EU Agricultural and Farm Economics *Briefs*

European Commission

No 15 |Oct 2017

Young farmers in the EU – structural and economic characteristics

Only 5.6% of all European farms are run by farmers younger than 35 while more than 31% of all farmers are older than 65. These figures raise concerns about the future competitiveness of European agriculture and guaranteed food production in the coming decades.

Policies are aiming to lend a helping hand to young farmers to get their business off the ground – but who are these young farmers? What are their farms like and how do they perform? Data from European statistics[1] as well as from the Farm Accountancy Data Network (FADN) can help in answering these and related questions.

Young farmers in the EU can be characterised by:

- a low proportion in total farm numbers, agricultural land and standard output
- average-sized farms
- higher levels of professional qualification than older farmers
- below-average income levels, low capital stocks and land ownership
- high levels of net investment, below-average levels of liabilities and average debt-to-asset ratios
- high return on assets ratios

At the beginning of their farming careers, they are thus positioning their farms for the future but may be constrained by lack of access to land and credit.

Caveat:

In many cases, farms are transferred from one generation to the next within the same family. Statistical figures for farmers presented in the first part of this brief refer to the person who is legally and financially responsible for the farm. The official transfer of this responsibility often only happens when the parent farmer has reached retirement age – by which time the successor may already be older than 35 years and may have worked on the farm for a number of years. The low proportion of young farmers should thus be seen in this intergenerational context.

Structural change in European agriculture

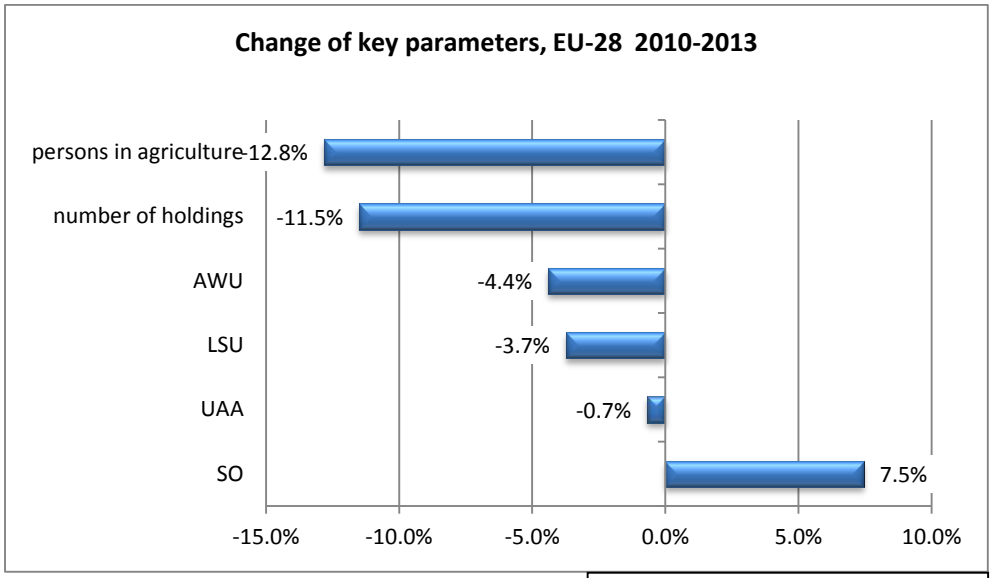
Farms and farming are changing all over Europe. People aiming to set up a farming business find themselves in an environment where fewer farms need fewer people to produce a higher amount of output. Competition for land is high and specialised skills are needed to survive in the market.

Decrease in the number of farms

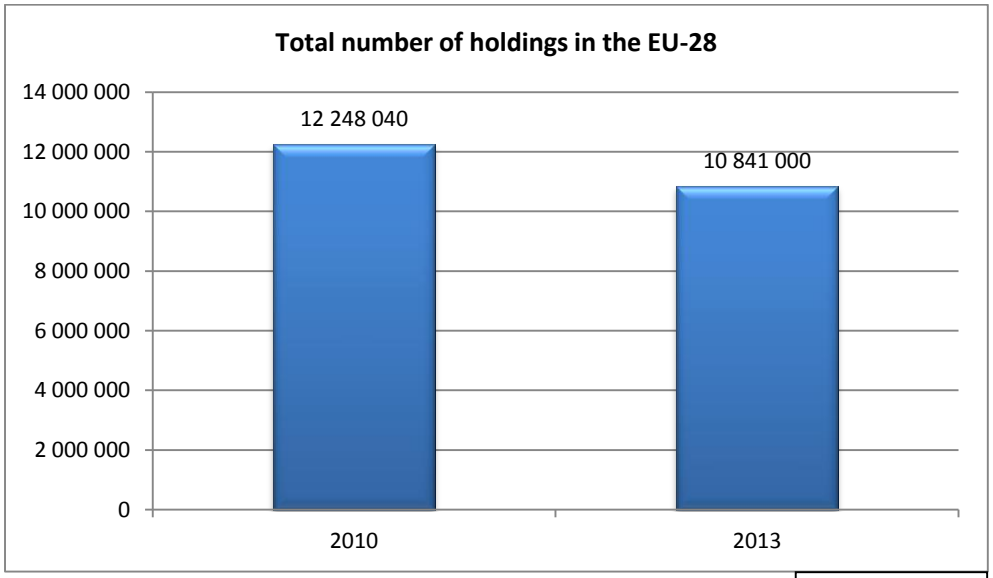
In 2013 a total of 11 million farms operated on 174 million hectares of agricultural land in the EU-28. Romania alone accounts for 33% of all European farms[2]. Between 2010 and 2013 the number of farms decreased by 11.5%. The average annual rate of decline stood at -4.0%, with greatest losses in Italy (-14.6%), Croatia (-12.3%) and Bulgaria (-11.8%).

Decline in the number of persons involved in agriculture

In 2013, approximately 22 million people were involved in agricultural work on a regular basis in the EU-28. These are people who are engaged in agriculture but not necessarily on a full-time basis. Romania (6.6 million), Poland (3.6 million), Italy (2.1 million) and Spain (1.8 million) contribute a large proportion to this number, but also Greece, Hungary and France have approximately one million farmers each. In full-time equivalents, the European agricultural labour force presents 9.5 million annual work units (AWU). Over the period 2010-2013 the number of persons engaged in agriculture declined by 12.8%, while the decline of full-time equivalents stood at 4.4%, indicating a shift to more full-time agricultural work.



Own calculations based on Eurostat data



Source: Eurostat

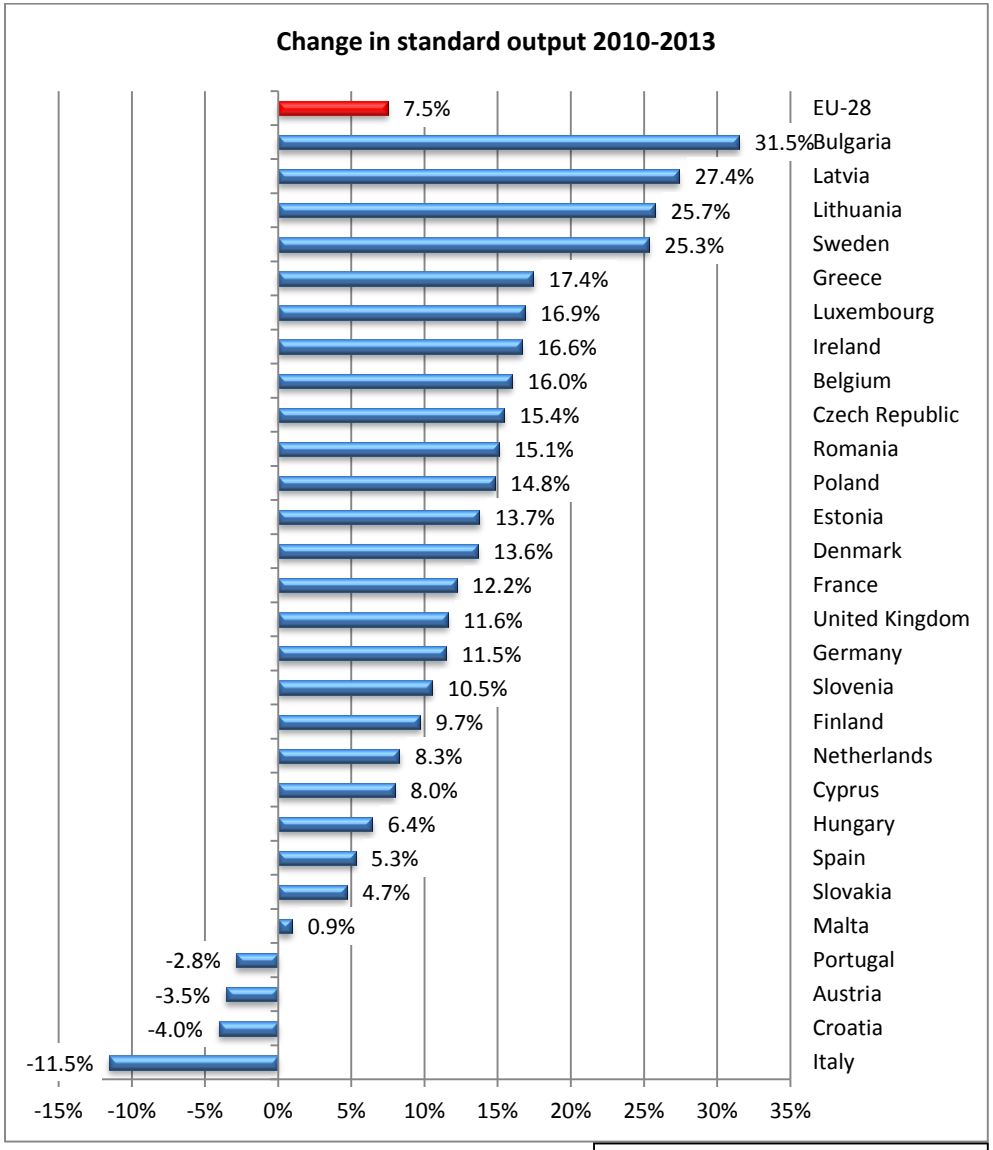
[2] The high number of farmers in Romania is at least partly due to the low threshold applied in this country for the Farm Structure Survey 2013.

