

Susan E. Dudley, Lydia Holmes, Peter Linquiti, Brian Mannix,
Daniel R. Pérez, Aryamala Prasad, & Zhoudan Xie¹

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Abstract

As part of a cooperative agreement with the United States Department of Agriculture (USDA), the George Washington University Regulatory Studies Center produced a five-chapter report on regulatory differences between the United States (U.S.) and the European Union (EU) and their effects on agricultural productivity. Those chapters are published here as a working paper series with five parts. This chapter provides an overview of key statistical comparisons between the agricultural sectors of the U.S. and the EU. Its purpose is to highlight key economic indicators, describe the role that agriculture plays in each economy, and highlight differences in each jurisdiction's respective factor endowments and trade patterns. In addition, this chapter updates key statistics contained within the USDA Economic Research Service's (ERS) 2004 report: *U.S. – EU Food and Agricultural Comparison*.³

¹ The authors are affiliated with The George Washington University Regulatory Studies Center and can be reached at regulatorystudies@gwu.edu.

² This five-part working paper series was sponsored by a cooperative agreement with the United States Department of Agriculture. This working paper reflects the views of the authors, and does not represent an official position of the GW Regulatory Studies Center, the George Washington University, or the United States Department of Agriculture. The Center's policy on research integrity is available at <http://regulatorystudies.columbian.gwu.edu/policy-research-integrity>.

³ Note that the report below generally uses the latest available data from sources such as USDA ERS and Eurostat (e.g. 2014 or 2015). However, data from earlier years are sometimes used to preserve the validity of comparisons between the U.S. and EU for which more recent data are not available from the same source. There is variation in the timing of data availability depending on the source organization. While USDA ERS and Eurostat provide very recent data, internationally comparable data available from FAO is only available up to 2013.

Introduction

The United States is a Federal Republic consisting of 50 States and the District of Columbia. Under the U.S. Constitution, governmental powers are shared between federal and state governments. Powers related to national security, monetary policy, foreign affairs, and the regulation of commerce are vested in the federal government; any powers not delegated to the federal government or prohibited to the states, are reserved to the states or to the people.⁴ Thus the federal and state governments share responsibilities affecting agriculture. At the national level, the USDA is charged with implementing national agricultural policies, and state governments have their own departments of agriculture. The key agricultural policies of the federal government are established in a Farm Bill passed by the U.S. Congress every five years or so, which authorizes services and programs regarding farm support, rural development, trade and foreign agriculture, research, nutrition, and conservation, among others.

The EU's scope has expanded since its creation as the European Economic Community (EEC) in 1957. The initial six member states—Belgium, Germany, France, Italy, Luxembourg, and the Netherlands—came together to foster economic cooperation. Gradually, free movement of goods and services and adoption of a single currency by most member states strengthened the EU. The Union has increased its membership from six member states in 1958 to 28 member states in 2015 (EU-28) through six phases of enlargement. The largest expansion was in 2004 when ten countries—Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia, and Slovenia—joined the union, expanding EU-15 to EU-25. Croatia is the latest country to be included in the EU in 2013. The pending departure of the UK from the EU, as called for in the 2016 “Brexit” referendum, would be the first time any country separated from the union.

The initial six member-states adopted a Common Agriculture Policy (CAP) in 1962, which focused on market stabilization, productivity improvement and price support but subsequently included environmental measures during the late 1980s which became compulsory for member states as of 1992.⁵ The European Commission's Directorate-General for Agriculture and Rural Development is responsible for implementation of all aspects of agriculture policies such as farm support, market measures, rural development policy, financial and legal matters, and agricultural trade.

Agriculture is an important sector, economically and politically, in both the U.S. and the EU. The share of agriculture as a percentage of the total economy is similar in both the regions. As of 2016 agriculture contributed approximately 1.6 percent and 1.1 percent to

⁴ Government Printing Office. (n.d.). *Tenth Amendment Reserved Powers*. Retrieved from <https://www.gpo.gov/fdsys/pkg/GPO-CONAN-1992/pdf/GPO-CONAN-1992-10-11.pdf>

⁵ European Commission (2016c) Agri-trade in 2015. *Monitoring Agri-trade Policy*, MAP-2016-1: http://ec.europa.eu/agriculture/sites/agriculture/files/trade-analysis/map/2016-1_en.pdf

the EU and U.S. Gross Domestic Product (GDP), respectively.⁶ It is also worth noting that farm outputs are essential inputs for several value-added industries such as food service, textiles, leather products, and forestry and fishing. In the U.S., agriculture and agricultural related industries, combined, contributed \$835 billion, or 4.8 percent, to U.S. GDP⁷ compared to 1.5 percent in the EU.⁸

Agriculture in the U.S. also produces significant quantities of renewable fuels; here ethanol is primarily derived from corn, while biodiesel is primarily produced from soy.⁹ According to the U.S. Energy Information Administration (EIA), “approximately 40 percent of total domestic corn crops [were] diverted from food and animal feed to ethanol production” in 2012—a sizeable increase from just 14 percent in 2005.¹⁰ However, the decline in the use of corn for feed is partly offset by the use of ethanol byproducts, such as distiller’s dried grains with solubles (DDGS), which are used for feed and may offset a portion of the decline caused by diversion.¹¹

In the EU ethanol is primarily derived from grains and sugar beet derivatives, but there are regional differences. Northwestern Europe relies on wheat; central Europe on corn; and France, Germany, and Belgium use sugar beets for the production of bioethanol.¹² Earlier, the EU imported corn from the U.S. but many member states now prefer to source non-GM (not genetically modified) corn from Ukraine because “producers...prefer to market their distillers dried grains (DDG) as non-GM to the domestic feed market”.¹³

⁶ U.S. Central Intelligence Agency (2016). *World Fact Book*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/fields/2012.html>

⁷ USDA ERS (2016a). “What is agriculture’s share of the overall U.S. economy?” *Ag and Food Sectors and the Economy* Retrieved from <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy.aspx>

⁸ Eurostat (2016). Agriculture Statistics – family farming in the EU. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Agriculture_statistics_-_family_farming_in_the_EU

⁹ U.S. Energy Information Administration. (2012, October). Biofuels Issues and Trends. Retrieved from: <http://www.eia.gov/biofuels/issuestrends/pdf/bit.pdf>

¹⁰ Wisner, R. (2009). Corn, ethanol and crude oil prices relationships – implications for the biofuels industry (AgMRC Renewable Energy Newsletter) Retrieved from: <http://www.agmrc.org/renewable-energy/ethanol/corn-ethanol-and-crude-oil-prices-relationships-implications-for-the-biofuels-industry/>

¹¹ Duffield, J., Johansson, R., & Meyer, S. (2015). *U.S. Ethanol: an examination of policy, production, use, distribution, and market interactions*. Page 16. Retrieved from United States Department of Agriculture website: <https://www.usda.gov/oce/reports/energy/EthanolExamination102015.pdf>

¹² Flach, B., Lieberz, S., Rondon, M., Williams, B., & Wilson, C. (2016). *EU-28 Biofuels Annual*. Retrieved from USDA Foreign Agricultural Service website: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_The%20Hague_EU-28_6-29-2016.pdf

¹³ Flach, B., Lieberz, S., Rondon, M., Williams, B., & Wilson, C. (2016). *EU-28 Biofuels Annual*. Page 18. Retrieved from USDA Foreign Agricultural Service website: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_The%20Hague_EU-28_6-29-2016.pdf

The significance of agriculture in the EU is evident in the comprehensive CAP that provides price and income support to farmers and addresses environmental sustainability by promoting environmentally friendly farming practices. Agriculture as a policy area falls under the jurisdiction of the European Commission, with 38 percent of the EU budget allocated to the sector in 2015.¹⁴ The 2004 and 2007 EU enlargements caused shifts within its agricultural sector – the inclusion of new countries increased the number of farmers and agricultural land area, and also diversified its agricultural products and practices.

