Collectively agreed wages in France

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Abstract

This paper aims at analyzing collectively agreed wages in France over the last decade. After a short overview of the key characteristics of the French collective bargaining system, it describes existing data on wages in terms of main features and limitations. Then, given available data, this report analyzes main trends in agreed wages, actual wages and the "wage drift". Finally, this paper shows that the wage drift is quite weak over the recent period. When breaking down the analysis into selected sectors, we however highlight contrasted evolutions, which may be related to the diversity of sectors in terms of dynamic of collective bargaining.

This paper aims at studying recent evolution of wages in France. Unlike other national statistical sources, French sources do not provide explicit data on collectively agreed wages over a long time period. Despite this lack, statistical data provide rich information on conventional wages resulting from sector-level collective agreement (i.e. proxy of agreed wages) and on actual wages, that allow computing the "wage drift" in France since 2003.

This paper is organized as follows. The first section develops a descriptive analysis of the French collective bargaining system. The second section focuses on the existing statistical data on wages in France through an analysis of their features and issues. Finally, the last section analyses the main evolutions of agreed wages, actual wages and the "wage drift" in the whole economy and in selected sectors (metalworking, construction, banking and retail trade).

I. Description of the French collective bargaining system

The wage determination process in France is affected by two institutional forces. The former is the statutory minimum wage set unilaterally by the government. The latter is a decentralized system of collective bargaining that is hard to classify in the national typology of industrial relations. The linkages between the two have changed significantly since the mid-1990s. In the aftermath of World War II, the minimum wage was a powerful tool to level social inequalities, while the social benefits collectively bargained in large companies stretched its coverage to the workers in similar branches of activity, and also, to some extent, from one sector to the others. Since the 1990s however, this virtuous circle has stopped running well given the changing economic environment. On the one hand, the casualization of labour has dampened the benefits of upgrading the minimum wage. Meanwhile, the collective bargaining has been reshaped through a strong trend towards decentralization, a process initiated in the early 80s' and reinforced in the 90s', so that plant-level settlements lay down the norm as well as sector-level agreements.

There are three levels of collective bargaining in France: the national or inter-industry level, the sector-level and the company one. At the national level, the state sets the minimum wage (SMIC*). It is increased each year in line with two economic indexes, namely inflation as measured by the National Institute of Statistics and Economic Studies (INSEE*), and 50% of the increase of manual workers' basic hourly pay (SHBO*), as measured by the statistical services of the Ministry of Labour, Employment and Health (DARES*). The government can also decide to award an additional increase ('coup de pouce'). At inter-industry level, there are no collective agreements between employer's organisations and trade unions laying down criteria or guidelines for collective bargaining on wages at sector level. There is no coordination of collective bargaining on wages. At the sector-level, the trade unions and the employers' organizations must negotiate every year the values of the agreed minimum wages for each employee skill or qualification. No employee of a given skill level can be paid less than this agreed minimum wage. Sector-level collective agreements can set up two types of wages: "hierarchical" wages and/or "guaranteed" wages. Hierarchical wages are hourly or monthly wages which are close to the minimum wage, i.e. basic wage, production or individual performance bonuses and benefits in kind. Guaranteed wages are monthly or annual wages which definition is broader than the previous one and includes certain benefits such as seniority benefits or bonuses related to working conditions. If the agreed minimum wage is less than the national minimum wage, then the latter applies. Agreements may be also signed at different geographical levels: regional or more local level, in the construction sector or for metal workers for example.

Box 1 The actors of industrial relations

Unionism: still alive but in need of new members

A structural trade-union pluralism prevailed in France and its evolution in the last decades reveals a surprisingly stable architecture of the leading forces at work, with five pillar organizations being granted "nationally representative" by the government: CGT (Confédération Générale du Travail) scored the first success in the works council elections of 2005 (23.6%), CFDT (Confédération Française Démocratique du Travail) scored 20.3%, CGT-FO (Force Ouvrière) 12.6%, CFTC (Confédération Française des Travailleurs Chrétiens) 6.4%, and the professionals' union, CFE-CGC (Confédération Générale des Cadres), 6.3%.

Trade union membership statistics have always display lower rates in France than in other European countries, barely reaching 20% in the late 1960s. The oil shocks and recession of the 1970s worsened the narrowing of the base, and membership of trade union has been kept constant at low levels since then: 5% in the private sector, roughly 15% in the public sector. France is the worst performing European country with respect to union affiliation rate. It ranks better (10th position) than Germany or the UK with respect to an alternative indicator (the on-site presence of trade-union instances measured as the share of salary workers stating that a trade union is located on their workplace). Despite its past improvement (41% in 2005, 37.5% in 1996, Wolff, 2008), the latter one does not provide any piece of information on how unionization manifests itself, with a trade-union representative being in charge locally, or being further involved.

Employers' structural weaknesses

The three French employers' associations attract a minority of CEOs. Analysing their collective action leads to the paradox that exhibiting poor cohesion does coexist with exercising considerable influence over society. Between 1998 and 2004, the survey on professional relationships and business negotiations ('REPONSE' by the Ministry for Employment) reveals a weakening participation rate of management representatives in employer-led organisations. Such a result is mainly accounted for by the morphological distortions in the tissue forming the industrial base: the loss of factories, operational facilities and manufacturing potential, precisely in places once famous for the economic attractiveness of their business environment; and the rapid expansion of services in France's economy.