Broadly stable utilized agricultural area

The utilized agricultural area remained relatively stable between 2010 and 2013 (somewhere between 175 and 178 million ha, depending on the source). France is the leading country with its 28 million hectares, covering 16% of the total UAA in Europe, followed by Spain (23 million ha; 13%), the UK and Germany (both 17 million ha; 10%).

Increasing standard output

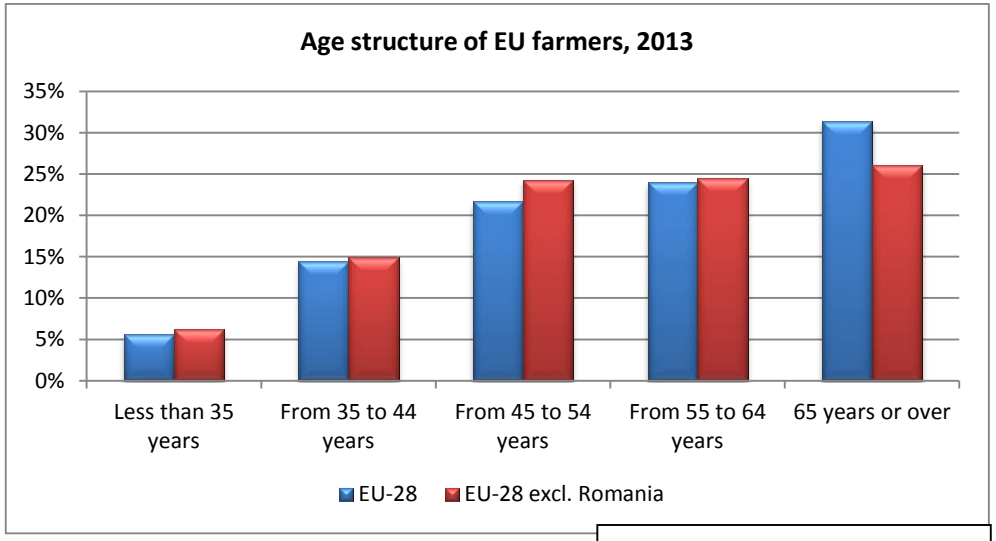
The standard output (SO) is the average monetary value of the agricultural output at farm-gate price, expressed in euro. It is used as a measure of the economic size of farms in Europe. The total SO increased by 7.5% between 2010 and 2013 in the EU-28. For an average farm, the SO increased by 21%, which shows a substantial increase in overall economic farm size. However, large differences remain: The average economic farm size in the EU-15 (EUR 62 000) is seven times higher than in the EU-N13 (EUR 8 800).



A low share of young farmers[3]

For each farmer younger than 35 there are 5.6 farmers older than 65 in Europe[4]. These are alarming figures, which need to be put into perspective.

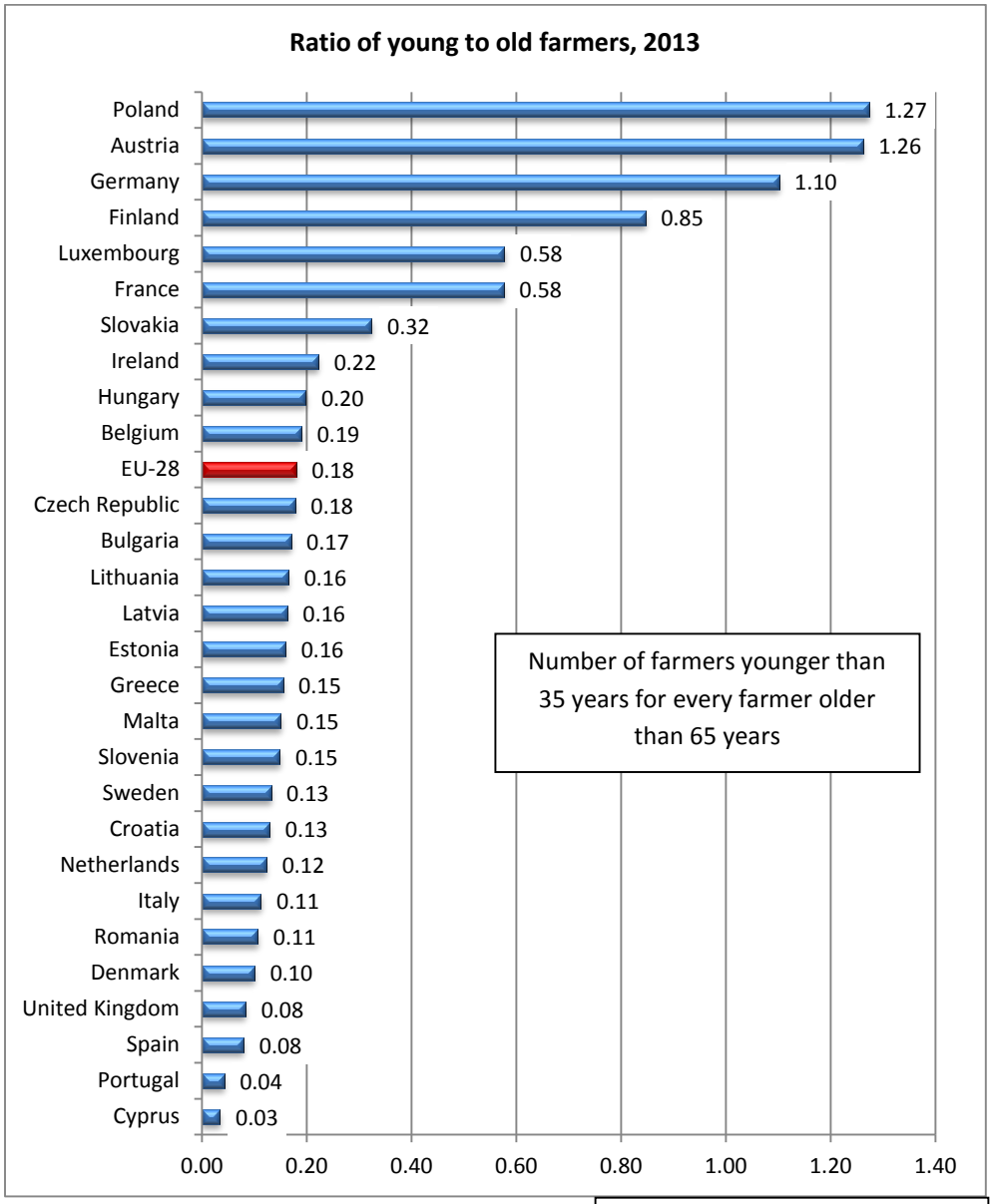
In 2013, close to one-third (31.4 %) of all farmers were older than 65 in the EU, while only 5.6% of farmers were younger than 35 years. These figures are strongly influenced by Romania, which contributes more than 45% of all EU farmers older than 65.



Own calculations based on Eurostat data

In Portugal, half of all farmers are older than 65. This is in stark contrast to Germany, Austria and Poland, where less than 10% of all farmers continue to work beyond the age of 65. The ratio of young (below 35) to old (above 65) farmers is highest in Poland, Austria and Germany (above 1) and lowest in Cyprus, Portugal, Spain and the United Kingdom (below 0.1).

For the EU as a whole, this ratio stands at 0.18, indicating a rather old farming community.

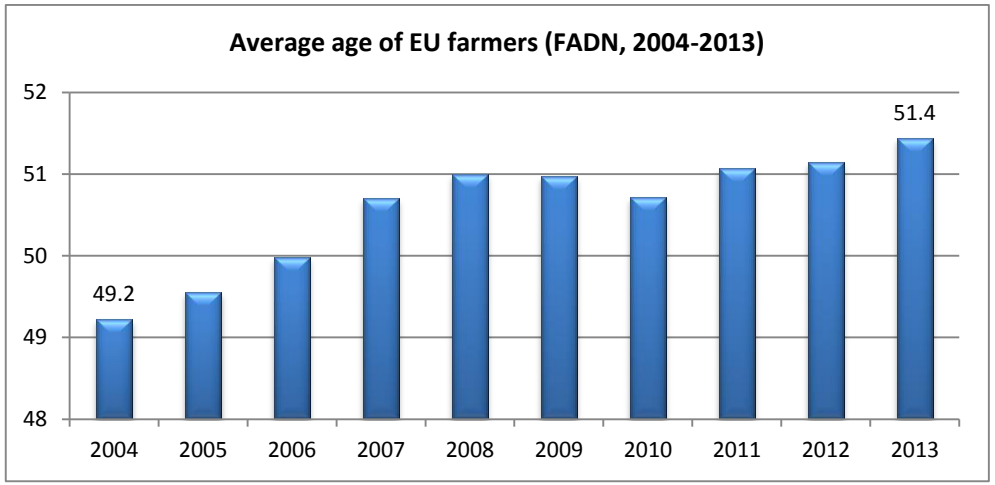


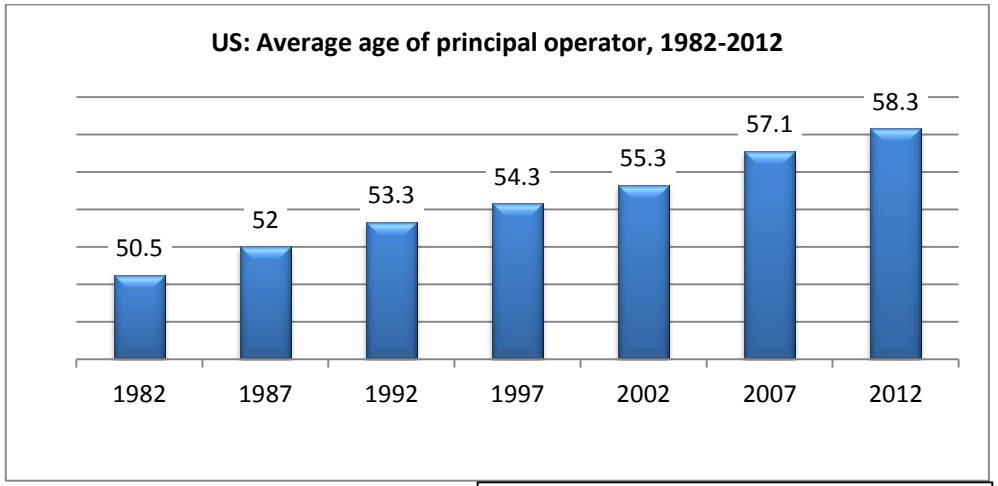
Own calculations based on Eurostat data

[3] Young famers are defined as less than 35 years old, based on the age groups used in the FSS.

