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Mediterranean poultry sector outlook in the global market

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- The Mediterranean area
- Market outlook

WORLD POULTRY MARKET

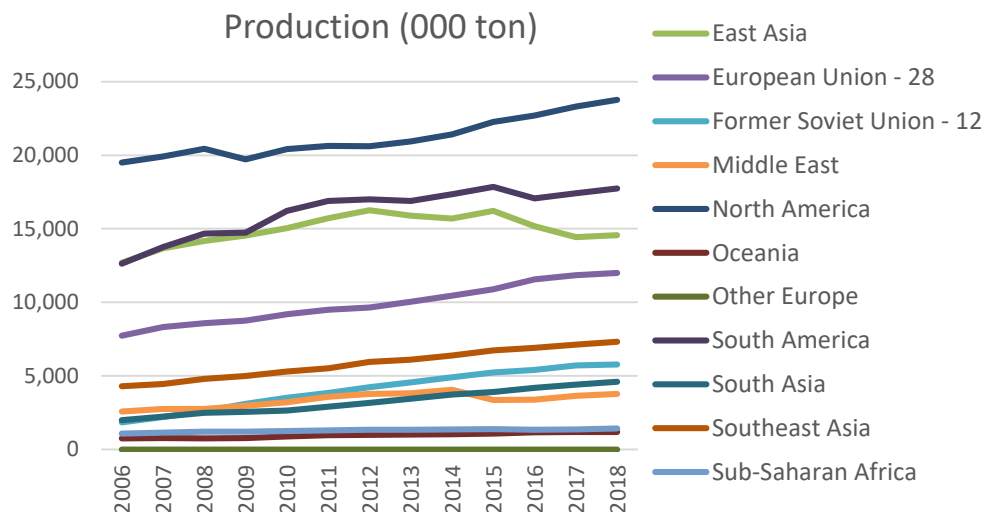
Market situation (OECD)

- World meat production increased by only 1% to 317 million tonnes in 2016, with growth in the Americas and Europe offset by a downturn in output in China in particular, but also in Australia.
- Among the various sectors, poultry and bovine meat production expanded, while a decline was evident in pigmeat and sheepmeat production.
- Global meat trade recovered in 2016, rising by 5% to 30 Mt. This represents a return to trend levels following the decline in 2015. Trade increased for pigmeat by 9%, poultry meat by 5%, and bovine meat by 3%, while sheepmeat decreased by 3%.

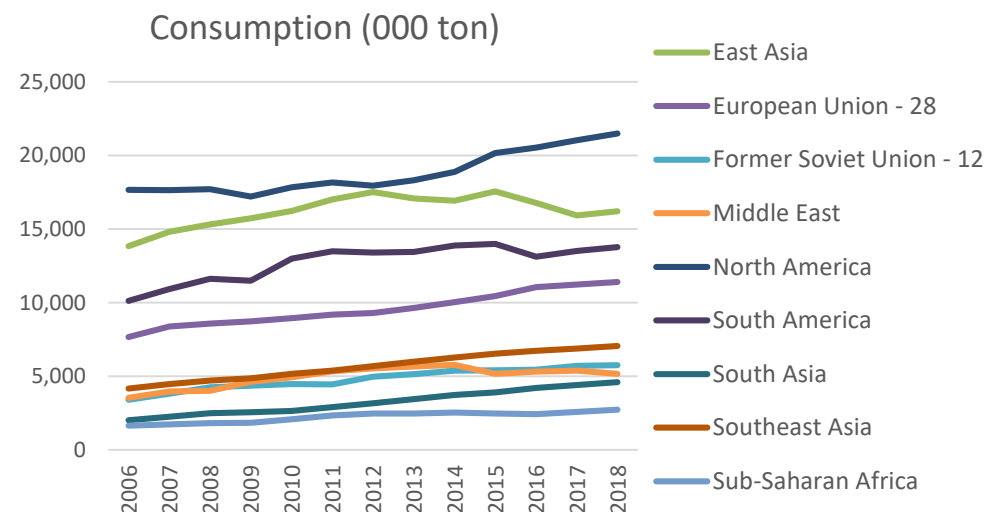
Poultry meat

- Poultry meat enjoys several comparative advantages over other meats:
 - Affordability, convenience;
 - Absence of religious guidelines limiting consumption
 - Healthy image
 - Lower GHG emissions than other meat types
 - Lower production costs,
 - Short rearing time and lower required investments.
- As a result, production and consumption have increased steadily for many years in several parts of the world.

Broiler production and consumption

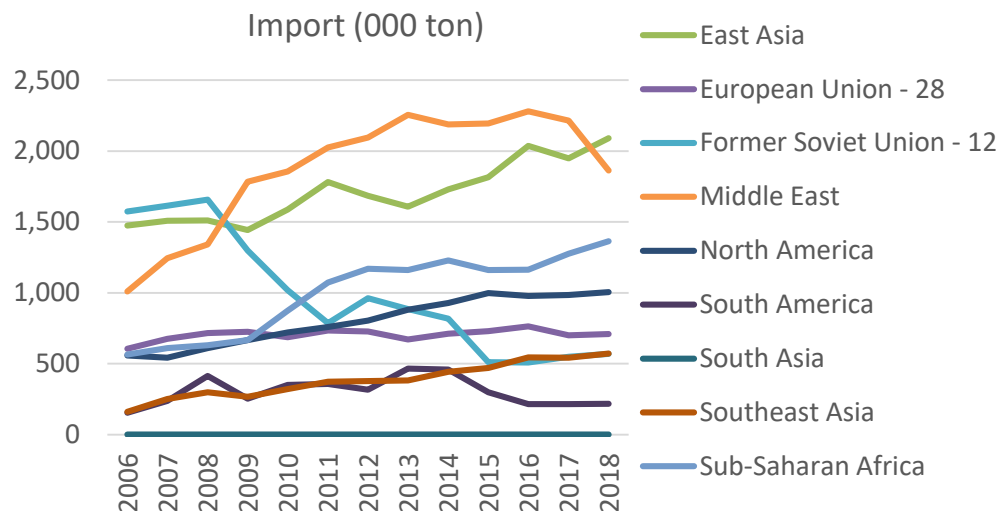


- Top 5 in production and consumption
 - 1st **North America**
 - **South America** 2nd in production and 3rd in consumption
 - **East Asia** 3rd in production and 2nd in consumption (higher declining trend for production)
 - 4th **European Union**
 - 5th **South East Asia**



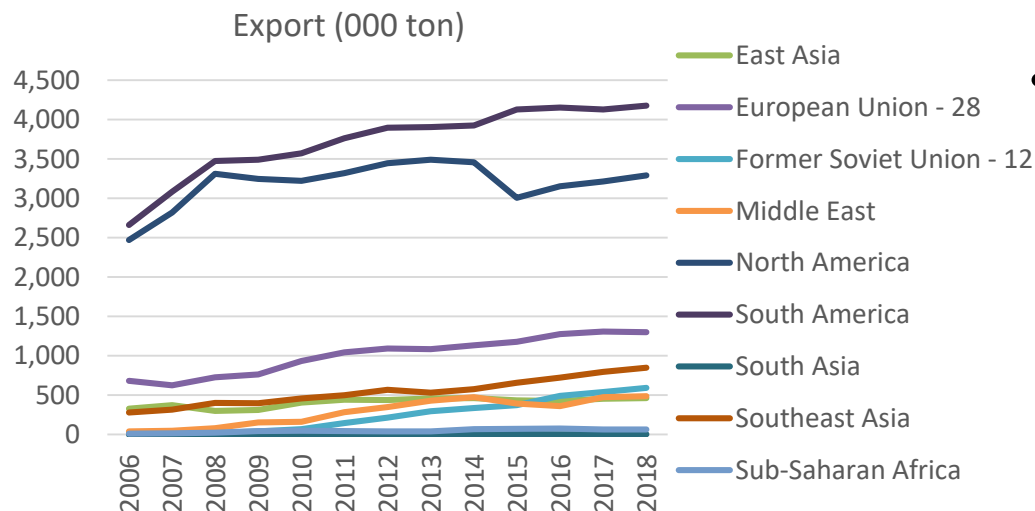
International exchange

Import (000 ton)



- Main destination:
 - **East Asia** is expected to be the first importing area in 2018 (keep a straight positive trend)
 - **Middle East** change its trend supporting by increasing production
 - **Former Soviet Union** leave its relevant role since 2009