Macroeconomic and Socioeconomic Data

On the whole, agricultural growth was positive for both the U.S. and the EU between 2001–2014. The short-term shock caused by the financial crisis in 2007–09 had significant consequences for both economies. The macroeconomic indicators revealed a decline in economic growth, increase in unemployment rate, high inflation rate and major fluctuation in exchange rates during that period. The agriculture sector, due to its dependence on trade, was not immune to short-term decline.¹⁵ But both jurisdictions recovered from the crisis beginning in 2010 and continue to be major contributors to the world's agricultural production.

Gross Domestic Product

The United States is the largest economy in the world, as a single country, with a GDP of U.S. \$16.67 trillion in 2015.¹⁶ However, the European Union, with 28 member countries, collectively had a GDP of US \$17.75 trillion in 2015.¹⁷ Both the U.S. and the EU experienced a sharp decline in the GDP growth rate in 2007-2009 caused by the global financial crisis, although the decline started earlier, and the recovery happened more quickly, in the U.S. Figure 1 illustrates the GDP growth rate for both the U.S. and EU from 2001 to 2015.

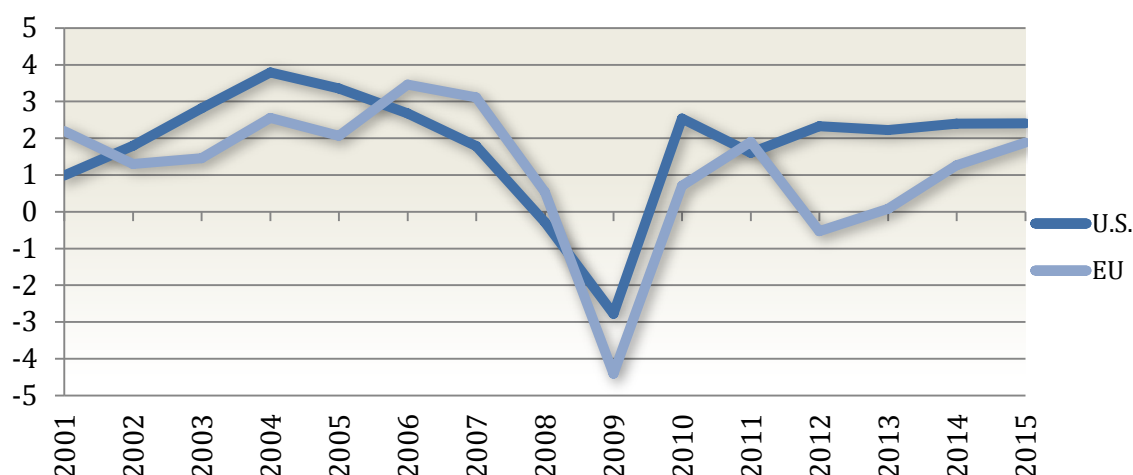
¹⁴ European Commission. (2015). *EU agricultural spending*. Retrieved from Agricultural and Rural Development, European Commission website: http://ec.europa.eu/agriculture/cap-funding/pdf/cap-spending-09-2015_en.pdf

¹⁵ Peter, M., Shane, M., & Torgerson, D. (2009). *What the 2008/2009 World Economic Crisis Means for Global Agricultural Trade* (WRS-09-05). Retrieved from United States Department of Agriculture website: https://www.ers.usda.gov/webdocs/publications/wrs0905/9377_wrs0905_1.pdf

¹⁶ USDA ERS (2016a). "What is agriculture's share of the overall U.S. economy?" *Ag and Food Sectors and the Economy* Retrieved from <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy.aspx>

¹⁷ *Ibid.*

Figure 1: U.S. and EU GDP Growth Rate, 2001-2014



Source: *USDA ERS international macroeconomic data*

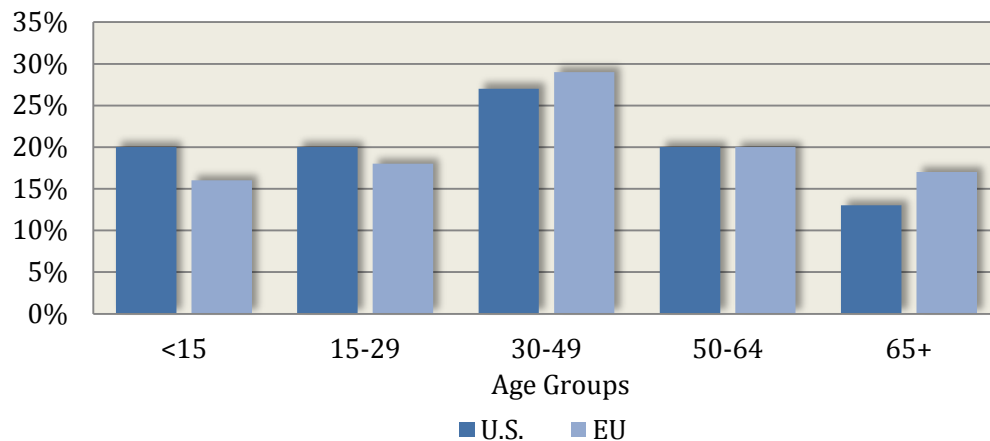
Population

As of 2015 the U.S. population was 321.2 million, compared to 508.5 million in the EU.¹⁸ The number of inhabitants in the EU has increased significantly in the last decade due to the 2004 and 2007 enlargements that led to the admission of 12 new member states. However, the U.S. has maintained a higher average population growth rate than the EU. Between 1990 and 2015, the average annual growth rate of population in the U.S. was much higher at 1.02 percent compared to the annual average growth rate of 0.40 percent in the EU-15. In 2015, the population in the U.S. grew by 0.79 percent while the EU-28 grew by 0.25 percent.¹⁹ As shown in Figure 2, however, the population distribution by age in the U.S. and EU is fairly similar, with close to 30 percent of the population between the ages of 30 and 49 years.