These structural changes translate into an evolving network of executive managers where the traditional domination of large industrial corporations, such as UIMM from the metalworking industry (*Union des Industries des Métiers de la Métallurgie*) and its past influence in the Movement of the French Enterprises (MEDEF), has given ground to domestic competitors from the service sector. However, one core issue survives industrial mutations over time: the constant renewal of cost-reducing strategies.

Through a specific procedure, the "extension procedure", sector-level agreements apply to all employers in a given sector or activity. The signatories of a sector-level agreement can ask the Minister of labour to extend this agreement to all the companies of the concerned sector, whether or not they are affiliated to the signatories organisations. It is thus mainly by the application of this administrative procedure that the number of workers bound by collective

agreement is high and has increased in the last decade: since 2004, 98% of the employees are in fact covered by sector-level collective agreement. This is a mean to rule the whole industry and to limit the phenomena of social dumping. Concerning collective wage bargaining, the signatories of an agreement systematically ask for the extension. The various branches of activity differ sharply in economic terms: about 4% of sector-level collective agreements cover 50% of wage earners. The political impulse for widening the coverage rate of collective bargaining led to the duplication of many subsectors with limited activity where the contents of collective agreements simply reproduce the Labour Law on specific matters, leaving plenty of room for individual employers to manage human resources their way.

Coexisting side-by-side is the regulatory power of sector-wide agreements supposed to play a leading role in the economy: metalworking industry (1.7 million employees), construction activities, banking sector, oil energy... turns out to be extremely variable. However, the balance between sector and plant-level agreement tilt toward the latter since the 1980s, and big firms, in order to tame real earnings, negotiate wage rates as low as possible and review the compensation system through pay individualization. The final outcome is a widening wage gap between high-tech companies and the contents of the corresponding sector agreements.

Since the Auroux laws of 1982, employers that have at least one representative union in their company must open each year collective bargaining on various subjects, of which wages. This obligation to negotiate is however not an obligation to obtain an agreement. Nevertheless, each year, about 8 000 agreements are signed on wages at company level, all the biggest are concerned. The biggest enterprises influence the collective bargaining at sector-level: they try to restrict agreed minimum wages in order to keep their room of manoeuvre on the effective wages applied for their employees. In the 2000 decade, human resources management methods lay emphasis on individualized pay. Bargained wages get locked between the SMIC lower bound and the variable part of compensation (bonus, profit-sharing scheme, company savings plan...) The variable part may be subject to bargaining: 18.4% of enterprise wage settlement signed in 2008 deal with it (14.4% in 2006). These agreement are typically negotiated by workers' representatives (may it be together with union representatives), whereas base pay negotiations remain in the hands of unions' delegates. Given the standardization of individualized pay, the development of related allowances, and the decline in bargaining power (Castel, Delahaie, Petit, 2012), the trade union strategies focusing mainly on the general raise of wages seem to be at odds of what really is at stakes.

These new changes reveal a vulnerable French industrial relation system in the context of mass unemployment and low unionization rates. Collective bargaining nowadays takes place at more decentralized levels than in the past, and the scope of negotiations narrows down as new pay management methods are introduced in the system.

II. Examination of French statistics data on wages

In France, the statistical system provides two types of information on wages. The first type of information is related to real wages. Two main statistical sources can be considered: the survey on Labor Activity and Employment Status (ACEMO* Survey, "Enquête sur l'activité et les conditions d'emploi de la main-d'oeuvre"), the DADS* file ("Déclarations annuelles de données sociales"). Second, the collective agreement database ("la base des accords salariaux de branche) supplies information on minimum conventional wages that are negotiated at the sector level. In some extend, it also provides information on collectively agreed wages.

II.1 The ACEMO survey

The Research, Studies and Statistics Department (DARES*) of the Ministry of Labor, Employment and Health carries out the ACEMO survey. This survey was launched in 1947 and has been redesigned in 2006 in consultation with INSEE and social partners. In 2006, the ACEMO panel was elaborated to obtain a better periodicity for the analysis of the effect of the minimum wage (SMIC*) increase on real wages.

ACEMO survey is a quarterly survey, which aims at measuring the cyclical evolution of employment in terms of wage and working time. It allows calculating two main indicators: the basic hourly wage of manual worker (SHBO, "Salaire horaire de base ouvrier",) used to index link the minimum wage (SMIC), the monthly basic wage (SMB*, "Salaire mensuel de base") which reflects the average variation of wages (whatever the occupational category considered). Since 2008, an index of hourly labor cost is calculated (ICHT-TS, "Indice du coût horaire du travail") to reflect the evolution of wages and national insurance contributions.

The ACEMO survey covers a representative sample of establishments belonging to a firm with a least 10 employees in the private sector, excluding agriculture. The scope concerns 12 million employees and 200,000 enterprises in Metropolitan France, *i. e.* most of the large public or semi-public enterprises known as "*Grandes enterprises nationales*". Data are collected by postal survey (about 34, 000 establishments) at the end of every quarter. Establishments with at least 250 employees are surveyed exhaustively while those with less than 250 employees are surveyed with a quarter of the sample being renewed every year.

In ACEMO survey, indicator of wage reflects basic pay, excluding bonuses, allowances, other form of compensation and overtime (except, as applies, the bonus linked to the reduction in working hours). It usually corresponds to the amount on the first line of the employee's wage slip, *i. e.* the gross wage, including social contributions and benefits. By the way, this indicator is a *proxy* of actual wage in France. Indicators are "constant structure" indexes that allow monitoring hourly or monthly wage for a specific position and rank. Changes in monthly basic wage are observed for four occupational categories (manual workers, clerical workers, intermediate occupations, managers). Each firm provides the wage levels of up to 12 employees' representative of the four occupations.

