

## **LABOUR COSTS AND THEIR COMPONENTS IN 2020: CHARACTERISTICS AND DYNAMICS IN ITALY AND IN EURO AREA COUNTRIES<sup>1</sup>**

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**Abstract.** This article presents information on the structure of labour costs in the Euro area, focusing in particular on the situation in Italy. The analysis is based on data from the four-yearly Labour Cost Survey (LCS) with reference to the year 2020 considering both the level of the costs and their structure per unit of labour input (employees and hours worked). Labour costs indicators support governments and social partners in defining social policies and in promoting the competitiveness of enterprises. These indicators must enable comparisons across countries.

### **1. Overview**

Labour costs are a crucial factor in every country, for defining social and fiscal policies, for fixing social security contributions and benefits and for the abilities of enterprises to compete. For this reason, the interest in labour costs data and indicators comparable across countries and over time, is growing among governments, social partners, national and international institutions.

The term labour costs covers a wide range of meanings and uses, depending on whether the perspective is that of enterprises, households, governments or social partners. Setting standards for labour statistics involves most international organisations.

The ILO Bureau of Statistics, for instance, began collecting labour statistics in the early 1920s, and published the main results in the International Labour Review from its first issue in 1921. The 100 year-old International Conference of Labour Statisticians (ICLS) makes recommendations on selected topics in the field of labour statistics in the form of resolutions and guidelines, which, once approved by the ILO, become part of the set of international standards on labour statistics. One of the first relevant guidelines are contained in the resolutions concerning statistics on labour costs (ILO, 1966) that includes the International Standard Classification of Labour

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<sup>1</sup> The article is the result of the joint work of the authors. §1, 3 are attributed to Marilena Ciarallo, §2.1, 2.2 is attributed to Paola Conigliaro and § 2.3 to Francesca Ceccato.

Cost comprising 10 major costs groups (among which direct wages and salaries, remuneration for time not worked, employers' social security expenditure, cost of vocational training, taxes as regarded as labour cost, etc.). The Eurostat classification also breaks down wages and salaries and employers' social security contribution into a number of detailed sub-items. There is also specific mention of wages and salaries in a number of other United Nations guidelines (1983, 1997) while the Canberra Group (2001) provides a list of components of labour costs from the perspective of the household income.

In the Labour Market Domain, Eurostat has been working over the years to develop standards for the European Union to produce statistics on wages, earnings, labour costs, in particular in relation to businesses.

They constitute a hierarchical system of multi-annual, yearly and quarterly statistics, designed to provide a comprehensive and detailed picture of the level, structure and short-term development of labour costs in the different sectors of activity in the European Union and some other countries.<sup>2</sup> The main statistics produced in this context are the Labour Cost Survey (LCS), the Labour Cost Index (LCI) and the Labour Cost Levels (LCL). These last one provides annual updates on average hourly costs (total costs and main components), obtained by applying the quarterly indicator to the LCS data of the latest available year.

In the next paragraphs, we are going to focus on the Labour Cost Survey (LCS) results for the year 2020 in order also to capture the possible impact of the pandemic crisis on the main variables collected. In fact, most EU government have introduced new schemes in the working arrangements between employers and employees in order to mitigate the economic impacts of the pandemic.

### *1.1. Labour Cost Survey*

The Labour Cost Survey (LCS) is a 4-yearly survey (since 1996) providing detailed data on the structure (composition) and level of labour costs, number of employees, hours worked and hours paid (Eurostat, 2023(a)). The data are broken down by economic activity and enterprise size and refer to business units with 10 and more employees and all economic activities, except agriculture, fishing, public administration, private households, extra-territorial organizations (NACE rev.2

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<sup>2</sup> All statistics are based on harmonised definitions of labour costs which are specified in Regulations (EC) 530/1999 (EC, 1999) and 1737/2005 (EC, 2005). European Union Regulation 450/2003 (EC, 2003) concerning the quarterly labour cost index established the base for EU member states to provide LCI data.