¹⁸ World Bank Open Data (2016). *Population*, World Bank, Retrieved on June 16, 2016 from <http://data.worldbank.org>

¹⁹ USDA ERS (2016b, December). International Macroeconomic Dataset. Retrieved September 3, 2016, from <https://www.ers.usda.gov/data-products/international-macroeconomic-data-set.aspx>

Figure 2: Age Distribution in the U.S. and EU, 2010 for U.S. and 2011 for EU

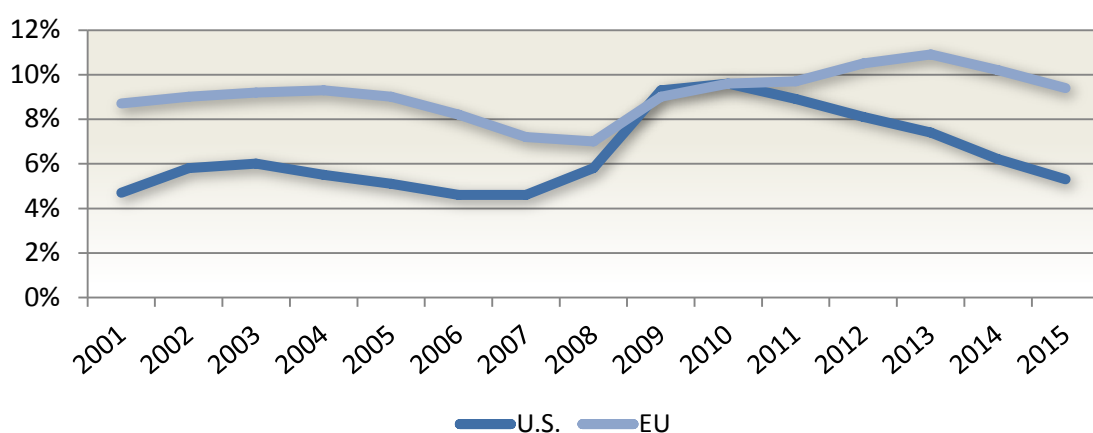


Source: *US Census and Eurostat*

Unemployment Rate

The unemployment rate in the EU has been higher than the U.S. with the exception of the period between 2009 and 2011, where it was slightly below the U.S. rate. The 2008 financial crisis resulted in an increased rate of unemployment in the U.S. However, since 2011, the U.S. unemployment rate has declined to 5.3 percent as of 2015 whereas the EU continues to experience a high rate of unemployment at 9.4 percent. There is a significant variation among the EU member states. For example, Greece and Spain experienced relatively higher levels of unemployment (24.9 percent and 22.1 percent respectively in 2014) compared to Germany, the country with the lowest rate of unemployment, at 4.6 percent.²⁰

Figure 3: Unemployment Rate in the U.S. and EU



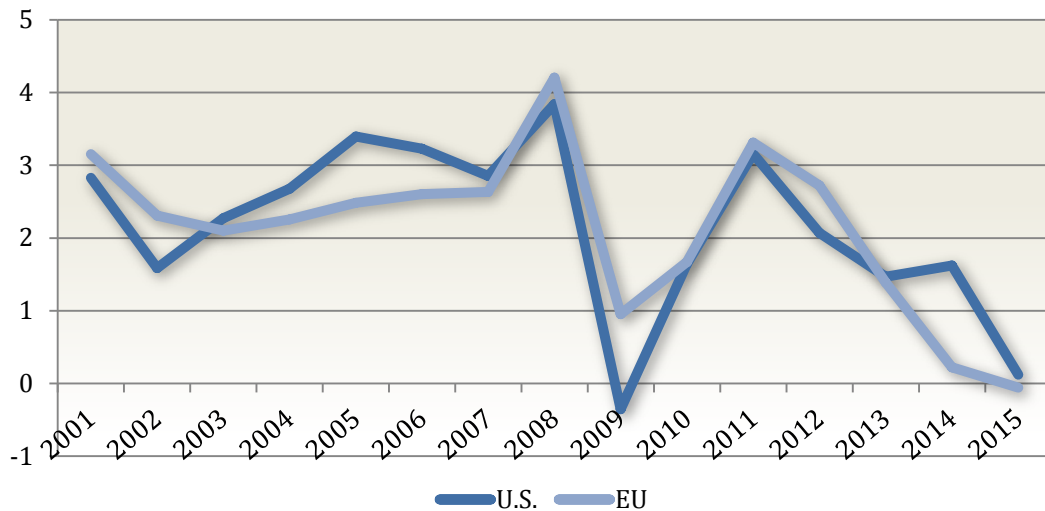
Source: *U.S. Bureau of Labor Statistics and Eurostat*

²⁰ Eurostat. (2016b, May 31). Unemployment statistics. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics

Inflation

Inflation rates in the U.S. and EU have fluctuated over the years. Between 2008 and 2012, the inflation rate in the United States mostly remained lower than the European Union. Before the financial crisis in 2008-09, the inflation rate in U.S. was mostly higher than the EU since 2003.

Figure 4: Inflation Rate: U.S. and EU

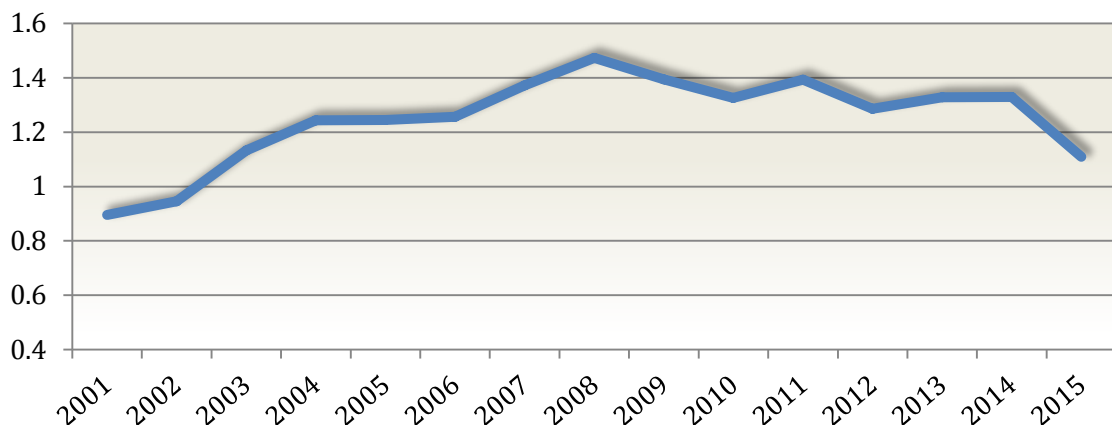


Source: World Bank Open Data

Exchange Rate

The exchange rate between the U.S. Dollar (USD) and Euro has fluctuated considerably between 2001 and 2008. In 2001, one dollar was equal to 0.89 Euros but by 2008, the same dollar was equal to 1.47 Euros. However, as illustrated in figure 5—USD per Euro from 2001 through 2015—the trend indicates that the Euro is once again losing value against the dollar.

Figure 5: U.S Dollar per Euro Exchange Rate



Source: U.S. Federal Reserve; illustrating USD per Euro

Overall, the macroeconomic indicators suggest economic recoveries underway in both the U.S. and EU relative to their 2008 levels. It is worth noting that the level of economic recovery within the EU varies significantly among member states. Countries such as Greece are still experiencing economic crises with relatively higher levels of sovereign debt and slower economic growth.

