Thinking CAP: Supporting Agricultural Jobs and Incomes in the EU

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Outline

• The report: objective, data and methodology
• International experience: agriculture and its role in structural transformation and the reduction of poverty
• Agriculture in the EU
• Our findings
• Structural transformation and the CAP
• Policy suggestions
• Conclusion
The report: objective, data and methodology
Basic methodology

Assessing the CAP’s impact on inclusive growth to distill policy suggestions for the future on:
- Agricultural labor productivity
- Agricultural employment
- Poverty

Methodology:
- Overall approach: time series of countries and regions (NUTS 2 and 3— for poverty data)
- with the “treatment” (CAP programs) coming in at different years, and at different intensities and mixes
What is new and different?

New data:
- Poverty maps at NUTS3 level, labor data at NUTS2
- Detailed CAP payments data
- Panels are EU-wide

Analysis is not based on:
- projections, models, single country before-after comparisons, or simple cross-sectional analysis
Causality?

- Causality cannot be inferred:
  - This report, nor any other reports on the impact of the CAP, cannot build on the results of randomized controlled or natural experiments.
  - This is why the report refers to “associations”, “correlations” or “links”.

- However, statistical results are based on a large number of observations, EU-wide, over time and space:
  - analysis attempts to rule out as many other factors, which could cause the correlations, as possible.
Assessment of the impact of the CAP on inclusive growth

- This is not an evaluation of the CAP
- It is an ex-post assessment of how the CAP has performed on one dimension: “inclusive growth”
  - agricultural labor productivity, jobs, incomes and poverty
- This is a recent objective: the CAP was not designed with this goal in mind, and it is one of many
- Are there lessons, building on these past associations found, to further promote inclusive growth going forward?
Economists want to know: why focus on agriculture?

- Doesn’t agriculture become less and less important, and as labor moves out of this low productivity sector and into, say, manufacturing, everybody is better off?

- Isn’t the policy recommendation to accelerate this process for “easy” productivity gains?

- Answers:
  - To successfully complete this process of “structural transformation” is not easy
  - International experience: there are no short cuts, and the process starts in agriculture
  - But if done well, poverty is reduced economy-wide
  - Our report therefore assess where countries are in this process
Structural transformation

Before economic transformation takes off, agriculture:
- large shares in economic output and the labor force
- but the share in economic output less than its share in the labor force
- has lower productivity of labor than in industry and services.

As industrial growth takes off:
- industry, and in particular manufacturing, increases its share in the economy; later followed by services
- pulls labor out of agriculture more or less rapidly, thereby increasing overall productivity of the economy
The first phase of structural transformation starts in agriculture

- China (1980-2001):
  - 75-80 percent of national poverty reduction was due to rural poverty reduction
  - with the rest due to migration
    Source: Ravallion and Chen (2007)

- Growth in agriculture is more effective in reducing poverty than non-agricultural growth:
  - For China (a transforming country), agriculture was 3.5 times more effective
  - For Latin America (an urbanized region), the ratio was 2.7
GDP growth originating in agriculture is more inclusive

Source: Ligon and Sadoulet, 2007. Background paper to the WDR 2008 (see website)
Based on data from 42 countries (1983-2003)
How does agriculture support incomes in rural areas?

- On farm, by raising agricultural profits and labor incomes
  - With agricultural wages often the reservation wage for unskilled laborers
- Locally, by raising non-farm profits and labor income via strong multipliers:
  - Local agricultural growth multipliers large: around 1.5 to 2.0
  - Local consumption linkages even larger than production linkages
  - Few industries locate to rural areas due to lack of economies of scope and agglomeration
  - Non-farm component of the rural economy is most dynamic and productive when farming is thriving
  - Farm households themselves also diversify income sources to manage risk and seasonality

However, there are no shortcuts to getting it right:

- Moving people from farms to factories to offices is difficult: it needs education and new skills.
- Only when agriculture does well, can farmers invest in the resources needed to successfully acquire these.
- And agricultural productivity also needs to increase to feed the growing demand for food coming from the cities.
- As this transformation occurs sometimes only slowly, agriculture often remains important for jobs in middle income countries, not just in poor countries.
- And if there is no good social safety net in urban areas, an economic crisis often results in the urban unemployed falling back on agriculture.
- In high income countries, agriculture can become a source for good jobs, and will no longer associated with poverty, but modernized and highly productive.
Agriculture in the EU
Macro trends

- EU growth is back on track
- But growth is less inclusive than before
- This matters, because if we would make the EU into one country:
  - absolute poverty reduction would be a enormous challenge
  - half the countries in the world would have a lower inequality than the EU
EU convergence: absolute poverty levels differ starkly

Figure 1. There are large differences between EU countries in terms of absolute poverty

Source: EUROSTAT, WB staff calculations.

Note: (1) Data source: EU-SILC 2011, Eurostat; (2) Absolute poverty line: $23.5 Euros PPS in 2011 (see Annex 2 on details of this calculation); (3) Relative poverty line: 60% of the national household median income.
In the EU: Agriculture and poverty are not correlated, on average
Agriculture in the EU: key characteristics

Agriculture (narrowly defined as primary production):
- 1.4 percent of GDP
- 4 percent of total employment
- About one tenth of the EU workforce works regularly on farms, even if not full-time

In 2010, in terms of numbers, 97 percent of all holdings were family farms:
- only 16 percent of total agricultural labor: non-family workers
Figure 16. The agricultural income gap with non-agriculture is closing.

Notes: The figures show the evolution of the (smoothed) average agricultural income gap measured as the ratio between agricultural value added per worker and non-agricultural value added per worker. The 95% confidence interval (computed using Stata’s command for local polynomial smooth plots with confidence interval). 
Source: Eurostat and Cambridge Econometrics.
The CAP: What we found
CAP: The Twin Pillars

- **Pillar I Direct payments (three quarters of the budget):**
  - Annual payments to provide a basic income and help stabilize farm revenues by compensating for the risks farmers face, e.g. volatile market prices, unpredictable weather conditions and variable input costs.
  - “cross compliance” with environmental standards, animal welfare, food safety and traceability

- **Pillar II Rural development:**
  - co-financing for investment projects of farmers and agri-businesses in rural areas with economic, environmental or social objectives
  - Includes land management practices to support the environment and climate change mitigation.
CAP reaches many different farmers

- CAP reaches very far and wide:
  - Old widow in a Newer Member State, who has two cows, some pigs and some vegetables—she uses it to complement her pension
  - Young, modern farmer in a NMS, doing intensive agriculture
  - Large, labor-intensive farm with foreign guest workers in an Older Member State
  - Large, mechanized and automatized farm in an OMS

- The reach of the program is impressive: the “plumbing” reaches virtually everywhere

- But is it effective in supporting inclusive growth?
Agricultural labor productivity

- Growth in agricultural value added per worker is positively associated with the CAP, particularly in the NMS.
  - A 10 percent increase in CAP spending is associated with an increase in labor productivity growth from 1.3 percent per year to 1.6 percent per year.
  - In the NMS, the increase would be even higher: from 3.1 percent to 4.7 percent with a 10 percent increase spending.
  - This association comes almost exclusively from decoupled Pillar I and Pillar II subsidies.
Jobs

- Decoupled payments in Pillar I and Pillar II have a positive impact on agricultural employment, but the effect is small.
  - No such association was found for the coupled payments.
- A 10 percent increase in CAP subsidies reduces the average annual outflow of labor from agriculture by about 1.5 percent.
- Combine the findings on labor productivity and jobs: with decoupled payments, there is a win-win combination possible between employing people in agriculture and increases in agricultural productivity.
Poverty and inequality

- The CAP is reaching the poorer regions within EU Member States.
  - Within Pillar I, the decoupled payments are the ones primarily allocated to poor areas.

- Over time, the CAP is associated with poverty reduction.
  - The decoupled payments within Pillar I and Pillar II are associated with poverty reduction.

- The CAP is also associated with a decrease in inequality at the subnational level.
The channel through which poverty could have fallen in relation to the CAP would be through the creation of better jobs in agriculture for the workers who remained in agriculture.

