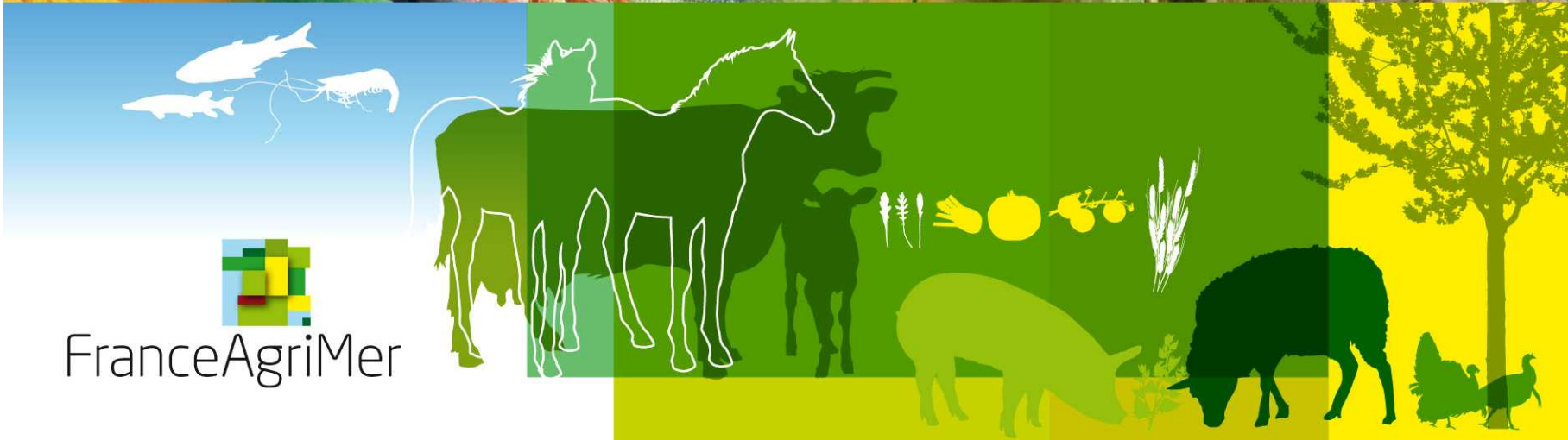


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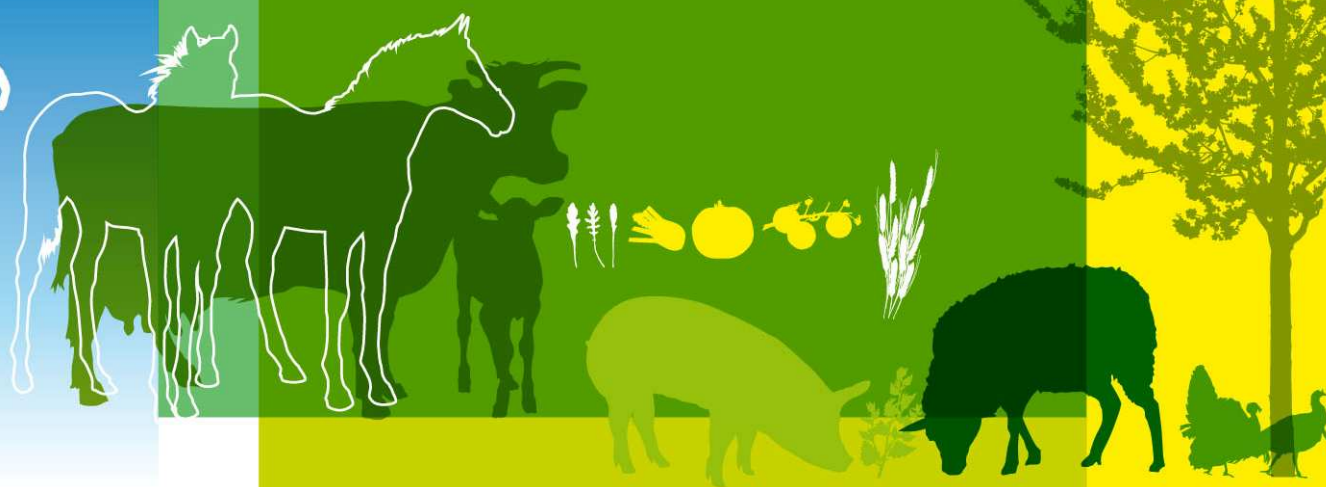

FranceAgriMer

The French Observatory on the formation of food product prices and margins

Focus on dairy products & Ultra Heat Treated (UHT) milk

Jean-Noël Depeyrot – FranceAgriMer

20/10/2011





- Context and objectives of the Observatory
- Dairy products price monitoring outlines
- UHT milk prices: an analytical model
 - Processing chain analysis
 - Milk deliveries seasonality analysis
 - Considering the whole dairy products opportunities
 - Production price: an analytical price for raw material
- Semi-skimmed UHT milk price monitoring results
- Important: main results on other dairy products



Context and objectives of the Observatory



Long-term agrifood sector trends in France

- Decreasing share of household budget devoted to food
- Agri-food products are more processed
 - ⇨ Smaller share of farmgate price in food consumer prices
- Recent volatility of world food prices
- Reforms of the Common Agricultural Policy
- Chain stakeholders are subject to increased price volatility

Objectives of the Observatory

- To improve transparency on the mechanisms of price formation within supply and marketing chains
- To help understand how agrifood marketing chains work
- To serve as a learning tool for chain stakeholders, consumers and policy makers
- To contribute over the long term to the development of agro-industries which do not thwart consumer interests and the sustainability of the French agricultural sector



The current Observatory

- Set up by the Law on Modernization of Agriculture and Fisheries dated 27 July 2010
- Under the dual supervision of the Ministries of Agriculture and Consumerism
- Hosted by FranceAgriMer, the French Intervention Paying Agency
- Uses public statistics and data provided by agro-industries, distributors and retailers
- Multistakeholder steering committee to avoid being embroiled in political discussions
 - Dairy working group involving farmers, processors, retailers and consumers



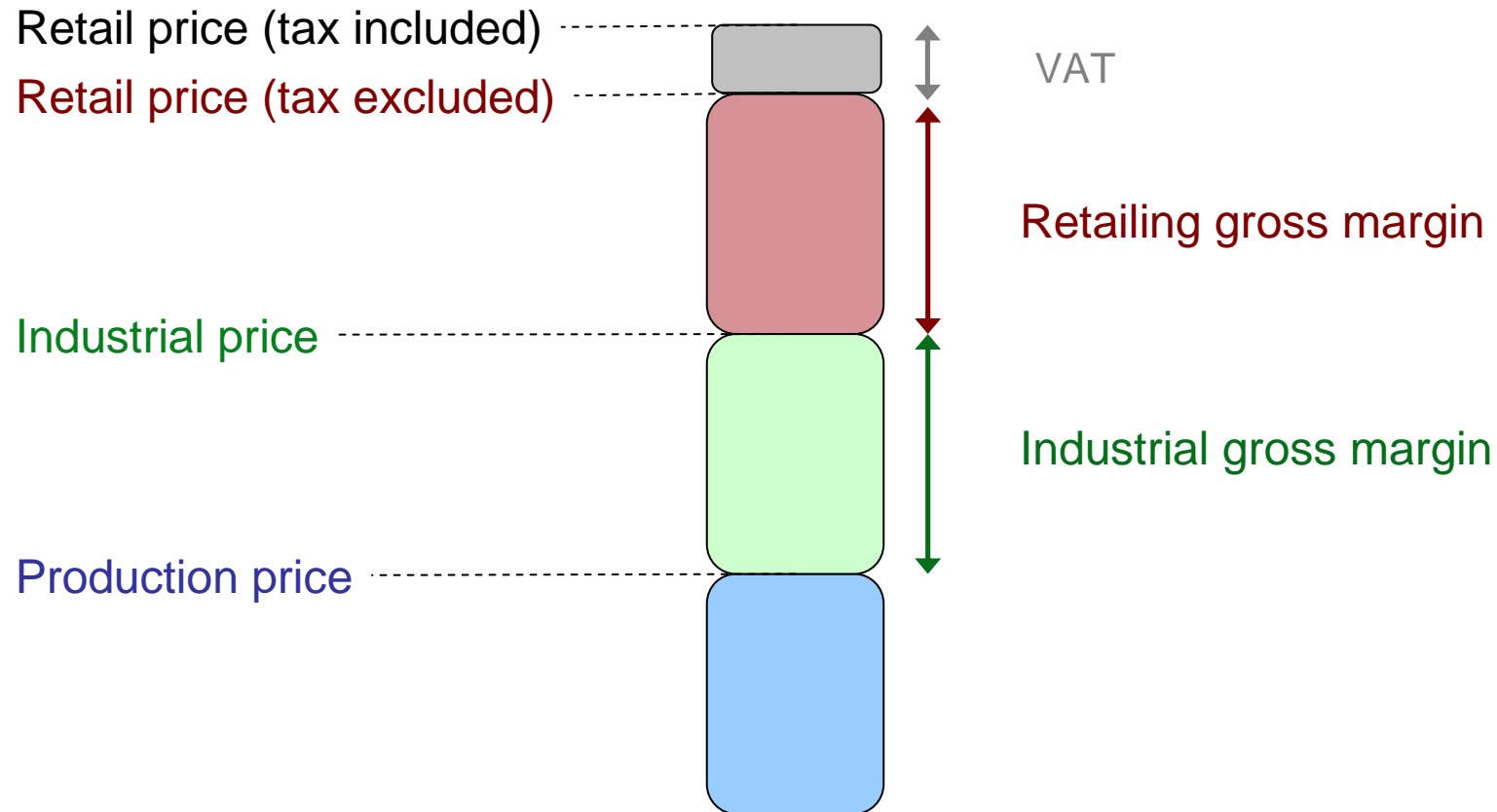
Outlines of dairy product price monitoring

Dairy product price monitoring

- Milk: a widely processed product
 - Milk cracking leads to very different products
 - Wide variety of products at consumer level
 - ⇨ Great complexity of price chain (*vs. Tomatoes for example*)
- Price monitoring for different products : representative, symbolic and « plain » products : as close as possible from milk
 - Semi-skimmed UHT milk
 - the French standard drinking milk with 75% market shares
 - Plain yogurts
 - Emmental cheese
 - Butter
- First publications in 2009, but the results were hard to read and understand. New, clearer and more synthetic method.



Price monitoring:



- **Essential: Product homogeneity throughout price chain**
- **NB: we refer to gross margin ! (quite different from profits !!)**



Consumer milk : which milk are we talking about ?



- From collected milk to consumer milk :
 - which products ?
 - which prices ?
 - which volumes ?

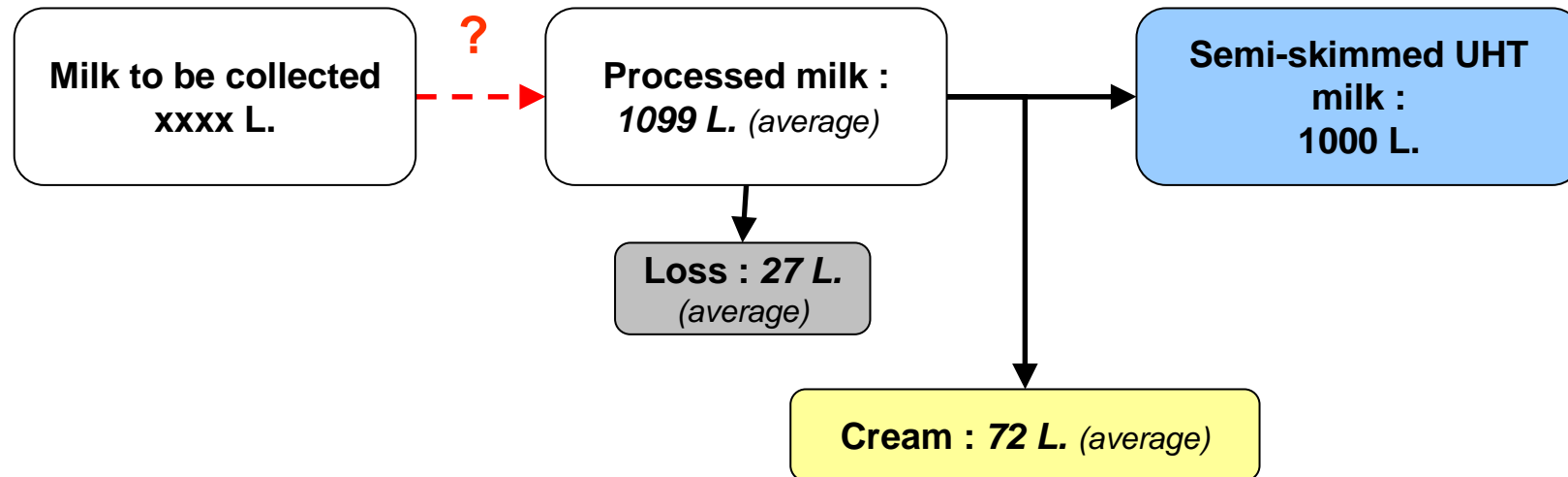
- Collected milk : average milk production price, average composition
- Final product : average weighed household purchasing price (*Kantar Worldpanel*)
 - Good representation of consumer behaviour patterns
 - Representation of discounts effects, products categories effects...