Agriculture in the United States and the European Union

The organization and structure of farmlands differ between the jurisdictions. The following section compares farm size, employment trends, and economic output of agricultural land and labor in the two jurisdictions.

Agriculture Inputs

Table 1: Farm Statistics in the U.S. and EU, 2013

	U.S.	EU
Agricultural land (million acres)	914	431
Number of farms (millions)	2	11
Average farm size (acres)	435	40

Note: All units in non-U.S. measurements have been converted to U.S. units for comparison. For example, 1 hectare = 2.47105 acres.

Source: USDA Census of Agriculture and EU Farm Structure Survey

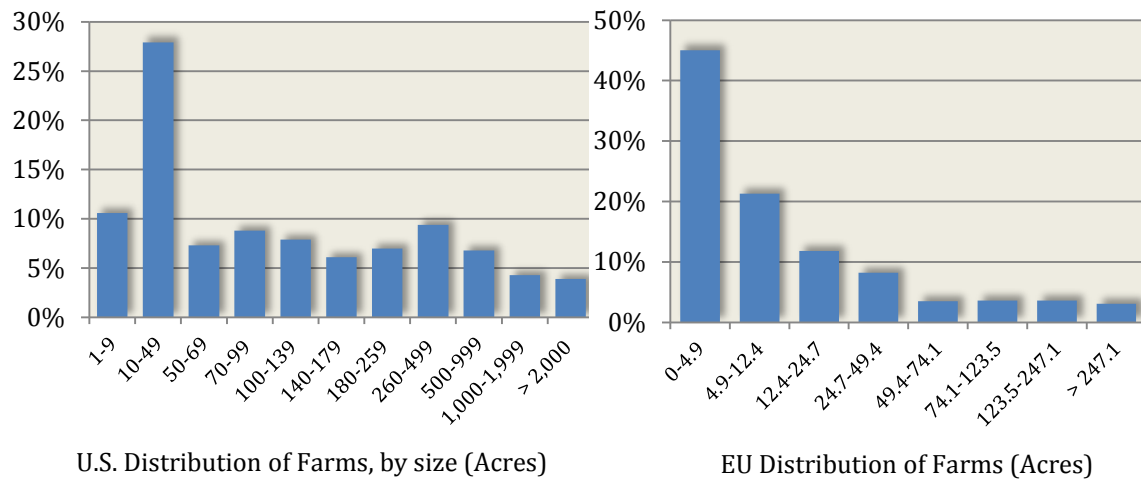
Farm Size

The average farm size in the U.S. is much larger than in the EU; the average farm size in the U.S. is 435 acres—about 10 times the average farm size in the EU of 40 acres. (Table 1) Figure 6 shows that 27.9 percent of farms in the U.S. are in the range of 10–49 acres while less than 15 percent of farms are larger than 500 acres. In the EU, 45 percent of farms are smaller than 4.94 acres.²¹ The small farm size leads to the total number of EU farms of 10.84 million compared to 2.10 million in the U.S. In 2004, the addition of new member states increased the agricultural land area in the EU by 93.9 million acres. Currently, the EU contains approximately 430.8 million acres of agricultural land

²¹ Eurostat (2015b). *Statistics Explained - Farm Structure Survey 2013*. European Commission. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm_structure_survey_2013_-_main_results

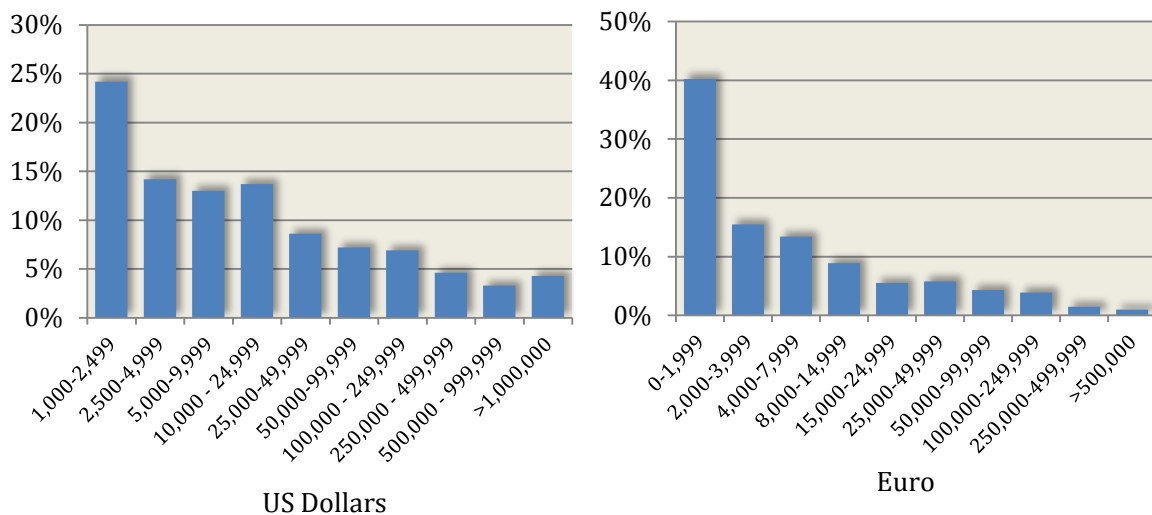
compared to 914 million acres in the U.S.^{22,23} In terms of their distribution according to economic sales class, in 2013, 24.5 percent of the farms in the U.S make less than \$2,500 in sales whereas in the EU, almost 40 percent of farms sales make less than €2,000 (around \$2,600).^{24,25}

Figure 6: Distribution of Farms in the U.S. and EU by size, 2012 for U.S. and 2013 for EU



Source: U.S. Census of Agriculture, 2012; Eurostat, 2015b

Figure 7: Distribution of Farms in the U.S. and the EU by sales class, 2013



Source: National Agricultural Statistics Service 2014; Eurostat 2015b

²² National Agricultural Statistics Service (2014). *Farms and land in farms*. Retrieved from USDA website: <http://usda.mannlib.cornell.edu/usda/nass/FarmLandIn/2010s/2014/FarmLandIn-05-28-2014.pdf>

²³ Eurostat (2015b).

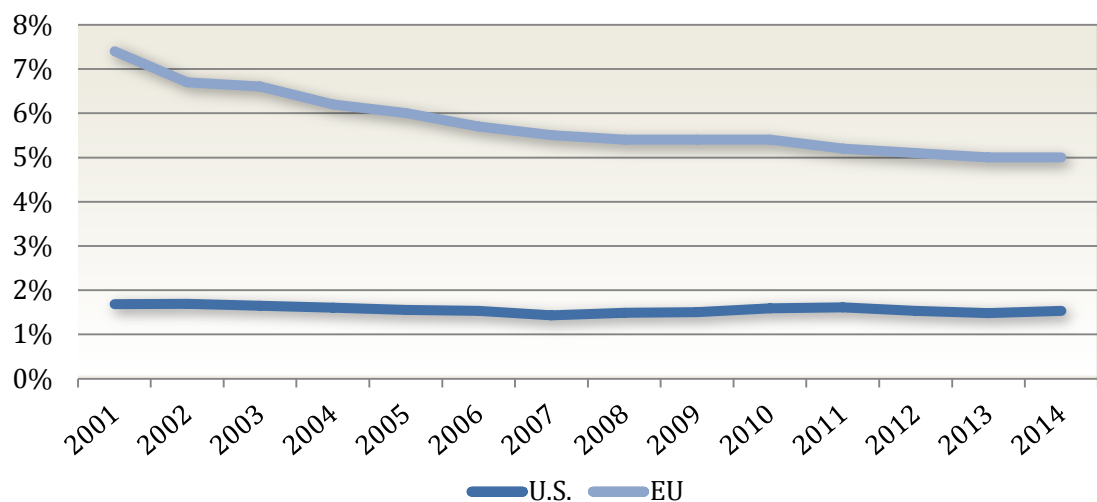
²⁴ National Agricultural Statistics Service 2014

²⁵ Eurostat (2015b).