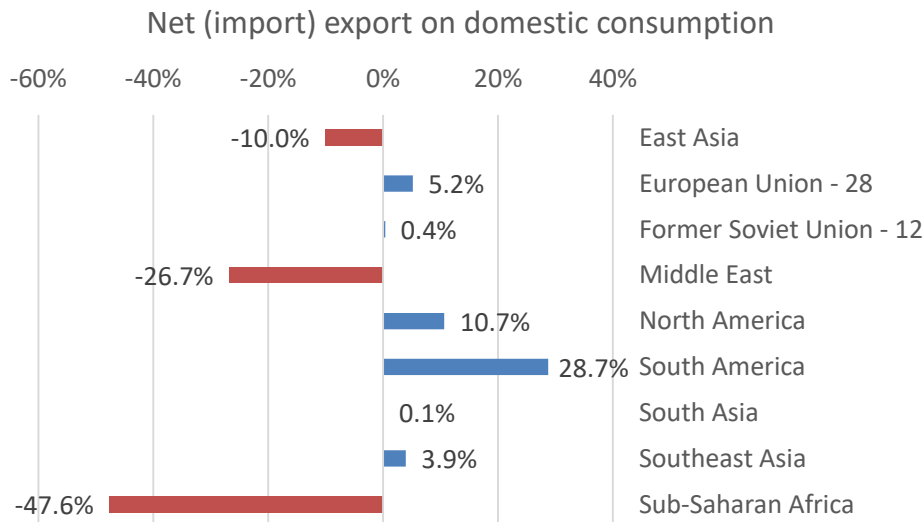
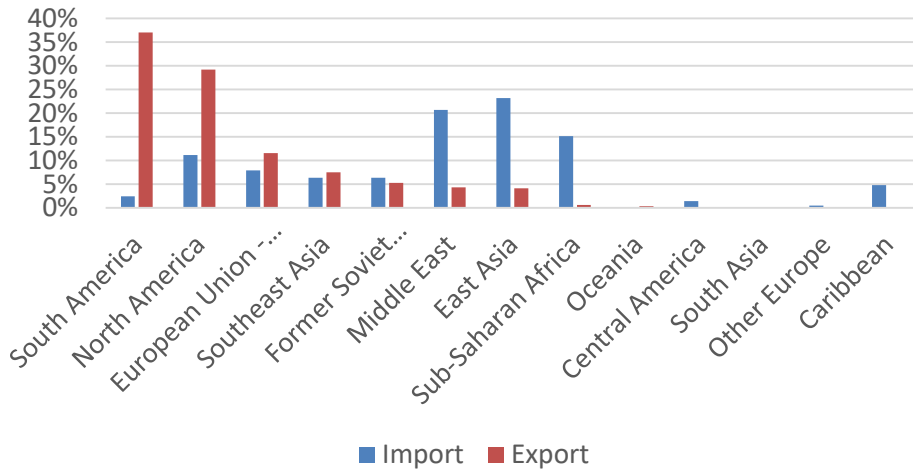
Export (000 ton)



- Supplier:
 - **South America** keep the leadership and a positive trend;
 - **North America** is the 2nd supplier;
 - **EU 28** and **Southeast Asia** are the main followers

International exchange (2)

Estimated exchanges 2018



- Poultry sector has the higher share of exchange over production
12.7% of production value
- Polarisation of Export and Import areas
- Specialisation of South America versus two direction market in North America
- → index of economy development
- **Inter-industry versus intra-industry trade**
(Gruber and Lloyds, 1971, 1975)

Inter-industry versus intra-industry trade

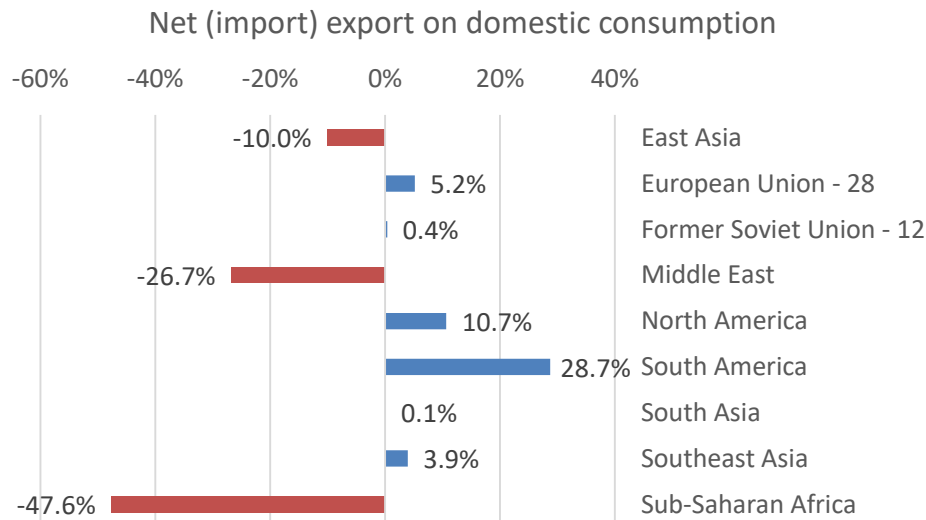
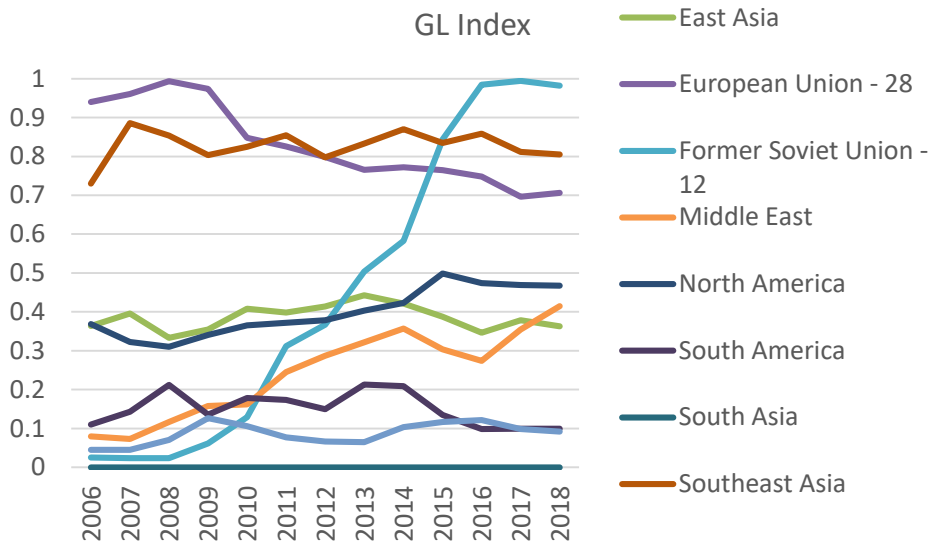
- **inter-industry trade**
 - Country in consideration only either exports or only imports a specific good
(Exchange based on competitive advantage - Ricardian approach)
- **intra-industry trade**
 - Country in consideration Exports a similar quantity of a specific good as much as it Imports
(Gruber and Lloyds, 1971, 1975)
- Intra-industry trade is related to:
 - Exchange of different quality of the same good
 - Seasonality
 - Complexity on import/export relationship among commercial partners
 - Differentiated consumers' demand
→ typically an index of industrial development

Grubel–Lloyd index

$$GL_i = \frac{(X_i + M_i) - |X_i - M_i|}{X_i + M_i} = 1 - \frac{|X_i - M_i|}{X_i + M_i} \quad ; \quad 0 \leq GL_i \leq 1$$

- Where:
 - X_i are export values, M_i are import of good i .
- GL_i quantify the degree if intra-industry trade
- If **$GL_i = 1$, there is only intra-industry trade**, no inter-industry trade. This means that the Country in consideration Exports the same quantity of good i as much as it Imports.
- If **$GL_i = 0$, there is only inter-industry trade**. This would mean that the Country in consideration only either exports or only imports good i .