- To compare those prices, we must analyse **the whole chain**, from supplies to final process

UHT milk processing chain analysis

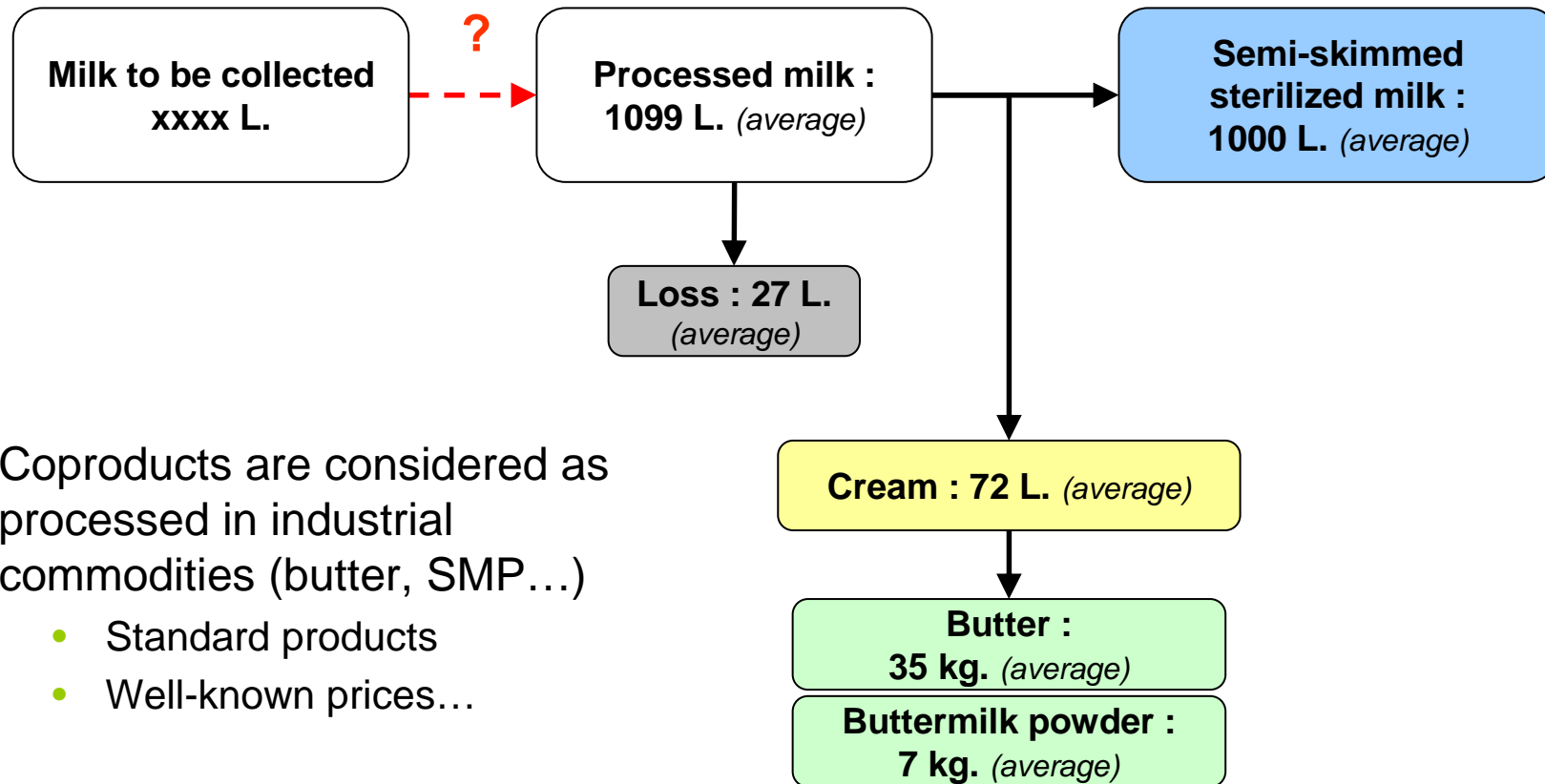


UHT milk processing chain analysis



- Monthly material balance:
 - Average milk deliveries composition (Fat & Protein content)
 - Average semi-skimmed sterilized milk composition (with fat standardisation)
 - *Major importance of a monthly balance (changes in milk price and composition)*
- Loss: from dairy industry experts

Coproducts uses



- Coproducts are considered as processed in industrial commodities (butter, SMP...)
 - Standard products
 - Well-known prices...
- Simplified but realistic model

Milk deliveries seasonality analysis

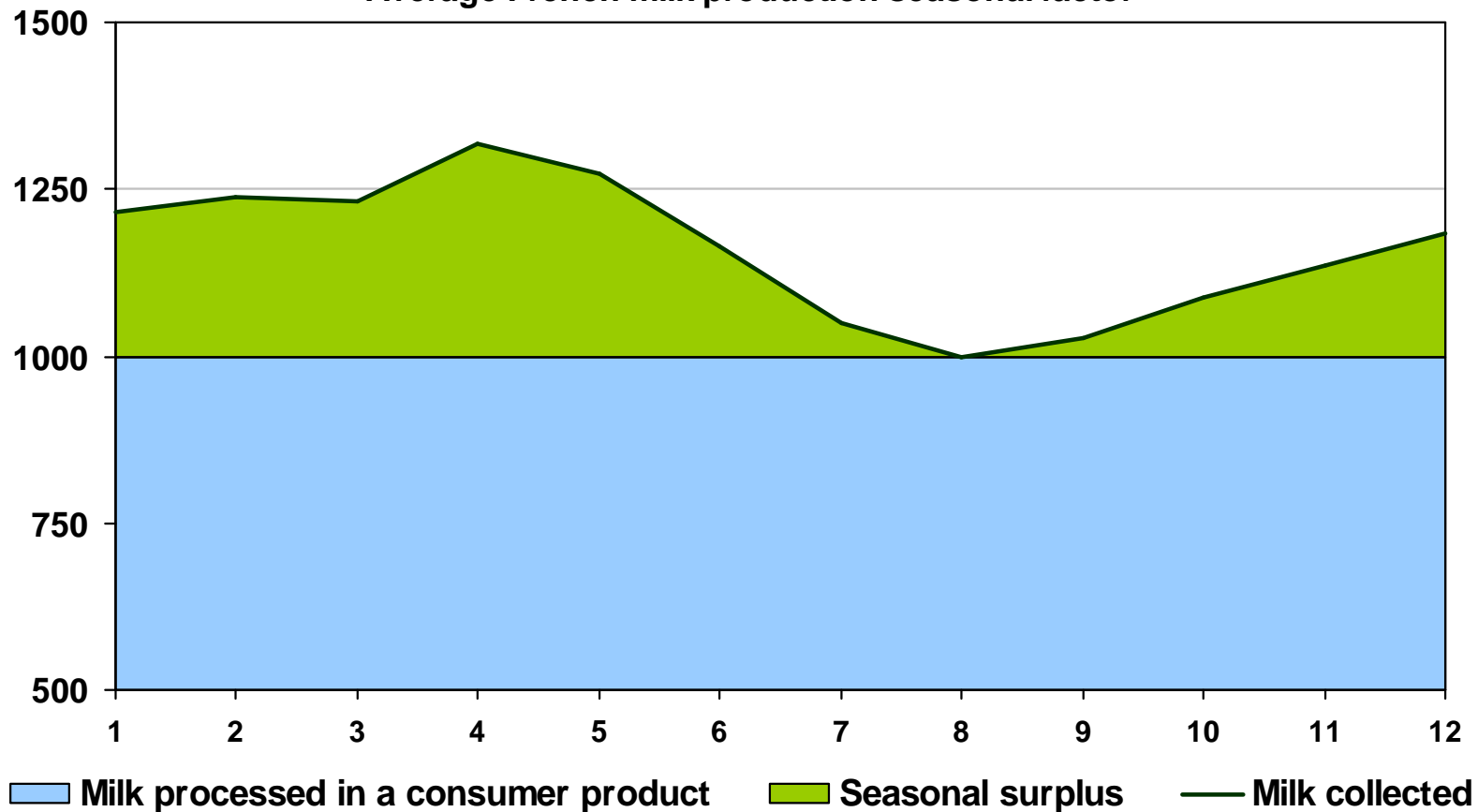




Seasonal surplus concept

Seasonal surplus in dairy products : example

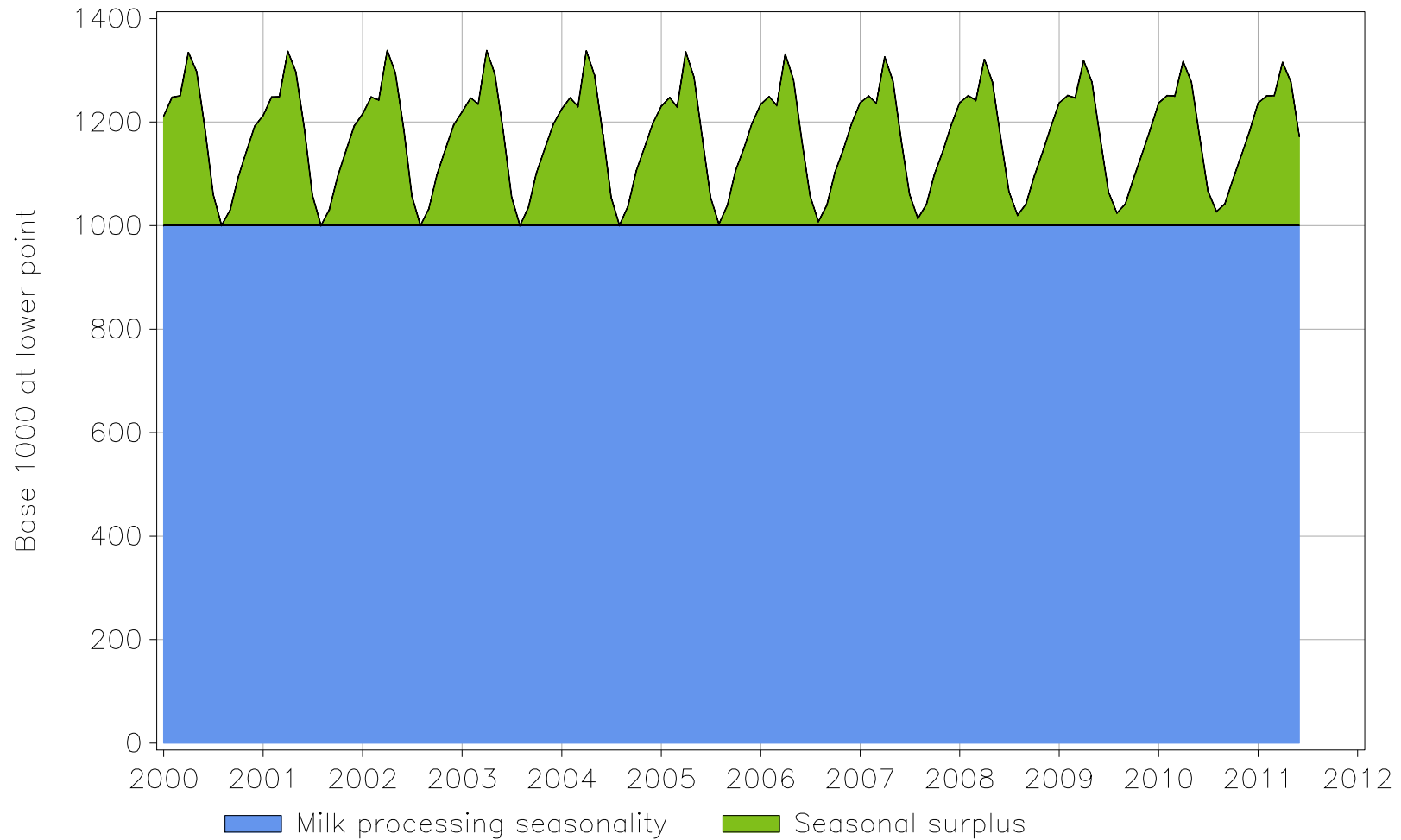
Average French milk production seasonal factor