Agricultural Labor Force

In both regions, agriculture is primarily family owned and operated.^{26, 27} In 2015, agriculture provided employment to 1.63 percent of the labor force in the U.S., a slight decline from its 2001 level of 1.68 percent. Currently, roughly 5 percent of the labor force in the EU works in agriculture—again, a decline from its 2001 level of 7.4 percent. The greater labor-intensiveness of agriculture in the EU is consistent with the smaller average farm size and with smaller economies of scale; it may also reflect a residual technological lag in countries more recently admitted to the EU.

Figure 8: Agricultural employment as a percentage of employed civilian labor force, 2001-2014*



Source: U.S. Bureau of Labor Statistics and Eurostat; *2015 data not available for the EU

The information on agricultural labor rates is gathered through censuses in the United States and the European Union. The Census of Agriculture in the U.S. is conducted every five years, whereas the EU Census is carried out every ten years. The EU also conducts a Farm Structure Survey every three or four years to gather information on farms. Because data collection years in the two regions differ, it is challenging to accurately compare the two jurisdictions. Therefore, the following section is intended to suggest only general trends in respective regions.

²⁶ Eurostat (2016b). Agriculture Statistics – family farming in the EU. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Agriculture_statistics_-_family_farming_in_the_EU

²⁷ USDA Office of Communication (2015, March 7). Family Farms are the Focus of New Agriculture Census Data [Press Release] Retrieved from <https://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2015/03/0066.xml&printable=true>

Table 2: Age Distribution of Farmers in the U.S. and EU

United States (2012)	
Age	Percent
<35	5.7
36 – 45	10.2
46 – 55	22.1
56 – 65	28.8
>65	31.1

Source: USDA Census of Agriculture, 2012

European Union (2013)	
Age	Percent
<35	6.0
36 – 45	15.3
46 – 55	22.9
56 – 65	24.7
>65	31.1

Source: EU Farm Structure Survey, 2013

European Union

According to the EU Farm Structure Survey 2013, approximately 22.2 million people were employed on agricultural land; 75 percent of the agricultural workforce were farm owners or members of their family.²⁸ Of these, only 42 percent of farmers worked full time. Poland and Romania had the largest percentage of their labor force working in agriculture. According to the Farm Structure Survey 2013, the majority of farmers are above the age of 45.

United States

According to the USDA Census of Agriculture (2012), there are 3.1 million people working on the agricultural land. These include farm owners and secondary workers employed on the farm. At least 73 percent of the secondary operators are spouses.²⁹ With regard to age, 33 percent of the farmers are above the age of 65. There are only 5.68 percent of farmers below the age of 35.

Composition of Agricultural Output

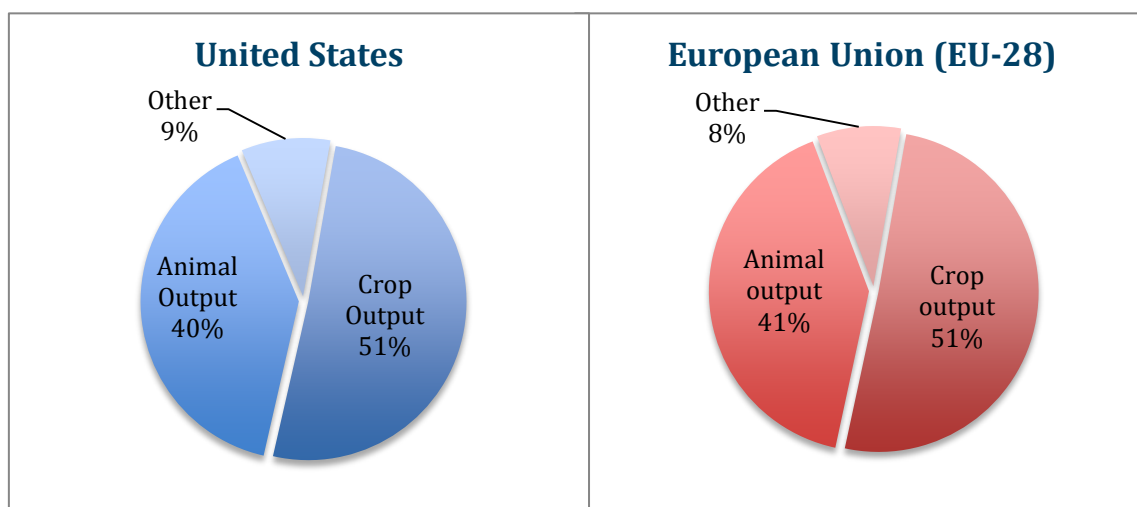
The United States and the European Union have similar production patterns. Crop output accounts for 51 percent of total agricultural production in both jurisdictions. These primarily include food grains, feed grains, oilseeds, fruits, and vegetables. Animal products such as meat, eggs, and milk account for 40 percent of the output in the U.S. and

²⁸ Eurostat (2015b). *Statistics Explained - Farm Structure Survey 2013*. European Commission. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm_structure_survey_2013_-_main_results

²⁹ Hoppe, R. (2014). *Structure and Finances of U.S. Farms: Family Farm Report* (Economic Information Bulletin Number 132). Retrieved from USDA ERS website: <http://www.ers.usda.gov/media/1728096/eib-132.pdf>

41 percent in the EU. Notably, the composition of agricultural output has continued to be consistent between the two jurisdictions over the past decade.³⁰

Figure 9: Composition of Agricultural Output, 2013



Source: *USDA ERS 2015; Eurostat 2016c*

The U.S. and EU are among the world's largest agricultural producers. The U.S. produces 35 percent of the world's corn, and more than 30 percent of its soybeans.³¹ Other major crops include cotton and wheat. The EU is the main producer of sugar beets, accounting for almost 45 percent of world production in 2013.³² Climatic conditions in Northern Europe make France, Germany, the United Kingdom and Poland conducive for sugar beet production.³³ Wheat and corn are also key agricultural outputs of the EU.

