

international comparisons of absolute unit costs for producing steel because of the lack of essential data. However estimates may be made of the *differential* costs of the major factor inputs which go into steel which together with information on labor productivity enables an estimate to be made of the differential unit costs for producing and delivering steel to the United States. This method gives us important new information with which to evaluate the "cost competitiveness" of the domestic steel industry as distinguished from its "price competitiveness." The actual price charged per unit of output is a combination of cost and demand factors and the pricing policy followed by steel producers.

WAGE COSTS

In Table 1 are shown the unit wage costs per ton of producing steel in several leading steel producing countries which provide almost all the steel imported into the United States, along with other information on wage rates and labor productivity. A few words of explanation are necessary on the data:

(1) *Wage costs* comprise gross wages which include average direct wages (time or piecework wages) including cost of living, overtime, night or Sunday work allowances and bonuses for special responsibility, heavy, dirty or dangerous work and productive bonuses *plus* the following factors—legal or contractual social insurance contributions to insurance institutions, paid vacations, public holidays and other days of leave with pay, family allowances paid by the employer, together with any other labor payments paid by the employer not coming under these categories.

(2) *Man-hours per ton of steel* is the annual number of hours worked by production workers in 1966 divided by the crude steel production of that year, i.e. average production workers' man-hours required per metric ton of steel produced.

(3) *Unit labor costs* were obtained by multiplying the average man-hours per metric ton of steel of (2) by the average gross hourly wage costs defined above.

TABLE 1.—ESTIMATED LABOR COSTS FOR PRODUCING STEEL IN 1966

	Unit labor cost per ton	Man-hours ¹ per ton of steel	Hourly wage cost	Crude steel production (metric tons)
Japan.....	² \$14.92	\$13.81	\$1.08	47,784,000
Luxembourg.....	17.88	8.68	2.06	4,390,000
Netherlands.....	14.79	6.88	2.15	3,255,000
Belgium.....	21.93	11.02	1.99	8,911,000
France.....	20.19	12.94	1.56	19,594,000
Germany, Federal Republic of.....	19.42	10.17	1.91	35,316,000
Italy.....	14.03	8.30	1.69	13,639,000
United States.....	32.65	7.05	4.63	121,656,000

¹ Production workers only.

² 1967: \$13.30 (estimate).

Source: Iron & Steel Bulletin, Statistics Institute of European Economic Community, AISI Annual Statistical Report, 1966, p. 14.

The data had three shortcomings: (1) no account is taken of the types of steel produced and the product-mix which may vary considerably between countries. Ideally one would want the labor productivity data on a product by product basis but this data is difficult to obtain and even if available would not be comparable with data from other mills because of differences in accounting methods; (2) some fringe benefits for foreign workers which are paid out of taxes or tax benefits are not included, e.g. housing in some countries; (3) the cost of workers other than production workers is not taken into account. Table 2 shows that the ratio of production workers to the total labor force varies considerably. Belgium has the highest ratio, the U.S. is in about the middle, and Japan has the lowest ratio. In spite of these deficiencies, it has been possible to compute cost differences for inputs comprising approximately 75 per cent of total costs and the results are sufficiently accurate to indicate the approximate quantitative dimensions of the problem.