Inter-industry versus intra-industry trade

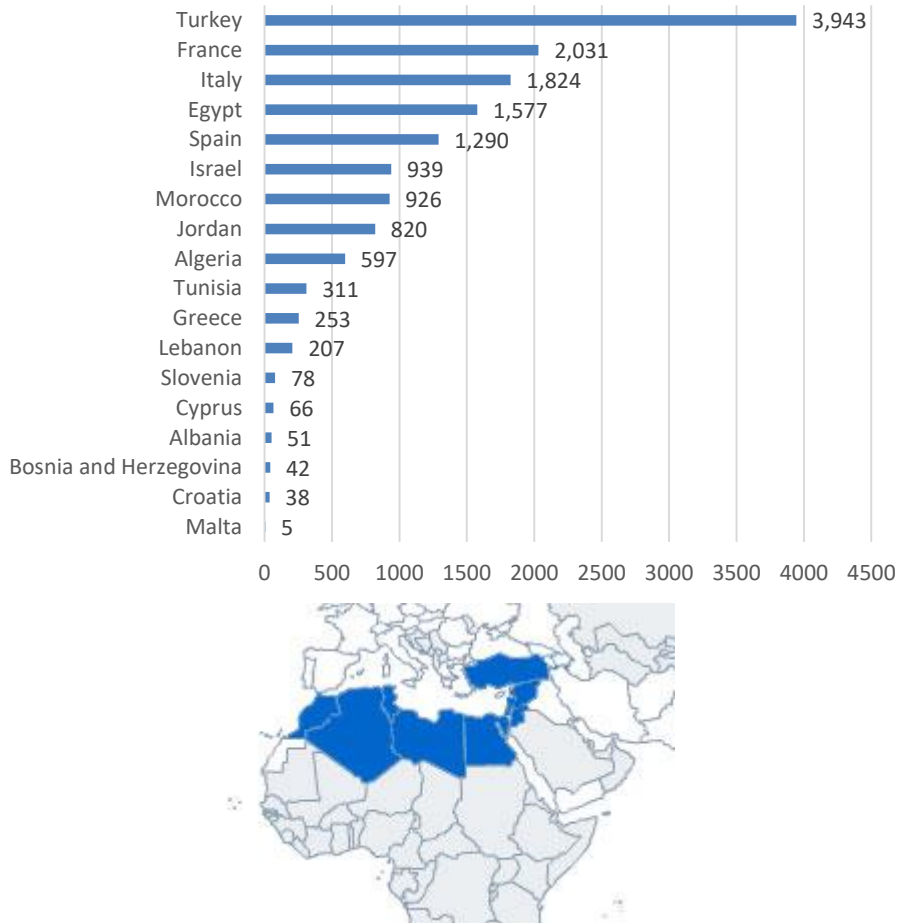


- We can distinguish four groups:
 - Predominant inter-industry trade
 - South America
 - Sub-Saharan Africa
 - Predominant intra-industry trade
 - European Union
 - Southeast Asia
 - Intermediate
 - North America
 - East Asia
 - Transaction
 - Former Soviet Union
 - Middle East

THE MEDITERRANEAN AREA

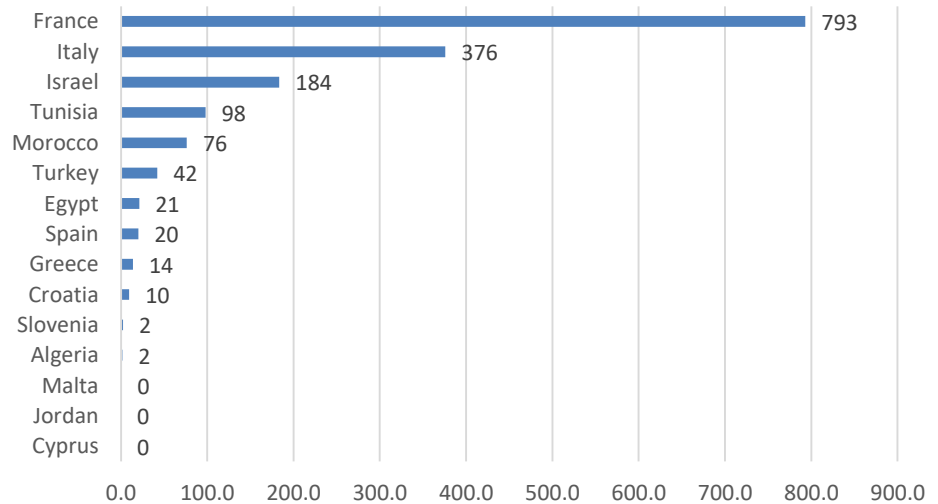
Country production value

Chicken Production Value (Million US\$, 2016)

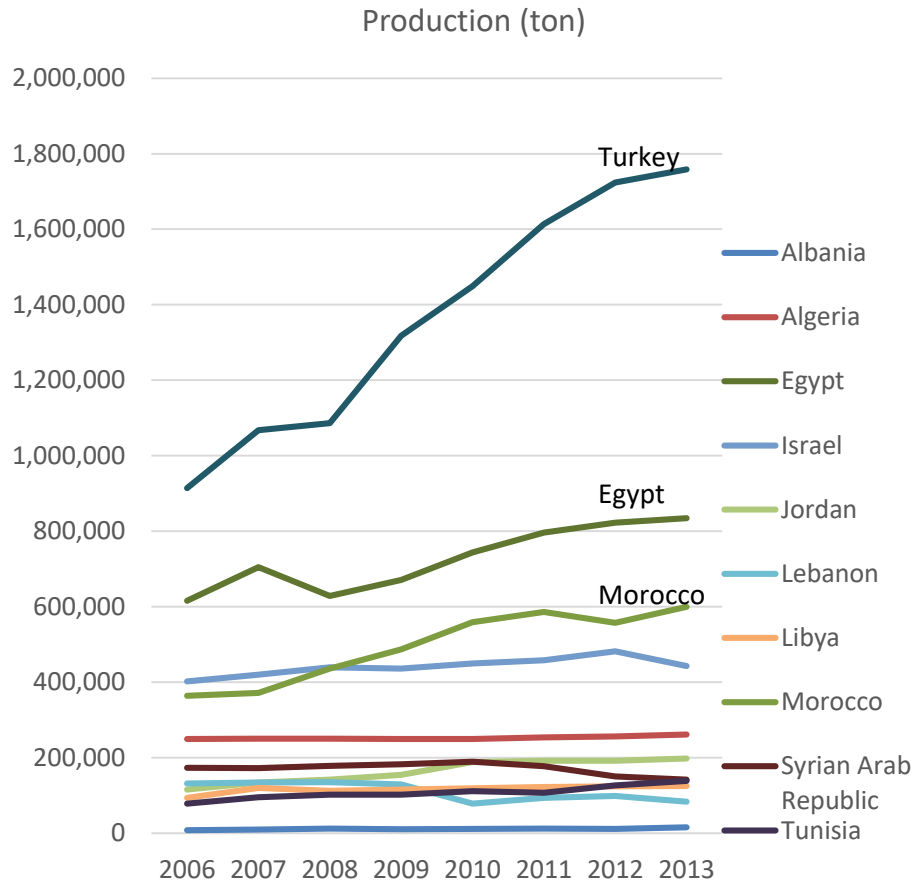


- FAOSTAT do not currently supply values data for Libya and Syria that in 2013 had a production of 125 and 142 thousand tonnes respectively, similarly to the production of Tunisia (139 thousand tonnes in 2013)

Turkey Production Value (Million US\$, 2016)



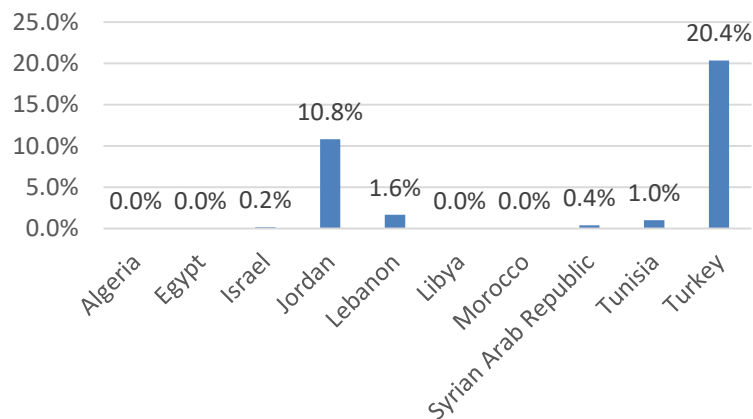
South Mediterranean countries



- Until 2013 great positive dynamics in production has been realised by:
- Turkey (+840,000 ton);
- Morocco (+235,000 ton);
- Egypt (+220,000 ton);
- to a lower extent, Tunisia (+61,000 ton).

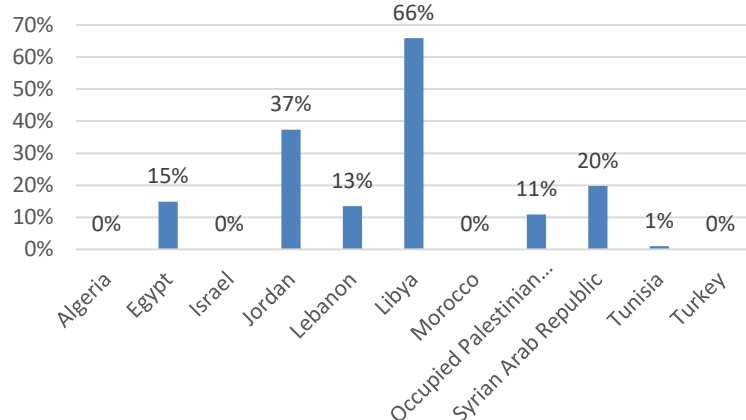
Exchange south Mediterranean countries

Export as % of domestic production (2013)