[4] Farmers here mean the natural persons who are at the same time the holder and manager of a farm, thus excluding legal entities and absentee landlords.

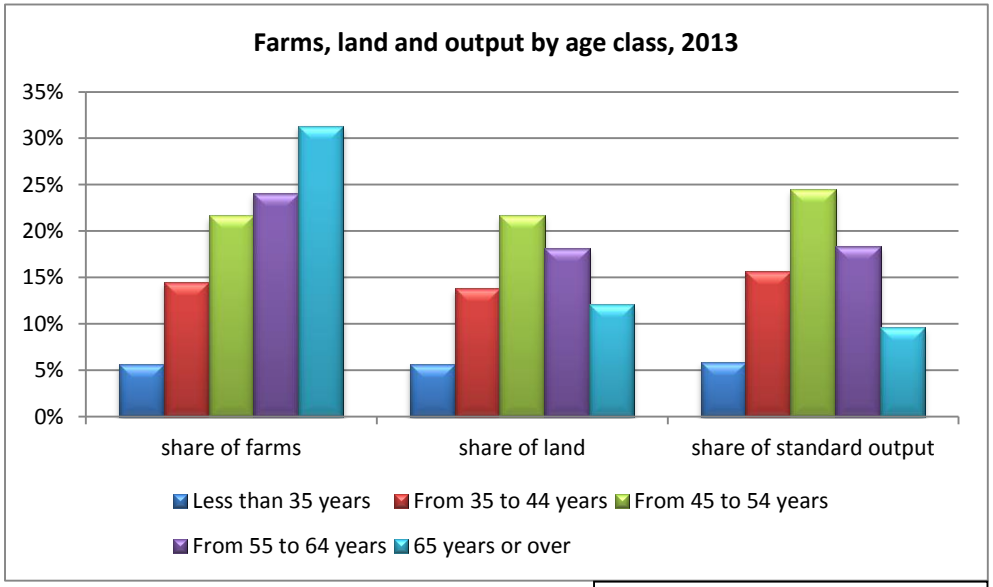
Among the so-called market-oriented farms that are included in the FADN (thus excluding the smallest farms in each country), the average age of farmers was 49.2 in 2004 and 51.4 in 2013 – a worrying increase, which is not exclusively European but can also be observed in the US, where the average age of farmers is even higher.





Source: USDA NASS, 2012 Census of Agriculture

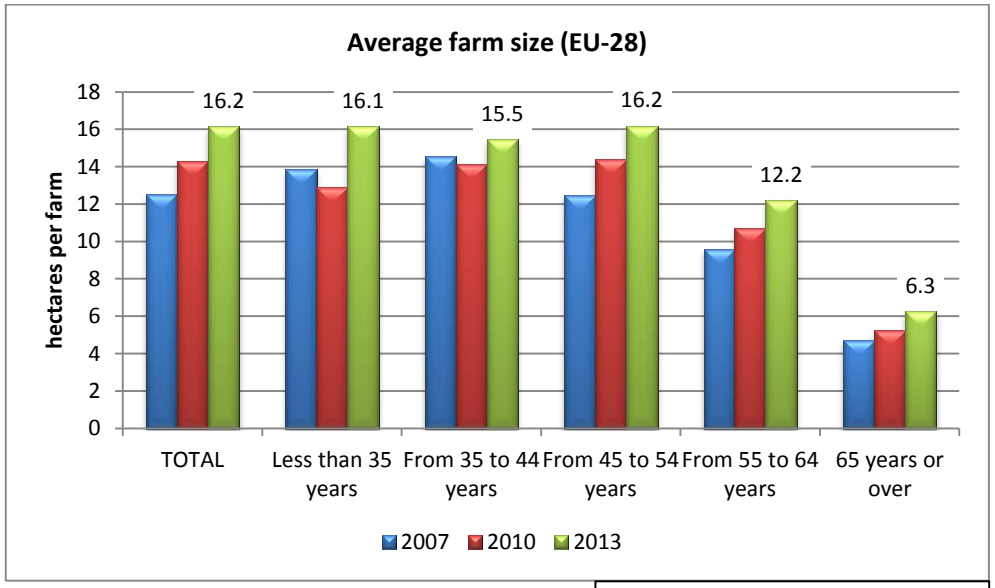
In line with their low numbers, young farmers only hold a small share of agricultural land and contribute a similar share to overall standard output. On the other hand, older farmers have a much lower share of agricultural land and output value than their proportion in farm numbers, indicating that their farms are relatively small on average. The bulk of the land and standard output lies with the middle-aged farmers.



Own calculations based on Eurostat data

Young farmers have average-sized farms

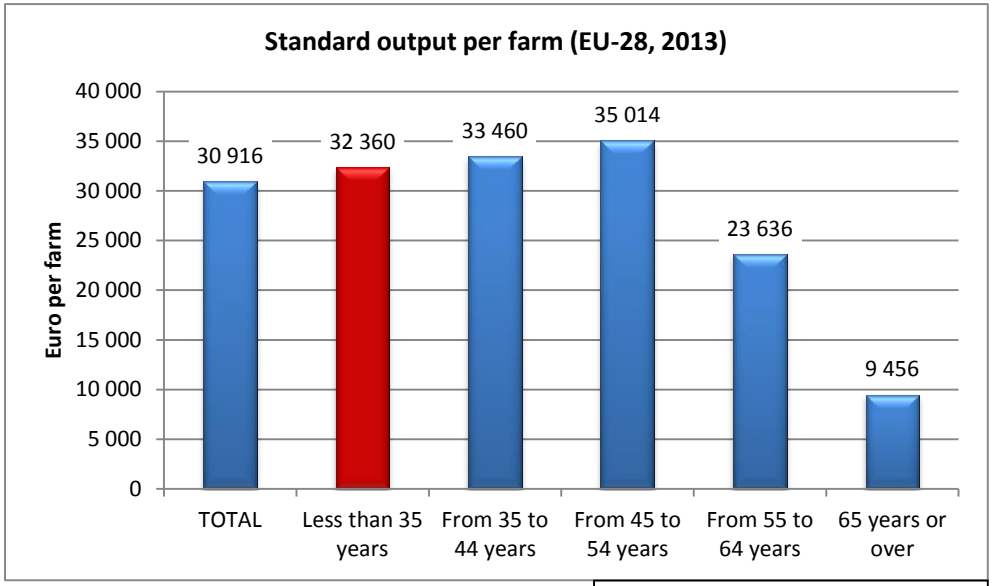
In 2013, an average farm in the EU-28 had 16.2 ha of agricultural land. Farmers younger than 35 years managed an average of 16.1 ha, almost exactly the same as the EU average. The oldest farmers had the smallest farms, with 6.3 ha on average.



Own calculations based on Eurostat data

Also in economic terms (measured by the standard output), farms run by young farmers are close to the EU average, but they are more than 3 times bigger than the farms of the oldest farmers.

The high number of farms in the hands of elderly farmers thus needs to be seen in the context of their small physical and economic size. Many such farms are in fact used for subsistence purposes or as a pension supplement.