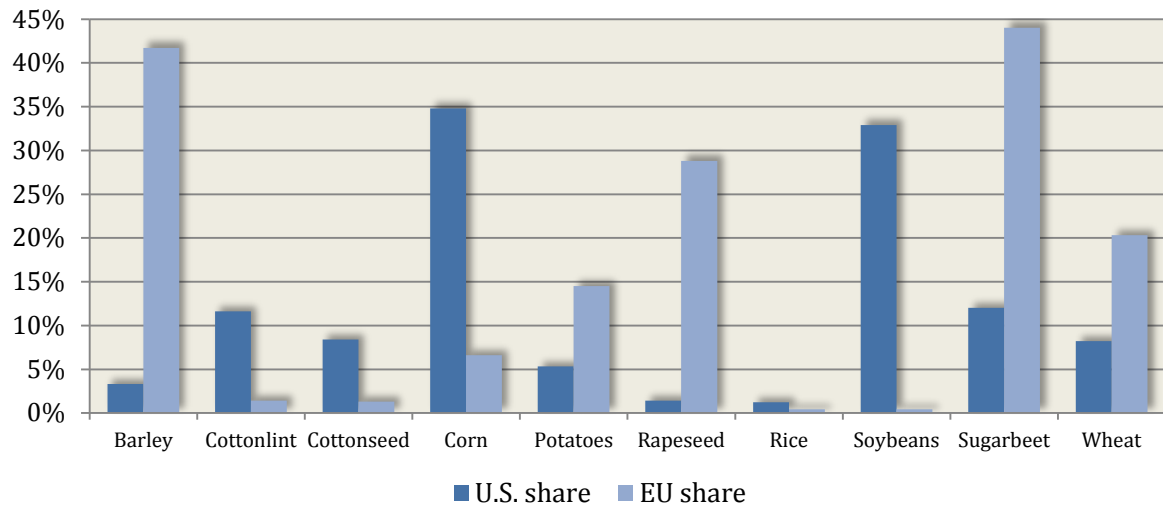
³⁰ USDA ERS (2004). *U.S. - EU Food and Agricultural Comparison* (WRS 04-04). Retrieved from http://www.ers.usda.gov/media/881052/wrs0404_002.pdf

³¹ FAOSTAT (2016) Food and Agriculture Organization of the United Nations Statistics Division Retrieved from <http://faostat3.fao.org>

³² *Ibid*

³³ European Commission. (2016b, June 7). Sugar - Agriculture and rural development. Retrieved from http://ec.europa.eu/agriculture/sugar/index_en.htm

Figure 10: Share of World Production in US and EU (Volume), 2013



Source: *FAOSTAT*

Trade in Agriculture

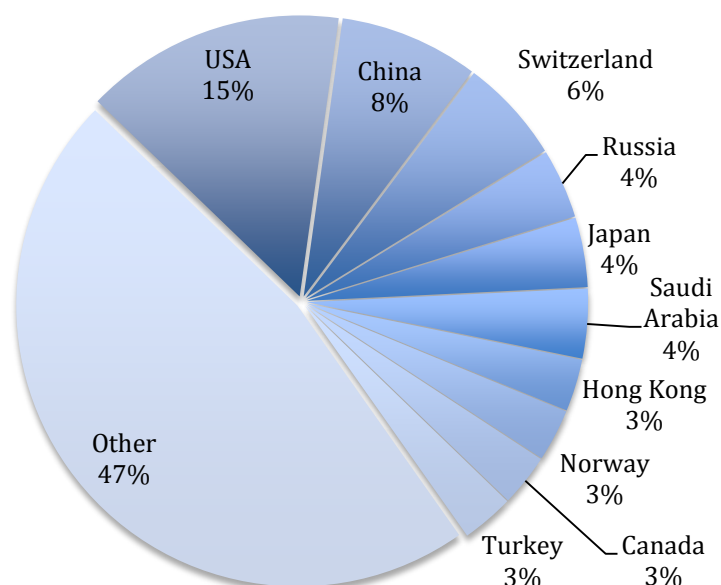
Both the U.S. and EU have recorded a positive trade balance over the last few years. Exports have increased, and imports have grown at a slower rate since the financial crisis. However, the trade patterns have evolved over the years.

Agricultural Exports

The U.S. and the EU are the largest exporters of agricultural products in the world. In 2013, U.S. exports were valued at \$147 billion and EU exports were \$151 billion.³⁴ Since 2004, the value of exports has nearly doubled for both jurisdictions. The gain in exports in both regions is attributed to increased demand from developing countries.

³⁴ FAOSTAT (2016) Food and Agriculture Organization of the United Nations Statistics Division
Retrieved from <http://faostat3.fao.org>

Figure 11: Key Export Destination for EU-28 (2015)

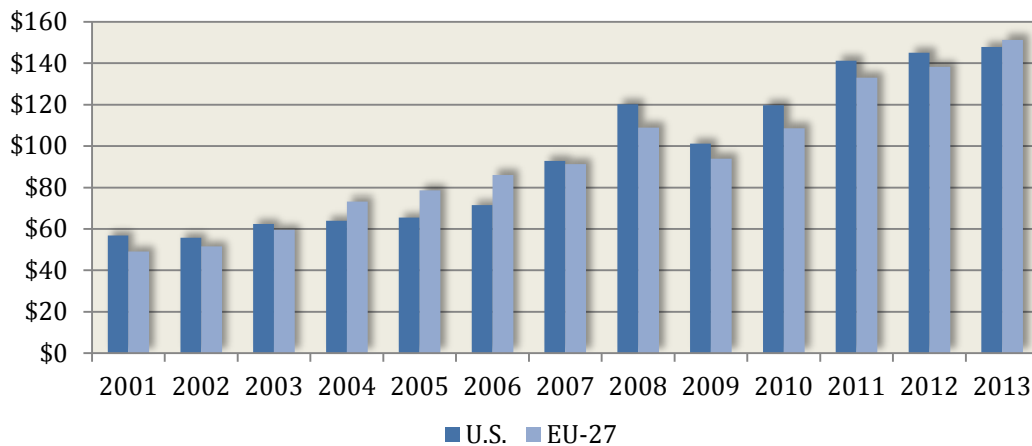


Source: *European Commission, 2016c*

The main trading partners for EU exports are the United States, followed by Russia, Switzerland, China, and Japan. As illustrated in figure 11, ten countries account for 53 percent of the exports from the EU. All of the EU statistics refer to trade external to the EU region. There is also internal agricultural trade among the EU member states. The external trade represents 26 percent of the total volume of agricultural trade in the EU.³⁵

³⁵ Eurostat (2015c, February). Extra-EU trade in agricultural goods. *European Commission*. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Extra-EU_trade_in_agricultural_goods

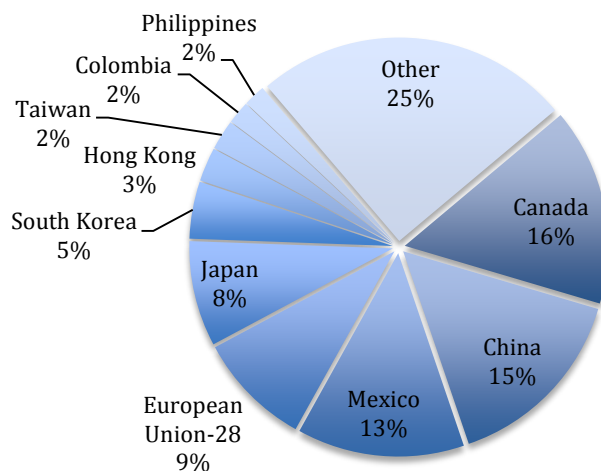
Figure 12: Agricultural Export (in USD millions)



Source: *Food and Agricultural Organization*

The U.S. exports 20.3 percent of its agricultural production.³⁶ The key countries for U.S. agricultural exports include China, Canada, Mexico, Japan, EU-28, and South Korea.³⁷ Historically, Canada was the top export destination for the United States; however, since 2009, there has been an increase in demand from China. Exports to the EU-28 accounted for 9 percent of all U.S. exports in 2015.