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^{*} See Acronym

¹ Between 2008 and 2009, the scope of coverage changed. Since January 2009, the survey covers the main activities defined by APE code 05 to 82 and 85 to 96 of NAF rev.20 (Classification of French activities), excluding the private non-market education and social action governed by the law of 1901. Until the first quarter of 2008, the survey covered the activities defined by divisions 10 to 74 and 80 to 93 of NAF rev.1, *e. g.* the private and semi-public sector excluding agriculture, domestic service to individuals, public administrations, hospitals, non-market education and social action governed by the law of 1901.

Every quarter, two indicators are also computed:

- Changes in the basic monthly wage (SMB) of all employees in enterprises.
- Changes in the basic hourly wage of manual worker (SHBO) in firms. It is measured only for the population of blue-collar workers. SHBO is obtained by dividing the gross monthly wage by the employee's basic monthly working hours, calculated as an average across the year (for an employee working 38 hours per week and with 23 days for reduced working time (RTT), average weekly working hours across the year are 35 hours and the basic monthly working hours are 152 hours).

Table 1 – Basic wage (growth rate)

Institutionnal mandate	Compulsory survey, which has received the approval provided for in article 2 of Law n° 51-711 of 7 June 1951 on legal obligation, coordination and confidentiality in the field of statistics and which appears in the list of public statistics survey published each year in the <i>Journal Officiel</i> .
Formal institution	Research, Studies and Statistics Department of the Ministry of Labor, Employment and Health (DARES, Direction de l'animation de la recherche, des études et des statistiques du Ministère du Travail, de l'Emploi et de la Santé)
Source data	Survey on Activity and Employment Status (ACEMO survey)
Time coverage	Quarterly from 1945
Schedule	Preliminary figures 6 weeks after the survey reference period Revised figures 11 weeks after the survey reference period Release dates announced 4 months in advance.
Frequency of data	Quarterly
Short description	Changes in basic hourly wage for manual workers (SHBO), changes in basic monthly wage (SMB, all occupational categories)
Data type	Survey
Sampling	Sample size: a representative sample of 34,000 establishments belonging to a firm with at least 10 employees. Sample design: data collected by postal survey at the end of every quarter. All establishments with 250 employees are surveyed while a rotational design over 4 years is implemented for establishments with less than 250 employees.
Definition	This survey provides an indicator of actual wage. Basic wage, excluding bonuses, allowances, other forms of compensation as well as overtime and including social contributions
Construction	Basic monthly wage corresponding to the first line of the employee's wage slip (SMB). Hourly basic pay computed by dividing the gross monthly pay by the number of worked hours (SHBO)
Statistical unit	Establishment
Sector coverage	Private and semi-public sector, excluding agriculture
Statistical population	About 12 million of workers and 200,00 firms
Unit of measure	relative values (growth rate)
Classification system	NAF 2003 (Classification of French activities) NACE 17 (Classification of European activities), NACE 31 and 60 divisions from 1998 only
Documentation	André & Muller (2011) DARES's website

II.2 The collective agreement database

To analyze the impact of wage increases negotiated at the sector level on real wages, DARES and DGT*2 have recently built a common database which lists quarterly levels and increases in the minimum conventional wages. It provides an overview of agreed wages over the period 2003-2010 for a sample of 278 industries covering 13.78 million employees in 2008 (André, Breda, 2011).

Table 2 – Conventional wages (defined by sector-level collective agreement)

Formal institution	Research, Studies and Statistics Department of the Ministry of Labor, Employment and Health (DARES, Direction de l'animation de la recherche, des études et des statistiques du Ministère du Travail, de l'Emploi et de la Santé)
Time coverage	From 2003 to 2010
Schedule	Preliminary figures in June N+1
	Revised figures in September N+1.
Frequency of data calculation	Quartely
Short description	Conventional wages and their increase reported for two ranks (the first one and the last one) of four occupational categories (manual worker, clerical worker, intermediate occupations, managers).
Source data	Mandatory agreement filed at the DGT (Department of the Ministry of Labour)
Data type	Administrative
Sampling	Sample size: 278 industries covering more than 5000 employees (278 industries).
Registers	Mandatory agreement
Definition	Three types of wage: hierarchical wage or guaranteed wage (monthly or annually)
Construction	For each collective agreement, the annual average change in wage is computed by weighting increases for each skill by the number of employees at that level
Sector coverage	Metal sector, construction sector and general sectors
Statistical population	sector-level collective agreement
Unit of measure	levels and increases in the minimum conventional wage
Classification system	Sector-level collective agreement (identifiant of collective agreement)
Documentation	André & Breda (2011) ; André (2012) ; André & Muller (2011)

The collective agreement database aims at providing data on minimum conventional wages - i.e. the wage below which an employee cannot be paid given its position in the job classification - since 2003. The sample covers industries with more than 5,000 employees and

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² DGT carries out a detailed tracking of wage agreements for a sample of industries under its jurisdiction. For each industry, only the mandatory agreements are recorded.

is divided into three sectors: metal sector (68 industries); construction sector (48 industries) and general sector (162 industries). As mentioned above, sectors can define three types of conventional wage for each level of the job classification: hierarchical wage, monthly guaranteed wage and annually guaranteed wage. These indicators refer to different definitions of wage. For example, the hierarchical wage (hourly or annually base) is close to the minimum wage (SMIC) concept. It also includes basic wage, bonuses related to production or individual performance and benefits in kind. The definition of guaranteed wages (monthly or annual) is larger than the one of SMIC. It notably includes bonuses based on seniority or related to working conditions. When the agreement establishes several types of wages within the industry (hierarchical, monthly guaranteed), the panel gives the levels and evolution for each category (cf *supra*).