Own calculations based on Eurostat data

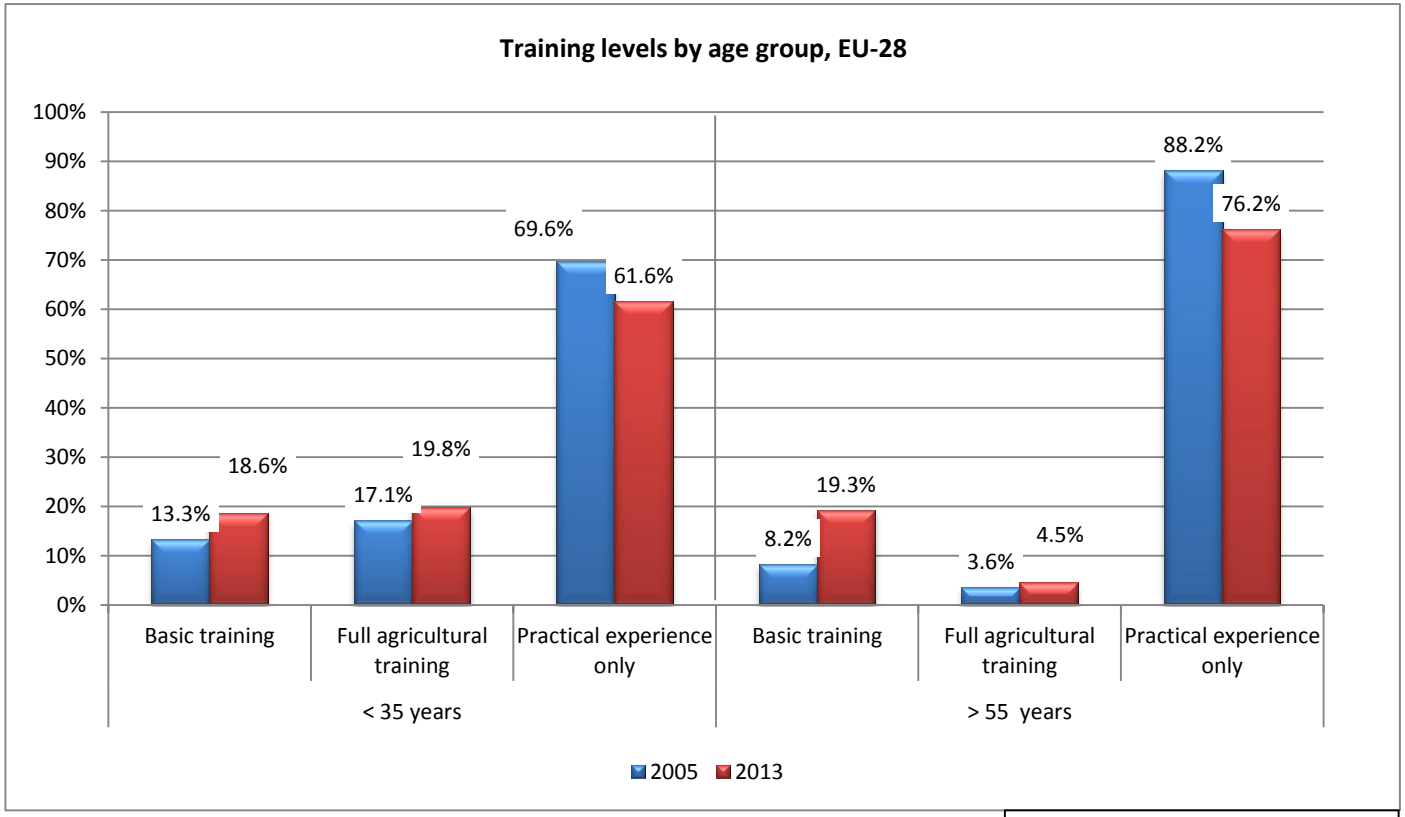
There are roughly 3.2 million farmers older than 65 years in the EU. If they would all stop farming tomorrow, this would free up 20 million ha of agricultural land – enough for 1.2 million new farms of average size. In other words, for every average-sized new farm, slightly more than 2.5 older farmers would have to stop farming. At country level, this ratio reaches 8.8 in Slovakia and 7.9 in the Czech Republic. The number or proportion of young and old farmers thus only provides a partial picture of their relative importance in EU agriculture.

Young farmers have the highest professional qualification

In 2013, one out of three EU farm managers had followed either a basic or full agricultural training course, and half of this group completed a full cycle of agricultural training. However, the majority of farm managers (68.2%) learned their profession through practical experience only.

For young farmers, this picture is changing. Nearly one out of five young farmers (19.8%) followed a full agricultural training cycle, compared to only 4.5% of farmers older than 55 years. Between 2005 and 2013, the share of farmers with basic or full training increased in both age groups, but broadly 62% of the youngest farmers still only have practical experience.

Improving the educational status of farmers and providing access to professional training remains thus a priority for policies aimed at viable food production and the sustainable use of natural resources.



Farm economics for different age groups

Farm-level accounting data from the FADN (see box) provide a wealth of information about the economic performance of market-oriented EU farmers. All of the following graphs are based on FADN data.

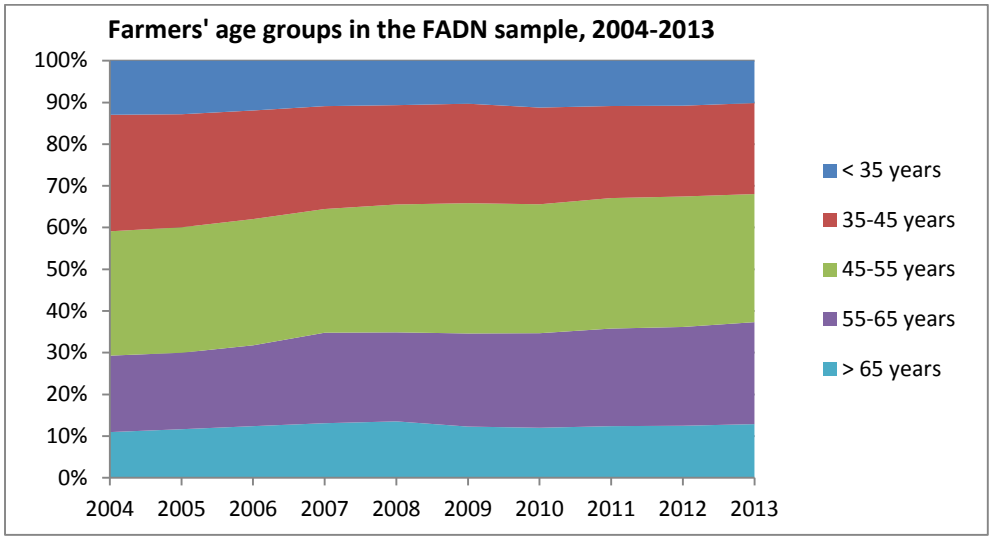
Between 2004 and 2013, the share of farmers from the two highest age groups (55 years and older) increased in the FADN sample while the share of the two youngest age groups declined. The average age of market-oriented famers in the EU-28 in 2013 was 51 years, ranging from 59 years in Cyprus to 46 years in Lithuania.[5]

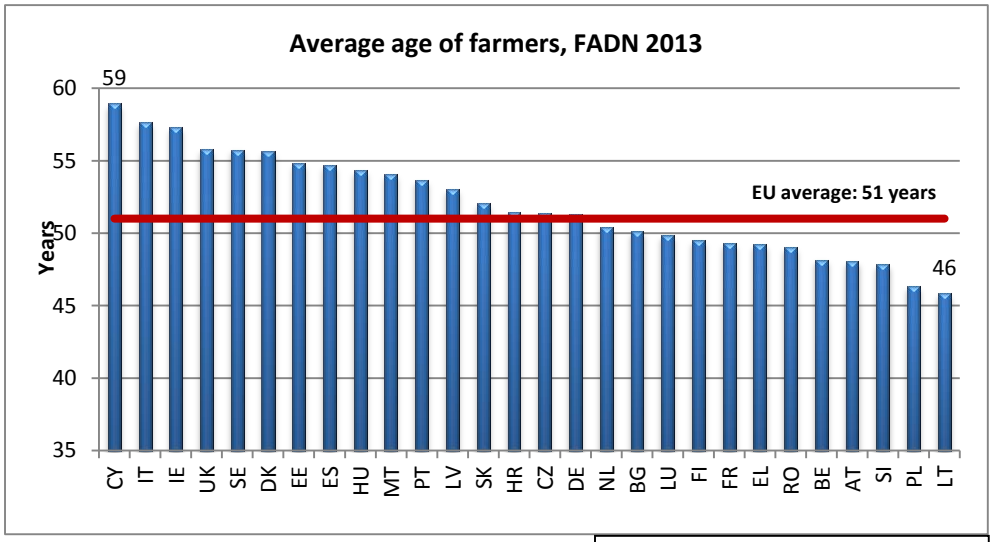
The **Farm Accountancy Data Network (FADN)** is a European system of sample surveys that are run each year to collect structural and accountancy data of market oriented farms above country-specific economic size thresholds.

It aims to monitor the income and business activities of agricultural holdings and to evaluate the impacts of the Common Agricultural Policy (CAP).

Data are representative for market-oriented holdings by region, type of farming and economic size class in all EU Member States.

FADN data for accounting years 2004-2013 will be used for the purpose of this report. The annual sample consisted of approximately 85 000 holdings in the EU-28, which represent nearly 5.0 million farms (40%) out of the total of 10.8 million farms observed in the FSS in 2013. The sample includes farmers who were born between 1930 and 1990.





Own calculations based on Eurostat data

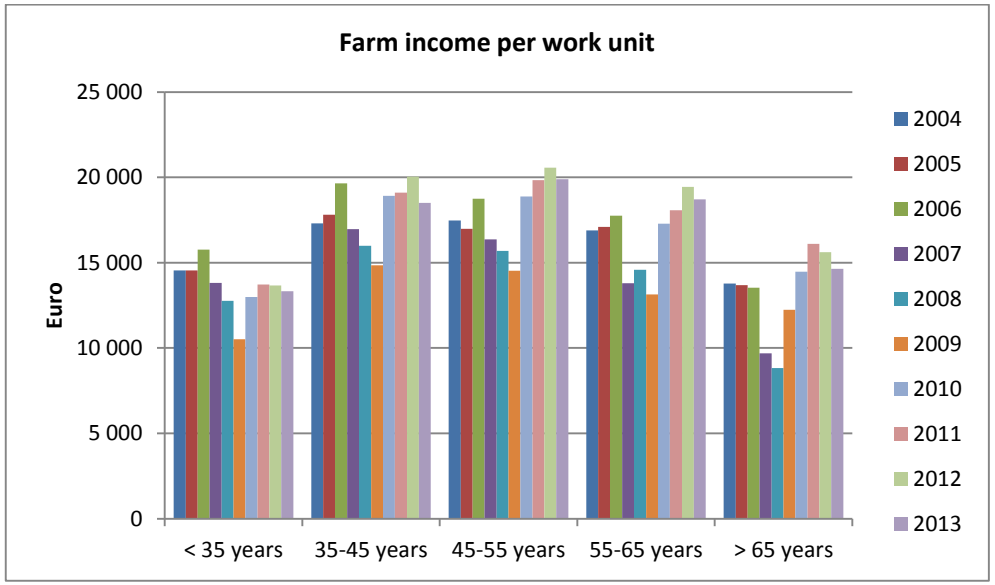
[5] The FADN distinguishes between three categories of farmers:

- farmers who are both the holder and the manager of the farm,
- holders who are not the managers of the farm
- managers who are not the holders of the farm.