Figure 13: US: Key Export Destination



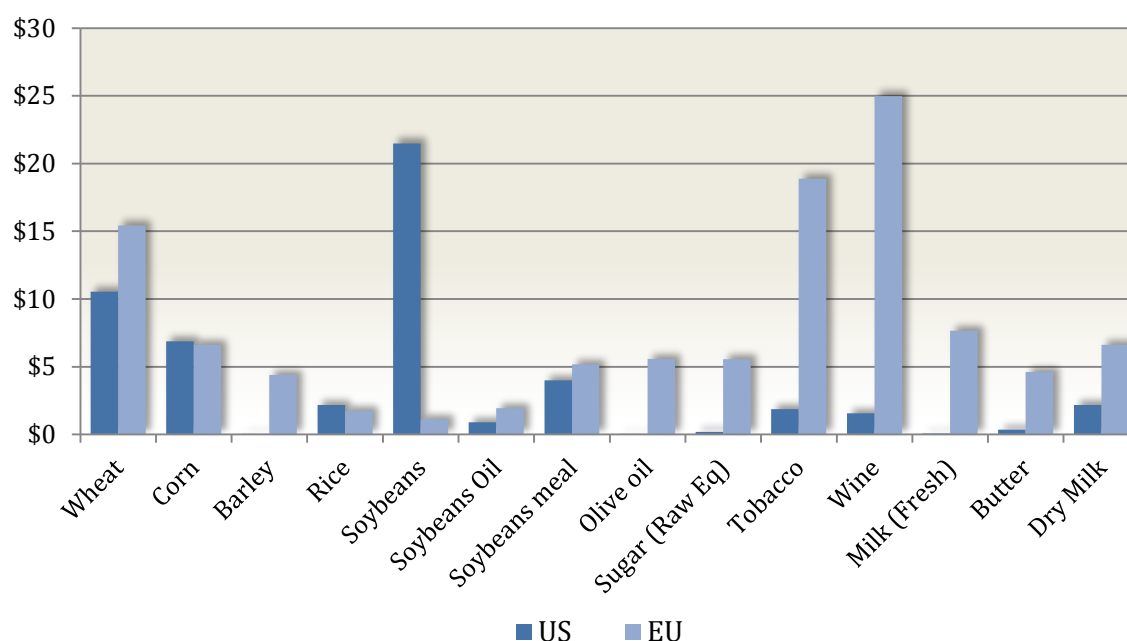
Source: *USDA ERS, 2016*

³⁶ USDA ERS (2016b, December). International Macroeconomic Dataset. Retrieved September 3, 2016, from <https://www.ers.usda.gov/data-products/international-macroeconomic-data-set.aspx>

³⁷ *Ibid*

Top products exported from the U.S. include wheat and soybeans.³⁸ EU exports include tobacco, wheat, and corn (figure 14). The composition of agricultural exports has evolved with time. Export volumes have increased for the highest-value products. The European Union is the largest exporter of processed goods including wine and spirits.³⁹ The U.S. has experienced growth in dairy, animal meat, and oils in recent years.⁴⁰

Figure 14: Agricultural exports by major categories (2013), in billions of USD



Source: FAOSTAT 2015

Agricultural Imports

Imports in the U.S. and EU constitute a significant share of the world market for agricultural goods. In 2013, U.S. imports accounted for \$113.6 billion whereas imports to the EU-27 were valued at \$138.8 billion. Although EU-27 imports are valued higher than the U.S., the overall trend suggests a decline in EU imports from 2011. On the other hand, imports to the U.S. have consistently increased since 2004. USDA data indicate that there is a significant increase in imports of live meat animals, animal meat, nuts, cocoa and chocolate, and vegetable oils.⁴¹

³⁸ USDA ERS (2015a, March 4). Exports. Retrieved June 16, 2016, from

<http://www.ers.usda.gov/topics/international-markets-trade/us-agricultural-trade/exports.aspx>

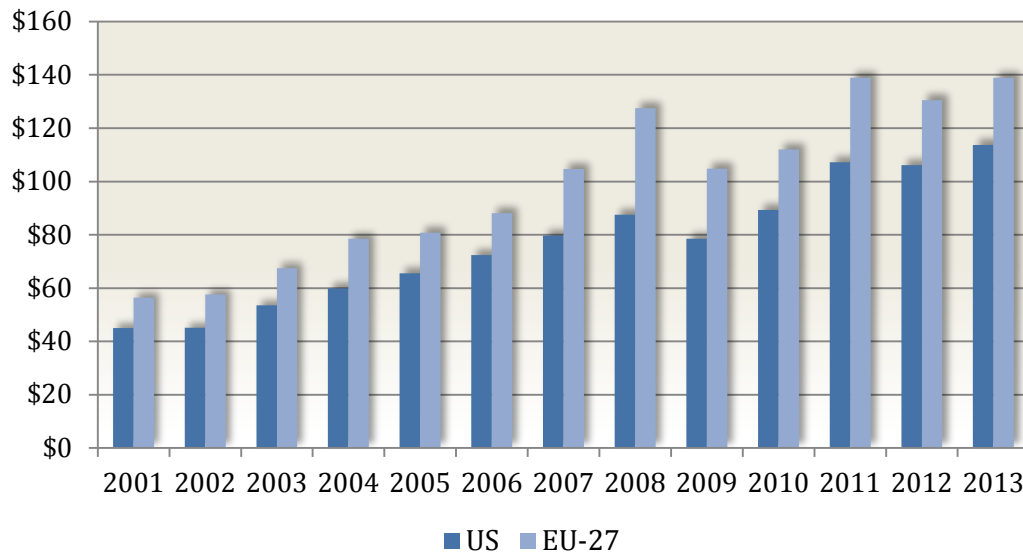
³⁹ European Commission (2016c) Agri-trade in 2015. *Monitoring Agri-trade Policy*, MAP-2016-1:

http://ec.europa.eu/agriculture/sites/agriculture/files/trade-analysis/map/2016-1_en.pdf

⁴⁰ USDA ERS 2015a

⁴¹ USDA ERS (2015b, March 30). US Food Imports. Retrieved from <http://www.ers.usda.gov/data-products/us-food-imports.aspx#25416>