Each indicator is broken down into occupational groups (blue collars, white collars, clerical workers, intermediate occupations) and skill levels (the lower and the higher level of qualification). For each skill level of each of the 278 industries, the database gives the minimum conventional wages and its quarterly evolution. The database also contains information on structural characteristics (number of employees by skill level) and the text of the collective agreement.

The collective agreement supplies the average change in conventional wage (on a quarterly basis), which is calculated by weighting increases for each skill by the number of employees at that level. It is therefore assumed that at the effective date of signature of the wage agreement all employees are covered even if it is not always the case in practice because of the time of extension (see section I).

II.3 DADS file

Since 1947, all employers have been required to fill in an administrative document detailing the periods of employment and wages of their employees. This compulsory formality must be completed by all businesses with employees, in line with article R243-14 of the Social Security Code (Decree of March 24th 1972) and articles 87.240 and 241 of Law 51-711 of June 7th 1951 of the General Tax Code. Since 1950, INSEE has been the official recipient of this information and responsible for its statistical use. Initially, INSEE used tax documents on loan from the general tax inspectorate. In 1970, these documents became the "annual wage declarations" (DAS). INSEE thereafter began to receive its own copy of the declaration. In 1984 the DAS, combined with the attestation of paid activity (AAS), became the "declaration of social data" (DADS).

In this document that is common to tax and social administrations, employers, including government administrations and establishments, annually supply, for each establishment, the wages they have paid, the employed workforce and a nominative list of their employees, indicating the amount of wages received by each one. The scope of the DADS covers all employers and their employees, with the exception of employees of ministries, domestic services (division 97-98 of the NAF rev. 2) and extra-territorial activities (division 99 of the NAF rev. 2).

In DADS files, one have a very large conception of wage insofar as the indicator includes bonuses, allowances, overtime and other forms of compensation (on an annual basis).

Table 3- Average annual wages

Mandate institution	Article R243-14 of the Social Security Code (Decree of March 24th 1972) and articles 87.240 and 241 of Law 51-711 of June 7th 1951 of the General Tax Code.
Formal institution	French National Institute of Statistics and Economic Studies (INSEE)
Time coverage	From 1947
Schedule	Data from a given year N provisionally scheduled for publication in January of year N+2 and the latter half of N+2 for detailed data
Frequency of data calculation	Annually
Short description	Average of annual wages
Source data	Annual declaration of social data (DADS, Déclarations annuelles de données sociales)
Data type	Administrative source
Sampling	All employers and all employees are covered by DADS declaration, except for government bodies, domestic services and business operating outside French territory. Local authorities and hospital staff included.
Registers	Employee
Definition	wages, including bonuses, allowances, other forms of compensation, overtime and social contribution
Statistical unit	Employee
Sector coverage	All sectors, except for government bodies, domestic services and businesses operating outside FrenchTerritory
Unit of measure	level of wages (euros)
Classification system	NAF, NACE
Documentation	INSEE website

II.4 Quality assessment of the French database

Statistical sources described in the three last sections present a few constraints and limitations. In this section, we discuss some keys elements of quality assessment through existing documentation and interviews with experts: two statisticians, Claire André and Dominique Demailly (DARES), and two trade union representatives, Alain Guinebert (CFDT, Confédération Française Démocratique du Travail, metal sector), Patrick Roussel (CFDT, construction sector).

II.4.a. Relevance

In spite of a limited accessibility (see infra), French database are relevant for all experts and researchers who have to analyze wages setting in France. However, one needs data on collectively agreed wages over a longer time period or data defining more precisely the wage structure (basic wage and bonuses) (see infra). There is an obvious need for improvement in database.

From social partner's point of view, the relevance of French data depends on the type of database. The DADS files result from a legal obligation which consists for each firm in reporting the annual amount of wages at fiscal administration. To some extent, DADS files are not designed as a negotiation tool. In fact, DADS are often mobilized by researchers and experts insofar as data are available for a long time period and can be easily matched to other databases. On the contrary, the ACEMO survey can be considered as a tool for politic decisions since the SHBO indicator is used to determine the growth rate of the minimum wage (SMIC). Theoretically, this database meets the needs of a large part of negotiators, i.e. trade unions, firms and government representatives. The recent launch of collective agreement database is also a part of a strategy to help negotiators in improving the knowledge on dynamics of collective bargaining at sector-level.

However, the main result of interviews with social partners is the weak use of French statistical data. At the time of collective bargaining, social partners mainly focus on consumer price index, on the minimum wage (SMIC) and housing charges. At a pinch, they look at the hourly wage for manual worker index (SHBO) which is supplied by DARES's official publications to understand the SMIC evolution. Another reasons explaining the weak use of data are related to the limitations of French statistics on wage. Official publications report the mean wage by industry or economic activity on a quarterly or annual basis. Furthermore, the scope coverage often excludes the establishment with less than 10 employees (see infra). For unions, such publications are not satisfactory insofar as they do not take account for the situation of the small firms, for the heterogeneity of sector-level collective agreements as well as for wages dispersion and the diversity of pay policies. By the way, given the complexity of pay policies and its potential effect on the decline of collective bargaining extent (Castel, Delahaie, Petit, 2011), CFDT has recently launched a survey (ORION, "observatoire des salaires et de la NAO") to improve its own information system on wages, pay policies and collective bargaining in each industry.