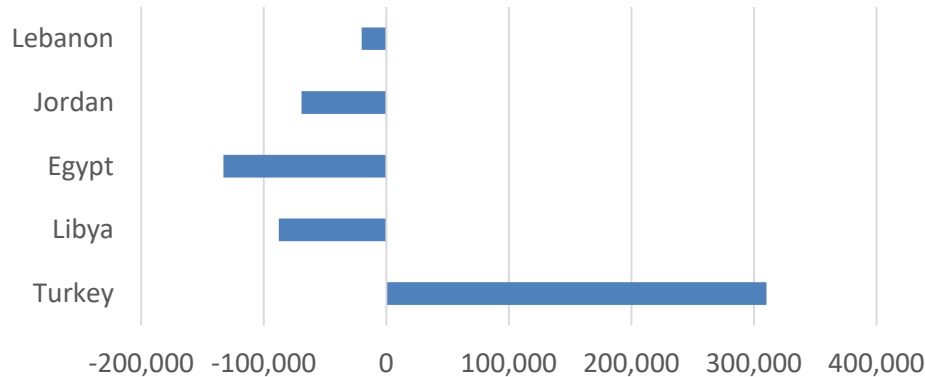
- Among exporters:
 - Turkey is a leader exporters (> 350,000 ton)
 - Jordan is the follower with around 20,000 ton.
- Among importers, can observe that only few market behave as significantly open:
 - Egypt, Jordan, Lebanon, territory of Palestine and Syria

Import as % on domestic production (2013)



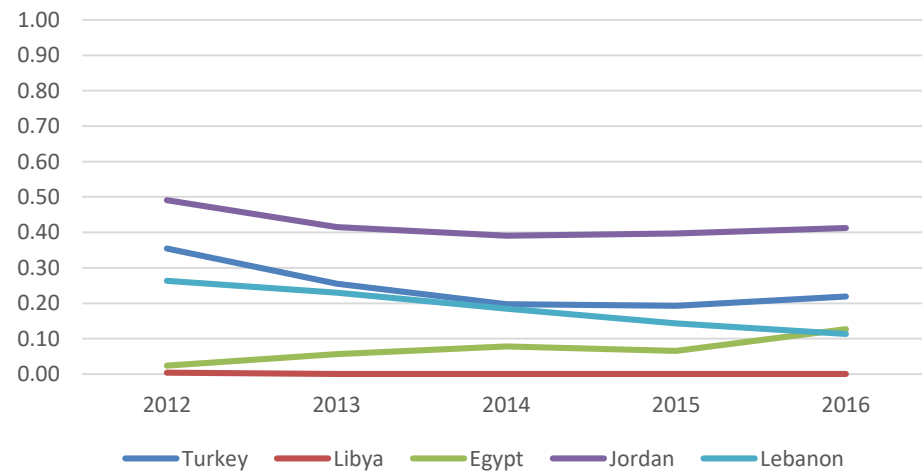
International market for main countries

Net exchange (000 USD) - 2016



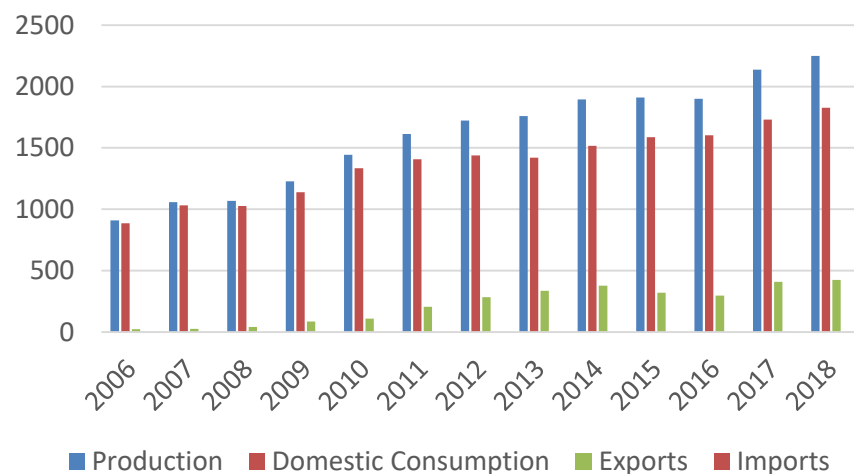
- Among South Mediterranean countries:
 - Turkey play a role of leader like exporter, increasing in the last years his position as specialized exporter
 - Jordan, looking to LG Index, has the higher position in intra-industry trade

LG index



Focus on Turkey (1)

Balance Sheet Broiler meat (000 ton)

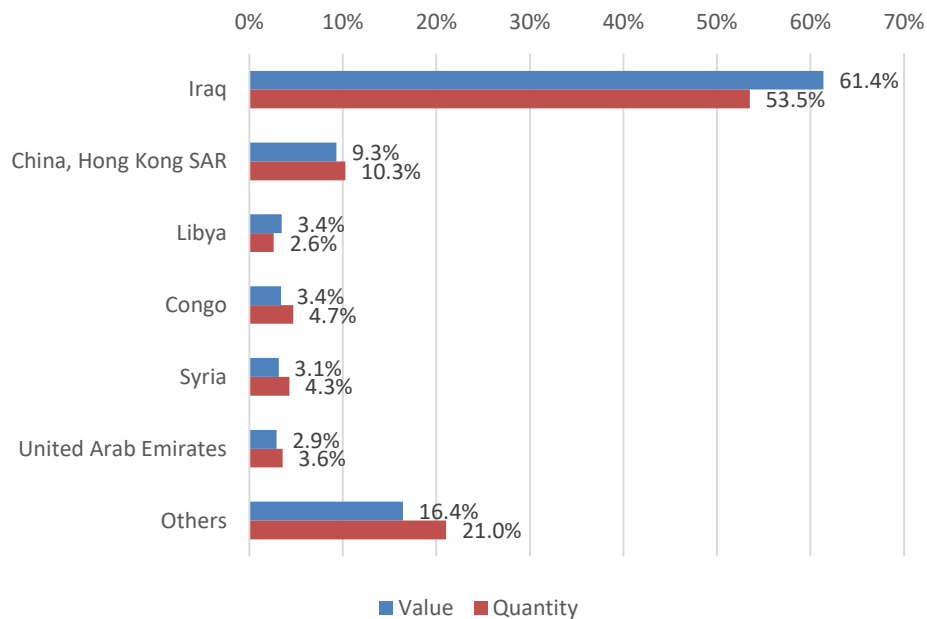


- Since 2011 Turkey become a relevant exporters in the Mediterranean Area

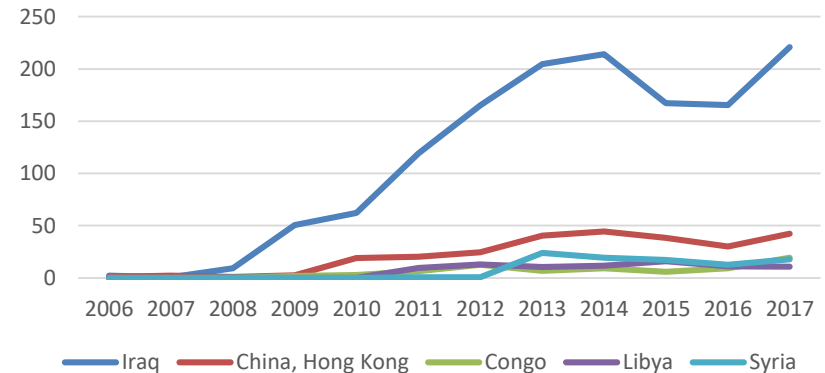
Year	Production	Import	Total Supply	Export	Consumption	Export % on production
2006	910	0	910	23	887	2.5%
2007	1,059	0	1,059	26	1,033	2.5%
2008	1,069	0	1,069	41	1,028	3.8%
2009	1,227	0	1,227	87	1,140	7.1%
2010	1,444	0	1,444	110	1,334	7.6%
2011	1,613	0	1,613	206	1,407	12.8%
2012	1,723	0	1,723	284	1,439	16.5%
2013	1,758	0	1,758	337	1,421	19.2%
2014	1,894	0	1,894	378	1,516	20.0%
2015	1,909	0	1,909	321	1,588	16.8%
2016	1,900	0	1,900	296	1,604	15.6%
2017	2,137	3	2,140	410	1,730	19.2%
2018	2,250	3	2,253	425	1,828	18.9%

Focus on Turkey (2)

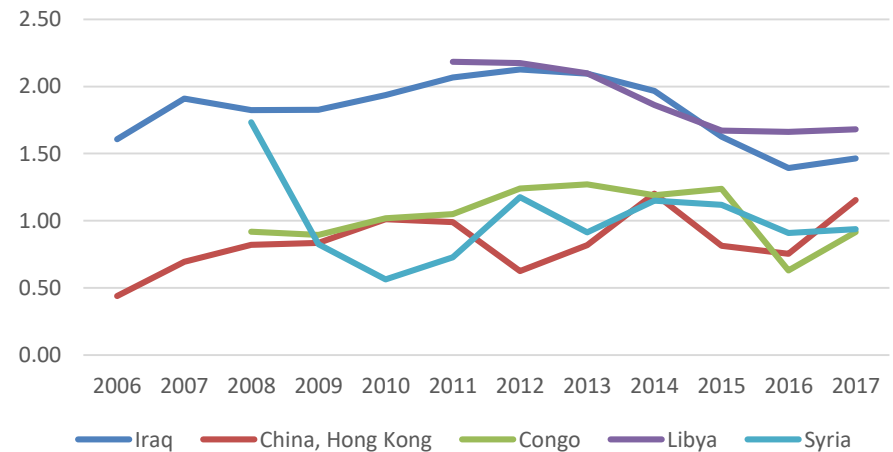
Main Export destinations (2017)



