The French Observatory on formation of food products' prices and margins

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Outline of presentation

1. Context of setup for the Observatory
2. French litterature review on price formation in agrifood products
3. Policy objectives in setting up the Observatory
4. Organization of the Observatory
5. One example of results: price and margin formation in beef meat marketing chains
6. Lessons learned and way forward

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Long-term agrifood sector trends in France

- Decreasing share of household budget devoted to food
- Agrifood products are more processed

$\Rightarrow$ Smaller share of farmgate price in food consumer prices

- Recent volatility of world food prices
- Reforms of the Common agricultural policy

$\Rightarrow$ Chain stakeholders are subject to increased price volatility

Chain relationships remain tense because of obscure price formation mechanisms

- Chain stakeholders keep arguing on the production costs and margins at every stage of the chain
- Power and dependency relationships between stakeholders
- 2004-2005: first unsuccessful trial for such an Observatory
  - Some chain stakeholders were not willing to cooperate
  - Lack of political will to support the Observatory’s work and methodology

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French academic research on food chain economics

- 4 principal topics:
  - Farm-retail price transmission
  - Market power and value sharing
  - Assessment of agriculture, food industry and retail productivity
  - Competition policy and regulation of the vertical relationships in chains
- Research centres: TSE, INRA, Polytechnique, ENSAE, etc.

Farm-retail price transmission

- Research objectives and questions:
  - Analysis of price time series from farmgate to retail level
  - Causality of the relation: which one is the director price?
  - Is the variation of the farmgate and retail prices based on constant or proportional margins?
  - Are the up and down variations of the director price symmetrically transmitted?
- Results:
  - In some chains (fruit) the upstream price (farmgate) is the director price; in others (milk), the downstream price (food processors) is the director price
  - Constant *vs* proportional margins, symmetric *vs* asymmetric transmission still controversial

Market power and value sharing in chains

- Research question: Are prices close to the prices which would be obtained in a perfectly competitive setting?
- Results:
  - Some evidence of retailers' market power over suppliers as well as over consumers
  - Market power intensity depends on the food chains (upstream concentration, product perishability, etc.)
  - Influence of the regulatory framework *(« Loi Galland », etc.)*

Assessment of agriculture, food industry and retail productivity

- Research objectives:
  - Determinants and evolution of the productivity levels of farms, the food industry and food retailers
  - Analysis of the transmission of productivity gains from upstream to downstream stakeholders
- Results:
  - Large productivity gains in the food chains from 1979 to 2005. Decrease in productivity gains since 2005
  - Largest part of productivity gains from the farm level
  - Productivity gains at farm level transmitted to food industry through decreased farmgate prices
  - Decrease in farmgate prices transmitted to retail level by the food industry

Assessment of agriculture, food industry and retail productivity

- More results:
  - Food industry productivity has decreased in the past 10 years
  - On average, food industry profitability is lower than retail profitability but food industry profitability depends a lot on the type of firms (large *vs* medium sizes)
  - Retail margins have increased in the last decades

Competition policy and vertical relationships in chains

- Research objectives:
  - Effects of the producer-retailer relationships on retail prices
  - Analysis of the anti-competitive effects of resale-below-cost laws
  - Welfare effects of the ban on price discrimination in supplier-retailer relationships
- Results:
  - Ban on price discrimination in supplier-retailer relationships may have negative effects on retail prices
  - Previous regulatory framework on supplier-retailer contracts ("*loi Galland*") had inflationist effects, justifying the implementation of a new law ("*loi Dutreuil*")

See list of references on last slide

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Objectives of the Observatory

1. To facilitate transparency on the mechanisms of price formation within marketing chains
2. To help understand how agrifood marketing chains work
3. To serve as a learning tool for chain stakeholders, consumers and policy makers
4. To contribute in the long run to the sustainable development of French agro-industries and agricultural sector, taking into account consummer's interests.