Social partners interviewed really need of more exploitable data. They also appreciate the recent work conducted by DARES, which should permit some comparison between different collective agreement having similar characteristics.

II.2.b Accuracy

* Mode of collection

The main problem of the ACEMO survey may be related to completion of statistical sheets since some reporting errors may arise during the collection of the database. Nevertheless, this survey is answered by firms, which should limit measurements errors (Heckel *et al.*, 2008). Heckel et al. (2008) highlight two other problems related to the working time and wage trajectories. In ACEMO survey, the working time reflects the working time on the labor contract and may differ from the legal working time (i.e. the numbers of hours above which work is considered as overtime). There may be also a bias when analyzing changes in hourly wages resulting from fluctuations in working times. Then wages trajectories do not necessary correspond to the same employee thought time, which may affect indicator of wages variation. When mobilizing ACEMO data, some corrections procedure can nevertheless be implemented to solve these problems (see Heckel *et al.*).

* Sample coverage

The ACEMO survey is a representative survey of establishments with 10 employees and more. It also excludes establishments with less than 10 employees. However, sector-level collective bargaining may play an important role in wages rules within small firms where

bargaining at company level is scarce. Thus an important part of collective bargaining cannot be analyzed by using the ACEMO survey.

The collective agreement database is administrative but not exhaustive. Despite this fact, this database covers a large part of employees, *i.e.* 13.8 million of employees in 2008 or more than 66% of employees in private sector. French data on collectively agreed wages allow analyzing trends by industry only. We also are not able to analyze trends by economic sectors defined by the NACE classification.

Whatever the statistical source considered, public sector is not included in the scope of coverage. This lack makes impossible an analysis of "wage drift" in public sector.

*Time coverage

A problem of time coverage arises with the DGT-DARES database insofar as data are available from 2003 to 20010. Therefore an analysis of agreed wage and "wage drift" over long time period is not possible. Two mains reason explain this limited time coverage. First, collection of information contained in collective agreements was not always systematic before 2003 and, the scope of coverage was different: industries covering 10,000 employees were taken account (against industries with 5,000 employees after 2003) Secondly, before 2003, information on wages were available for three occupations only, while four occupations are now reported.

*Concept of wages

In DADS, wages indicator includes bonuses and others forms of compensation as individualized bonuses and profit sharing schemes. Given the fact that pay policies have undergone major changes since the beginning of the 1980 decade, DADS indicator is not satisfactory insofar as some components of compensation, like individualized pay, cannot be distinguished. And yet, these bonuses are not necessary resulting from collective bargaining. Then the use of DADS does also not allow determining how collective bargaining affects wages.

Conversely, the ACEMO survey provides a satisfactory indicator of wage insofar as it excludes bonuses, allowances and other forms of compensation. Moreover, this indicator is available for four occupations categories, which allows a detailed analysis of wages. In the same way, DGT-DARES database provides detailed information about conventional minima agreed at industry-level for four occupational categories. However, wages data are not exhaustive because only two skill levels of each occupation category are reported (the lower and the highest).

*"wage drift" computation

In spite of very rich information on wages in France, there is no explicit database on "wage drift" in France. To analyze the phenomenon, one has to match the ACEMO survey and the collective agreement database. This approach raises some problems that will be described in the following paragraphs.

The scope of the SMB (from ACEMO survey) is lower than the agreed wage defined in collective agreement, which may include some bonuses and other type of compensation. Then the effect of agreed wages may be underestimated insofar as it is possible to capture the effect of collective agreement on the SMB only and not on bonuses. Another risk of underestimate comes from the fact that firms can make up for the difference between agreed wages and SMB by paying some bonuses, which should not appear in the SMB.

Some differences between ACEMO survey and the collective agreement database in terms of statistical unit may make the "wage drift" difficult to calculate. Official publications dealing with actual wages and agreed wages do not disseminate comparable indicators over a long time period: ACEMO indicators are broken down into economic activities since 1945 and into sector level since 2007 only³ while the collectively agreed wages are available since 2003. In this paper, given strong limited accessibility to ACEMO database (see infra), we can compute "wage drift" by sectors over the period 2007-2010 only.

II.4.c Accessibility

In France, statistical sources are not easily accessible. No individual files on business can be downloaded over internet. To satisfy the need of researchers and experts for occasional information on business, a Statistical Confidentiality Committee was created under a law of 1984. This committee can decide to offer individual and collective exemptions from the statistical rules. To use data of survey or administrative source, one has also to make an application to the Statistical Confidentiality Committee.

DARES's website supplies aggregate indicators in order to compensate for difficulties of accessibility. More precisely, three Excel sheets (based on ACEMO survey) are freely downloaded⁴:

- Index of basic wage by economic activity (NAF) and occupational category (from 1998)
- Index of basic wage by economic activity (NACE classification) and occupational categories (from 1993)
- Index of basic wage from 1945 to 2008 by activity (NAF classification).

In the same way, INSEE's website supplies DADS files since 2002. To obtain the collective agreement database, one needs to make an application to DARES⁵. Note that one cannot match downloadable files in the extent that they are anonym (i.e. identifiant number of the statistical unit is deleted).

