

Observatoire des futurs
EM Strasbourg

Manufacturers

Manufacturers

1. Definition and Relationships with Other Factors

General Definition

- The macro-variable “manufacturers” covers **the key players in the manufacturing industry in France**
- Industry encompasses all economic activities that mass-produce tangible goods through the processing of raw materials or materials that have already undergone one or more transformations, and the use of energy sources.
- Several classifications are possible. The most common distinguish between:
  - Manufacturing (mechanical, textile, etc.) versus extractive industries (mining, oil, etc.).
  - Consumer goods industries versus capital goods industries.
- In terms of economic sectors, industry largely corresponds to the secondary sector. However, extractive industries are sometimes ranked with agriculture in the primary sector.
- Possible approaches:
  - By industry sector
  - By size / number of jobs
  - By geographic region

Relationship with Other Factors/Stakeholders:

- Link to **digital technologies** that are changing production methods
- **Production methods and work organization** that are changing the way people work
- **The economic and financial situation, business models**, and public policies that influence industrial players in their strategic decisions

2. Summary of the Retrospective Analysis

Retrospective

In General and for Uberization and Industry 2030

- **The essential role of industry in France** (key figures for 2017)
  - Value added: €274 billion (€219 billion for the manufacturing sector)
  - Share of market GDP: 12.6 percent (10 percent for manufacturing)
  - 3,115,000 direct jobs / 4,500,000 indirect jobs
  - 260,000 companies, 90 percent of which are microbusinesses and SMEs
  - Exports: €445 billion (74% of total exports)
  - Imports: €501 billion
  - Specific budgets: R&D: 25 billion (80 percent of R&D in France).
  - Industrial investment: €80 billion

Retrospective

In General and for Uberization and Industry 2030

- A variety of sectors within the manufacturing industry that reflect different business models
- **A discrepancy between the number of businesses and value added**

Secteurs d'activité*	Nombre d'entreprises	Chiffre d'affaires HT (en Md€)	Valeur ajoutée - y compris produits et autres charges (en Md€)
Industries agroalimentaires	59 765	181	41
Réparation, installation et produits manufacturés divers	56 356	53	20
Bois, papier et imprimerie	28 542	39	11
Métallurgie et produits métalliques	22 007	81	25
Textile, habillement, cuir et chaussures	19 950	21	6
Plastique, caoutchouc et produits minéraux non métalliques	13 529	60	18
Machines et équipements	4 238	48	14
Industrie chimique	3 042	67	18
Produits informatiques, électroniques et optiques	2 814	32	12
Équipements électriques	2 299	29	8
Industrie automobile	1 925	118	19
Matériels de transport hors automobile	895	110	19
Industrie pharmaceutique	644	37	12
Cokéfaction et raffinage	37	34	5
Industrie manufacturière	216 045	908	229

* nomenclature NAF, niveau A38, sauf matériels de transport (A88).
Champ : ensemble des entreprises marchandes, y compris auto-entrepreneurs.
Source : Insee, Ésane 2016.

Analysis by Business Category

- **Micro-enterprises:** numerous but with little value added
- **SMEs:** 6.16 percent of SMEs are in the manufacturing sector (234,000). Distinguishing high-growth SMEs (the “gazelles”: 13.5 percent of SMEs)
- **Mid-sized companies:** few in number in France (5,300, including 1,000 in manufacturing) but job creators, primarily outside the Paris region
- **Large companies:** 16 percent of large corporate groups are primarily engaged in manufacturing. 80 percent of the manufacturing workforce is employed by international firms

Catégories d’entreprises*	Nombre d’entreprises	Chiffre d’affaires HT (en Md€)	Valeur ajoutée HT (en Md€)
Grande entreprise	88	473	93
Entreprise de taille intermédiaire (ETI)	1 561	363	91
Petite et moyenne entreprise (PME) hors microentreprise	21 595	151	47
Microentreprise	180 996	37	15
Industrie manufacturière	204 240	1 024	247

* au sens de la loi de modernisation de l’économie.
Source : Insee, Lifi, Ésane 2016.