Evolution of export destinations (000 tons)



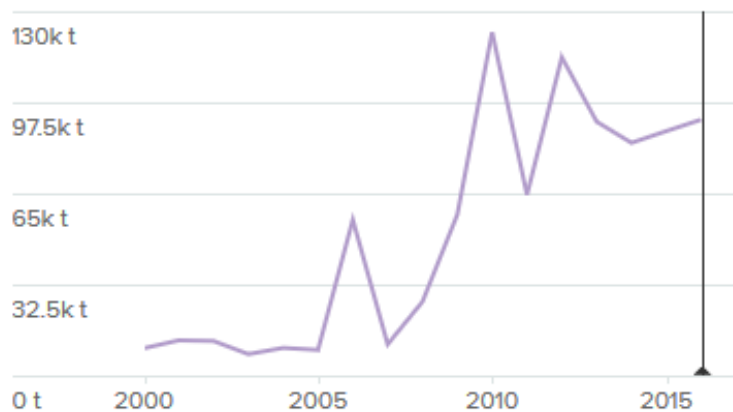
Export Price (US\$/kg)



Import: Egypt



89.6k t



TOP 5



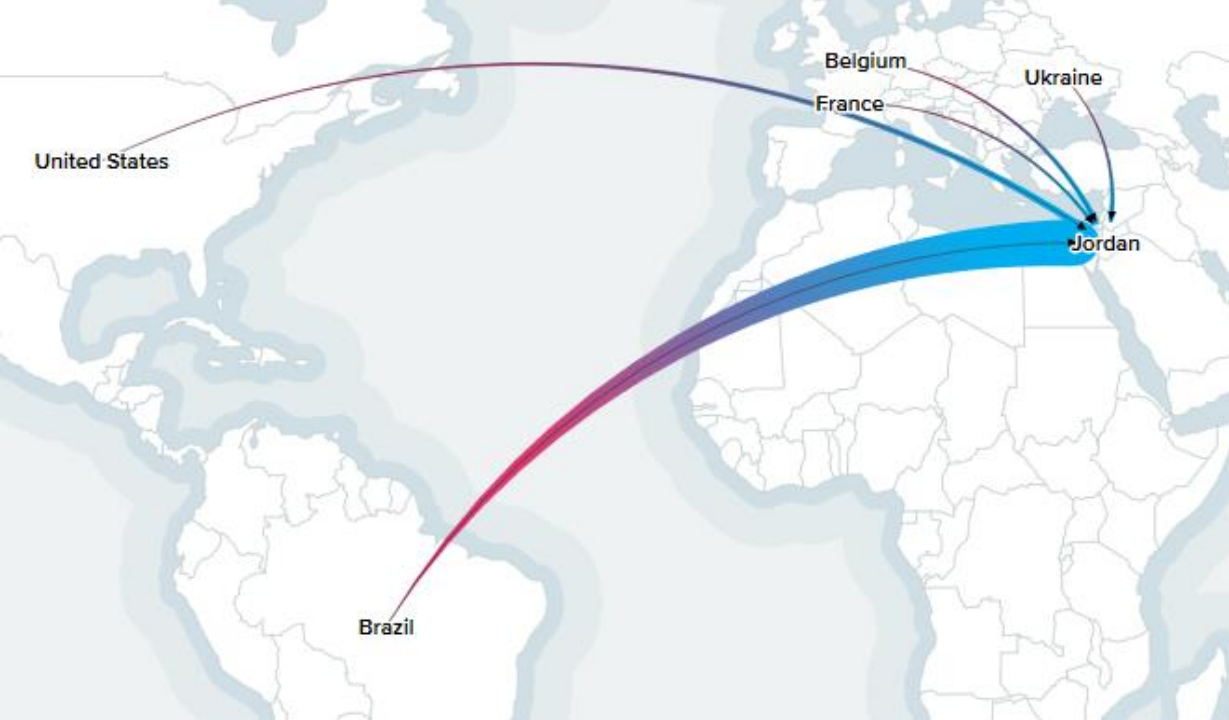
TESAF

Dipartimento Territorio
e Sistemi Agro-Forestali

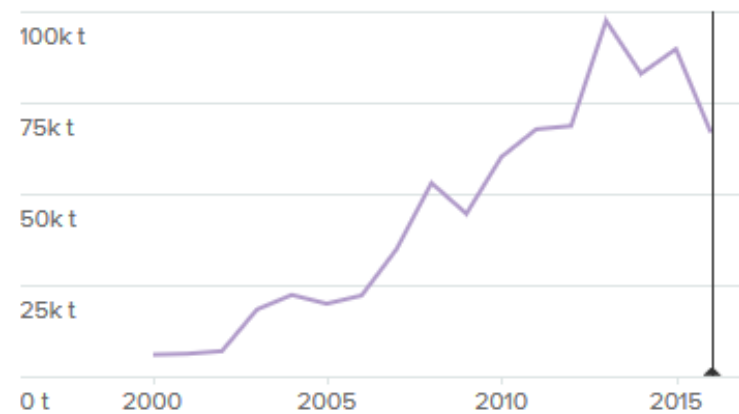


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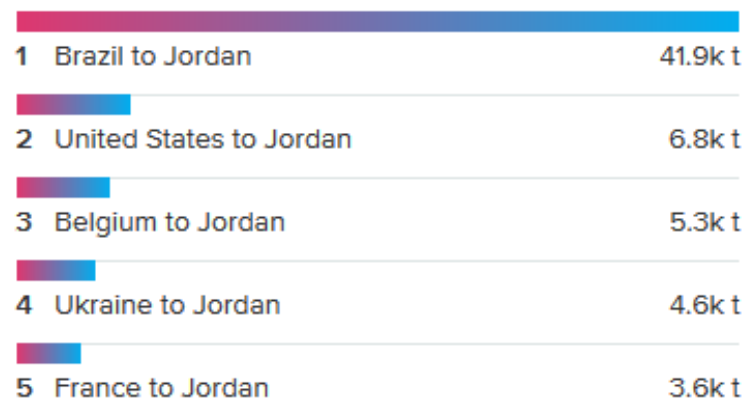
Import: Jordan