The average age of farmers presented here is an average of all categories, weighted by their respective number of annual work units (AWU).

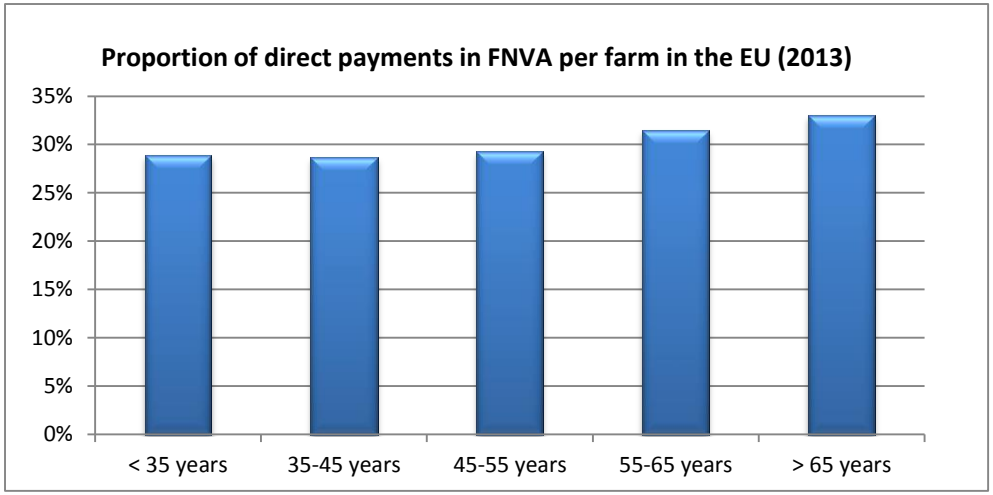
Middle- aged farmers have the highest agricultural income in the EU

Income developments since 2004 very clearly show the dip caused by the financial crisis in 2008/2009, followed by a period of recovery. This pattern is common for all age groups. However, recovery has been less pronounced for farmers in the youngest age group, who now have the lowest income levels per work unit. Middle-aged farmers (between 35 and 65 years) show the highest income levels, while the oldest group of farmers earned more than the youngest since 2009.



The income situation for the various age groups is different across Member States. Especially in some of the older Member States, younger farmers have earned the highest income for a number of years. However, they earned less than older farmers mostly in those Member States that joined the EU in 2004 or later.

Direct payments account for roughly 30% of farm income, with minor differences across age groups.



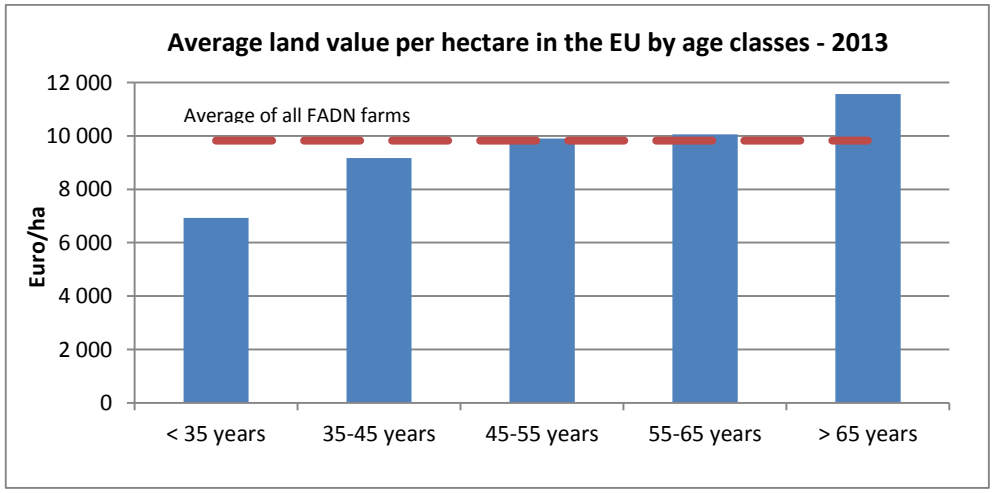
For the purpose of this brief the income of farmers by different age groups is measured using the Farm Net Value Added (FNVA). This is equal to Gross Farm Income minus the costs of depreciation. It is used to remunerate the fixed factors of production (labour, land and capital), whether they are external or family factors. As a result agricultural holdings can be compared regardless of the family/non-family nature of the factors of production used. The FNVA is usually expressed per annual working unit (AWU) in order to avoid masking the differences in farm size, type of farming or structural decrease in the labour force employed in agriculture. FNVA/AWU can be seen as a measure of labour productivity.

Land values

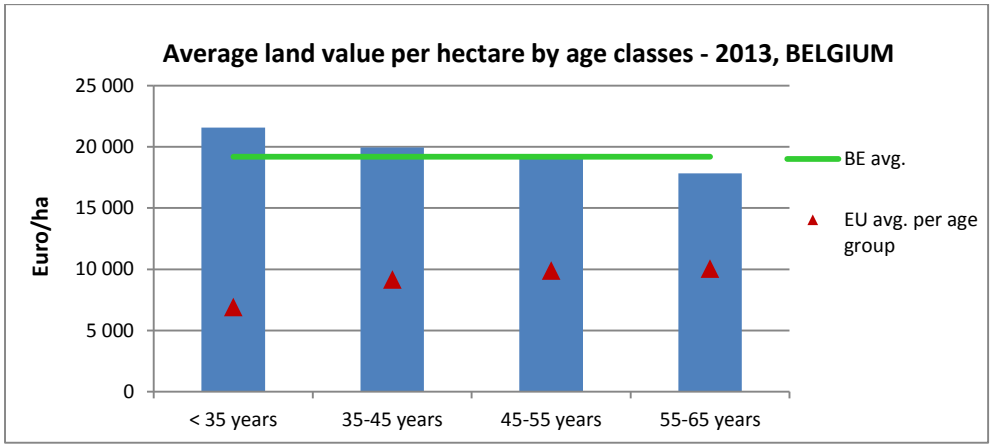
Land is a key factor for most types of agricultural production. In Europe, most agricultural land has been in use for a long time, making it difficult for new entrants into farming to find sufficient affordable land of good quality.

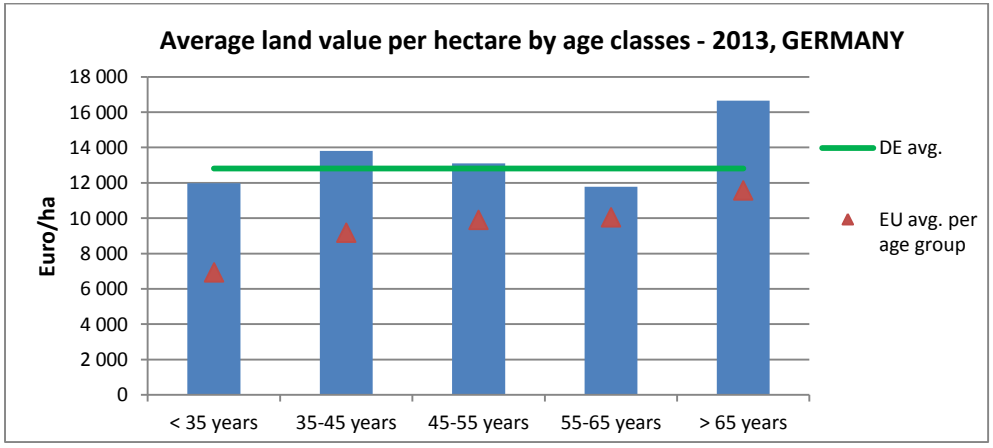
Higher land values for older than for young farmers

On average, one hectare of agricultural land in the EU was worth about EUR 10 000 in 2013[6]. This value was lowest for the youngest farmers (EUR 6 931), while farmers older than 65 years had land with the highest average value (EUR 11 565). In the FADN sample, Poland, Spain and Romania have the highest share of owned land (together they account for 45% of owned land in the age group < 35 years). The average land value per hectare is very low particularly in Romania, which has a big impact on the European average.

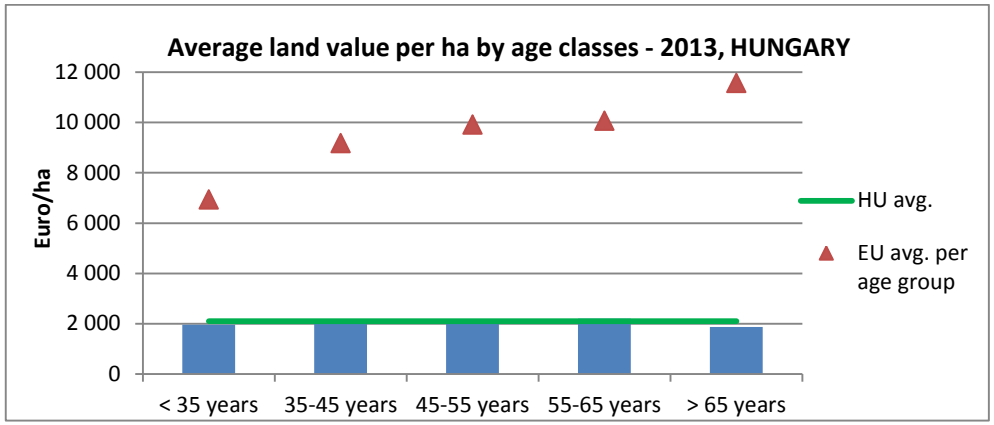


At country level, three different groups can be distinguished. Young farmers have the most valuable land in Belgium, Luxemburg, Portugal, Sweden and Ireland. In Germany, Greece, Austria and Italy, land value increases gradually with age. In the third group of countries there is no significant difference in the land value across farmers' age groups. This is true for Hungary and Poland.