This hypothesis is supported by the combined results on agricultural productivity, jobs and poverty obtained.

However, countries differ in where they are in the process of structural transformation.
Structural transformation and the CAP
The NMS, or the EU-13, are the countries that joined since 2004: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia.

The OMS, or the EU-15, are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.
CAP payments, poverty and agriculture: the process of structural transformation
Country classification

- **Successful transformers**: agriculture – poverty delinked
  - OMS: e.g. Denmark, the Netherlands
  - NMS: Poland

- **Incomplete transformers**: agriculture—poverty linked
  - OMS: Portugal, Spain
  - NMS: Bulgaria, Romania

- **Policy implications**: 
  - Successful transformers: basic conditions in place, now modernizing
  - Incomplete: basic conditions need improving
  - Basic conditions: roads, health, education, infrastructure, extension services, farmers organizations

- **What role did the CAP play?**
The CAP and the transformation process

- **Successful structural transformers:**
  - the CAP no longer targets the poorer regions in the country:
  - lower left quadrant:
    - countries in which poverty and agriculture are no longer associated with each other (X-axis)
    - CAP support is consistent with this (Y-axis)

- **Incomplete transformers:**
  - the CAP targets the poorer, agricultural areas:
  - Upper right quadrant:
    - Poverty and agriculture are correlated (X-axis)
    - the CAP is consistent with this (Y-axis)

- Overall, the CAP’s reach is quite consistent with the countries’ levels of agricultural development.
Policy suggestions
For incomplete transformers in the NMS

- Improve basic conditions for agriculture to thrive (roads, social services, markets, extension services, and support to farmers’ organizations).
- Pillar I payments: decoupled and targeted towards the poorer areas to incentivize agricultural investment.
- Pillar II payments also associated with poverty reduction, but less so than Pillar I.
- Care should be taken that the Pillar II support accompanied by improving basic conditions, otherwise the return on these investments could turn out to be low.
Some basic conditions for the success of agriculture could be missing, for instance the institutional links between stakeholders (farmers, agri-business, educational institutions).

This could be supported by Pillar II payments.

Pillar I decoupled payments less important given existing income levels.

Rationale for coupled payments weak.
For successful transformers in the NMS

- Most of the basic conditions for agriculture are in place and agriculture can be a sector which provides reasonably attractive jobs.

- In the NMS:
  - Decoupled Pillar I payments still important for income-smoothing support for poor or emerging farmers to enable increased on-farm investment.
  - But also shift to Pillar II to further increase investments, both on and off-farm.
For successful transformers in the OMS

- Pillar I decoupled payments seem unnecessary, given already high income levels.
- Pillar II support can provide important investments, both of a private and a collective nature.
- Weak rationale for coupled payments.
Conclusion
Conclusion

- The CAP can be powerful and far-reaching instrument:
  - To reduce poverty and boost incomes
  - As part of successful structural transformation

- The policy mix depends on where the country finds itself in the process of structural transformation:
  - First phase:
    - Improve the basic conditions (rural roads, electricity and communications, including internet; health, education, life-long learning; agricultural extension and technology transfer)
    - Use decoupled CAP payments for income-smoothing to stimulate own investment
  - Second phase:
    - Use Pillar II to create better jobs on agriculture and agri-business and support sustainability
Conclusion (cont.)

- Move the monitoring of the CAP from compliance to results.
  - Measure growth, jobs, inequality, poverty reduction, the environment, instead of inputs and compliance with processes.

- Continue to invest in a results-based monitoring system
  - enabled by the appropriate legislation to use, and re-purpose, the data
  - combining the CAP’s monitoring system, continuous remote sensing data (to track land use and other agro-environmental variables), and the key social-economic variables at the NUTS3 or below.

- Allow for flexibility in implementation, but based on results.
  - Allow greater differentiation, but with a better focus on results-based monitoring
Team

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Annex
Are small farms the cause of poverty? Small farms are in areas of high poverty… but so are very large farms.
Small farm productivity in an NMS: small and poor...but efficient

![Bar chart showing average standard output (EUR) per ha UAA by farm category based on UAA/farm (ha)].