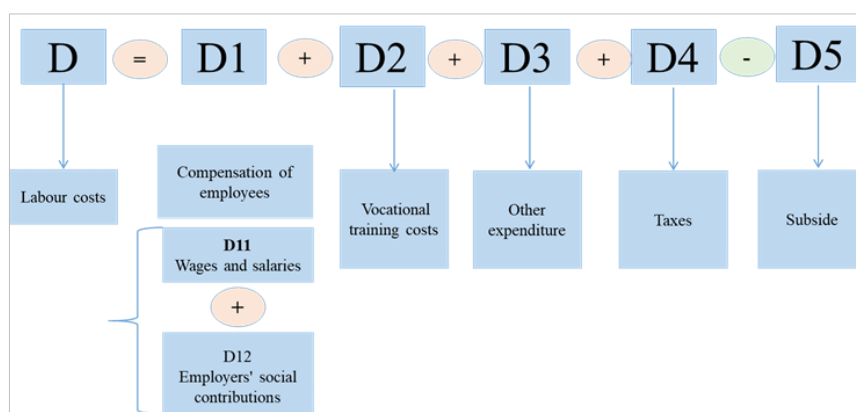
sections B to S<sup>3</sup>). Section O (Public administration and defence; compulsory social security) is considered optional in Regulations, then the figures reported in international comparisons do not take Section O into account.

In addition, the survey supply very detailed information on components making up Wages and salaries and Employers' social contributions (Figure 1).

In particular Labour costs include: compensation of employees (D1) with wages and salaries (D11) in cash (split in direct remuneration, bonuses and allowances paid in each pay period; payments to employees' savings schemes, payments for days not worked) or in kind; employers' social contributions (D12); vocational-training costs (D2); other expenditures (D3); taxes relating to employment regarded as labour costs (D4), less any subsidies received.

Information on the volume of labour input (hours worked and hours paid) complete the source for the calculation of indicators on labour productivity.

**Figure 1** – The structure of labour costs – Main components



<sup>3</sup> According to the Nace Rev.2 classification: Section: B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, F - Construction, G - Wholesale and retail trade; repair of motor vehicles and motorcycles, H - Transportation and storage, I - Accommodation and food service activities, J - Information and communication, K - Financial and insurance activities, L - Real estate activities, M - Professional, scientific and technical activities, N - Administrative and support service activities, O - Public administration and defence; compulsory social security, P - Education, Q - Human health and social work activities, R - Arts, entertainment and recreation, S - Other service activities.

## 2. LCS 2020 – Some key indicators and main results

Official Statistics provide large information about observed phenomena and a set of key indicators useful for cross and longitudinal comparisons. Hours worked, hours paid and number of employees are some of the indicators adopted to define the labour input. As said above, the LCS process produces all of them in fine detail allowing calculating indicators on average labour costs (and their main components) per hour worked and per employee. Data are also available broken by economic activity, size of enterprises and institutions and geographical area of reference. This chapter first presents values for key labour input indicators, then those for costs, wages and salaries and employers' contributions.

The analyses refer to the levels reached in 2020 for each of the indicator considered, and the changes registered when compared to the 2016 values. The cross-country comparisons cover 19 Euro area countries (2015 - 2022) and do not include Section O, as mentioned above.

On the other hand, the intra-national analyses compare Italian values by sector of activity. It consider also Section O, as Italy has provided it since 2012 edition. For this reason the figures quoted for total Italy, in analysing the Italian situation, may be slightly different from those appearing in international comparisons.

### 2.1. Number of employees

In 2020 there are almost 11 million employed in Italy (in NACE Rev. 2, Sections B to S), of whom 24.4% work in Industry except construction (B-E), 40.3% in the Services of the business economy (G-N), 3.7% in Construction and 31.6% in Other services. Full-time employment is by far the most common type of contract: 19.6% of all employees have a part-time contract, with a significantly higher incidence in the service sector (23.7%) than in the industrial sector (8.5%). In particular, in Section I - Accommodation and food service activities, more than half of employees (56.8 %) have a part-time contract. The number of employees has risen between 2016 and 2020 by 5% (Figure 4, page 8), although the pandemic crisis interrupted the growth recorded in the years 2017-2019. Growth is more pronounced in sections of Construction (+16.2%), in Professional, scientific and technical (+15.7%). Water supply, sewerage, waste (+11.3%) and in Administrative and support service (+11.1%).