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The current Observatory

- Set up by the Law on modernization of agriculture and fisheries dated 27 July 2010
- Under double supervision of Ministries in charge of agriculture and consumption
- Hosted by FranceAgriMer, a public institute in charge of implementing agrifood sector policies
- Uses public statistics and data provided by agro-industries, distributors and retailers
- Multistakeholder steering committee to avoid being marred in political discussions

The Observatory’s steering committee

- President: Philippe Chalmin, expert in world commodity markets at University Paris-Dauphine
- 30 representatives of various agrifood chain stakeholders, organizations and unions
- Product-specific working groups involving farmers, processors, wholesalers, retailers (only supermarkets for now) and consumers
- Total of 100 agrifood stakeholders involved

Data and methods

1. Agree on the marketing chain model
2. Make an inventory of existing official statistical data and sources of data still to be gathered
3. Choose most appropriate method depending on product and objective of study:
   - From raw material to all the products at retail level (cow carcass and all the different meat cuts);
   - From a specific consumer product at retail level to its specific raw material (ham);
   - Specific method in case of linkages between products and by-products (dairy products)
4. Working group agrees on methodology
5. Data gathering and analysis

Outputs of the Observatory

- Reconstruction of retail prices showing the unit 'gross margin' (part of value added) at each stage of the marketing chain
- Identification of the costs of production to explain the margins at each stage of the marketing chain
  - Easier in processing industry thanks to official statistical data
  - More difficult at distribution stages because no analytical data in official statistics of multiproduct retail shops