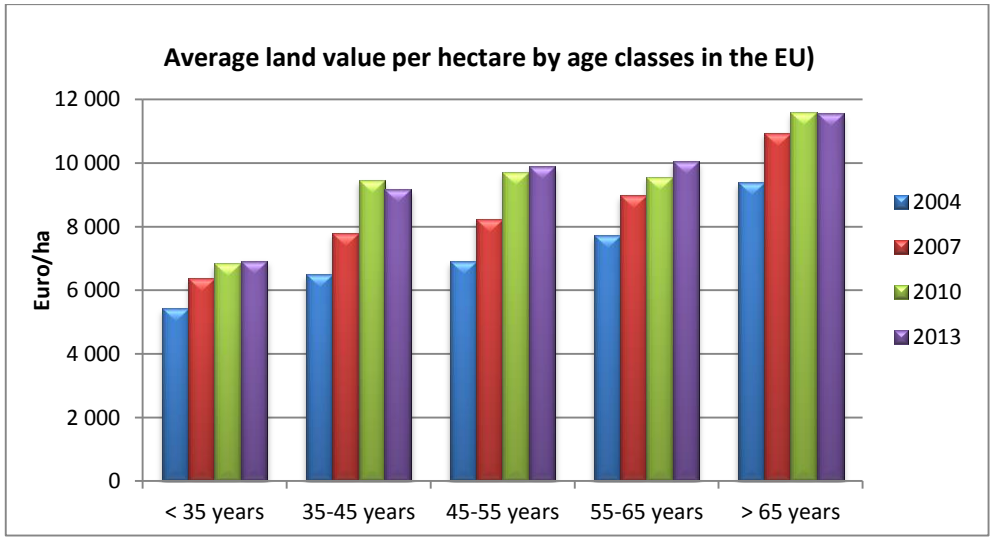




[6] The land value was calculated per hectare and as weighted averages of the closing valuation of owned land recorded in the Farm Return.

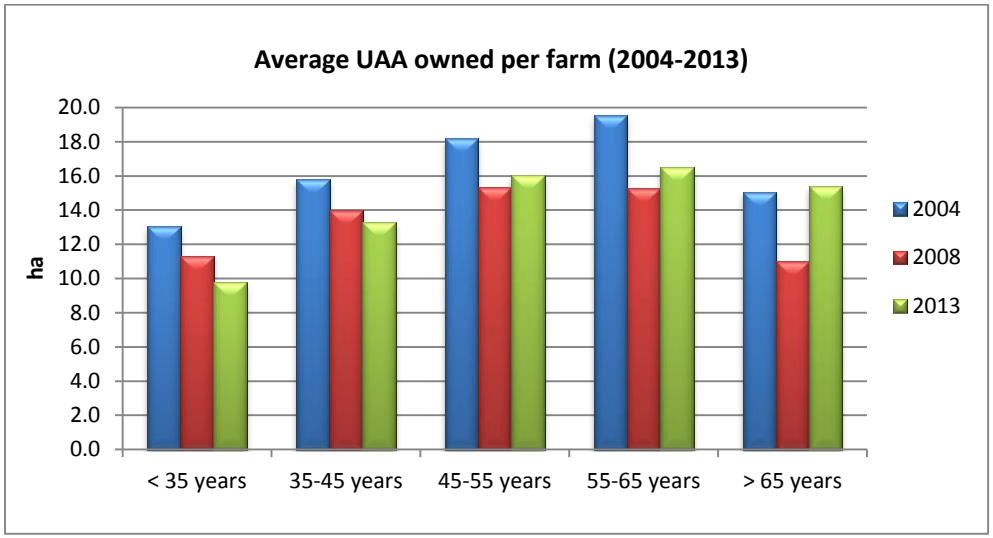


The average value of land has increased by 39% over the last 10 years. The greatest increase can be seen in the age group 45-55 years (+ 43%).



Young farmers own less agricultural land than older farmers

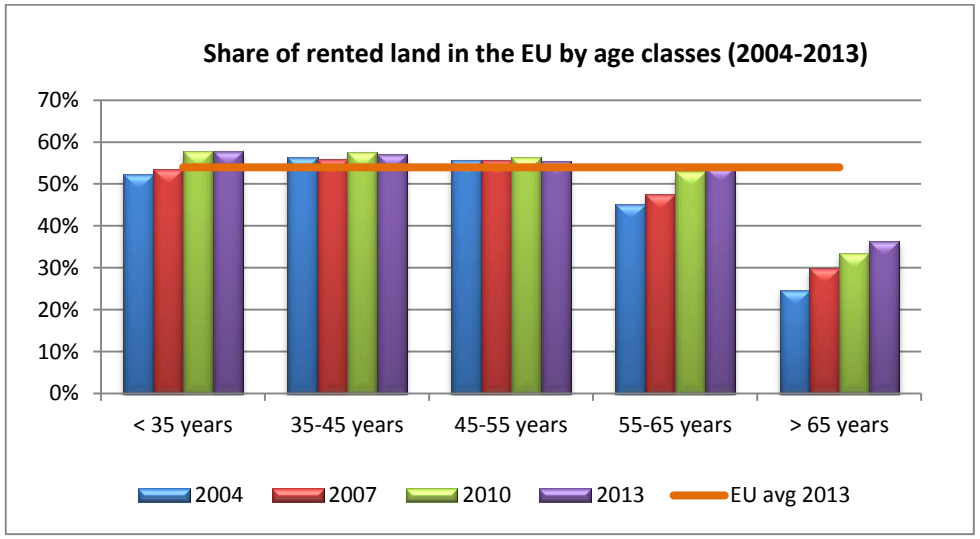
Among market-oriented farms in the EU (excluding small farms below a certain economic size threshold), farmers younger than 35 owned on average 9.8 ha of agricultural land – significantly less than the 16.5 ha owned by farmers aged 55-65 in 2013[7]. The data suggest that farmers increase their agricultural area until the age of 65 and keep only a part of it later in life. Since 2004 the average area owned by the farmer has decreased steadily for the youngest age groups. In the older age groups, the increase of owned land between 2008 and 2013 might be related to the accession of Romania to the EU, which brought a high number of older farmers into the FADN sample.



[7] Average farm sizes presented on page 6 are calculated for all farms included in the farm structure survey, many of which are smaller than those in the FADN sample used here.

Most market-oriented farmers rent (increasingly) more land than they own

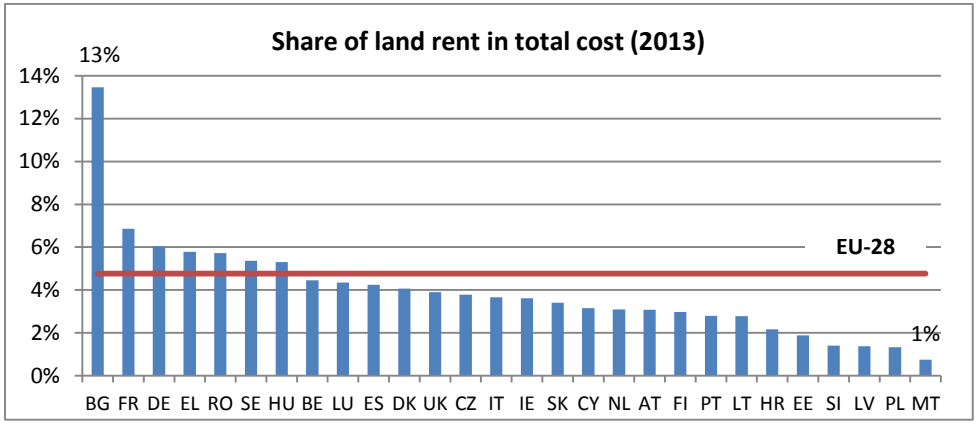
Market-oriented farms in Europe rent 54% of their land on average, with significant differences among countries. The two extremes are Slovakia and Ireland, where the share of rented land is 95% and about 20% respectively. The share of rented land has increased since 2004 for the youngest and oldest farmers, while it remained quite stable for middle-aged farmers.



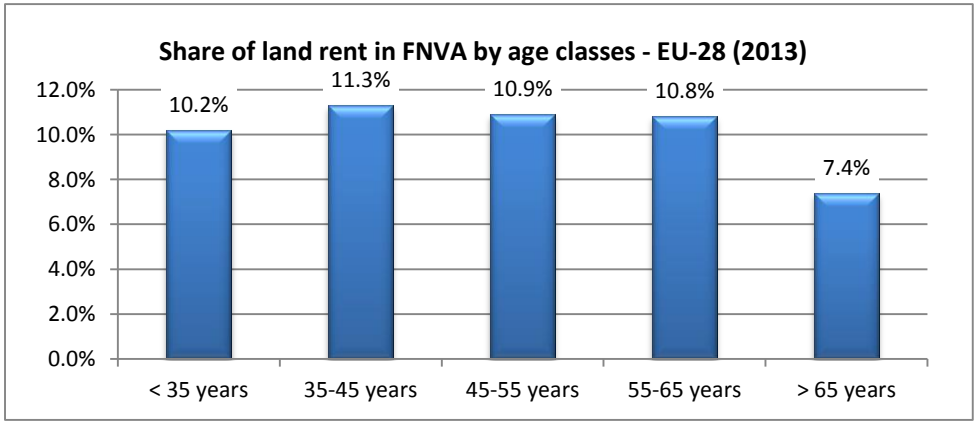
In most countries, the youngest farmers have the highest share of rented land, while the oldest farmers have the lowest share, supporting the notion that young farmers aim to increase the size of their farms while older farmers are reducing their farming activities.

Land rents make up roughly 5% of total costs

Across the EU, land rents can take up as much as 13% of total costs (in Bulgaria) or as little as 1% (in Malta). On average, farmers use roughly 5% of their total costs for land rents, a moderate amount that does not differ much among age groups.



About one-tenth of the farm net value added (FNVA) across the EU is spent on land rents, again with minor differences among age groups. Only the oldest farmers (who tend to have less rented land than younger farmers, see above) spend a smaller proportion.