The Euro area (excluding section O) registers a growth of 7.3%, with values above 30% for Malta and Greece.

## 2.2. Hours paid (HP) and hours worked (HW)

Hours paid are fully or partly paid by the employer. They include both hours worked and hours not worked (for holidays, sickness, leave, hours paid in the reference period even if worked in another period). They do not include hours paid in full by external bodies and hours worked to recover hours paid in another period (working time account). The number of HP in 2020 is 1,686, 5.5% less than in 2016.

Hours worked are the hours actually worked by employees during the reference period. In Italy in 2020 (NACE Rev. 2, Sections B to S) each employee works on average 1,398 hours (82.9% of HP). Compared with 1,498 HW in 2016, they fell by 6.6% (-7.4%, when excluding Section O). The decrease is also explained by a non-negligible use of short-time working allowances (the Italian acronym is CIG), necessary to cope with the closures imposed by the pandemic emergency.

The figures in the NACE Rev. 2 sections breakdowns show that in Section O there has been no noteworthy change in HW and HP compared with 2016. A sharp reduction in both HW and HP is particularly evident in Section I – Accommodation and food services, with a decrease from 1,351 to 883 HW (-34.6%) and from 1,548 to 1,034 HP (-33.2%).

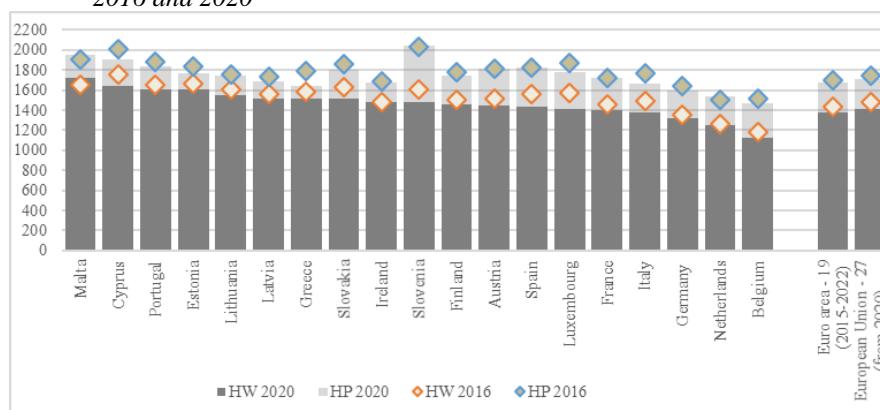
Major decreases, although of varying magnitude, have occurred in the arts and entertainment, manufacturing, construction, transport and storage, wholesale and retail trade, vehicle repair sectors. In other sectors, however, the levels are close to 2016 levels: electricity, waste disposal, water management, insurance and finance, information and communication. In the education sector both HW and HP have increased (+5.8% and +3.5% respectively).

The decline in number of HW and HP recorded for the country as a whole is the result of a combination of decreasing trends in the Sections and their weights in terms of employees. However, it is also due to a series of conditions (composition effect) such as geographical area or company size, which are not presented here.

In the Euro area (19-countries, excluding Section O), the average number of HW is 1,371 (-4.5% compared with 2016) and the average number of HP is 1,673 (-1.8%). The ratio between the number of HW and HP is 82%. Italy ranks 16th among Euro area countries in the number of HW and 15th in the number of HP (Figure 2).

Malta is the country with the highest number of HW in 2020 (1,726), and it is also the only country in the Euro area to record an increase compared to 2016 (+4.2%). The lowest number of HW per employee is recorded in Belgium (1,127, 4.6% less than in 2016, when the number of HW was still the lowest). The largest decrease in the number of HW is recorded in Luxembourg (-9.8%), while the largest decrease in HP is in Greece (8.2%). In the European Union (27 countries), the average number of HW per employee in 2020 is 1,413 (-4.5% compared with 2016) and the average number of HP is 1,709 (-1.9% compared with 2016).

**Figure 2** – Number of hours paid (HP) and hours worked (HW) per employee in Euro area. 2016 and 2020



Data source: Eurostat- Number of employees, hours worked and paid, by working time and NACE Rev. 2 activity [LC\_NNUM1\_R2\_custom\_6160558] – Last update 23.03.2023 (Eurostat, 2023(b)).