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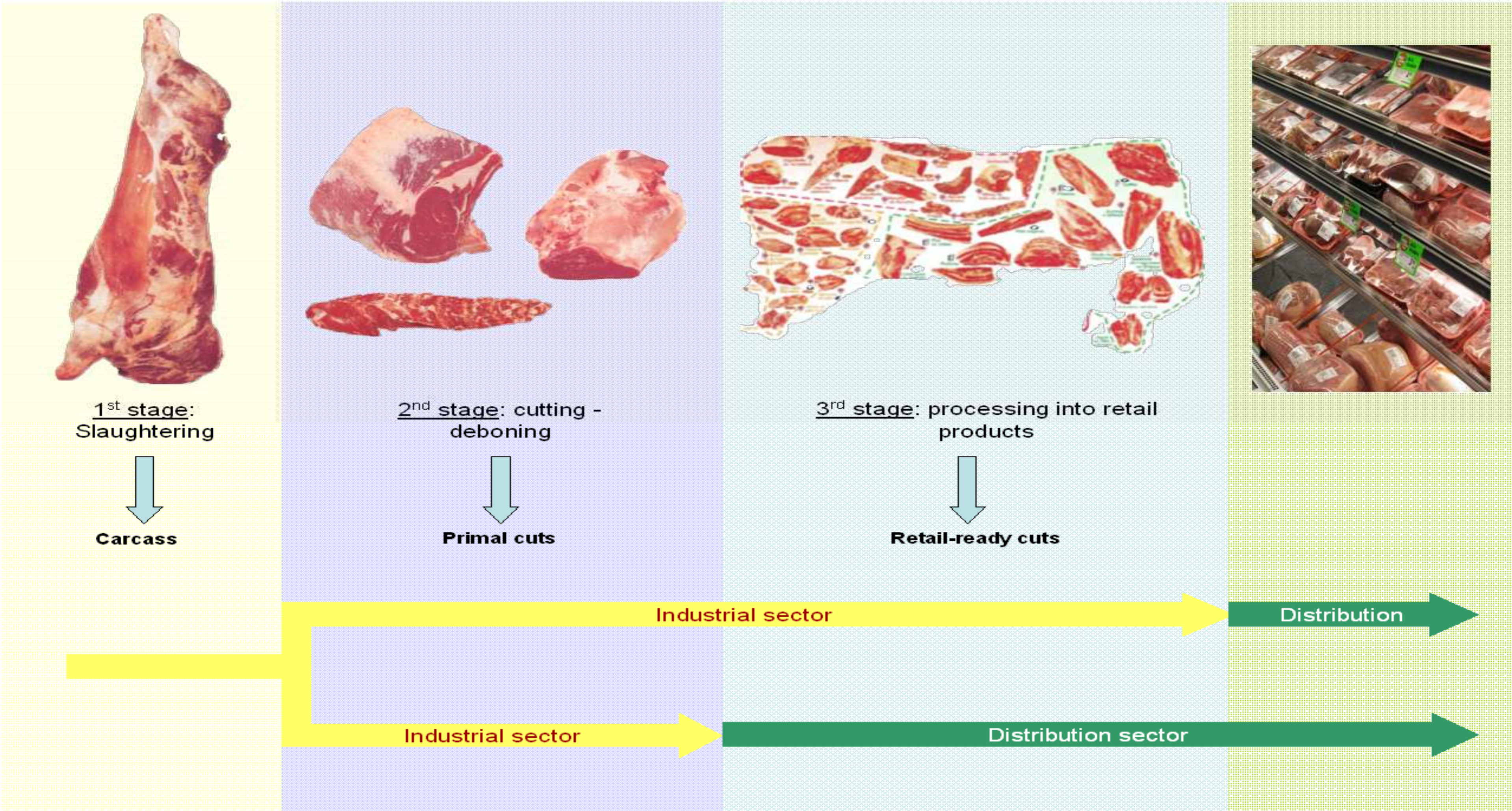