An Overall Negative Balance, Though This Varies By Sector

Échanges extérieurs de produits manufacturés

En Md€

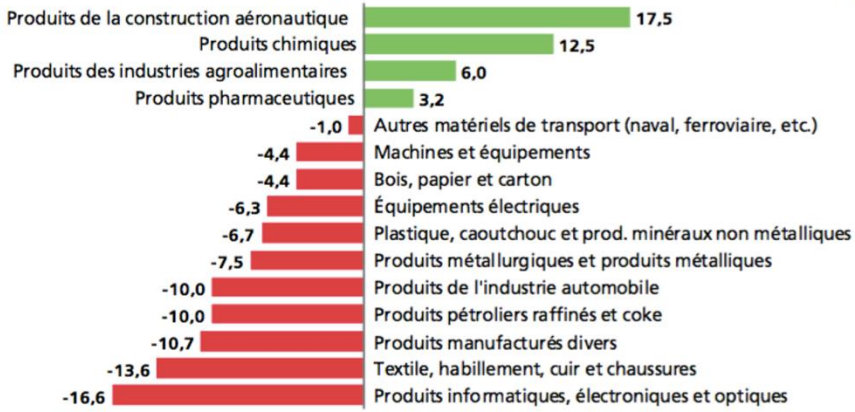
	2000	2005	2010	2012	2014	2015	2016	2017
Exportations (FAB)	307,6	334,6	364,7	404,6	400,4	418,6	417,8	437,5
Importations (CAF)	301,5	340,9	397,8	442,1	439,8	455,8	462,2	489,5
Solde	6,1	-6,2	-33,1	-37,4	-39,5	-37,2	-44,4	-52,0
Part dans les exportations totales de biens et services (en %)*	73,2	71,3	68,8	67,7	65,8	66,0	66,1	66,5

* Insee, comptes nationaux annuels.

Sources : Douanes, données brutes estimées des données tardives y compris pour 2000 et 2005.