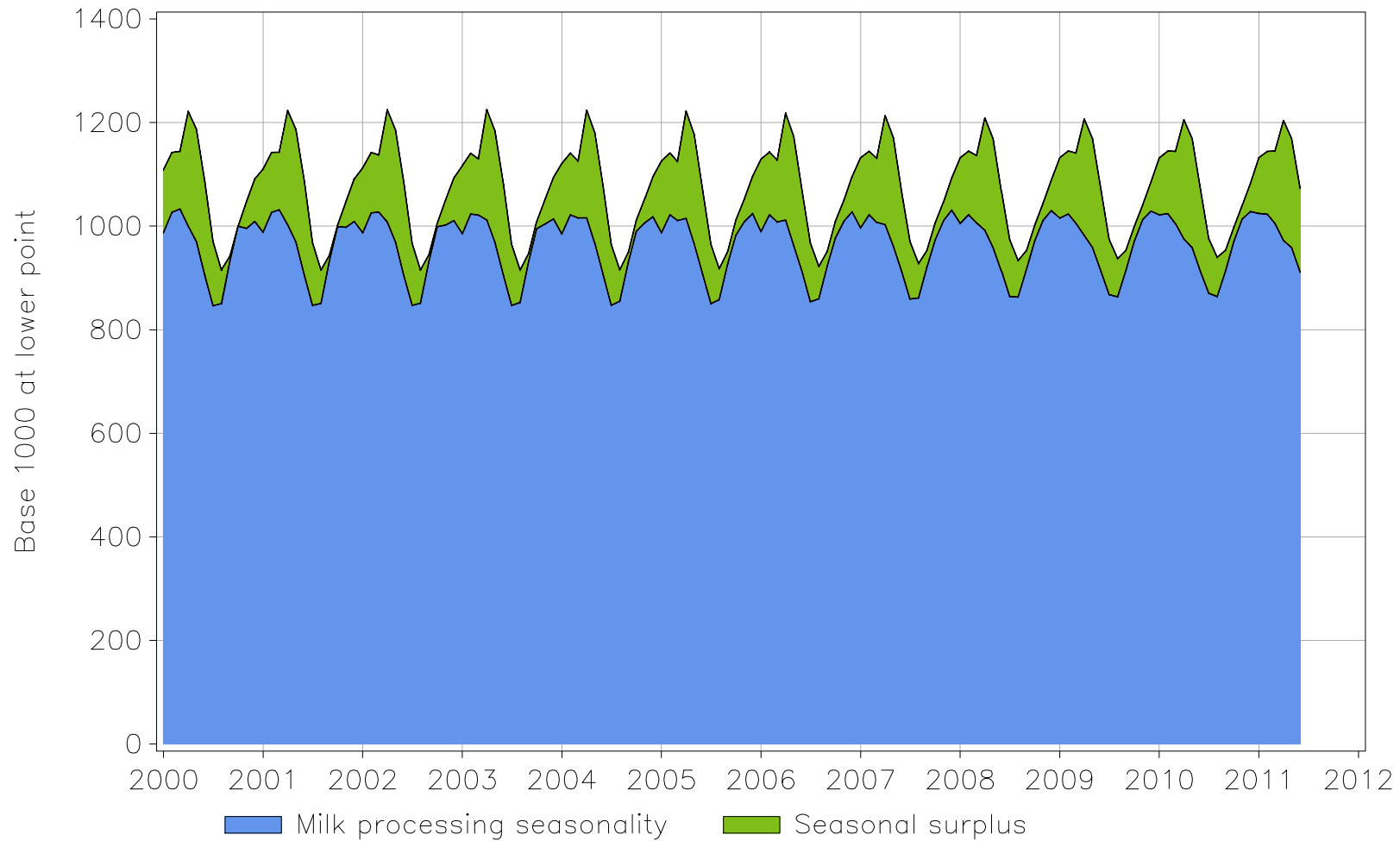
Seasonal surplus statistical analysis

Estimates of seasonal surplus: EXAMPLE



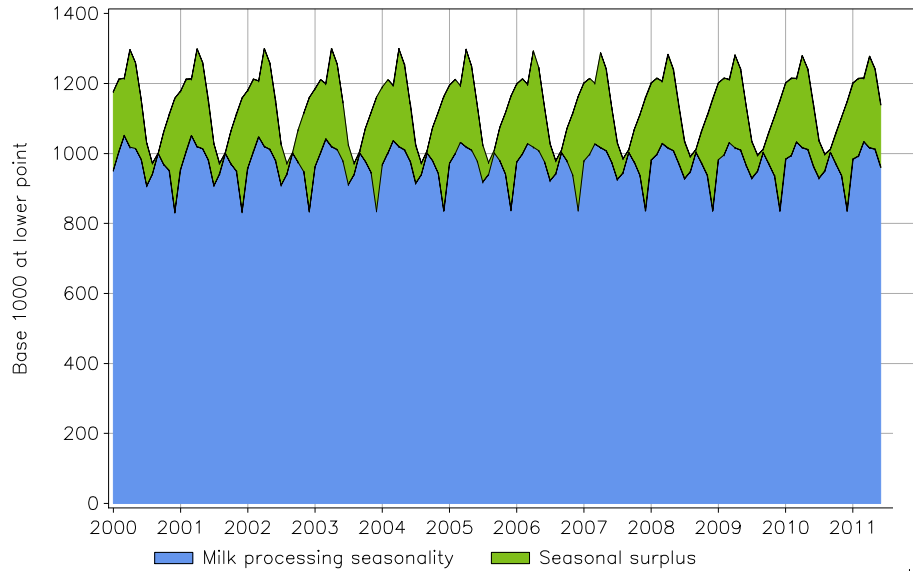
Semi-skimmed UHT milk seasonal surplus

SEMI SKIMMED LONG LIFE MILK: Estimates of seasonal surplus

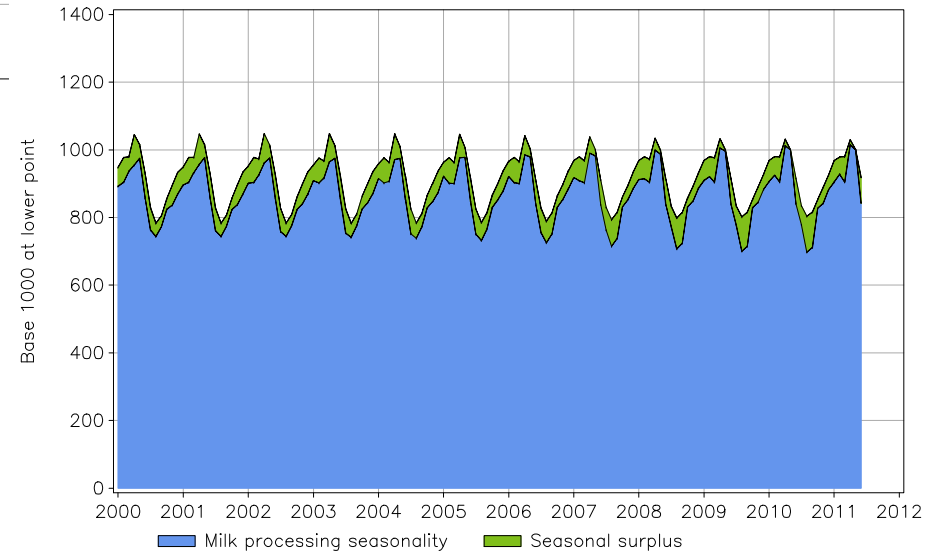


Other dairy product seasonal surplus

YOGURTS: Estimates of seasonal surplus



EMMENTAL CHEESE: Estimates of seasonal surplus



Considering the whole range of
dairy products

The image features a complex background of overlapping rectangular blocks in various shades of green, blue, and yellow. The top section is a solid light green. Below it, there are several overlapping blocks: a light blue block on the left, a dark green block on the right, and a medium green block in the center. The bottom right corner is defined by a bright yellow-green block.

Considering the whole dairy product opportunities

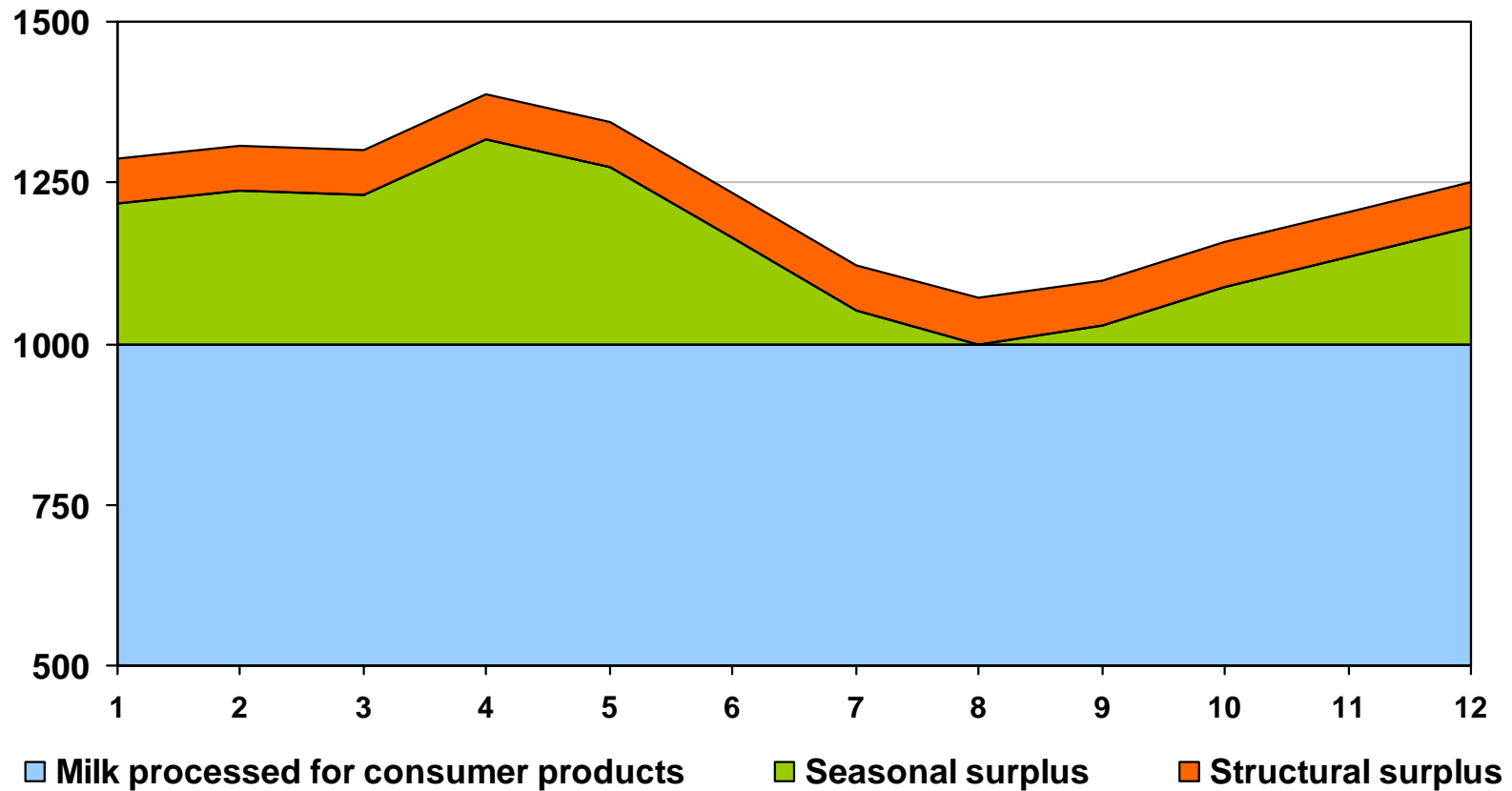
- The milk chain analysis must be as close as possible to the situation of the French dairy industry
- but French dairy industry also has a real focus on the production of industrial commodities (butter, SMP, ...)
- Milk deliveries and opportunities on consumer markets do not always evolve in parallel ways.
- ⇒ Estimation of milk volumes structurally devoted to industrial commodities
 - Those volumes are not real « surplus » but can be considered as surplus compared to consumer products markets



