic expectations in whole Europe are the same. In the case of immigration for example from Turkey based on the Association Council Decision 1/80, the situation would ease, but the economy would continue to be negatively affected. In addition, the integration of

high-qualified immigrants is a long process that will not have a 'quick' impact on the economy.

I propose that the integration of PMB who live in Germany and know the education system and the labour market policies and speak the German language (though faulty), is a more meaningful solution than only immigration and should be the priority of the German state. Reforms in the education system and labour market that creates a more migrant-friendly atmosphere are needed. Therefore, the integration of parents in the education system to improve their knowledge about the German language and education system would make sense. Moreover, the consideration that not all children enter the school with the same knowledge is important and should be spread. The inclusion of other languages and cultures in the classroom would improve the participation of PMB. Reforms in the labour market could be like state funding to firms for hiring foreigners. Therefore, to sum up, seeing PMB as an opportunity for the future, as a burden on society will influence the growth positively.

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