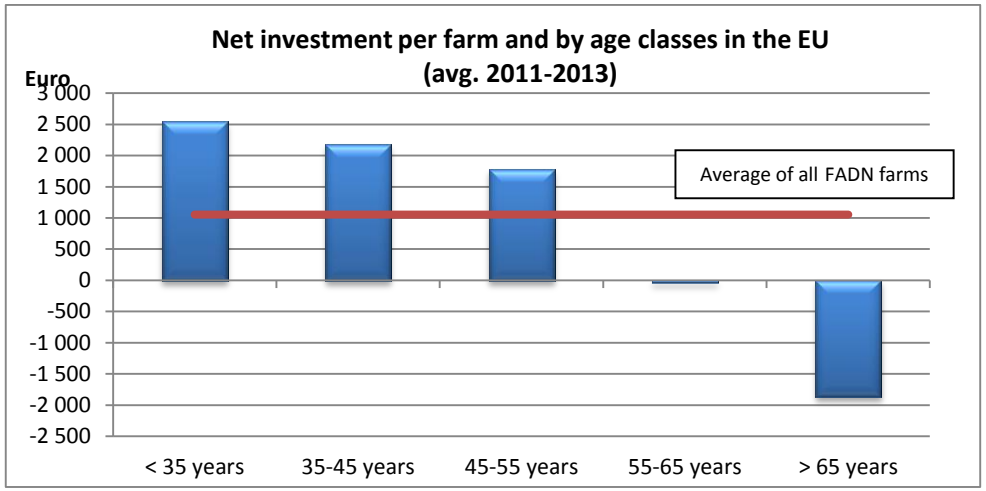


Young farmers invest more than farmers in other age groups

Investments aim to improve a farm's productivity, competitiveness and sustainable use of natural resources, thereby preparing it for the future. This is particularly important for new entrants into farming, who may be starting from scratch or take over farms in need of modernisation.

Net investment is defined as gross investment minus depreciation. It shows how much money an agricultural enterprise is spending on capital items (such as buildings, machinery, plants etc.) that can improve the productive capacity of the holding. Net investments depend on the type of farming since they are not equally capital intensive. In countries with big average farm sizes, net investments per AWU are considerably higher than in countries with smaller farm sizes.

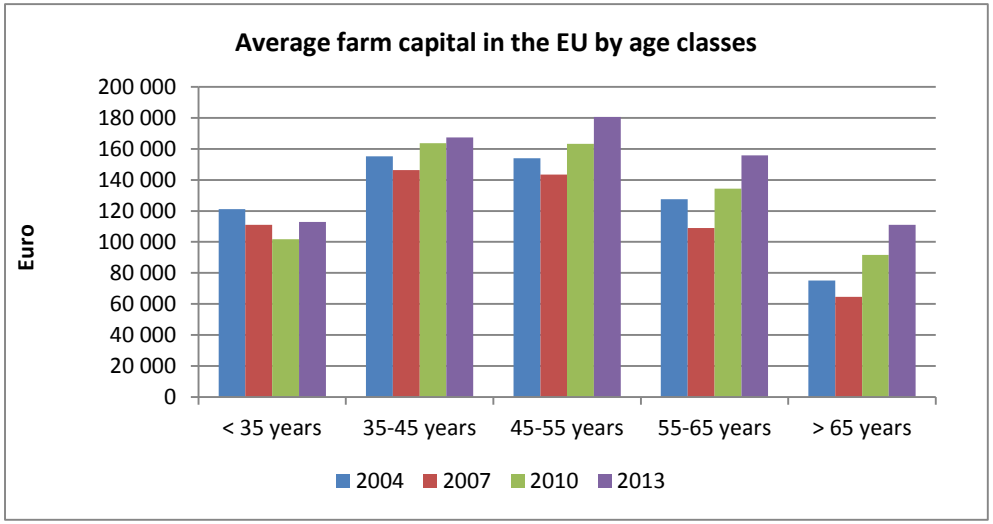
In 2011-2013, farmers younger than 35 years had the highest net investment value per farm on average. In contrast, the oldest farmers had negative net investments, which means that they were not replacing their capital stock in line with depreciation – a sign of phasing-out of production activities.



Young and old farmers have the lowest farm capital on average

The farm capital represents the value of working capital, including livestock, permanent crops, land improvements, buildings, machinery and circulating capital.

The youngest and oldest farmers have the lowest farm capital on average. While for the older farmers this might be due to their small farm size, younger farmers often have only just started their farming activities and still need to build their capital stock.



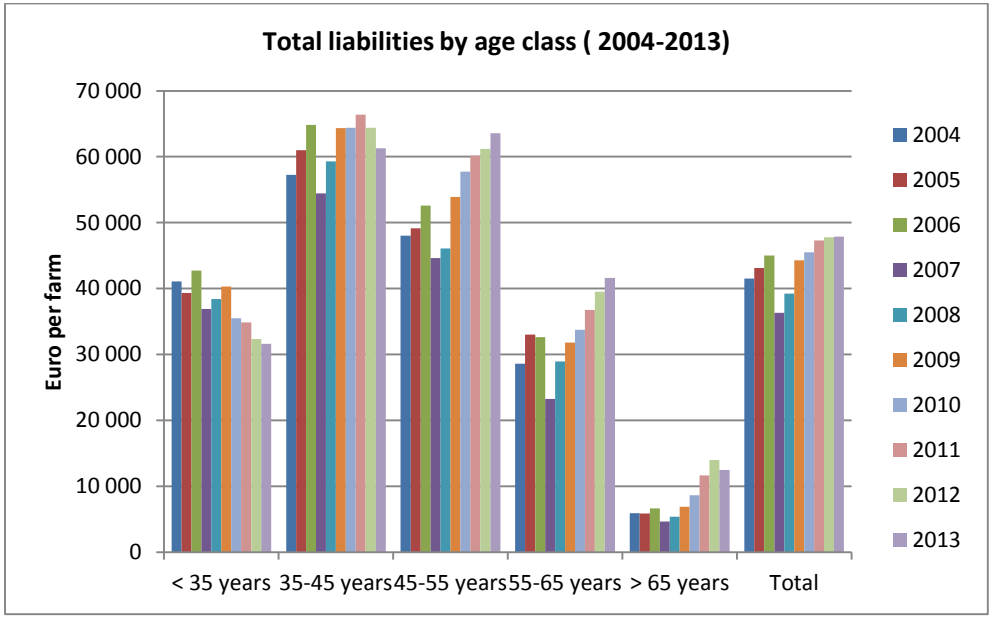
However, differences can be observed between countries. Young farmers actually obtain the highest average farm capital in the Netherlands, Luxemburg, Sweden, Belgium and Poland.

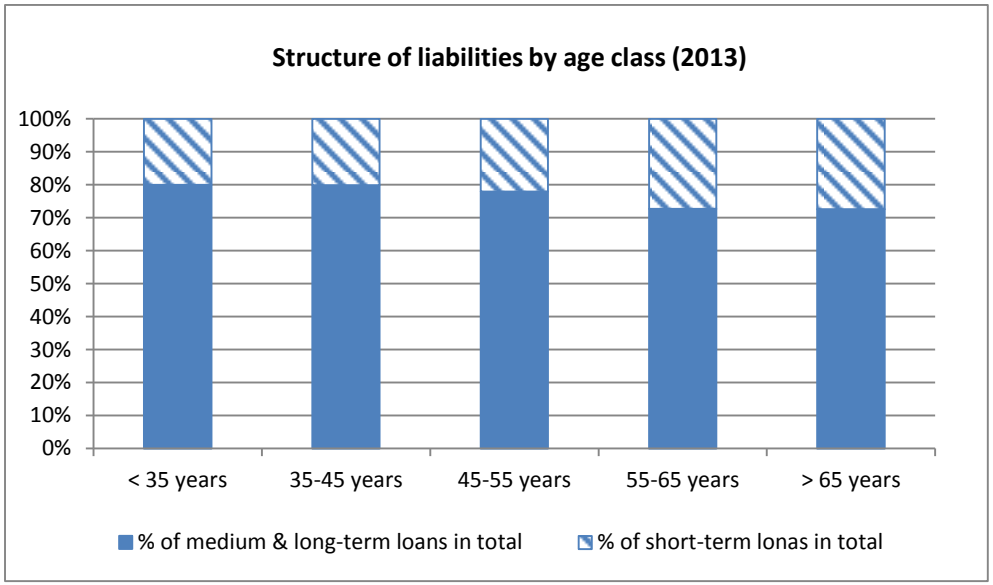
Low and declining level of liabilities for young farmers

While middle-aged farmers have the highest (and rising) level of liabilities (long-, medium- and short-term loans), indebtedness decreases with age and is lowest for farmers older than 65. For young farmers, the level of liabilities is below the EU average and has been declining over the last decade – a possible sign for problems in accessing credit markets, further exacerbated by their low level of farm capital and own land that could be used as collateral (see above).

Medium- and long-term loans clearly dominate the structure of liabilities for all age groups. The proportion of short-term loans increases for the higher age classes, but they remain low in absolute terms (around 3 400 Euros on average for farmers older than 65).

The average interest rate paid by farmers was 3.2% in 2013, regardless of the farmers' age.