III. Descriptive analysis of the development of collectively agreed wages and wages drift over the period 1995-2010

III. 1 All economic sectors

This section draws on recent works of Dares (André & Muller, 201, André, 2012), based on a comparison between the actual wages ("Basic monthly wage", salaire mensuel de base) and the collectively agreed wages collected.

Basic and agreed wages have similar profiles at the macro level

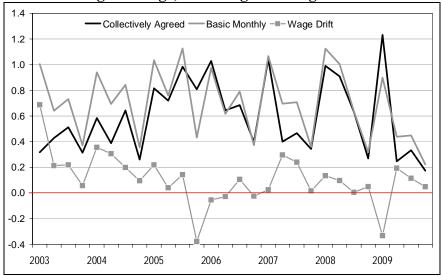
Over the 2003-2009 period, annual increases of basic monthly wage and of collectively agreed wages follow similar trends. From 2005, the wage drift calculated as the difference between actual and agreed wages is often very close to (see Chart 1).

³ See Berry & Combault (2008, 2009); Combault & Jauneau (2010, 2011, 2012).

⁴ http://www.travail-emploi-sante.gouv.fr/etudes-recherche-statistiques-de,76/statistiques,78/salaires-et-epargne-salariale,86/les-series-statistiques,269/les-indices-de-salaires-de-base,2003.html.

⁵ By this way, IRES team has obtained this database in the beginning of July.

Chart 1 Agreed wage, basic wage and wage drift

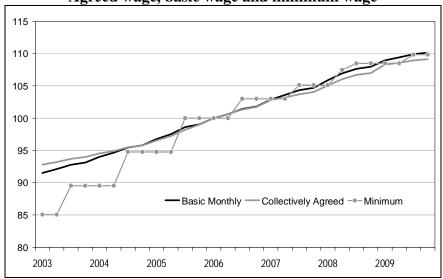


Quarterly growth in %. Source: Dares

The reduction of this gap can be explained by an increase in the number of industries that have revaluated collectively agreed wages between 2003 and 2006. During this period, the transition to the 35 hours working time has taken place, and, from 2005 on, the government have spurred a revival of wage collective bargaining. Since 2006, more than four sectors in five revalue annually agreed wages.

Since 2006, agreed and actual wages have risen at an annual rate close to that of the minimum wage. The industries have been encouraged to raise the lower wages of their job classification to a level at least equal to the minimum wage as part of the relaunch of collective bargaining (see Chart 2).

Chart 2
Agreed wage, basic wage and minimum wage



2006=100. Source: Dares

Changes in basic and agreed wages are less synchronized at the employee level

This observation at the macro level of a strong correlation between actual and agreed wages is not always verified at a micro level. The proportion of wage earners concerned by an increase in the basic wage is greater when the agreed wage was revaluated during the same quarter. However, on average, more than half of wage earners concerned by an increase in the agreed wage do not get an increase in the same quarter.

Evolution of the basic wage with or without increase in the agreed wage 1.6 without increase with increase difference 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 2006 2008 2003 2004 2005 2007 2009

Chart 3

Quarterly growth in %. Source: Dares

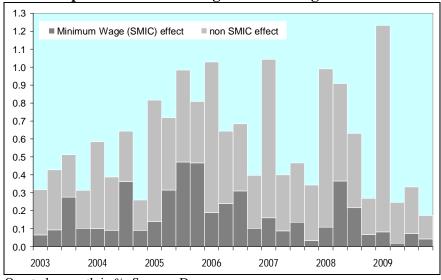
Indeed, companies are not obliged to apply the increases if the wages they pay are higher than the conventional minimum. Moreover, when the raise in wage is only used to catch up the minimum wage a posterior, the adjustment of actual wages has already taken place, since they can not be less than the minimum wage.

Conversely, about one third of employees received an increase of basic wage, even if the agreed wage had not been upgraded during the quarter. The average increase in basic wage is higher for wage earners concerned by a conventional wage rise, however the basic wage is also rising for the wage earners whose the agreed wage has not increased (Chart 3).

The role of the minimum wage (Smic)

We must first distinguish the increases in basic wage generated by a raise in the minimum wage ("Smic effect") and those which concern earnings above the minimum wage ("non Smic effect"). Chart 4 shows the distribution of the quarterly increase of basic wage between these two effects.

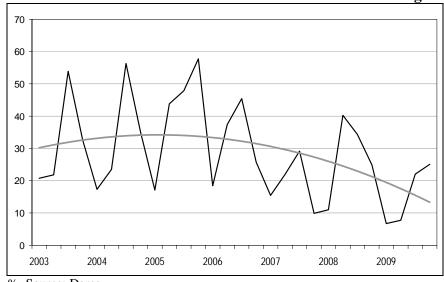
Chart 4 Impact of minimum wage on basic wage increases



Quarterly growth in %. Source : Dares

Over the period studied, the contribution of the minimum wage shows strong fluctuations, because of its discontinuous progression. In 1998, the reduction of the statutory working week to 35 hours from 39 hours has established a guaranteed monthly wage (GMR, *garanties mensuelles de rémunération*) so as to maintain unchanged the monthly earnings of those already working at the minimum wage prior to the 35 hour week law, all new comers being paid at the new hourly rate. In 2002, up to five different rates were defined as more and more companies adopted the 35-hour week. The 2003 Fillon law re-organized them so as to keep one only, a task performed in 2005. Since then, an equal amount of work earns the same pay, all things being equal. From 2006 on, when the guaranteed monthly wages converged on a single definition, the influence of the minimum wage tends to be reduced (see Chart 5).