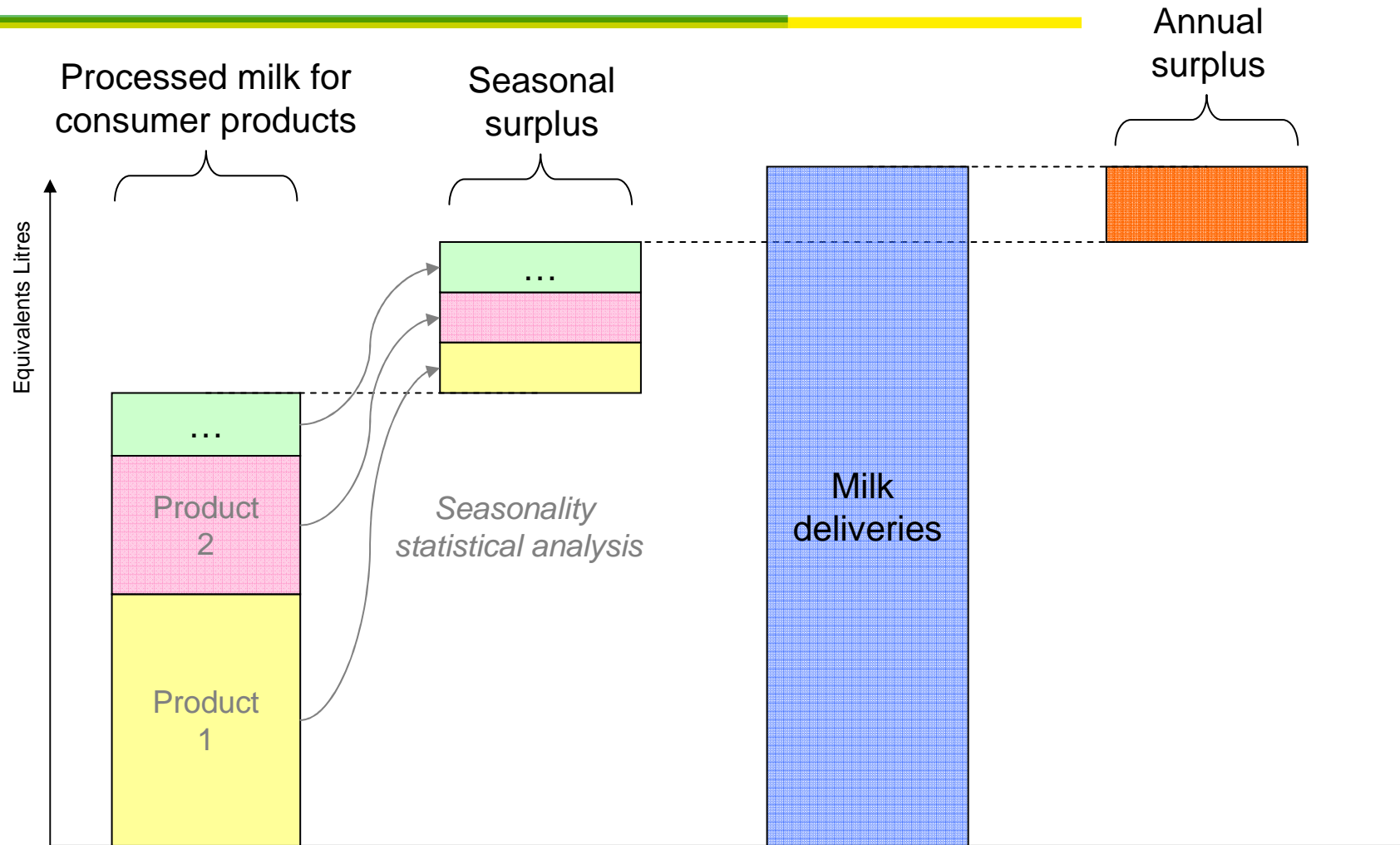
Milk deliveries and milk uses

Seasonal and structural surplus in dairy products

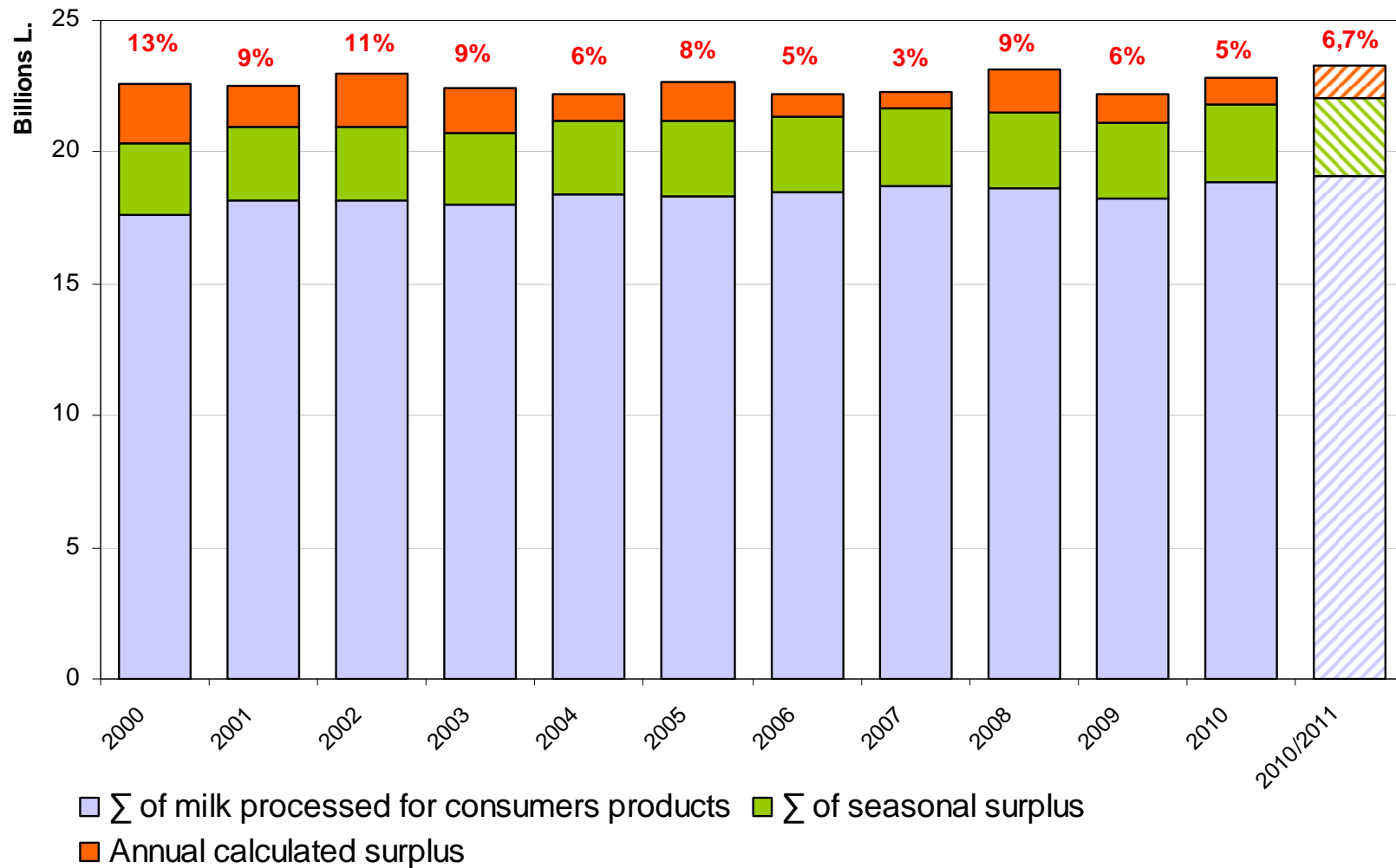
Average french milk production seasonal factor