65.2k t



TOP 5



Source: Chathamhouse.org on COMTRADE data

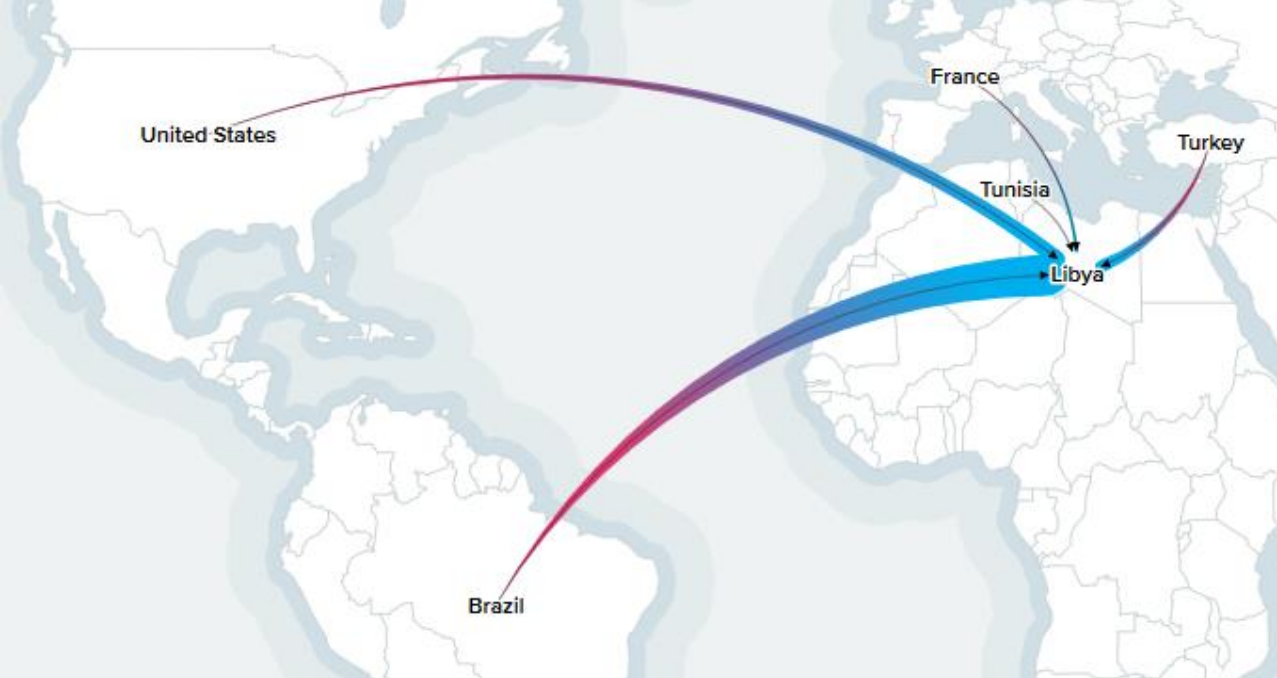
TESAF

Dipartimento Territorio
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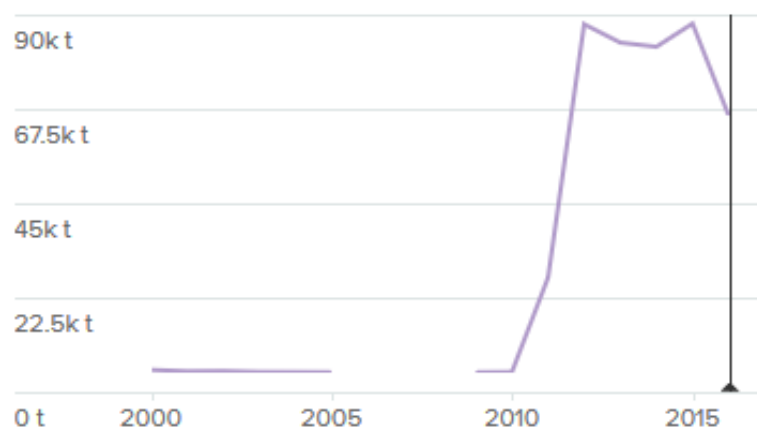


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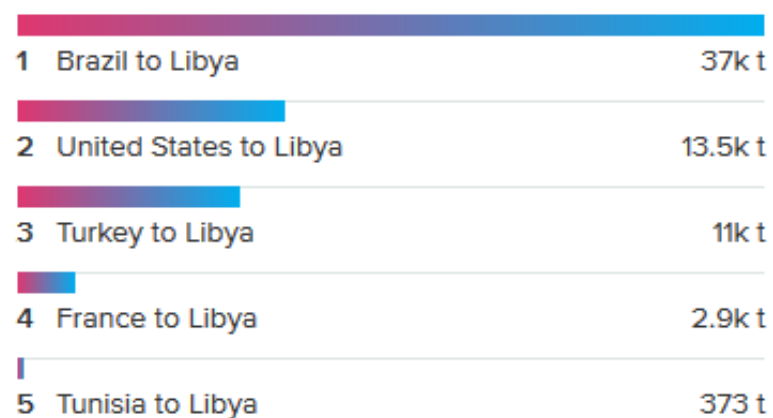
Import: Libya



64.9k t



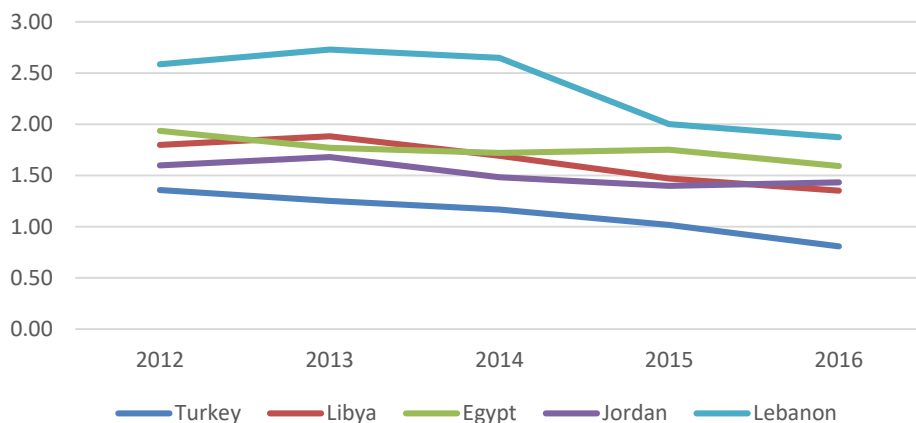
TOP 5



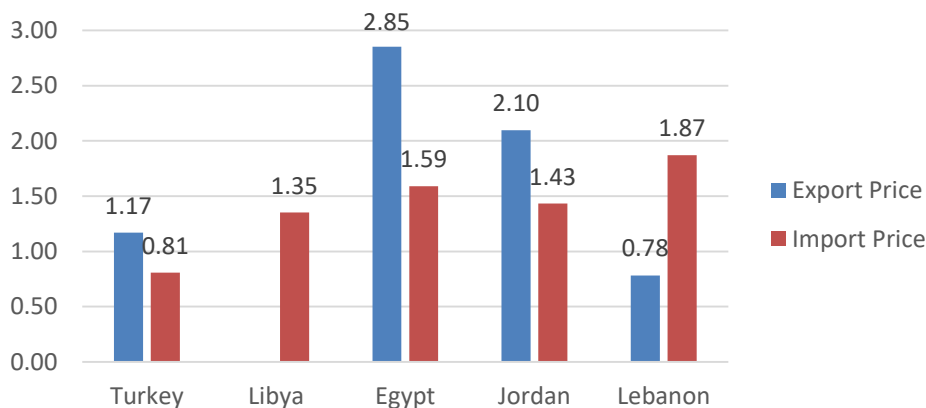
Source: Chathamhouse.org on COMTRADE data

Price on international market

Export Price



- Prices are decreasing over years;
- Turkey is the most competitive country in terms of export price while Lebanon exports at higher price
- The comparison of import vs export price gives indications on product category/quality exchanged on average



MARKET OUTLOOK

Meat market projection

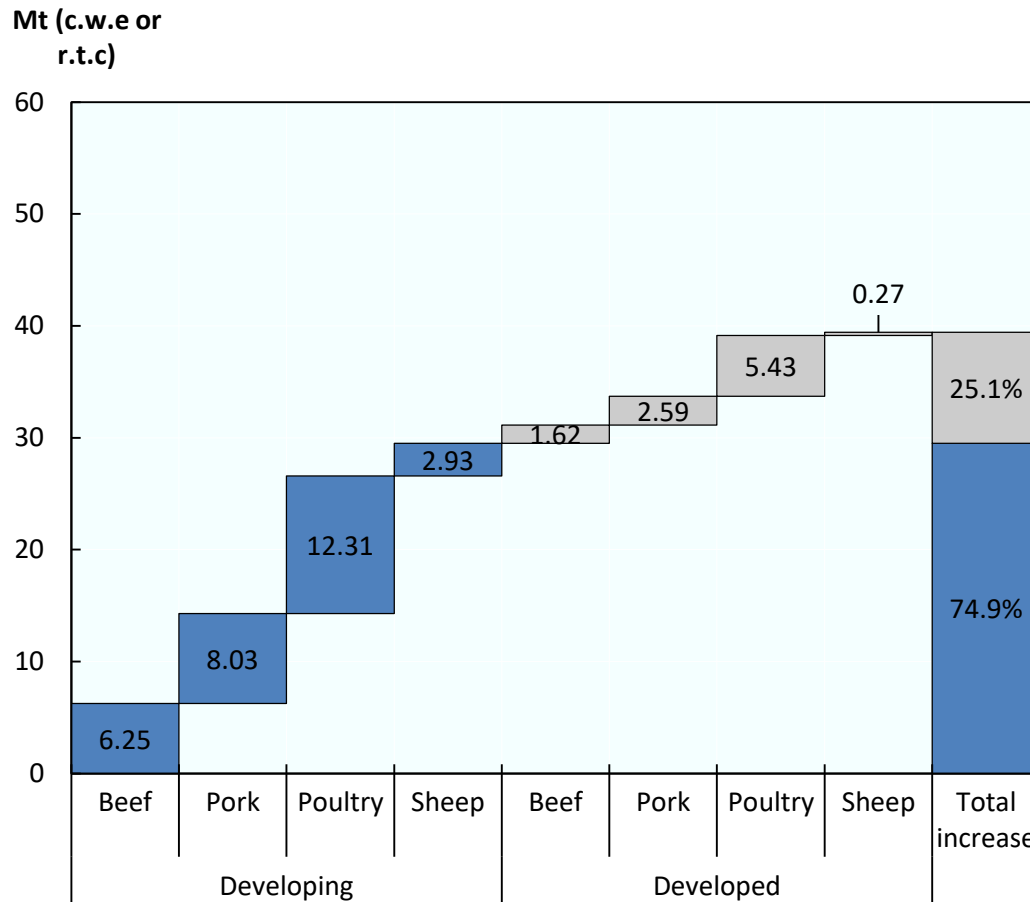
OECD-FAO

- The outlook for the meat market remains relatively favourable for producers. Feed grain prices have declined and assuming stable weather are set to remain low for the projection period.
- Global meat production is projected to be 13% higher in 2026 relative to the base period (2014-16).
- Developing countries are projected to account for the vast majority of the total increase, with a more intensive use of feed in the production process.
- Poultry meat is the primary driver of the growth in total meat production in response to expanding global demand for this more affordable animal protein compared to red meats.