Soldes* CAF-FAB par produit manufacturé

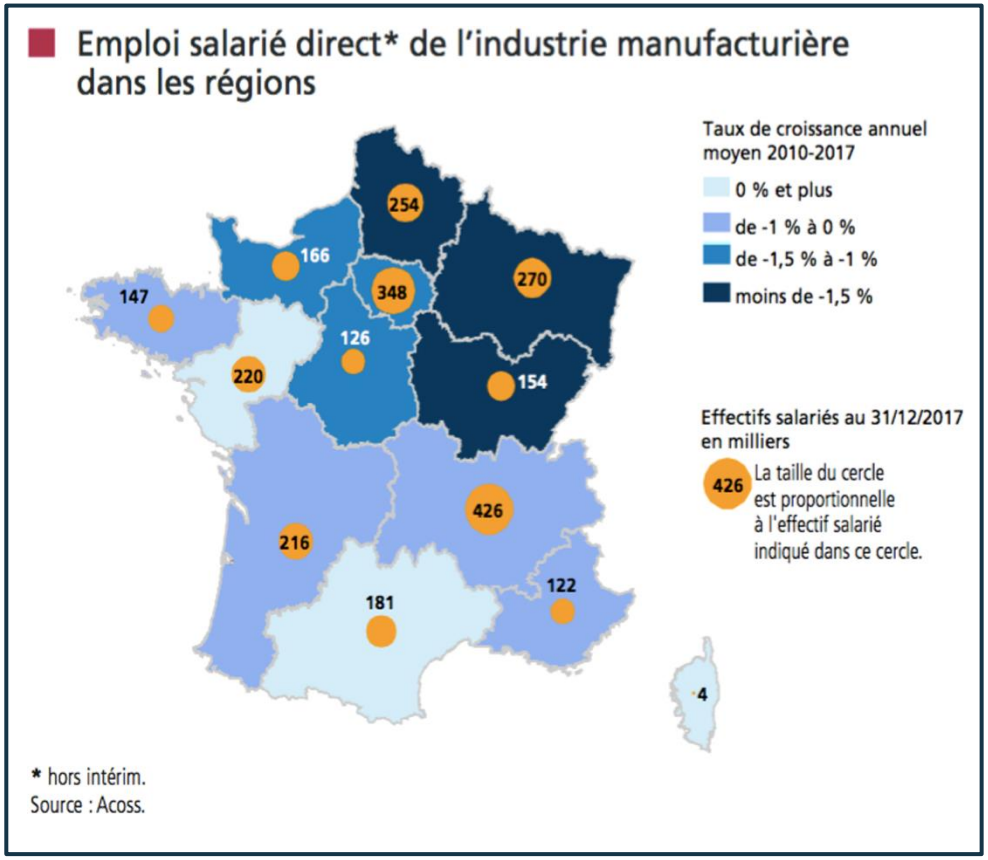
En Md€



* nomenclature NAF, niveau A38, sauf matériels de transport.

Source : Douanes, données brutes estimées des données tardives, 2017.

Varies Employment Growth Rates Across France



Current Trends

In General and for Uberization and Industry 2030

- **A transformation of factories through digitization**
  - Digitization of the production system
  - Changes in working conditions
- **Environmental challenges, particularly in heavy industry**
  - Funding for investments

Current Trends

In General and for Uberization and Industry 2030

- **The most dynamic sectors:**
  - non-automotive transportation equipment,
  - the chemical industry,
  - the pharmaceutical industry,
  - the agri-food industries.

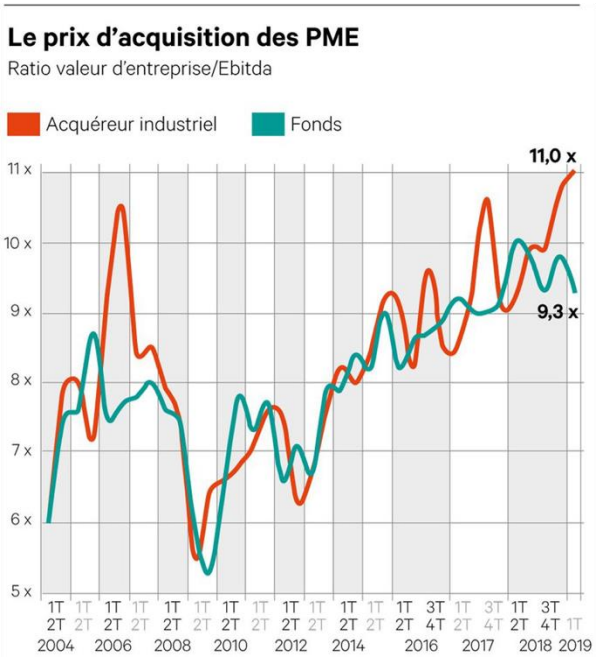
	Évolution annuelle moyenne en volume, en %			
Branches*	2017	2016	2017/ 2010	2017/ 2000
Matériels de transport hors automobile	4,4	3,9	3,6	2,9
Industrie chimique	5,8	2,0	3,1	1,1
Industrie pharmaceutique	5,1	-1,2	2,4	2,9
Produits informatiques, électroniques et optiques	8,6	-0,5	1,4	-0,2
Industrie automobile	6,6	4,4	1,1	-1,1
Machines et équipements	2,2	-1,3	0,4	-0,8
Plastique, caoutchouc et prod. minéraux non métalliques	4,7	1,7	0,2	-0,7
Industries agroalimentaires	0,0	-1,3	0,0	0,2
Métallurgie et produits métalliques	2,8	-0,3	-0,2	-1,5
Réparation, installation et produits manufacturés divers	-0,5	-1,0	-0,3	-0,1
Textile, habillement, cuir et chaussures	-3,1	-0,2	-1,3	-8,0
Équipements électriques	-1,9	0,3	-2,0	-2,4
Bois, papier et imprimerie	2,1	-1,1	-2,0	-2,3
Cokéfaction et raffinage	0,7	-2,4	-2,0	-2,4
Industrie manufacturière	2,8	0,3	0,6	-0,4