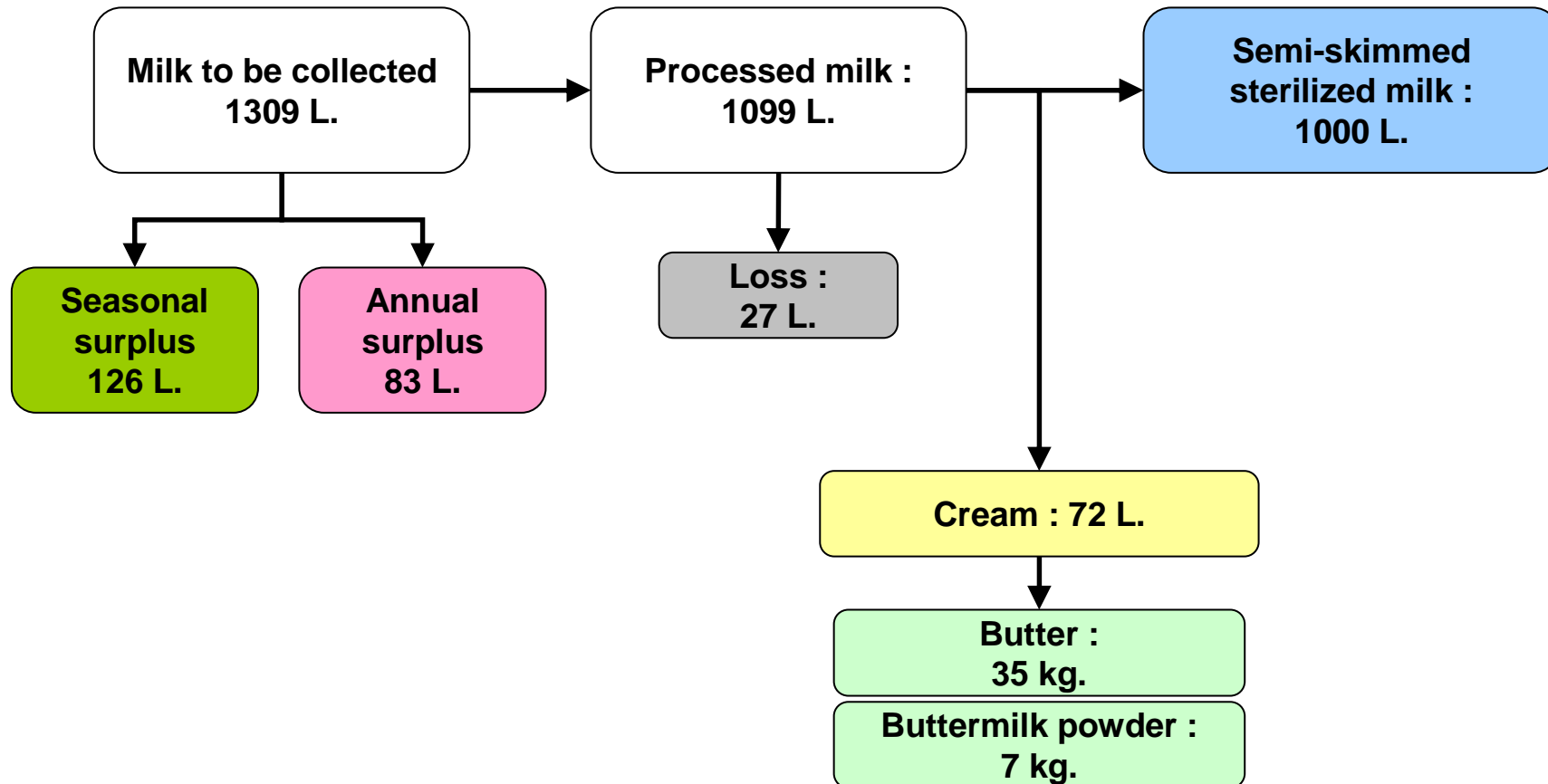
Annual surplus estimations



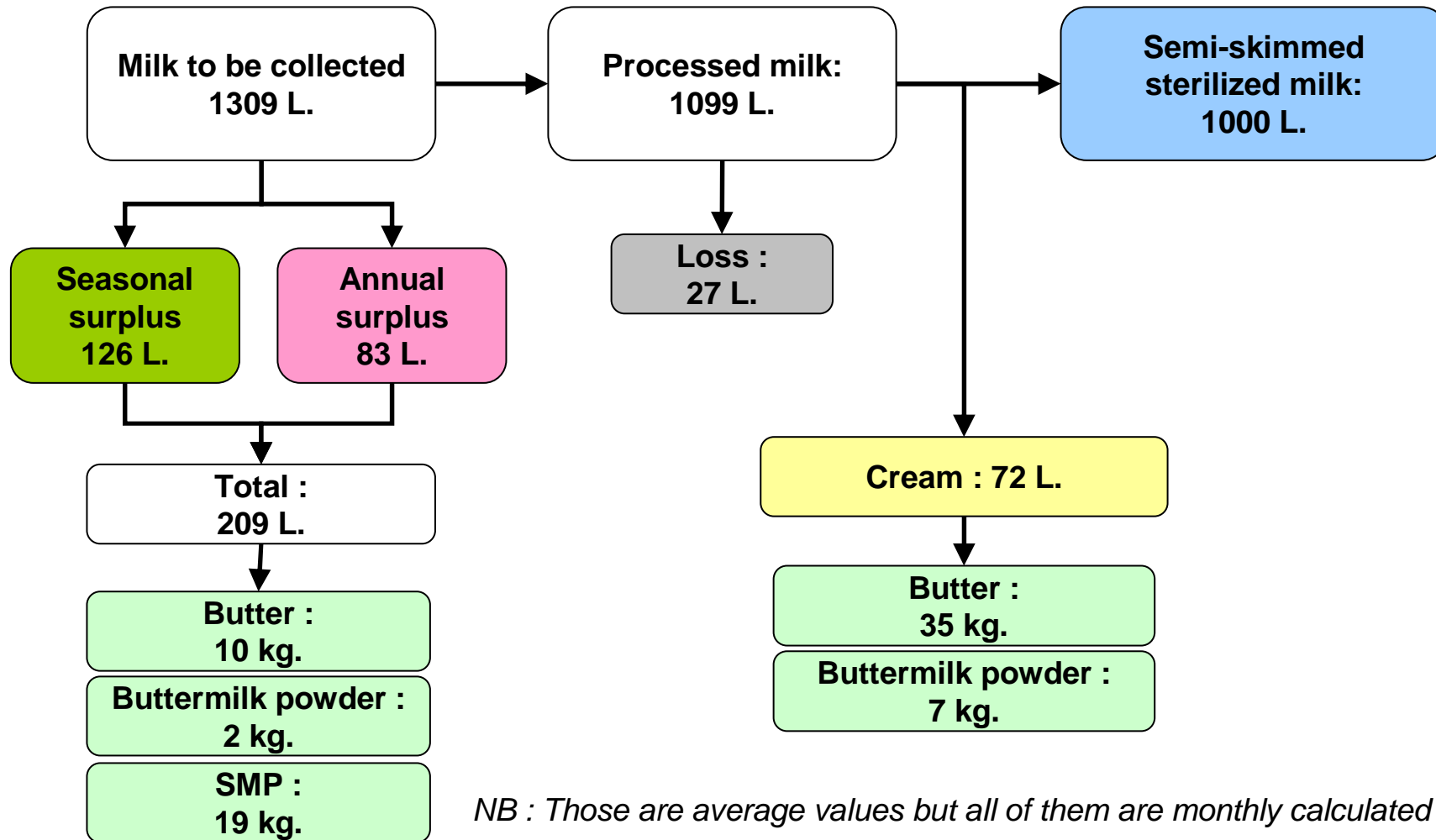
Annual surplus estimations



The surplus in semi-skimmed UHT milk chain



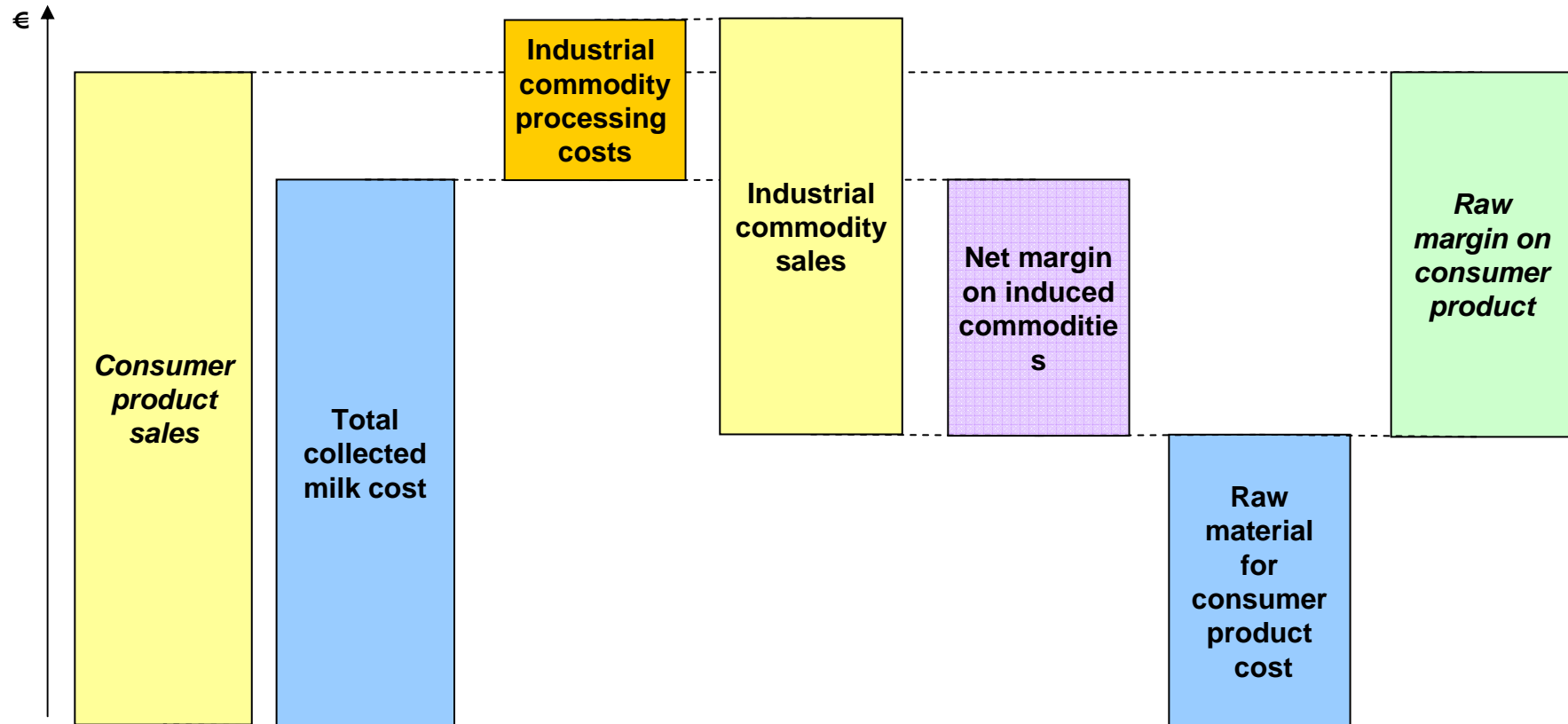
Semi-skimmed UHT milk supply and processing chain



NB : Those are average values but all of them are monthly calculated

Production price : an analytical
price for raw material

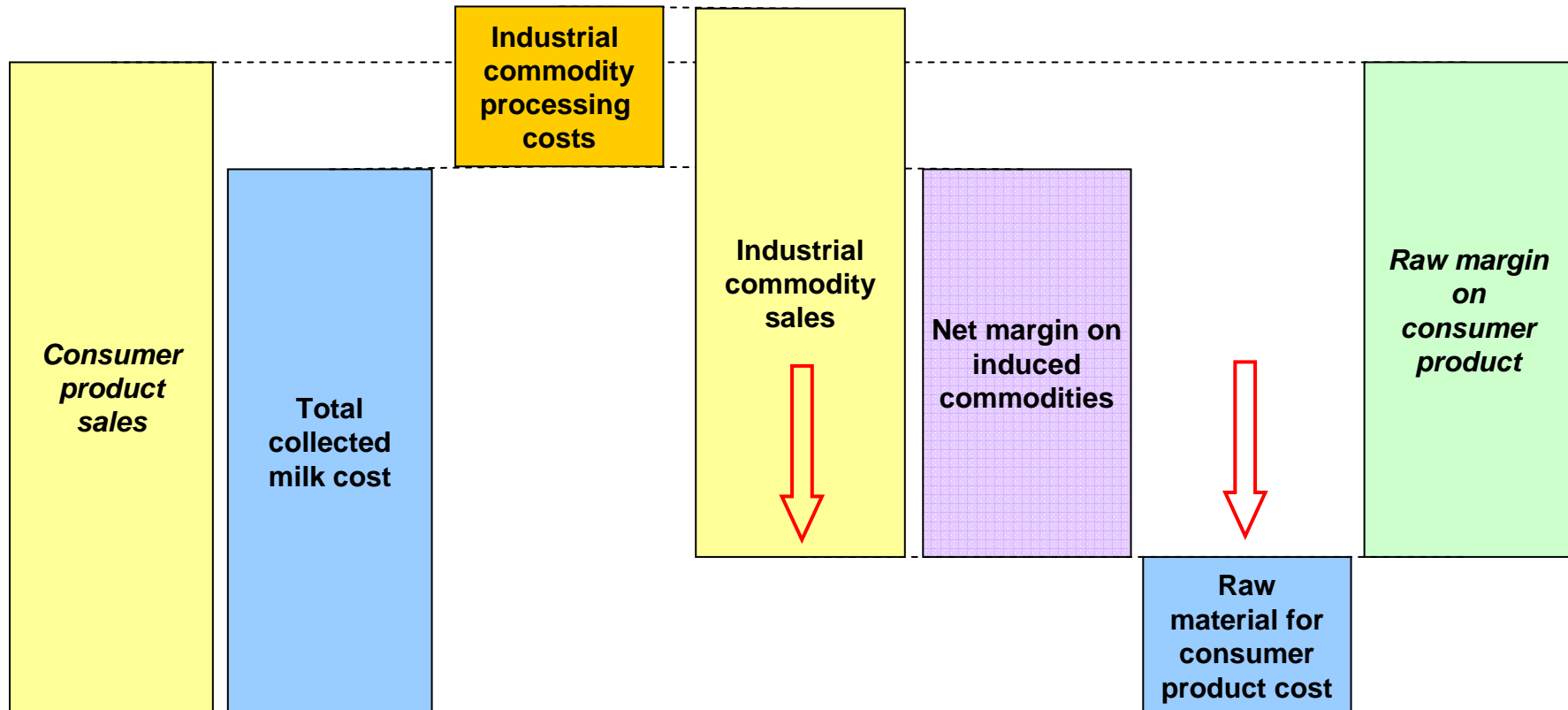
Commodity valuation leads to an analytical price for raw material