### 2.3. Labour costs indicators: 2020 and 2016 variation

Labour costs are strictly dependent on the labour input that enterprises or institutions necessitate to produce goods and/or services. The comparison of labour costs indicators calculated with number of employees or hours worked at the denominator may lead to considerations that take into account different but interrelated aspects. In fact, employees and hours worked, as explained above, represent the labour input but measured differently. This is true especially in a particular year such as 2020 when there was a high use of CIG: the number of employees, in fact includes staff temporarily absent for CIG, other than for vacations, leave, maternity leave while hours worked represent the effectively work contribution to the production process. For this reason, the hours actually worked are recognized as the best quantity to effectively measure labour input even in case of strict work reduction.

In what follows, the results obtained comparing the labour cost per employee and the labour cost per hour worked, by economic activities, put in evidence that in 2020 the first one shows more variability respect to the latter, when presenting data in terms of index numbers (with the national average cost equal to 100) (Figure 3). The heterogeneity is very high: it is noted that in section P – Education, the hourly cost is higher than the national average, while the cost per employee is lower; the high value of hourly cost is determined by the low number of hours counted as worked due to non-availability of data on hours worked by teachers outside the school. In contrast, in sections C - Manufacturing and E - Water supply, sewerage, waste

management and remediation activities, the hourly cost is lower than the national average while that per employee is higher, to indicate a high average number of hours worked.

**Figure 3** – Average annual labour costs per employee and per hour worked, by Nace rev.2 section. Italy. Year 2020. Index numbers, Total=100.

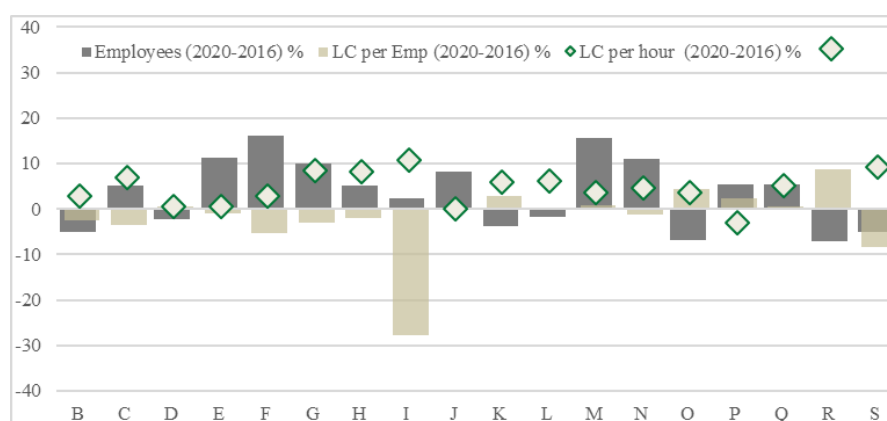


Data source. Labour Cost Survey - LCS 2020 – Italian data (Istat, 2022)

The results become more complex to interpret when presented in variation with a previous wave in 2016, because the labour costs indicator could be affected, in addition to the labour input effect, also to price effect at its numerator. The latter depends on a plurality of factors, occurring between the two survey waves: the employer may have paid different wages and contribution items to the employee, or the composition of the labour force (in terms of white and blue-collar workers, or women and men, or temporary and permanent jobs, etc.) may have affected the mean wages or contributions. These are some aspects that cannot be quantified separately in this analysis, but they are implicit in the results.

Thus, due to a plurality of factors, in 2020 labour costs per hour worked increase (+5.3% respect to 2016) and labour costs per employee decrease (-1.7%) The sectors that register the wider differences in trends between the two indicators are those showing the largest fall in per capita hours worked (Figure 4). In several cases, the lower costs for employers correspond to increased use of the CIG. The largest deviations can be observed in the Accommodation and food service activities (-27.8% labour costs per employee and +10.5% labour costs per hour worked) and in Art, entertainment and recreation (+8.7% and +35.3% respectively).