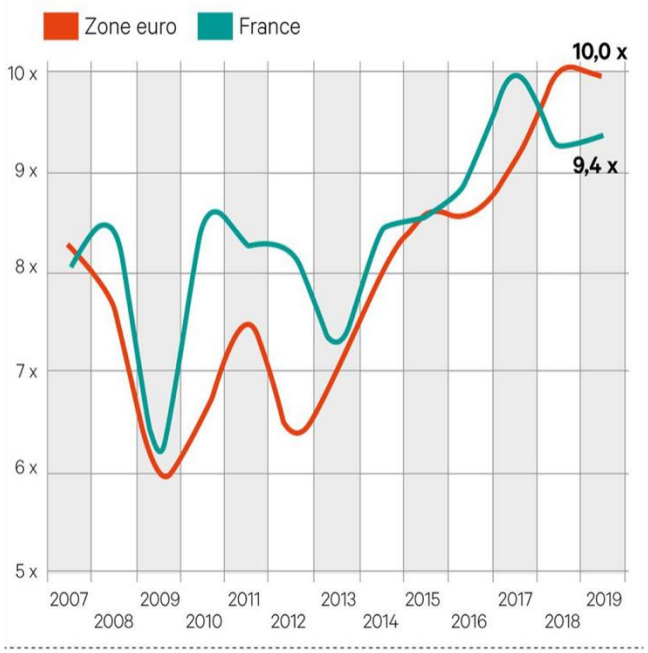
* nomenclature NAF, niveau A38, sauf matériels de transport (A88). Les branches sont classées selon leur taux de croissance annuel moyen entre 2010 et 2017.
Source : Insee, indice de la production industrielle (IPI).

Current Trends

In General and for Uberization and Industry 2030

- **Acquisitions of SMEs by large conglomerates at very high prices / valued higher than on the stock market / lower than in France**






chos

MARDI 7 MAI 2019

la Story

Le podcast des « Echos » Un nouveau rendez-vous tous les soirs à 18 heures

Les industriels français prêts à investir massivement

CONJONCTURE

Les industriels ont l'intention d'augmenter leurs investissements de 11 % cette année.

Les industriels français défient la morosité ambiante faite de ralentissement de l'économie mondiale, de Brexit et de tensions commerciales. Ceux que l'Insee a interrogés ont indiqué vouloir augmenter leurs investissements de 11 % cette année. Le secteur automobile, notamment, est à la pointe. Il faut dire que, malgré le ralentissement de la demande extérieure, les industriels continuent à faire face à des problèmes d'offres. Ainsi, le taux d'utilisation des capacités de production est très élevé et les difficultés de recrutement sont au plus haut depuis l'été 2001. Dans ce contexte, le Premier ministre Édouard Philippe a donné le coup d'envoi lundi à la mobilisation nationale et territoriale pour l'emploi et l'écologie. Élus, partenaires sociaux et associations sont prêts à jouer le jeu. // PAGE 2

Nette hausse des dépenses d'investissement dans l'industrie en 2019

Evolution de l'investissement en valeur dans l'industrie manufacturière, en %

0,6
-21,4
1
12
5,4
-5
2,9
1,6
4,5
5,3
0
Prév. avril 11
+ 1 point par rapport à l'estimation de janvier
2008 09 10 11 12 13 14 15 16 17 18 2019

• LES ECHOS • / SOURCE : INSEE

3. Summary of Prospective Exploration – Analysis by Sector

Major Trends / Constants

Stable sectors :

- **Market conditions in line with the average since 2002:**
  - transportation equipment (excluding automobiles)
  - the pharmaceutical industry,
  - the agri-food industries (slower growth)

Uncertainties

Sectors where economic conditions are more uncertain:

- **Less favorable economic conditions for about the past year (below average since 2002): the chemical industry**

- **More favorable trends based on the most recent data**
  - Electrical, electronic, and computer equipment
  - Wood, paper, and printing
  - Rubber and plastic products

Seeds of Change

Trends that vary by sector:

- Technological maturity
- Focus on the customer and employee experience as digital transformation unfolds
- A sustainable future (circular economy / repair)

Controversies

- Impact of digitization on industry: a decrease in the number of jobs required for the same level of production / an increase in job skill requirements and net job creation.
- French manufacturers are not sufficiently familiar with “Industry of the Future” solutions, and this lack of awareness is hindering their deployment.