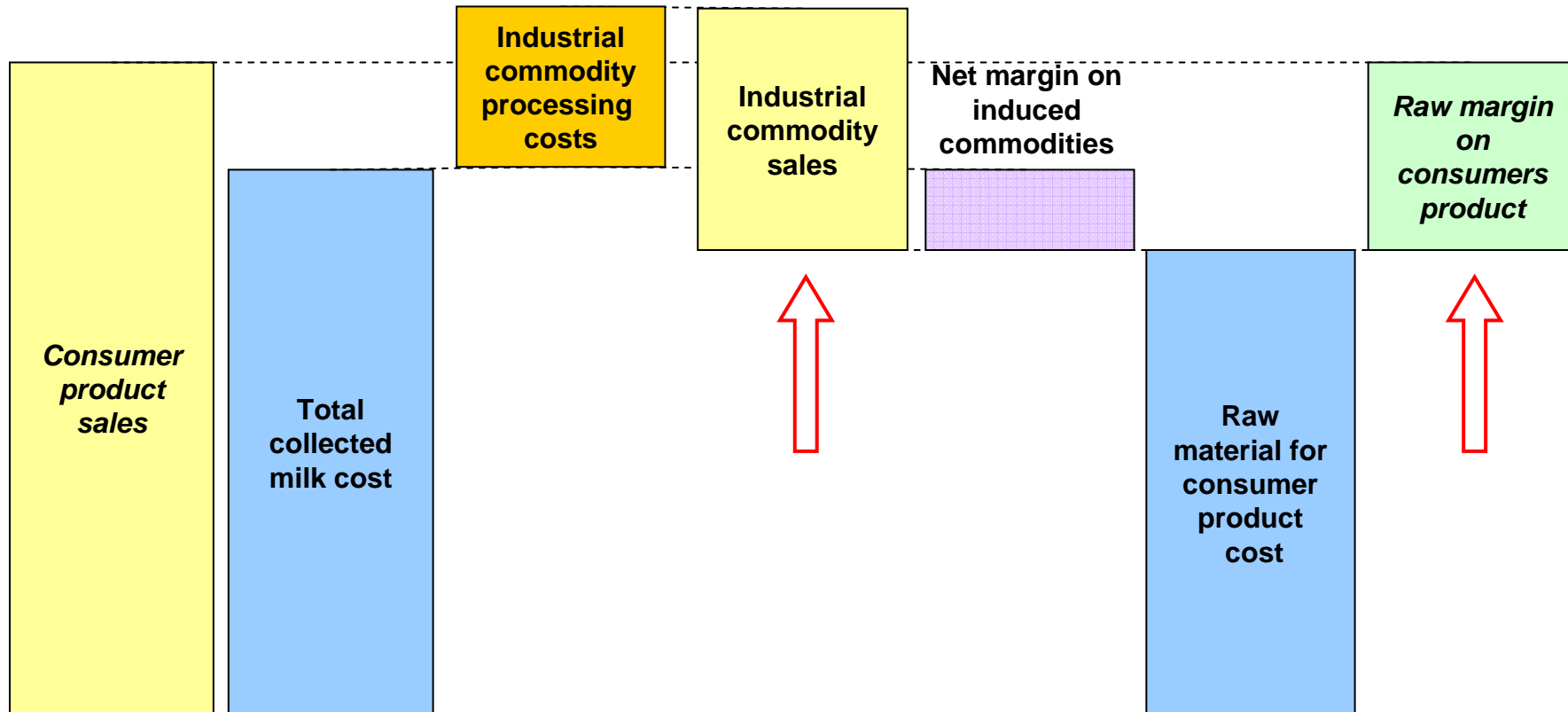
Commodity valuation leads to an analytical price for raw material

- Raw material price is NOT milk deliveries production price
- This analytical price depends on :
 - Milk deliveries production price
 - Induced commodities valorisation : coproducts and processed surplus
 - Milk deliveries average composition...
- This raw material price is different depending on the various studied products :
 - Seasonal surplus are different
 - Co-products from processing chain are different...

Situation of HIGH level prices for industrial commodities



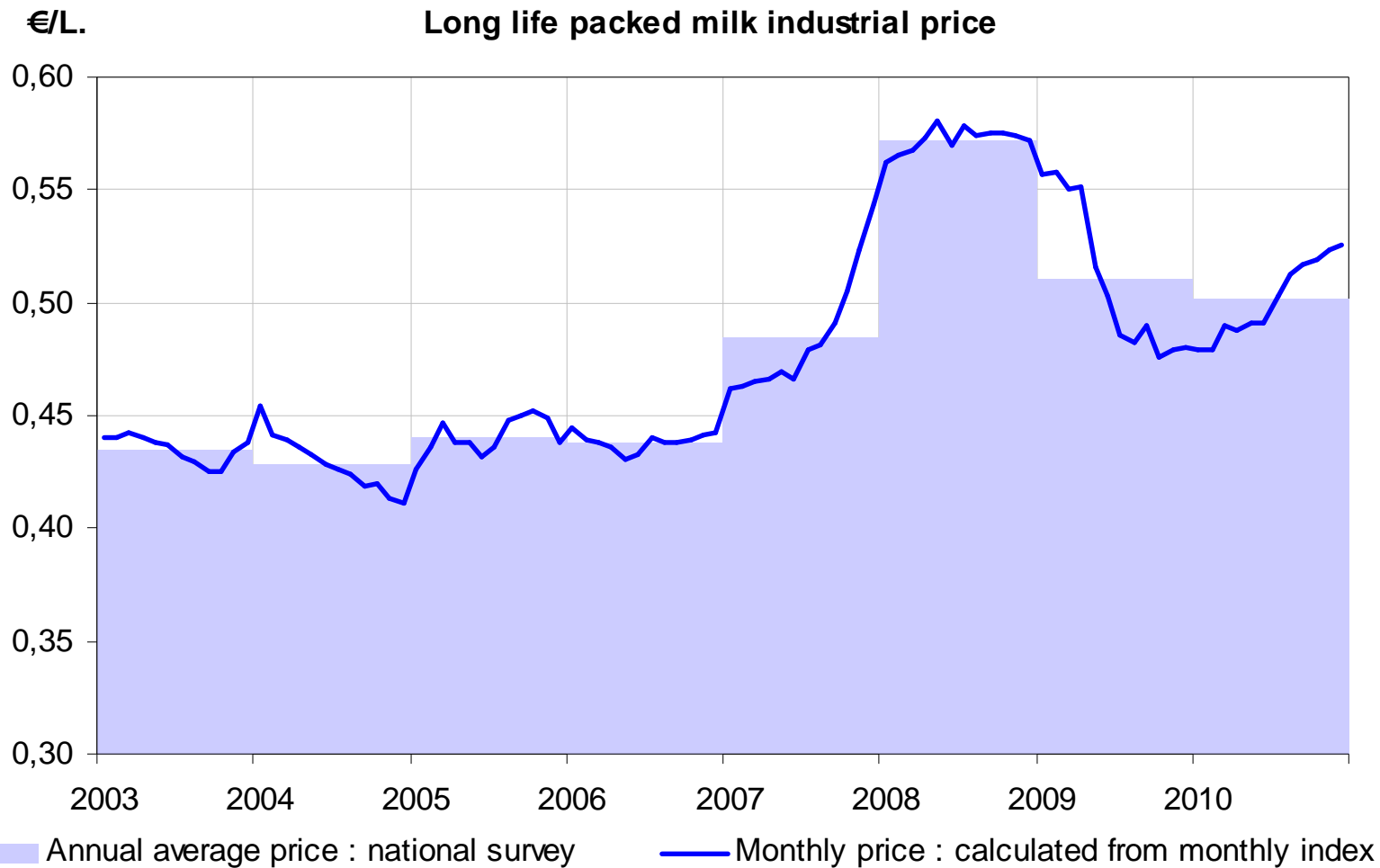
Situation of LOW level prices for industrial commodities



Industrial sales price

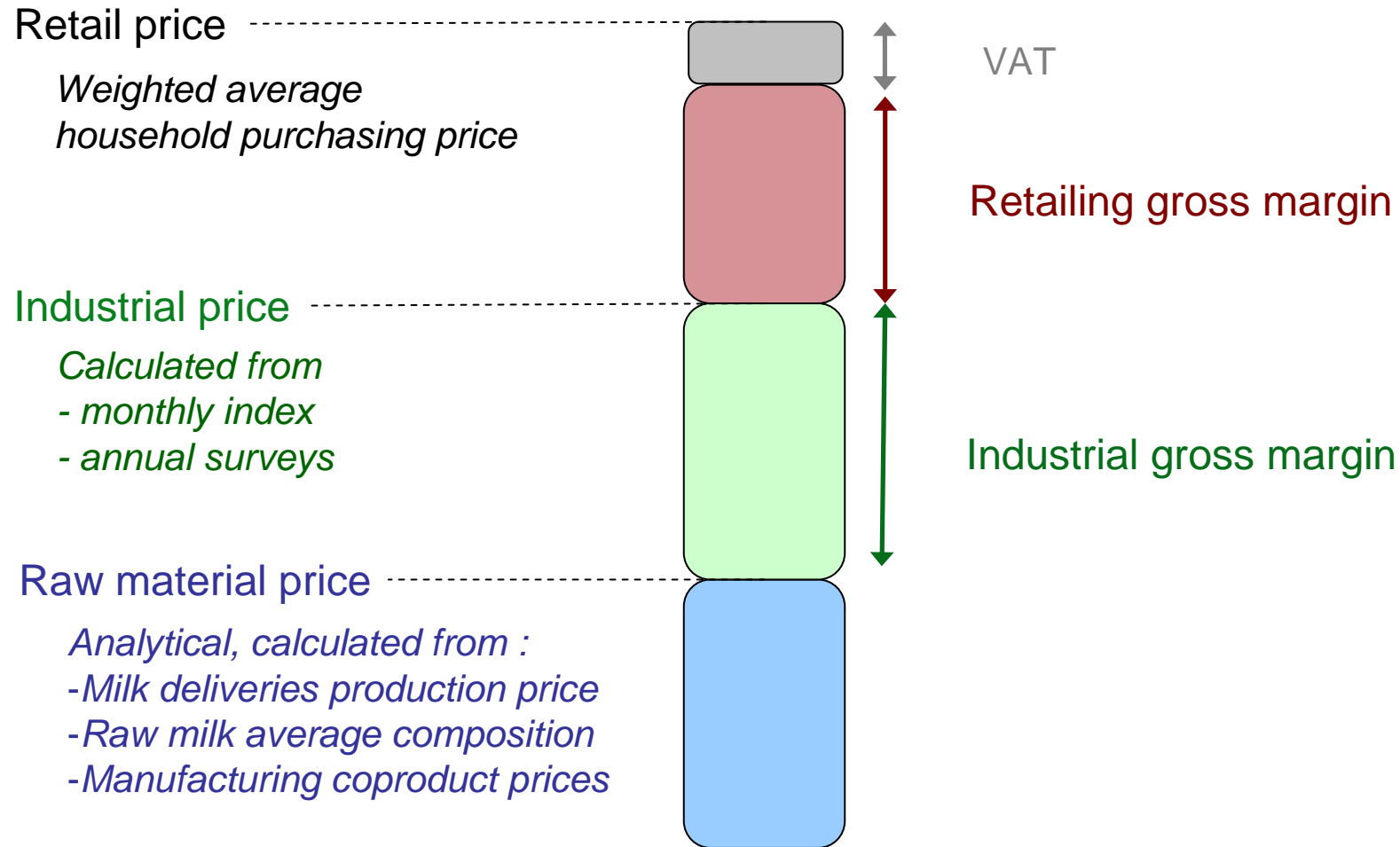
The image features a large, solid green rectangle at the top. Below it, there is a complex arrangement of overlapping rectangles in various shades of green, blue, and yellow. A light blue rectangle is on the left, overlapping a darker blue one. A light green rectangle is on the right, overlapping a darker green one. A yellow rectangle is at the bottom right, overlapping a light green one. The overall composition is abstract and modern.