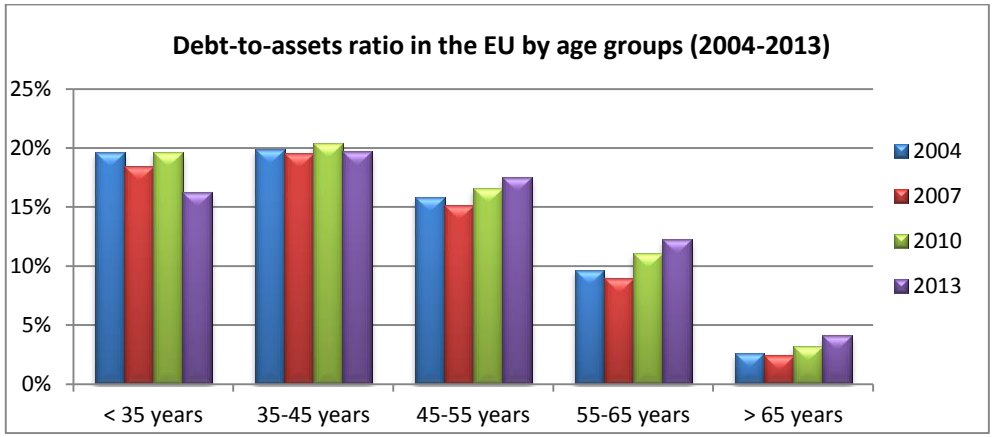




Younger farmers have higher debt-to-asset ratios than older ones

The debt-to-assets ratio shows the percentage of a holding's assets that are financed through debt. A high ratio indicates a high level of liabilities in relation to existing assets and is sometimes associated with a greater risk of the firm's operation. It also means a reduced capacity of taking up new loans due to the already heavy debt burden. However, a high debt-to-assets ratio is not necessarily a sign of a financially vulnerable position but can also indicate the farm's ability to access outside financial sources for investments.

On average, the debt-to-asset ratio of European farmers is relatively low, not exceeding 20%. Farmers in the younger age groups are more highly leveraged than older farmers.



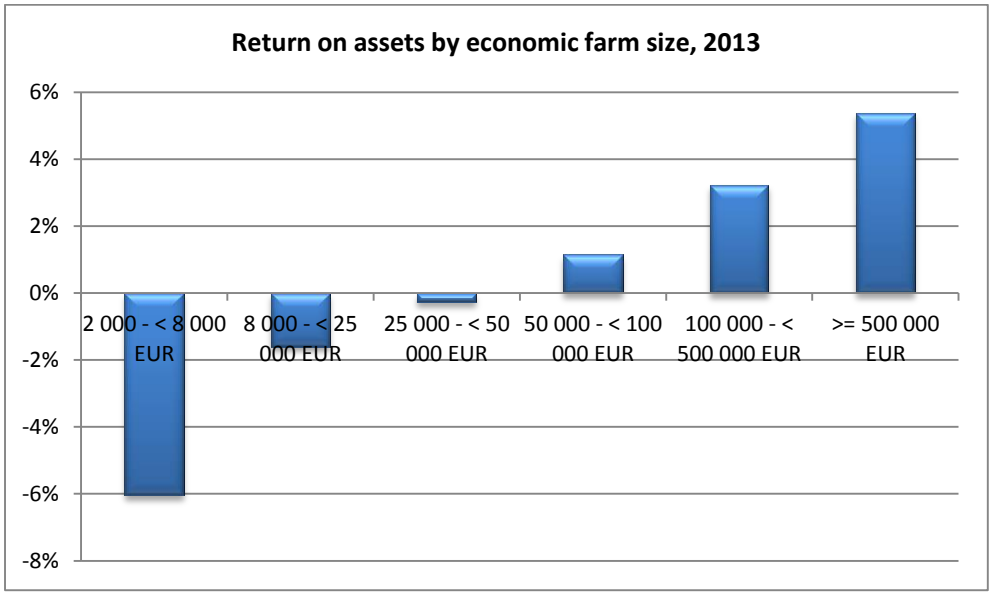
Debt-to-asset ratios tend to be higher at the outset of one's farming career, when important investments are required to get the business off the ground. Such investments become less frequent beyond the farmer's retirement age, when farming activities are being phased out. Older farmers are also more likely to have repaid most of their debt, leading to a lower debt-to-asset ratio in the higher age groups.

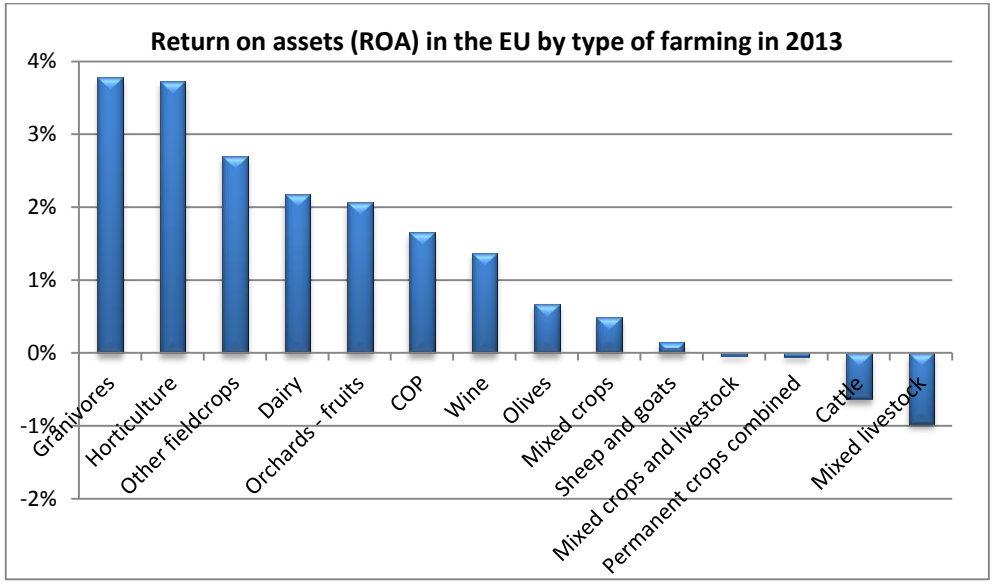
Young farmers have higher return on assets than older ones

The return on assets (ROA) is a ratio which represents the total income generated from the farm, divided by the total assets employed to generate this income. The larger this percentage, the better is the return on all investments in the business.

Operations owning a large portion of their land need higher earnings per hectare than operations renting a large portion of their land in order to have identical returns on assets.

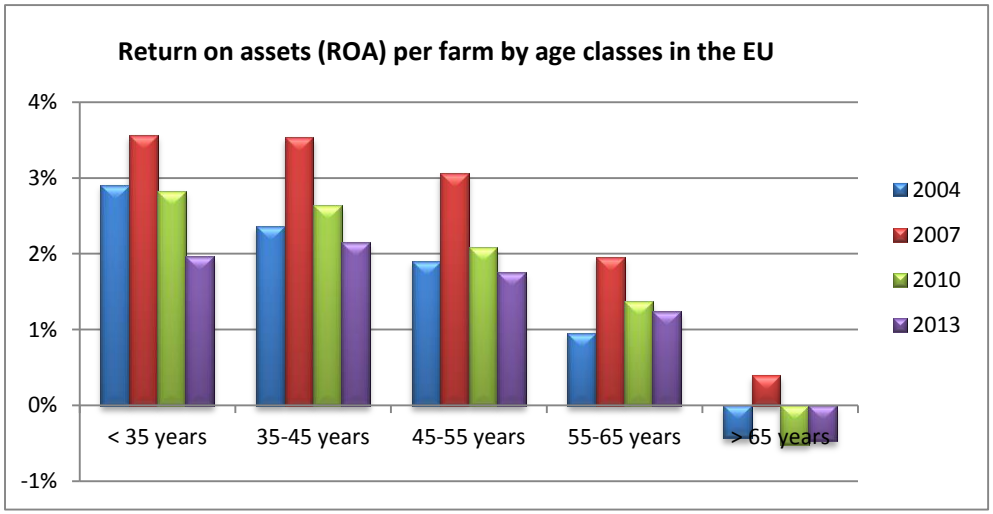
The ROA increases with economic farm size, suggesting greater profitability for larger-scale operations. The average ROA for farms in Europe was 1.5%.





In the EU, farms specialised in granivores (pigs and poultry) and horticulture had the highest ROA (these are also those farm types that normally have the smallest agricultural area, which reduces the overall asset value, combined with high output values), while mixed farming systems and cattle had the lowest ROA.

Young farmers achieved the highest ROA especially in 2007 and 2010. In 2013, the overall ROA was lower for all age groups, but still above average for the youngest farmers.



Conclusions: Not only the number of young farmers counts

The proportion of farmers younger than 35 years is indeed low in most European countries. While this reflects to a certain extent the general ageing of rural societies, it is also linked to the intergenerational transfer of farms and the fact that the oldest farmers have the smallest farms – for every average-sized new farm, slightly more than 2.5 older farmers would have to stop farming. The proportion of young farmers thus cannot be expected to grow as quickly as the proportion of older farmers declines.

The small share of young farmers is often seen as problematic in light of the future competitiveness of European agriculture and guaranteed food production in the coming decades. Should we worry that there will not be enough farmers in 30 years' time to produce our food? Anecdotal evidence shows that the number of students studying agriculture and related subjects is growing[8]. Young people are thus clearly interested in careers based on agriculture.

The fact that the utilised agricultural area has remained largely stable over the last decades (with losses due to urbanisation but no large-scale abandonment of agricultural land) shows that the production base is maintained, even if most land is managed by middle-aged farmers. A new entrant into farming will often take over an existing farm, since most suitable land is already in use. Thus, land may be difficult to find if it is not inherited. The higher proportion of rented land among young farmers indicates a desire to increase the size of the farming operation, which is constrained by the lack of suitable land.

Clearly, starting an agricultural business requires substantial investments, which often become productive only after a number of years. This applies to all new entrants into farming, regardless of their age. The fact that young farmers have high levels of net investments shows that they see a future in farming and are willing to modernise their operations. However, given their low farm capital and land value, they have little to offer as collateral for loans, which may act as a limitation for even greater investments.

Access to land and credit are often cited as the two main constraints for young farmers – in fact, they are constraints for all new entrants into farming. While land is a finite resource and land ownership is a sensitive issue, there are various ways in which the availability of credit for farmers can be addressed, which would certainly benefit young farmers.

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[8] https://www.theguardian.com/education/2016/mar/31/agriculture-uk-fastest-growing-subject-career-student-farmers

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