Disruptions

Political risks vary by sector:

- Transportation equipment: difficulty accessing fuel
- Electronics, networks, and telecommunications: U.S.-China conflict

Outlook for the Industry of the Future

Automotive	Strengthening the sector's competitiveness in France and developing added value Preparing for the vehicles and services of the future	Expanding the sector's international reach
Aeronautics	Developing production flexibility to meet diverse demand Reducing costs to stay competitive	Continuing to improve products and services
Agri-food	Sourcing materials at the best price while ensuring a secure supply of raw materials Make the processing chain more flexible while maintaining control over product quality and traceability	Innovating and customizing while rethinking relationships with customers, distributors, and consumers
Construction	Development of innovative and technologically advanced products and services Agile positioning along the value chain	Operational excellence in project execution Communication and collaboration within the ecosystem
Rail	Evolving the business model toward the sale of value-added systems and services Offset the short-term decline in business and establish operational excellence	Continuing to demonstrate value-creating innovation through the development of end-customer-focused services, particularly in mobility
Marine	Secure order books from prime contractors Develop agile and collaborative industrial models among prime contractors, subcontractors, and SMEs	Increasing the competitiveness of the French industry Continuing to diversify into offshore activities (marine renewable energy and hydrocarbons)

3. Summary of Prospective Exploration – Analysis by Size

Major Trends / Constants

- The industry is driven by mid-sized companies and large corporations in terms of the number of jobs
- Large corporations drive technological innovation

Uncertainties

- Level of government/European involvement in their technological development

Seeds of Change

- Continued acquisition of French SMEs by large corporations

Controversies

- Impact of digitization on industry: decrease in the number of jobs required for the same level of production / increase in job skill requirements and net job creation
- SMEs are known for implementing technological innovations to a lesser extent but are also more flexible and agile

Disruptions

- Legislation / Technological disruption

3. Summary of Prospective Exploration – Analysis by Region

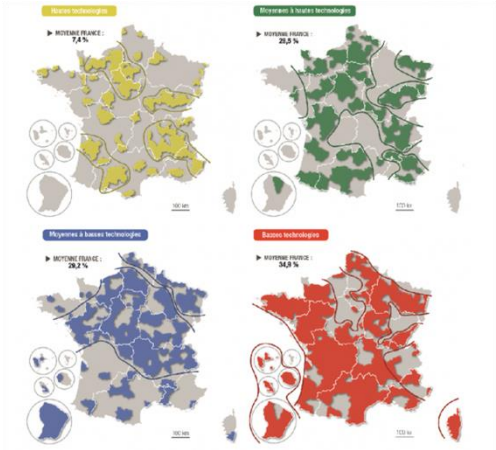
Major Trends / Constants

Depending on the sector, very distinct regional dynamics:

- Industries whose locations are highly concentrated and specific to certain sites or very limited geographic areas
- Industries specific to certain regions
- Industries whose distribution is fairly diffuse or reflects a divide between the eastern and western halves of the country rather than the identification of regional sub-groups

Major Trends / Constants

- Regional dynamics vary depending on the level of technology



Uncertainties

- Balance of power among regions / government intervention / support for employment in certain geographic areas

Seed of Change

- Digitization / remote work => changes the relationship to the region

Controversies

- Struggles to preserve jobs / improve working conditions
- Large corporations that receive state support in exchange for unfulfilled hiring promises (e.g., General Electric in Belfort)

Disruptions

- Balance of power / policy influence in the region
- Environmental challenges in terms of access to resources, transportation (local versus global)



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