EU Outlook

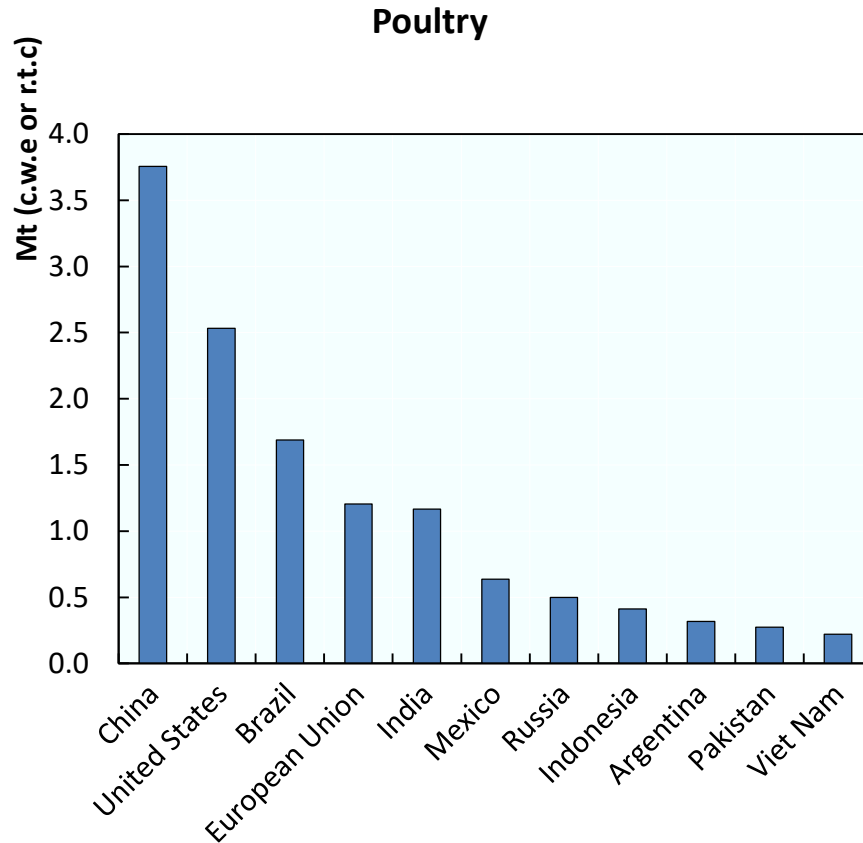
- By 2030, EU meat production is expected to reach 47.5 million t, driven by sustained demand in the EU and worldwide.
- Production of poultry is expanding, pushed by a favourable domestic market.
- World meat consumption is expected to increase by 1 % per year on average between 2017 and 2030, slower than between 2007 and 2017 (+1.8 % per year)
- World import demand for poultry meat is expected to increase by almost 3.2 million t compared to 2017, reaching 15.5 million t by 2030. This almost equals the combined increases for the other types of meat

Production: expected increase (2026 vs 2014-16)



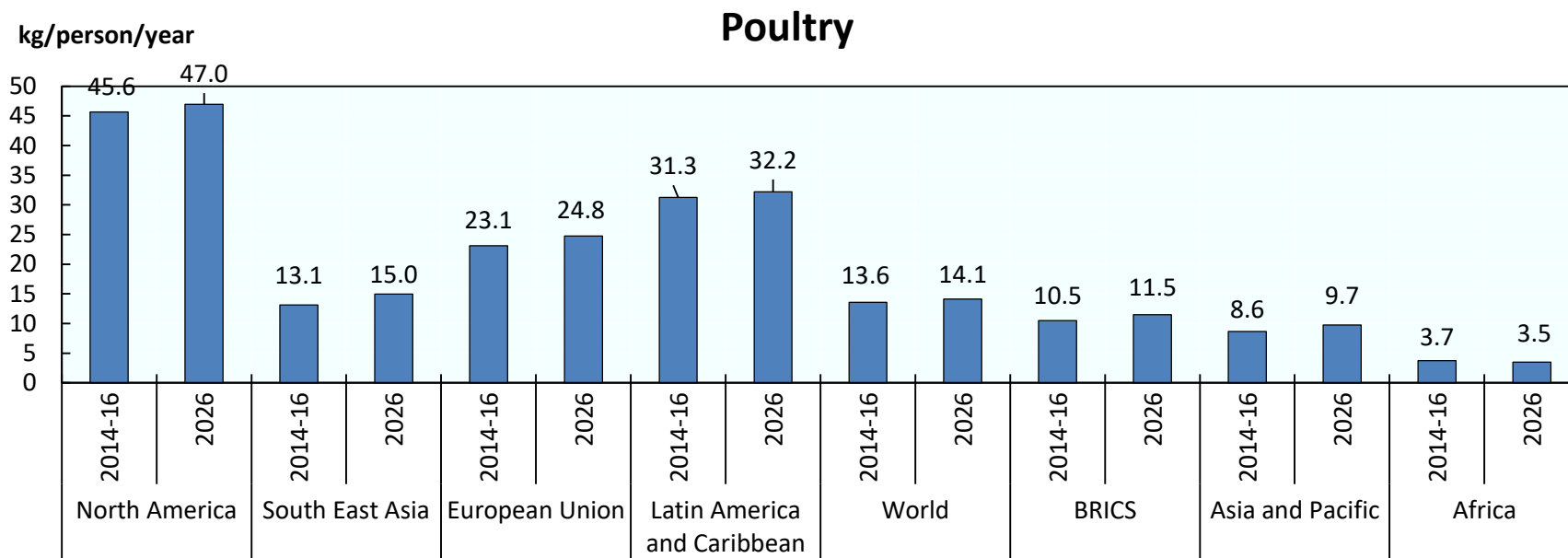
- Developing countries are expected to generate the 75% of meat production increases
- Poultry meat accounts for the 45.0% of total increase of meat production
 - The 41.7% in developing countries
 - The 54.8% in developed ones
- The 69.3% of the poultry meat increase is expected to be realized in developing countries

Production: countries with the greatest share of additional poultry meat



- Poultry short production cycle allows producers to respond quickly to market signals, while also allowing for rapid improvements in genetics, animal health, and feeding practices.
- Production will expand rapidly in countries:
 - that produce surplus feed grains, such as Brazil, Mexico, the Russian Federation, Ukraine, the United States and the European Union, particularly Hungary, Poland and Romania
 - That show an increasing demand like China, India, Indonesia, the Islamic Republic of Iran, Malaysia, Pakistan, Thailand and Viet Nam

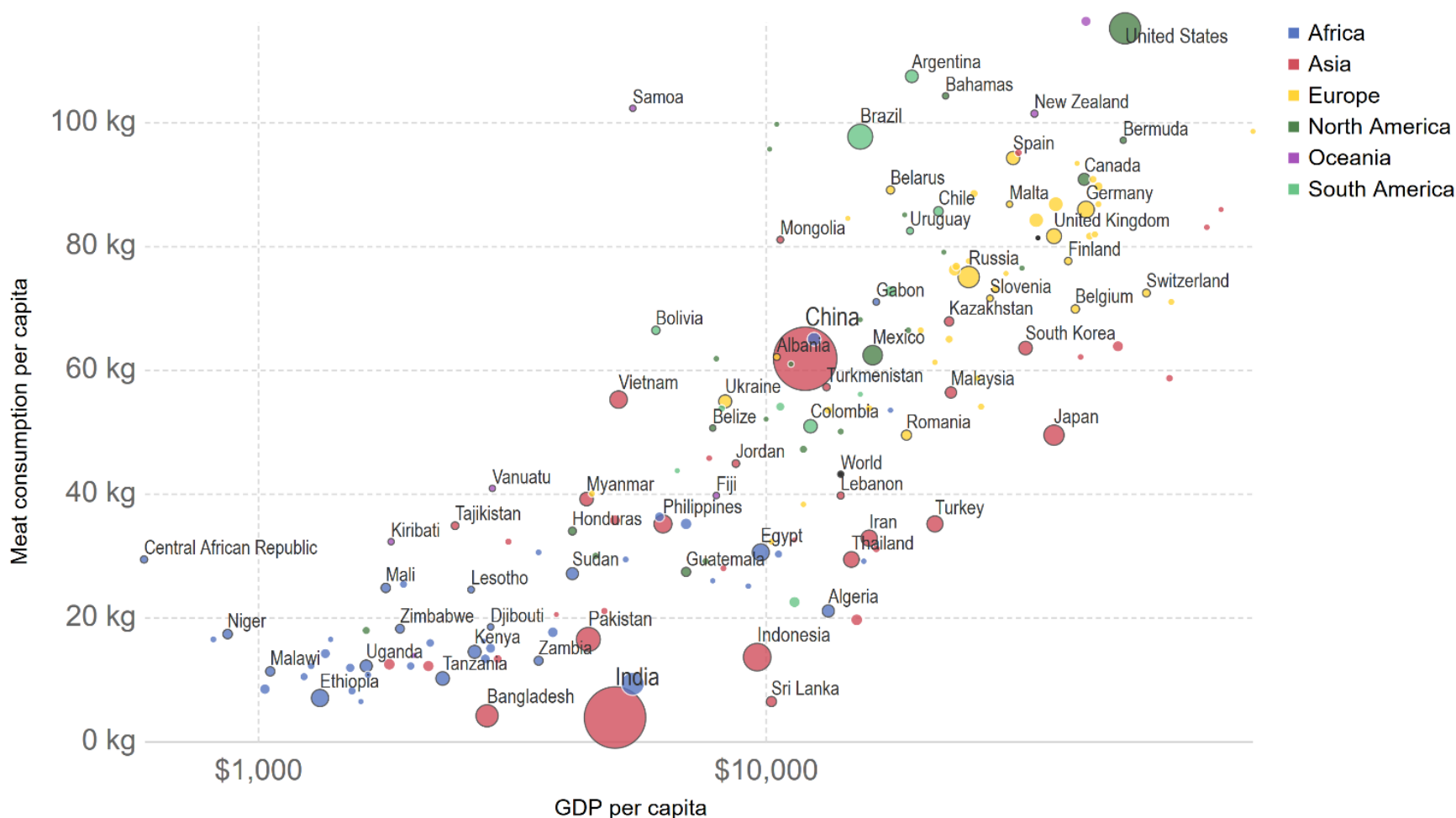
Consumption: Per capita poultry meat consumption by country and region