Semi-skimmed UHT milk industrial price



FranceAgriMer from INSEE & SSP

Drinking milk price monitoring:

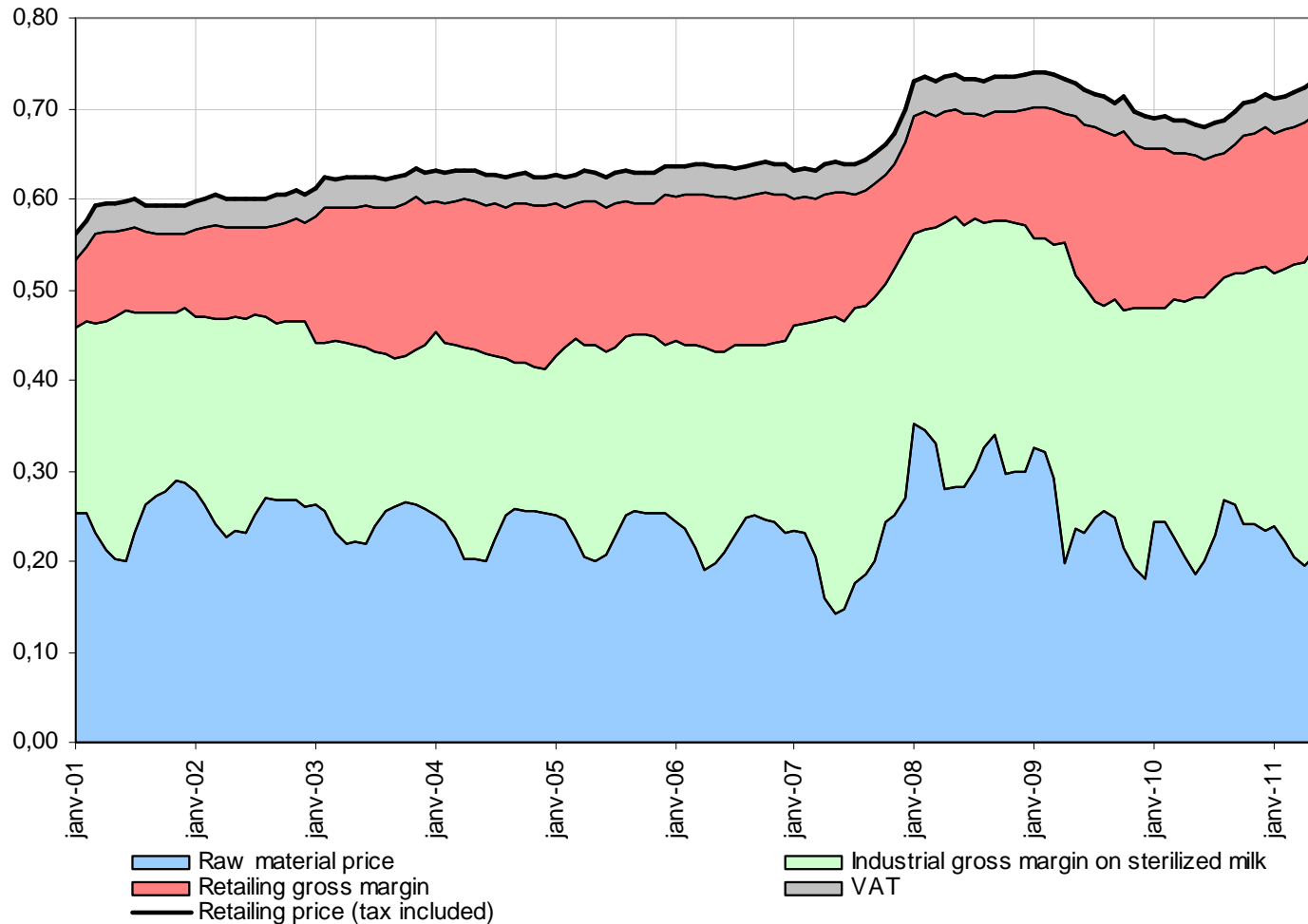


Results on semi-skimmed UHT milk

Results on semi-skimmed UHT milk

€/ L. of final product

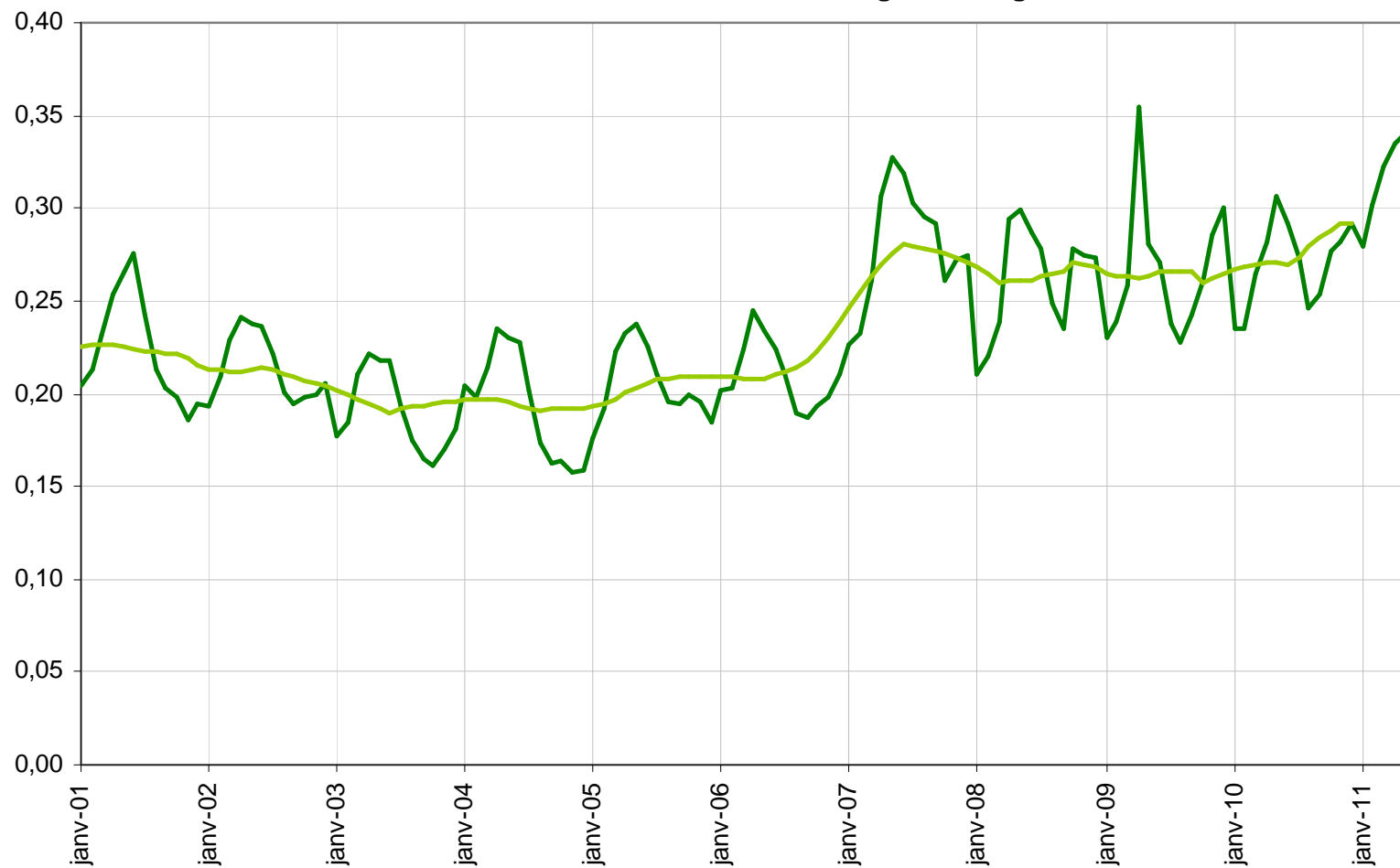
Semi skimmed sterilized milk retailing price formation



Industrial gross margin on semi-skimmed UHT milk

€/ L of final product

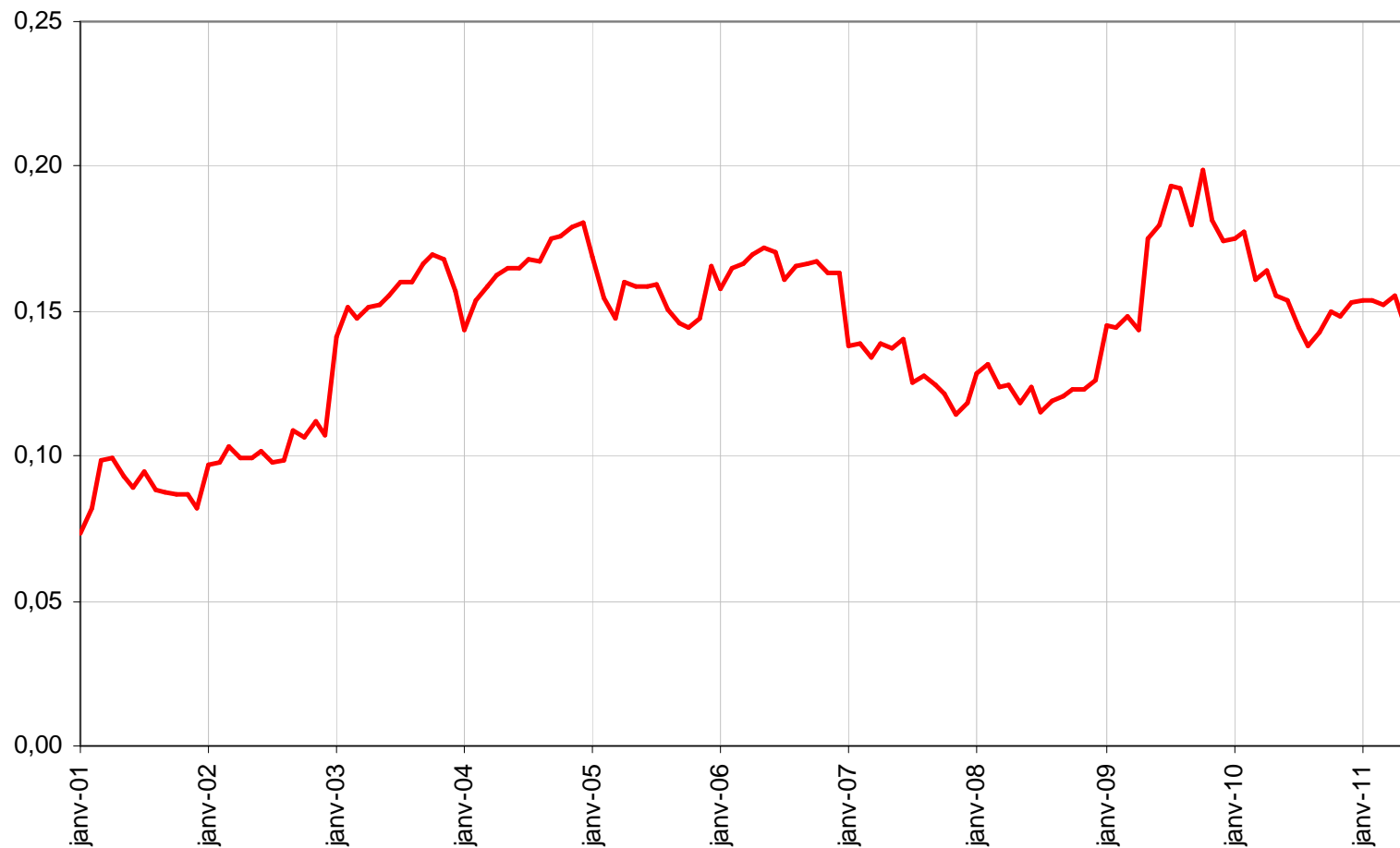
Semi-skimmed sterilized milk : industrial gross margin