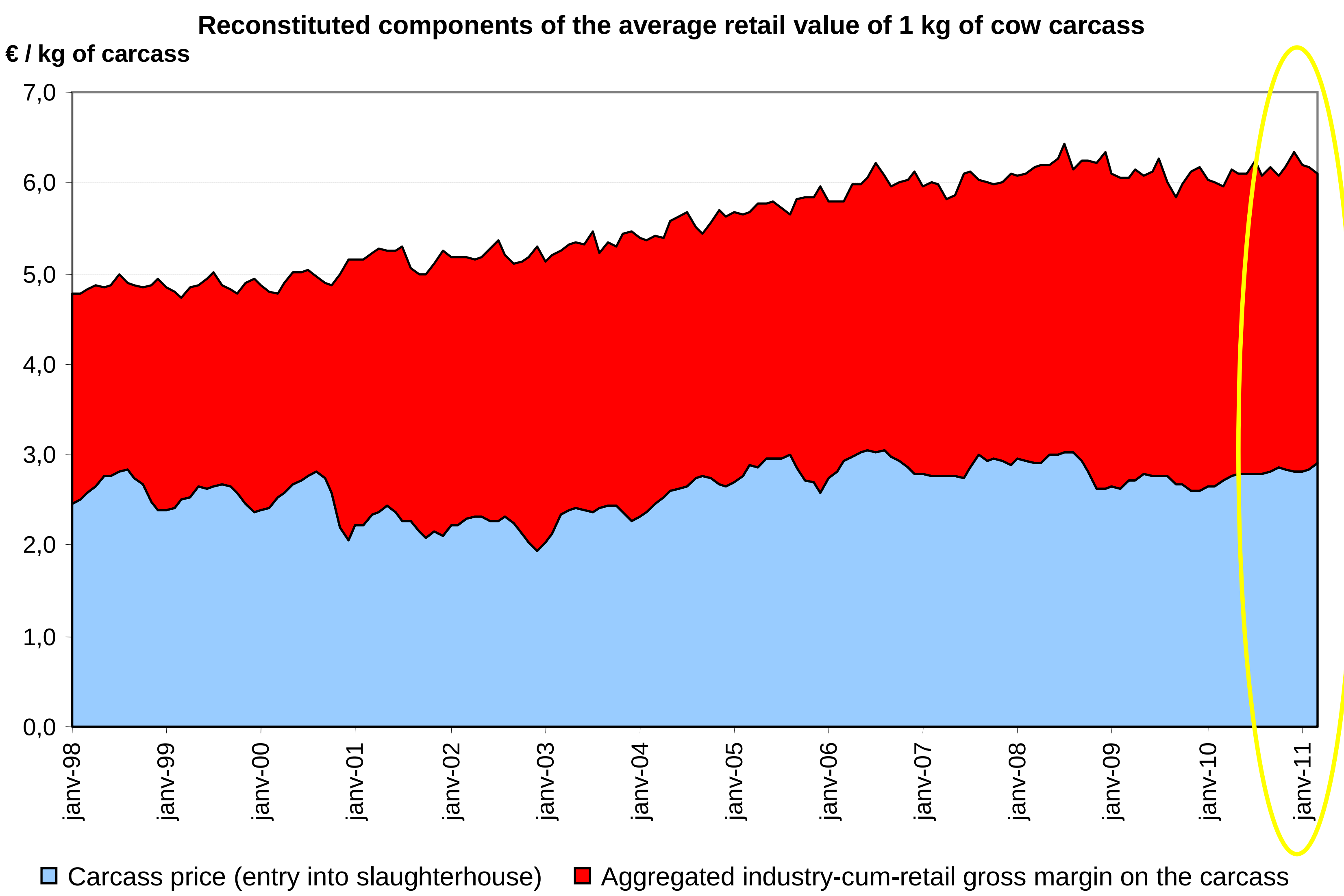
Complexity: raw material vs consumer products