- In much of the developing world, per capita meat consumption declined in 2016 as income growth slowed. Consumption of poultry meat increases regardless of region or income level.
- Per capita consumption will grow, except from Africa that will increase global consumption thanks to the growth of population.
- Worldwide, poultry grew rapidly and surpassed pigmeat as the preferred animal protein in 2016.

Meat consumption vs. GDP per capita, 2013

Average meat consumption per capita, measured in kilograms per year versus gross domestic product (GDP) per capita measured in 2011 international-\$. International-\$ corrects for price differences across countries. Figures do not include fish or seafood.

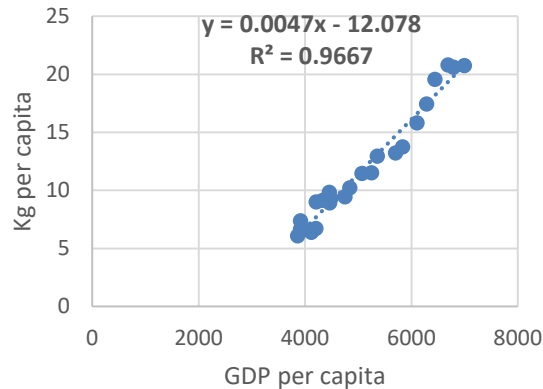


Source: UN FAO; World Bank, World Development Indicators

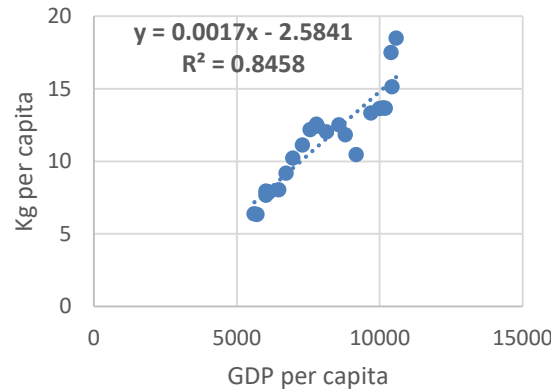
OurWorldInData.org/meat-and-seafood-production-consumption/ • CC BY-SA

Income and poultry meat consumption in South Mediterranean countries

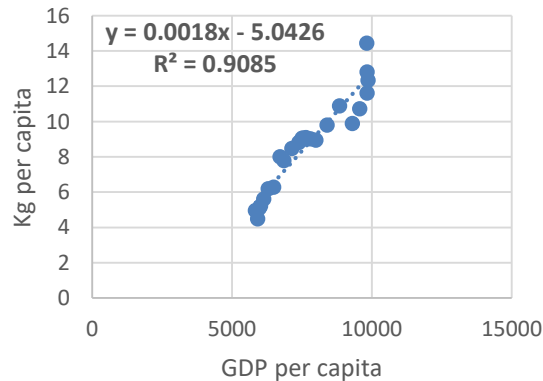
Morocco



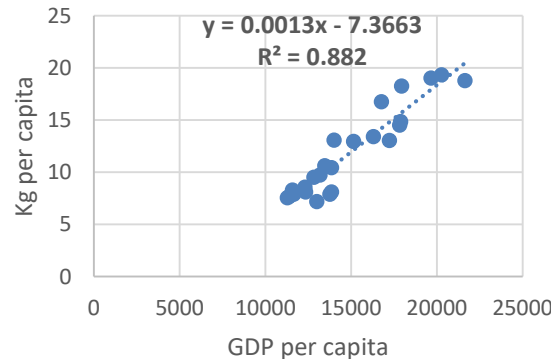
Tunisia



Egypt

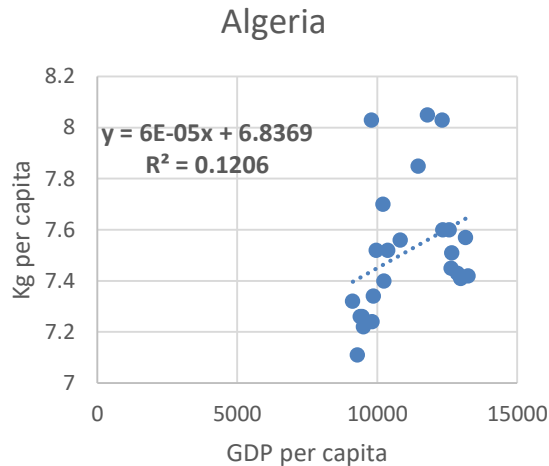
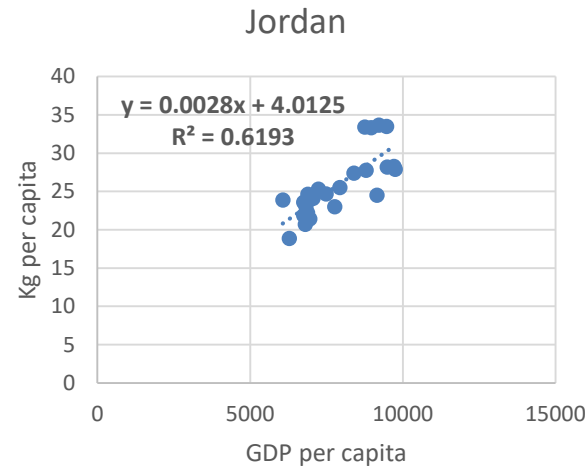


Turkey

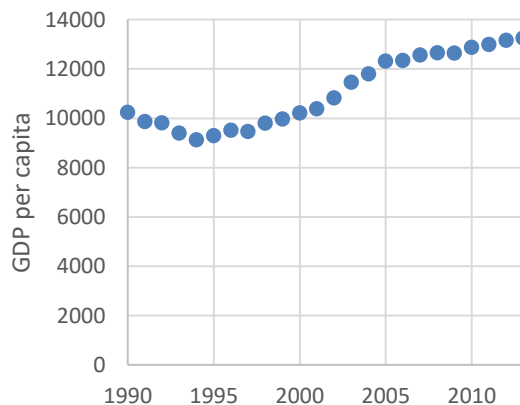
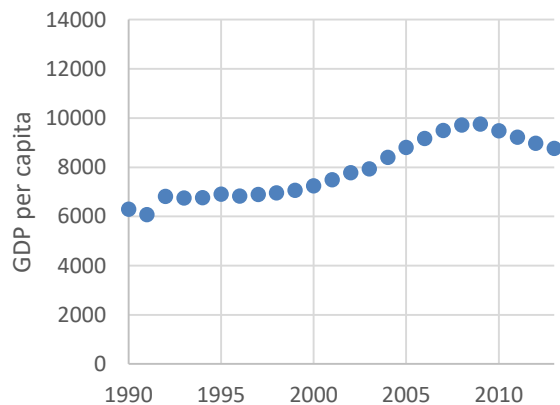


- Under steady income growth especially in the first stages poultry meat consumption is easiest to forecast
- An income increase of 1,000 USD per capita have an effect ranging from 1.3 to 4.7 kg per year

Income and poultry meat consumption in South Mediterranean countries



- With declining income or low rate of growth, the linkage with income is weaker



Conclusions

- Mediterranean area is evolving quickly, with increasing role of Turkey (export outside the area) and Brazil (importer in the area)
- The main factor impacting poultry meat market are income and trade policies.
- Despite the ratification of various trade agreements, technical requirements can influence the ability to trade, making it difficult to determine a systematic international perspective on which standards to use.
- The season of increasing unilateral policy may reduce the trading opportunity and growth in next years
 - Higher effect of ban than of tariffs
- An important factor that could impact the outlook relates to sanitary and food safety concerns (i.e. avian flu)

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THANK YOU FOR THE ATTENTION