**Figure 4** – *Employees, labour costs per employee and per hour worked by Nace rev.2 section. Italy. Percentage difference between averages on 2020 and 2016.*



Data source. Labour Cost Survey - LCS 2020 – Italian data (Istat, 2022)

In the EU labour costs per employee grow by 6.2% between 2016 and 2020, while in the Euro area by 4.6%. Labour costs per HW increase by 11.4% in the EU and by 10.1 in the Euro area.

The average hourly labour costs indicator is the best one to consider labour input because it is more flexible when the employment situation changes, as occurred in the pandemic year when employment was supported by the national insurance. In these cases, in fact, the hours worked decrease rapidly, while the employees, guaranteed by the social security system, decline more slowly. Focusing on the hourly indicator, it is interesting to measure the contribution of the main components of labour costs-that make up its numerator: wages and salaries and employers' social contributions.

In 2020, there are significant differences among European countries in terms of both labour costs per hour worked and the structure of labour costs.

Figure 5 shows the amount in euros of wages and salaries (x axis) and social contributions (y axis) for Euro area countries. In 2020, the average value for the Euro area is 24.3 and 7.8 euros respectively. The diagonal dashed line corresponds to the incidence of contributions on total costs again for the Euro area average (24%).

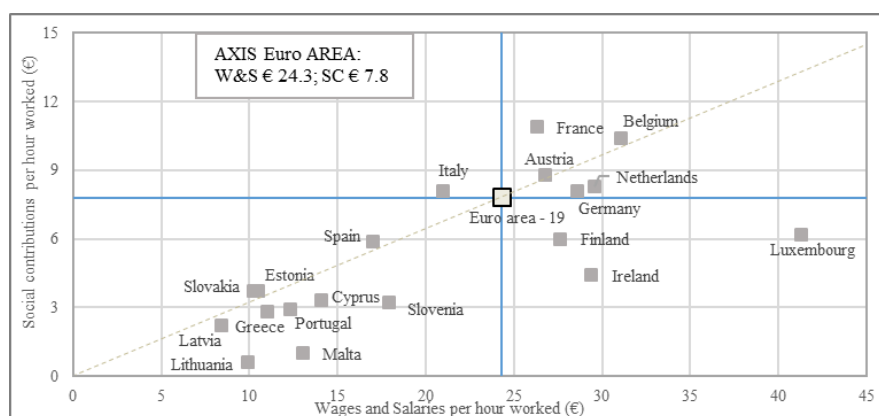
The lowest hourly wage is in Latvia (8.4 euros), the highest in Luxembourg (41.3 euros). Conversely, the lowest contributions in euro are the prerogative of Lithuania (0.6 euros) and the highest in France (10.9 euros) and Belgium (10.4 euros).

The incidence of social contributions on labour costs ranges from a minimum of 6% in Lithuania (followed by Malta with 7.4% and Luxembourg with 13.1%) to the



maximum for France (28.2%). In addition to France and Belgium, also Slovakia, Estonia, Spain, Italy and Austria show an incidence of social contributions on labour costs higher than 24%.

**Figure 5** – Wages and salaries and social contributions in Euro-area 19 countries. Year 2020, values in euros



Data source: Eurostat- Labour cost, wages and salaries (including apprentices) by NACE Rev. 2 activity [LC\_NCOSTOT\_R2\_custom\_6856023]– Last update 23.03.2023 (Eurostat, 2023(b)).

Looking in detail at the case of Italy (including Section O), in 2020 the average labour costs per hour worked amount to 29.4 euros: 21.2 are wages and salaries, 8.1 are social contributions and 0.1 intermediate labour costs. The incidence of social contributions on labour costs (considered the total amount at national level) is 27.7%. Examining wages and contributions by section of economic activity, there are no notable deviations from these proportions. The only exceptions is section R - Arts, entertainment and recreation where social contributions account for around 24% of hourly costs. In this sector, average gross wages - influenced by the presence of professional sportsmen and women and highly-paid performers - do not match proportional social contributions, because for the part of the wages and salaries exceeding the maximum threshold, only the solidarity social contribution is due and not a social contribution for pensions. On the other hand, in section F – Constructions social contributions exceed 30% of hourly costs, as the effect of the important role played by the high insurance premiums against accidents at work.