Chart 5
Contribution of the "Smic effect" to the raises in basic wage



%. Source: Dares

Box 2 Determinants of the wage drift

Source: André & Muller (2011)

To analyze more precisely the link between the evolution of basic and agreed wages, an econometric model is estimated with the following structure (see Table 4 for results):

$$w = a + b.w^* + c.z$$

w is the rate of growth of the basic wage for each occupation in the establishment. This variable is 0 when there is no increase.

w* is the rate of growth of the agreed wage for each occupation in the establishment. This variable is 0 when there is no increase.

z represents a vector of other determinants:

- factors related to the economic conjuncture: quarterly change in the index of consumer prices, unemployment, quarterly change in the minimum wage, which allows to distinguish the effects related to agreed wages from those related to minimum wage;
- indicator of occupational status;
- factors related to the structure of the establishment: industry and size. The behavior in terms of wage increases may be influenced by these characteristics;
- firm size dummies; time elapsed between two revaluations.

Model 1 Model 2 0.0677 (0.0006) Collectively agreed wage Agreed wage without "Smic effect" 0.0872 (0.0008) Macroeconomic framework index of consumer prices 0.2299 (0.0020) 0.2301 (0.0020) rate of unemployment -0.0046 (0.0001) -0.0044 (0.0001) minimum wage 0.0182 (0.0008) 0.0208 (0.0007) R2 0.125 0.128 Number of observations 2 696 016 2 696 016

Table 4 - Results of estimations (see Box 2)

The revaluations at sector level: a slight positive effect on the basic wage

To analyze more precisely the link between agreed and basic wage at individual level, it is necessary to consider other contextual factors that may affect wage growth: inflation, unemployment, rise in the minimum wage, characteristics of establishments and employees, etc. (Box 2). "All things being equal", the revaluations of agreed wage have a slight positive effect on the very short term changes in the basic wage: when the agreed wage increases by 1%, the increase in the average basic wage is 0.068 points higher than it would have been in the absence of this wage hike (Table 4, Model 1).

The impact of the minimum wage is 0.018 point. Inflation has a positive effect in the short term (0.230 points) while a high unemployment reduces wage growth (-0.005 point). On average, the effect of rises in the agreed wage does not last beyond the quarter of entry into force.

The effect of revaluations is stronger for the increases which guarantee earnings above the minimum wage: +0.087 instead of 0.068 (Table 4, model 2 and model 1). This holds especially for the lowest skill levels of factory workers (ouvriers) and service and sales

workers (employés): increases of agreed wage above the minimum wage add up 0.220 points to the basic wage for low-skilled factory workers and 0.218 for low-skilled service and sales workers, against 0.038 and 0.049 respectively for the whole of wage earners.

At these low skill levels, the revaluations of agreed wage often only serve to comply with the minimum wage, and the global impact is low. The revaluations which guarantee additional earnings above the minimum wage mainly concern industries in which the proportion of employees who earn a wage close to the minimum wage is high (cleaning companies, security firms and prevention for example): if the agreed wage is above the minimum wage, the revaluation will systematically concern the workers paid around the minimum wage. For low skill levels, the revaluation has therefore little effect, unless it provides a supplementary earning above the minimum wage. In general terms, increases in agreed wages lead to larger increases for low wage earners (factory workers and service and sales workers) than for other employees: technicians and professionals, executives (see Chart 6).

Annual growth rate of agreed wages by occupation 4 0 **Factory Workers** 3.5 Service and Sales Workers 3.0 2.5 2.0 Technicians and Executives Professionals 1.5 1.0 2006 2007 2008 2009

Chart 6

Annual growth in %. Source: Dares

III.2 A sector-level analysis: a strong heterogeneity between sectors

With more than 200 different sector-level collective agreements, the structure of the French collective bargaining system is highly differentiated. The number of workers and companies bound by some sector-level agreements is very low mainly because those sectors are narrowly defined, for example in the trade sectors (bakeries, hairdressers...) or in the services (notaries' offices, travel agencies...). The most significant collective agreements covers several segments of the economy as the metal sector which includes automotive production, foundries, aviation and aerospace, engineering, electrical goods and so on. More than 1.7 million workers are employed in the metal sector.

The landscape gets complicated by the fact that, in several sector, bargaining take place at regional level. Around 30% of the agreements are bargained at regional level each year. Furthermore, in some sectors, a distinction is made between blue-collar and white-collar employees and separate wage and salary tables therefore apply to these two groups. In many sectors, there are also two tables for employees and managers. That is the case in the main sector for bargaining: the metal sector, in which wages are agreed at national level separately for employees and managers. Worker's wages are bargained at local level: there are more than 70 local agreements for this category. Therefore the impact of collective bargaining on the development of wages is complex. As we mentioned above, the biggest metal firms try to restrict agreed minimum wages in order to keep free hands for individualized the affective wages applied for their workers. In the building industry, there are also two tables: one for managers and one for workers and employees. For workers, wages are fixed at national level but daily travel allowances are bargained at regional level. There is only one national collective agreement in the banking sector which the most frequent case in services.