Reconstituted components of the average retail value of 1 kg of cow carcass
€ / kg of carcass
7,0
6,0
5,0
4,0
3,0
2,0
1,0
0,0
janv-98
janv-99
janv-00
janv-01
janv-02
janv-03
janv-04
janv-05
janv-06
janv-07
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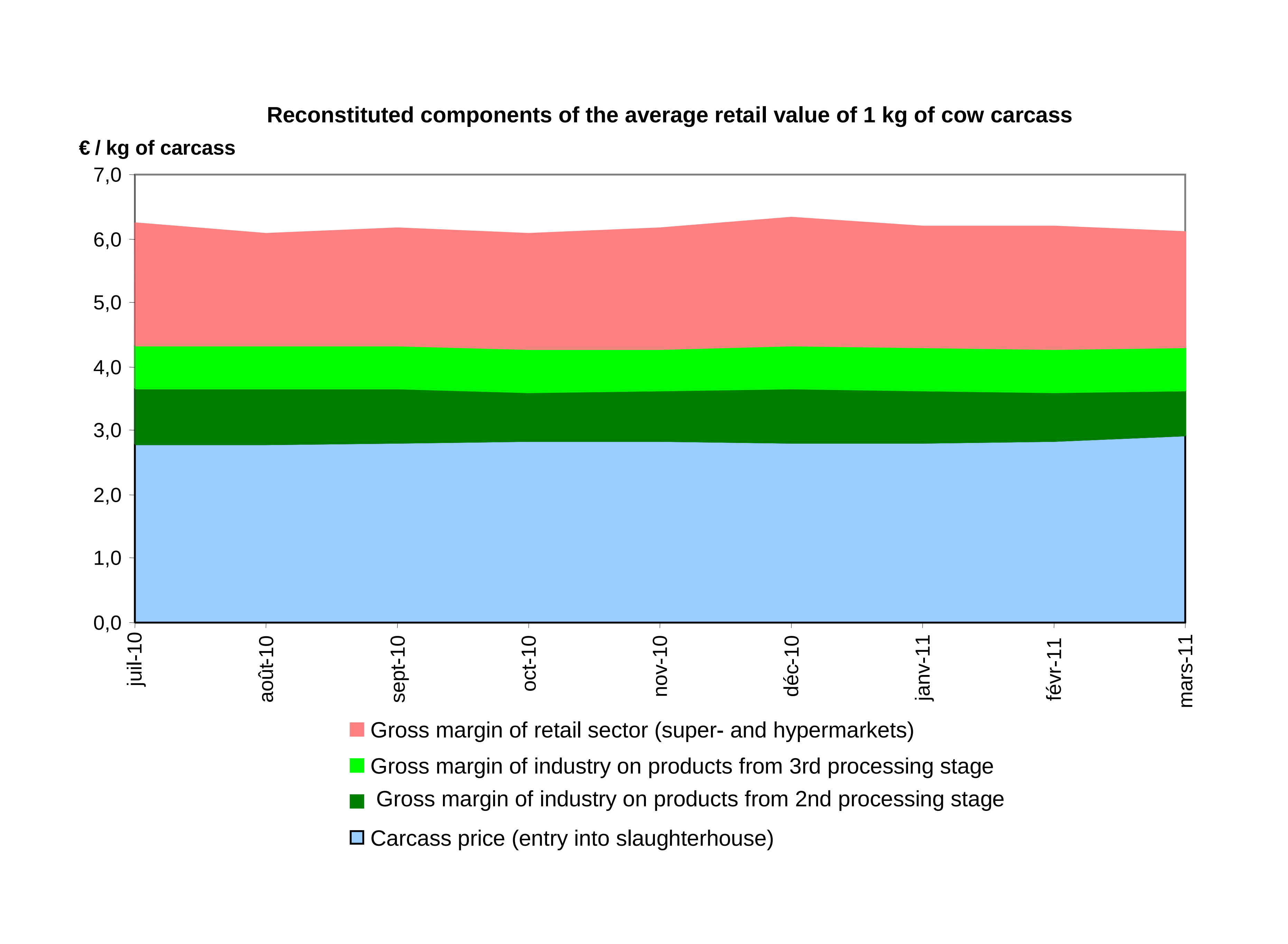
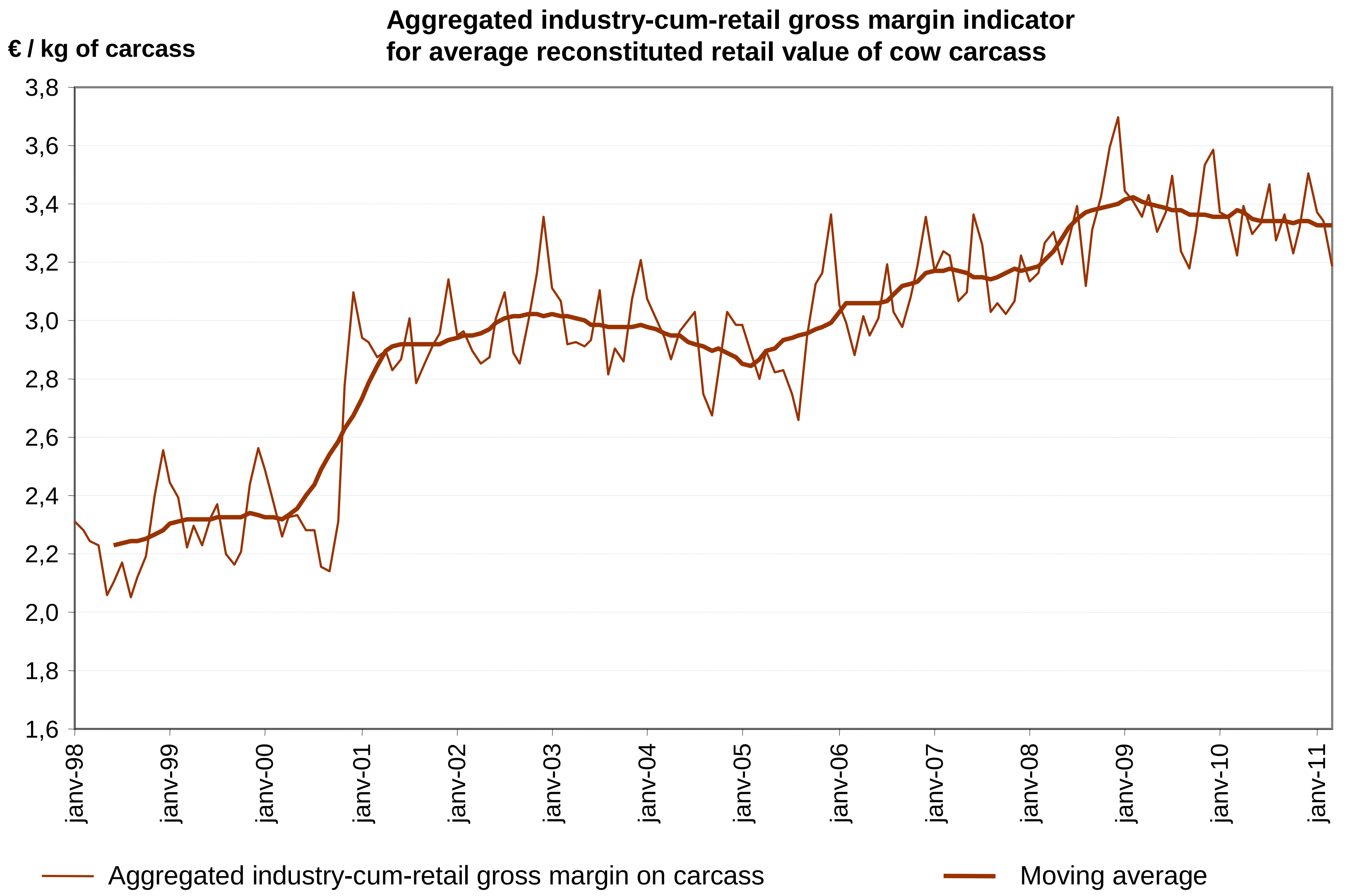
Carcass price (entry into slaughterhouse)
Aggregated industry-cum-retail gross margin on the carcass