The monetary value of wages and salaries and contributions per hour worked also varies widely according to the sector of economic activity.

The lowest hourly wages and social contributions are in section N - Administrative and support service (13.5 euros and 5.2 euros respectively), the

highest in the section K - Financial and insurance sector (36.6 euros and 14.7 euros respectively).

### **3. Some concluding remarks**

Labour Cost Survey confirms that also in 2020 wages and salaries is the main component of labour costs in all Euro area countries, followed by social contributions paid by employers. There are large differences between countries in terms of hourly labour costs and the share of different items in total costs. These differences are the result of a combined effect of aspects that characterise the different countries (economic, regulatory, demographic, etc.). The particular pandemic situation that occurred during the period considered also led to further differences between countries, as both the evolution of the pandemic phenomenon and the measures taken to combat it differed. Furthermore, the schemes introduced by individual country governments to mitigate the impact of the pandemic on businesses and employees had different effects on labour input and labour costs indicators. In the case of Italy the suspension of redundancies and the massive use of CIG, was the main scheme introduced. The impact of this scheme in LCS results for the year 2020 compared to 2016, has been a decrease of labour costs per employee (-1.7%) and an increase of labour costs per hour worked (+5.3%). Employees involved in CIG in fact remain within the scope of LCS and were counted among employees but the volume of hours worked had a reduction. This gap between the two indicators is wider in some sector of activity where the introduction of such measurement has been more intensive. The issue of labour costs reduction has long been the focus of attention of social partners and governments. The availability of statistics on the subject has a long history, and the methodologies and statistical processes for producing them are also constantly evolving. At the EU level, a modernisation of Labour Market statistics on Businesses, which include also Labour costs statistics, is ongoing in order to provide a modernised legal basis that will allow answering needs that are not addressed by the current data. In particular the scopes of the LCS survey will be extend to the section 'O' of the NACE classification in order to extend coverage and comparability across Member States.

## References

- EC. 1999. Council Regulation (EC) No 530/1999 of 9 March 1999 concerning structural statistics on earnings and on labour costs. <https://eur-lex.europa.eu/eli/reg/1999/530>
- EC. 2003. European Parliament and of the Council Regulation (EC) No 450/2003 of 27 February 2003 concerning the labour cost index (Text with EEA relevance). <https://eur-lex.europa.eu/eli/reg/2003/450>
- EC. 2005. Commission Regulation (EC) No 1737/2005 of 21 October 2005 amending Regulation (EC) No 1726/1999 as regards the definition and transmission of information on labour costs (Text with EEA relevance) <https://eur-lex.europa.eu/eli/reg/2005/1737>
- EUROSTAT. 2023 (a). Labour cost structural statistics – levels. [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour\\_cost\\_structural\\_statistics\\_-\\_levels](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour_cost_structural_statistics_-_levels) last access 12/07/2023.
- EUROSTAT. 2023 (b). Labour cost survey – Year 2020, Statistical Data and Metadata Exchange, available at <https://ec.europa.eu/eurostat/databrowser/explore/all/popul?lang=en&subtheme=labour.lc.lcs&display=list&sort=category-> last access 12/07/2023.
- INTERNATIONAL LABOUR OFFICE, 1966. Resolution concerning statistics of labour cost, adopted by the Eleventh International Conference of Labour Statisticians [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms\\_087500.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_087500.pdf)
- ISTAT. 2022. La struttura del costo del lavoro in Italia – Anno 2020, Statistiche Report, 14 December 2022 <https://www.istat.it/it/archivio/278774> (English version <https://www.istat.it/en/archivio/280426>).
- THE CANBERRA GROUP, 2001. Expert Group on Household Income Statistics: Final Report and Recommendations. Ottawa. [http://www.lisdatacenter.org/wp-content/uploads/canberra\\_report.pdf](http://www.lisdatacenter.org/wp-content/uploads/canberra_report.pdf)
- UNITED NATIONS, 1983. International Recommendations for Industrial Statistics. *Statistical Papers, Series M, No. 48, Rev. 1*. New York.
- UNITED NATIONS, 1997. International Recommendations for Construction Statistics. *Statistical Papers, Series M, No. 47, Rev. 1*. New York

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