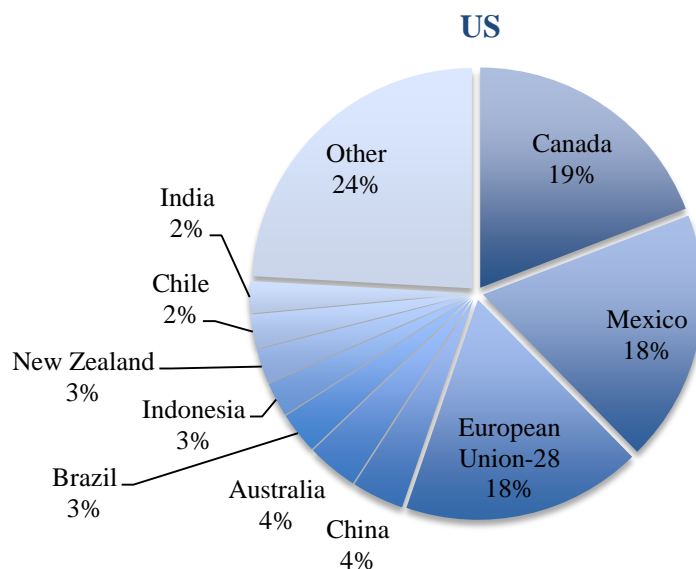
Figure 15: Agricultural Imports (in USD millions)



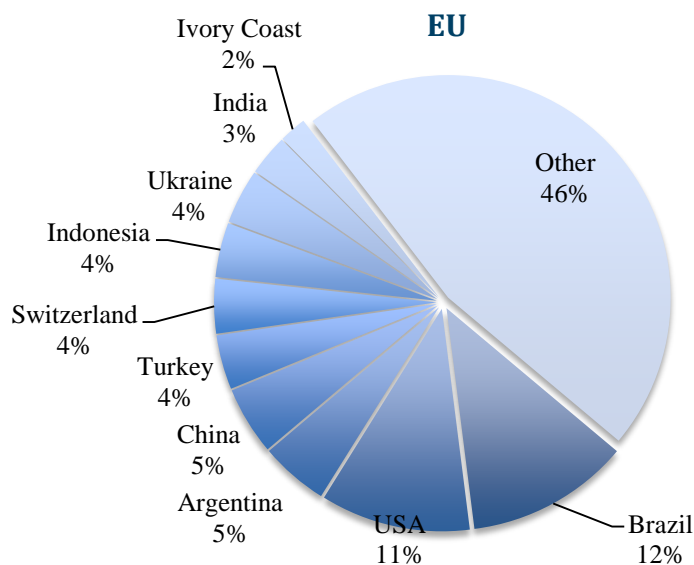
Source: *FAOSTAT, 2015*

Major imports in the EU include coffee, soybeans, oil cakes, oils, and fruits and vegetables. In 2015, fruits, nuts and spices was the largest commodity imported, accounting for 12 percent of the total share.⁴² Brazil, U.S., China and Argentina are top exporters to the EU; whereas Canada, Mexico, the European Union, China, and India are the top exporters to the U.S.

Figure 16: Top agricultural import sources



⁴² European Commission (2016c) Agri-trade in 2015. *Monitoring Agri-trade Policy*, MAP-2016-1: http://ec.europa.eu/agriculture/sites/agriculture/files/trade-analysis/map/2016-1_en.pdf

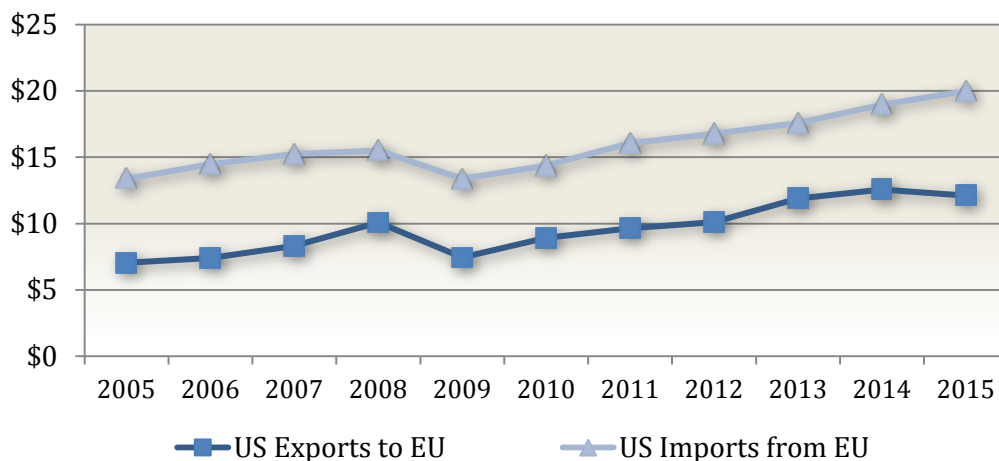


Source: *USDA ERS, 2016; European Commission, 2016c*

Bilateral trade

While the European Union and the United States are among each other's top trading partners, their share of trade has declined for several years. Between 2003 and 2007, the EU was the top source of imports for the U.S. However, the largest exporter to the U.S. is now Canada (USDA ERS 2016c). In 2015, agricultural products imported from the EU to the U.S. were valued around \$20 billion. The relatively open market in the U.S. combined with high demand for European products have led to a consistent increase in imports since 2009 (USDA FAS, 2016). Exports to the European Union decreased slightly to 12.1 billion in 2015 from 12.5 billion in 2014. The market share of U.S. exports to the EU has decreased to roughly 13 percent of exports; this is mainly due to increased trade with emerging economies.

Figure 17: U.S. Imports and Exports to the EU (in billions USD)



Source: *USDA ERS 2016*

At present, the U.S. and the EU are negotiating the Transatlantic Trade and Investment Partnership (TTIP) to reduce trade barriers including those in food and agricultural products. The terms of negotiation can have a significant impact on the quantity and type of products exported from the U.S. It is worth noting that both the Brexit vote and the 2016 U.S. election have created uncertainty about the direction of the TTIP negotiations.

Conclusion

The U.S. and the EU are globally competitive economies with positive trends in agricultural production. The farm structures in both jurisdictions vary significantly in terms of farm size and farm labor force. The U.S. has more than twice the amount of agricultural land as the EU and its farms are larger in size, on average. Smaller economies of scale in the EU are associated with greater labor intensiveness in agriculture. Despite differences in their profiles, both jurisdictions continue to be the world's two largest agricultural producers. The composition of agricultural output in the two jurisdictions is similar, but the relative strength in agricultural products differs. For example, the U.S. is a global leader in the production of corn whereas the EU leads in producing sugar beets. In terms of processed output, Europe is a major source of wine to the world.

Agricultural trade is strong in both the U.S. and the EU. The U.S. is a major exporter of wheat and soybean, whereas the EU leads exports of tobacco and wine. Both jurisdictions are also strong trade partners: U.S. agricultural imports from the EU-28 account for 18 percent of its total agricultural imports; 9 percent of its agricultural exports are sent to the EU. Similarly, agricultural imports from the U.S. constitute 11 percent of the EU-28 total, and 15 percent of the EU agricultural exports are traded to the U.S. Trading patterns between the two jurisdictions have changed over time; the on-going negotiations on TTIP, and the new administration's policy views, are likely to have significant implications for future agricultural trade.