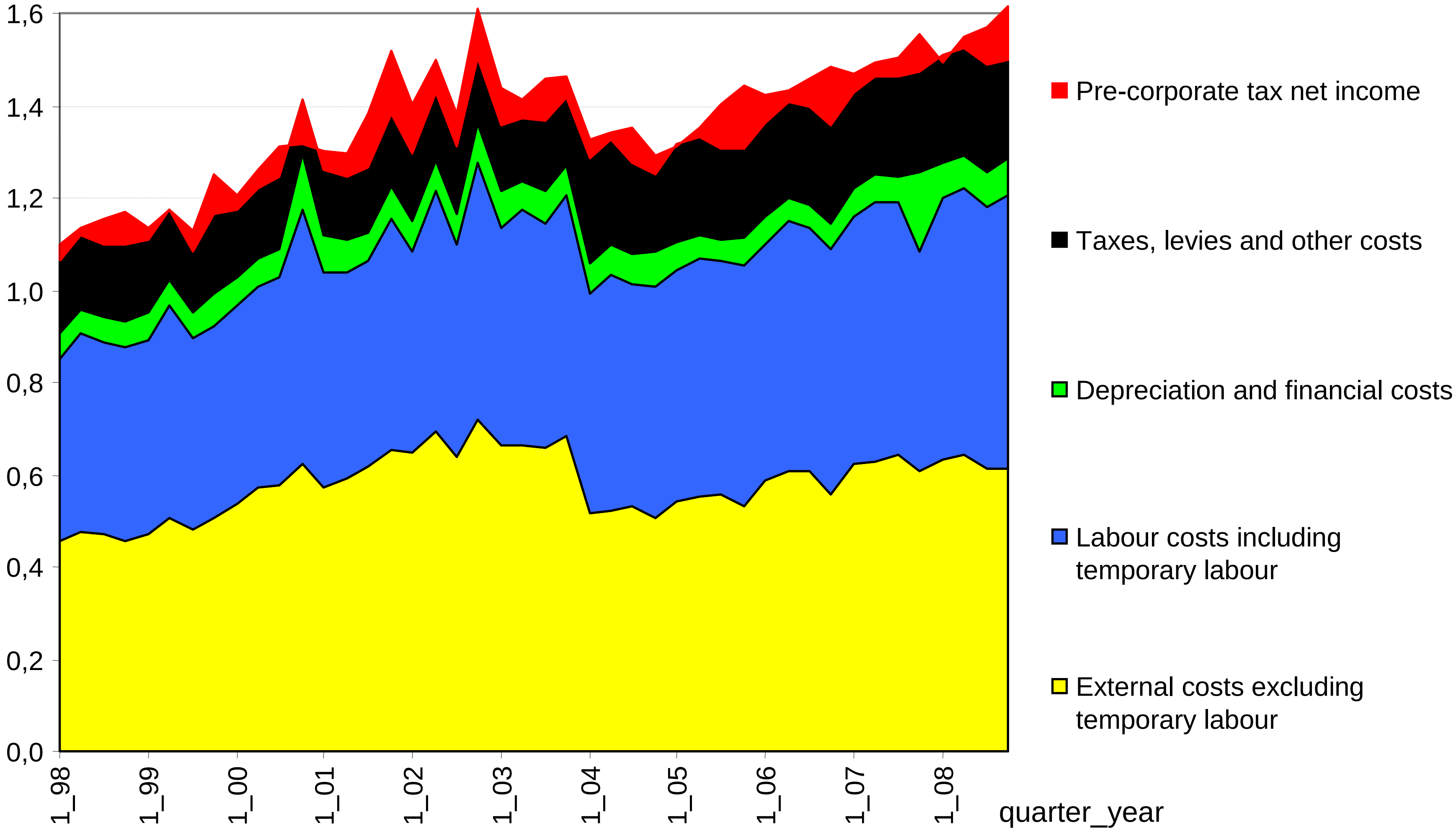

Reconstituted components of the average retail value of 1 kg of cow carcass
€ / kg of carcass
7,0
6,0
5,0
4,0
3,0
2,0
1,0
0,0
juil-10
août-10
sept-10
oct-10
nov-10
déc-10
janv-11
févr-11
mars-11
Gross margin of retail sector (super- and hypermarkets)
Gross margin of industry on products from 3rd processing stage
Gross margin of industry on products from 2nd processing stage
Carcass price (entry into slaughterhouse)



Aggregated industry-cum-retail gross margin indicator
for average reconstituted retail value of cow carcass
€ / kg of carcass
3,8
3,6
3,4
3,2
3,0
2,8
2,6
2,4
2,2
2,0
1,8
1,6
janv-98
janv-99
janv-00
janv-01
janv-02
janv-03
janv-04
janv-05
janv-06
janv-07
janv-08
janv-09
janv-10
janv-11
Aggregated industry-cum-retail gross margin on carcass
Moving average

Evolution and cost components of gross margin / kg of carcass eq. processed

Sample of slaughtering-cutting firms by FranceAgriMer



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Lessons learned from the current Observatory’s work

- Retailers’ margin is not always related to the purchasing price
- Even for unprocessed food (fresh produce), retailer prices and producer prices are not always linked in linear relation or with a constant margin
- Each product is different: great complexity
- Observatory has calculated ‘objective’ prices at all stages of the marketing chain
- Has come up with technical references as a base for negociations between chain stakeholders in the livestock industry

Ideas for future work plan and improvements

- Tackle other commodities and products:
  - Fisheries and aquaculture
  - Wine products
  - Mutton meat
- Improve analysis of production costs and physical waste at processing and distribution stages
- Open up to other economic methods of price reconstruction
- Explore production costs at the farm stage

Thank you for your attention
Comments welcome!

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