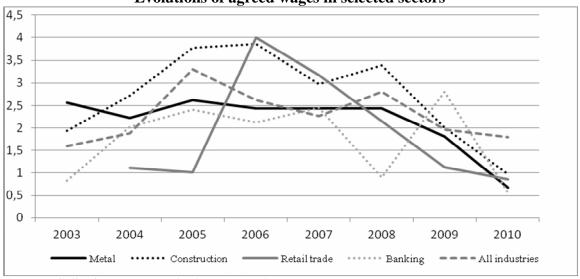
The collective agreement database allows decomposing the empirical analysis by sector-level collective agreement. To aggregate data at sector-level, we use the Classification of sector-level collective agreements (CRIS, "Conventions regroupées pour l'information statistique") which makes collective agreements in 25 groups⁶. Then, we mobilize DARES's official publications based on ACEMO survey results to get information on actual wages (SMB, "salaire mensuel de base".

A sector-level analysis highlights a strong heterogeneity of collective bargaining dynamics (Chart 7). Globally, as a consequence of the revival of collective bargaining, wages have recorded high increases in all sectors between 2003 and 2006. If agreed wages evolution is close to the SMIC growth at the macroeconomic level, this assessment is not always true at sector-level. In the construction sector, the rise in agreed wages is faster than the rise in SMIC between 2003 and 2008. Indeed, in this sector where wages are often low and the share of blue collars high (Jauneau, 2012), the revival of collective bargaining has, above all, allowed catching up the SMIC level. Conversely, sectors of metal and banking are globally characterized by growth rates of agreed wages weaker than the evolution observed at the all industries level: This result may be explained by the fact that actual wages are higher in these sectors (Jauneau, 2012). Accordingly, firms may not take account for collective agreements insofar as they pay higher wages.

These results are consistent with the conclusions of André and Breda (2011): there is a strong correlation between agreed wages evolution and rhythm of collective bargaining. Sectors characterized by a weak intensity of collective bargaining (i.e. no increase during a couple of years) negotiate to catch up level of SMIC. Consequently, increase in agreed wages is higher than in others industries. The case of construction and retail illustrates this phenomenon insofar as the collective bargaining appears particularly intense since a couple of years (Berry & Chambault, 2008, 2009; Berry & Jauneau, 2010, 2011).

⁶ This process consists in using the identifiant of collective agreement (5 digits) and in coding this by using the CRIS classification. In this work, we mobilized the encoding made by Amossé & Petit (2011).

Chart 7
Evolutions of agreed wages in selected sectors



Sources: Collective agreement database (DARES);

Berry & Combault (2008, 2009); Combault & Jauneau (2010, 2011).

Agreed wages, actual wages and wage drift in four sectors. 2007-2010

Chart 8 Metal sector

3,3
2,8
2,3
1,8
1,3
0,8
0,3
-0,2
2007
2008
2009
2010
Wage drift
Actual wages
- Agreed wages

Chart 9
Construction sector



Chart 10 Retail trade sector

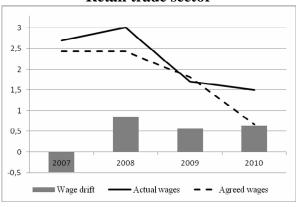
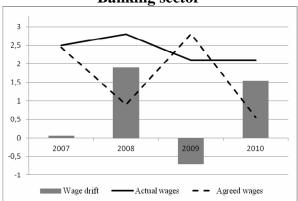


Chart 11 Banking sector



Similar comments can be done when looking at the evolution of "wage drift" in selected sectors. Over the 2007-2010 period, at the time of the crisis, the difference between actual wages and agreed wages is higher above all in banking and in metal sectors while it varies from 0 to 0.8 point of percentage in construction and retail trade (Charts 8 to 11). The two first sectors are indeed characterized by higher actual wages and thus a weak influence of sector-level collective bargaining. Conversely, agreed wages play a greater role in construction where actual wages are traditionally closed to the SMIC level and thus to the minimum conventional wage.

Recommendations and conclusions

The Statistical service of the Ministry of Labour, Employment and Health (DARES) has recently initiated the building of a collective agreement database at sector-level. It fills a gap in the statistical information on collective agreed wages.

Improvements of the statistical information could include:

- a better provision of publicly available data;
- a more consistent -and on a regular basis- coupling between the different sources of actual and agreed wages.

The analysis of the available data leads to two main findings:

- there is a strong correlation between the evolution of agreed wages and the rhythm of collective bargaining at sector-level;
- the impact of agreed wages on actual wages is stronger when the average wage of the relevant category is close to the minimum wage.

Acronyms

Acemo Survey on activity and employment conditions of labour force [Enquête trimestrielle sur l'activité et les conditions d'emploi de la main d'œuvre].

BDCC Database of collective agreements [Base de données des conventions collectives].

DADS Annual declarations of social data [Déclarations annuelles des données sociales].

DARES Statistical services of the Ministry of Labour, Employment and Health [Direction de l'animation de la recherche, des études et des statistiques du Ministère du Travail, de l'Emploi et de la Santé].

DGT Labour General Directorate of the Ministry of Labour, Employment and Health [Direction générale du travail du Ministère du Travail, de l'Emploi et de la Santé].

ICHT-TS Index of hourly wage cost [Indice du coût horaire du travail tous salarié].

INSEE National Institute of Statistics and Economic Studies [Institut national des statistiques et des études économiques].

IRES Institute for Economic and Social Research [Institut de recherches économiques et sociales].

SHBO Manual workers' basic hourly pay [Salaire horaire de base ouvrier].

SMB Basic monthly salary [Salaire mensuel de base].

SMIC Minimum wage [Salaire minimum interprofessionnel de croissance].

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