Retailing gross margin on semi-skimmed UHT milk

€/ L of final product

Semi-skimmed sterilized milk retailing gross margin

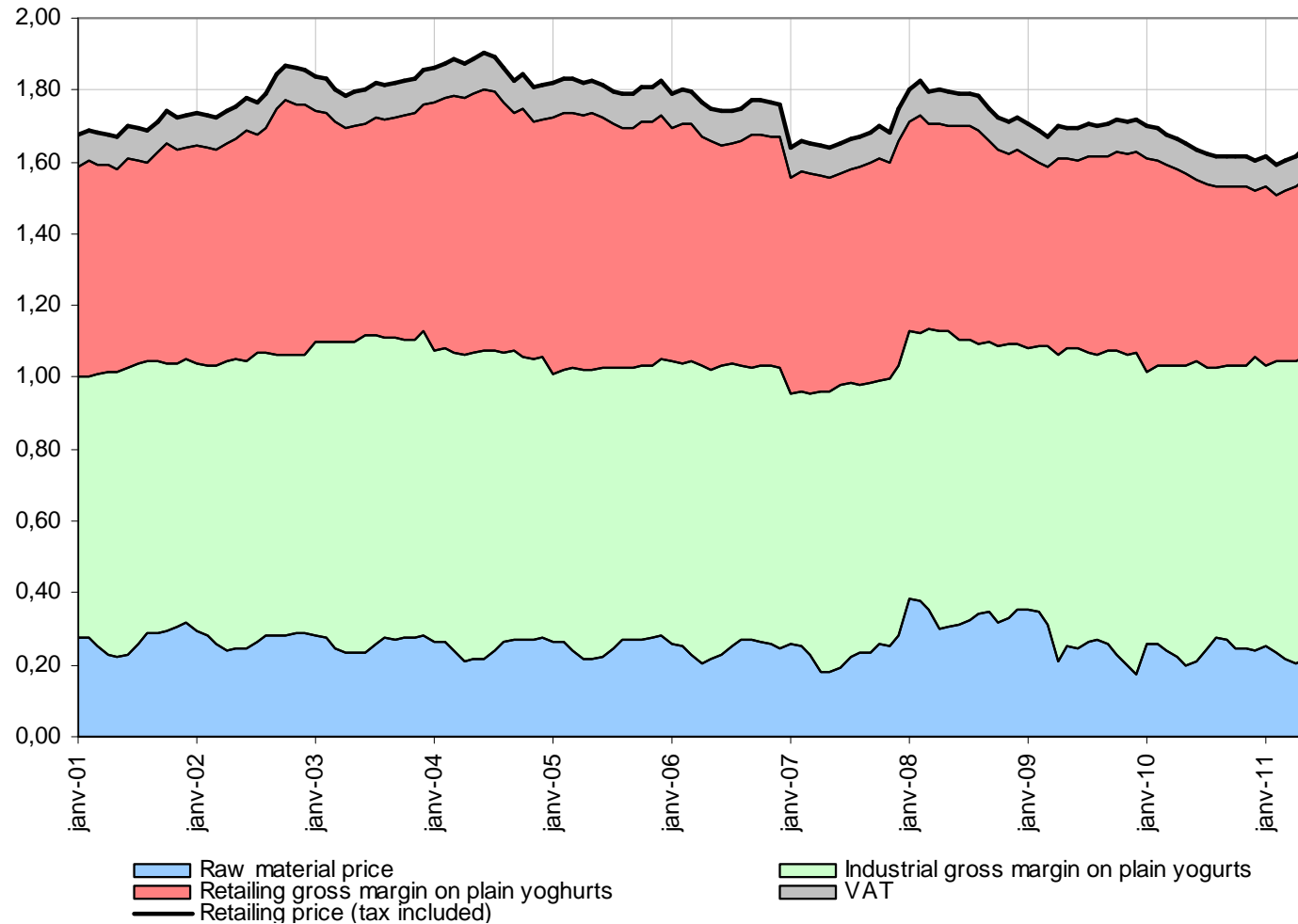


The analysis of an isolated product would not make sense

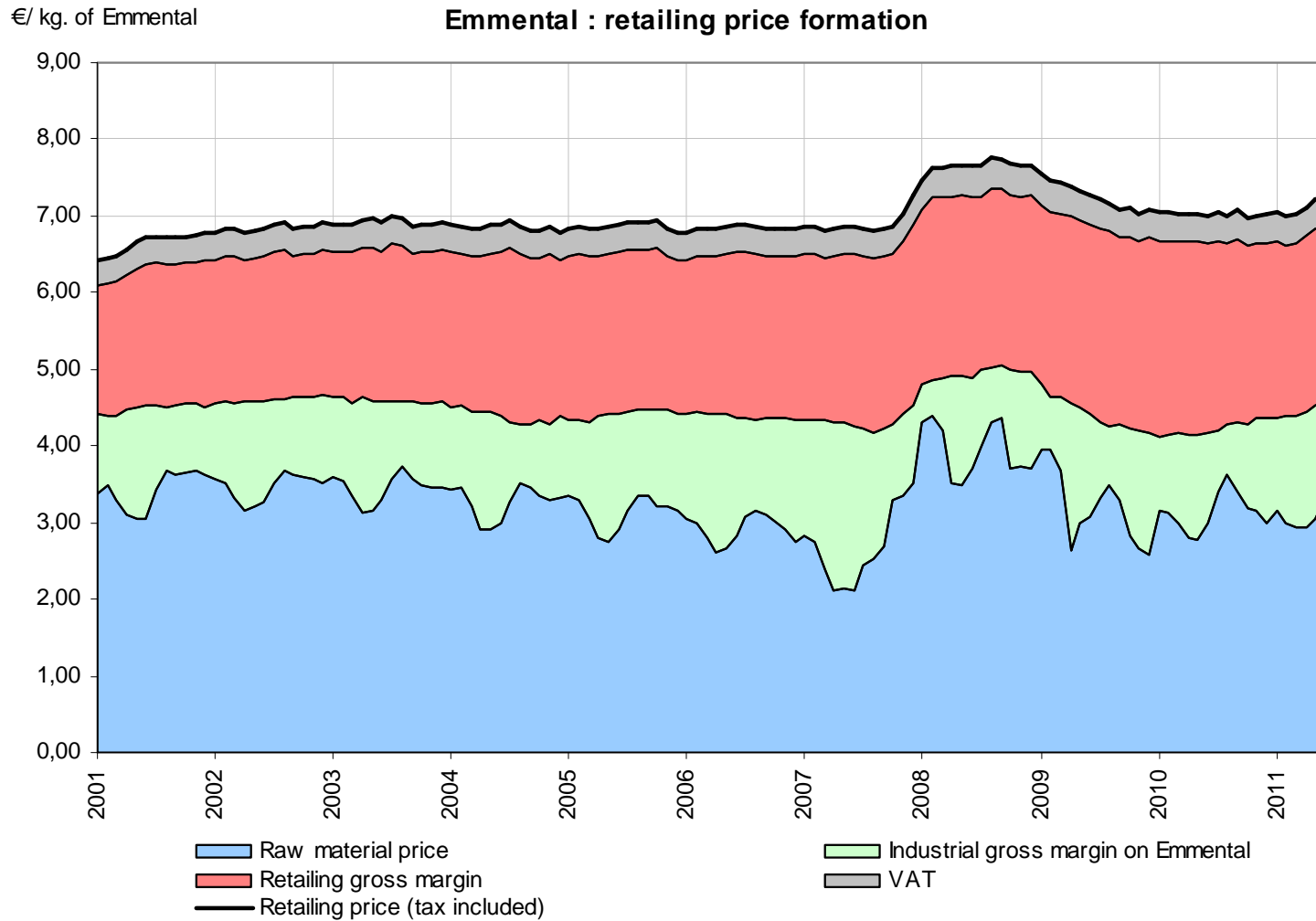
Plain yogurt price monitoring results

€/ kg de yaourt

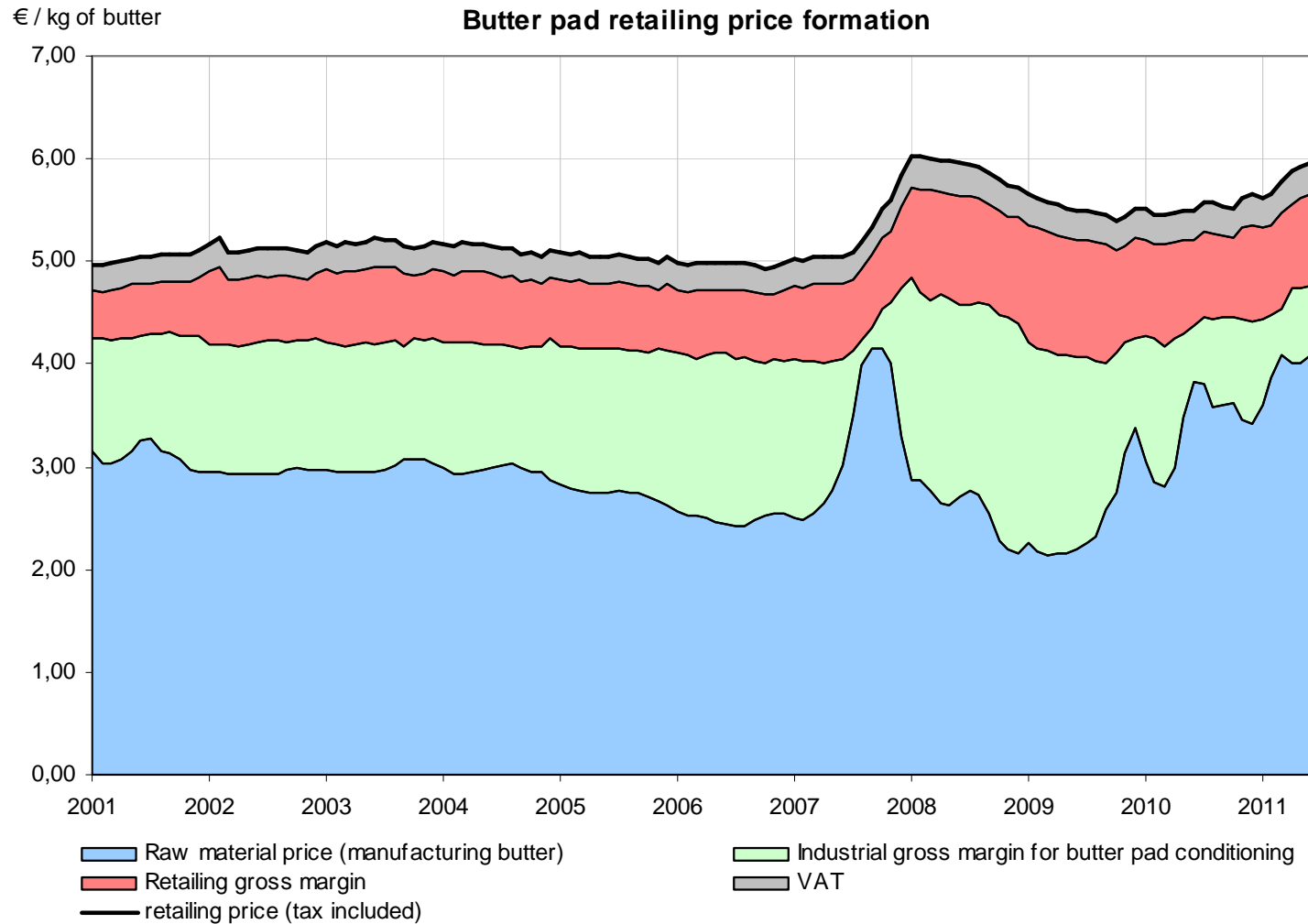
Plain yoghurts retailing price formation



Emmental cheese price monitoring results



250g packaged butter: price monitoring results





To conclude...

- Milk : a cracked and highly processed product, a complex value chain
- ⇒ Analytical approach
 - Processing chain analysis : monthly material balance
 - Seasonal surplus analysis
 - Annual surplus analysis
- It is essential to study different products in parallel
 - Various and additional products
 - Each product must be representative
 - ⇒ concept of a balance within products
- The Observatory beyond price formation monitoring
 - Industry annual economic results
 - Milk production costs...
- Projects :
 - Analysis of Camembert retail price formation
 - Focus on distributors' brands...



*Thank you for your attention
Comments welcome !*

- More results at:
 - <http://www.franceagrimer.fr> (and soon a special website)
 - Dairy products, fruit and vegetables, pig meat, beef meat, poultry meat...
- Jean-Noël Depeyrot - FranceAgriMer
 - jean-noel.depeyrot@franceagrimer.fr
- Philippe Boyer – FranceAgriMer – Deputy Director of the Observatory
 - philippe.boyer@franceagrimer.fr
- Jo Cadilhon - Centre for Studies and Strategic Foresight, French Ministry of Agriculture and Food
 - jo.cadilhon@agriculture.gouv.fr
- Aurélie Franchi - Milk and dairy products Unit, French Ministry of Agriculture and Food
 - aurelie.franchi@agriculture.gouv.fr