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## CHAPTER 5

### Reporting at the Enterprise Level

As we have seen, the Soviet enterprise is both the producer of industrial goods and the originator of the statistical information on their output. This information simultaneously provides the basis for national statistics of industrial output, indicates the degree of fulfillment of past plans, serves as evidence of the quality of performance of the producer (be it the enterprise as a whole or the individual worker), and throws light on the functioning of the enterprise (or its personnel) in its capacity as the guardian and trustee of state property. In other words, what, from the over-all economic and administrative standpoints, constitutes a centripetal flow of information that is vital to the continuous planning and central management of the command economy, appears, to those directly involved in production, as a process of self-rating by subordinates before their administrative superiors. Moreover, the rewards for good performance are high; the penalties for poor performance are often severe. It is therefore hardly surprising that the most significant distortion of output data—disregarding, for the present, distortion at publication—apparently takes place at the level of the producing enterprise.

Since the enterprise reports by entering figures in the appropriate spaces of minutely prescribed forms, this distortion may be assumed to be virtually entirely of the numerical rather than the descriptive variety. (For the same reason, all distortion within the routine channels of data flow, all the way to the peak within *TsSU*, may be regarded as chiefly numerical. Descriptive distortion becomes significant only where there is considerable latitude in the mode of data presentation, e.g. in the sporadic publication of statistics.) It must be noted at the outset that numerical distortion may be in either direction. Insofar as the information reported to higher levels (either above the enterprise or still within it) determines the rewards and punishments dispensed to the managerial and operating personnel as *producers*—that is to say, as fulfillers of quantitative production targets, there is a strong incentive to embellish the situation by “writing up” production data. This is what Berliner, in his admirable study of Soviet managerial behavior, calls “simulation

[of plan fulfillment] by falsification of reporting"<sup>1</sup> and what Tsonev, in his paper on Soviet statistics, calls "reverse falsification" (*vstrechnaia fal'sifikatsiia*) by analogy with "reverse planning" (i.e. planning from below).<sup>2</sup> But at times the greater gain for the personnel of the enterprise may lie outside official channels, for example in pilferage or illicit sale of the product. In such cases the rational course of action may be to understate output in the statistical and accounting reports, so as to conceal the diversion of some of the product into unauthorized channels. Both tendencies, toward write-ups and write-downs, are well known to the regime.

The effective limits to distortion are set by the personal risks entailed by it, or the activity that prompts it (such as pilferage), for the one who distorts statistical data. However, the intensity of the incentives to distort and the risks incurred thereby may vary from one branch of industry to another. They may also vary over time, so that the actual degree of distortion of output statistics in any given branch, and even its very direction, may fluctuate over the years.

Because the motives behind write-ups and write-downs, their "technical" sides, and their limits are largely distinct, they are discussed in separate sections of this chapter, with special attention in each instance to (1) motives and (2) methods or techniques involved in distorting output data. The last section discusses the limits to distortion in the enterprise.

### *Write-Ups by the Worker*<sup>3</sup>

The prevalence of incentive pay in Soviet industry is well known. The percentage of working time or workers in *large-scale* industry paid on a piece-rate basis exceeded one half of the total as early as 1928, and has risen since then as the following tabulation shows:<sup>4</sup>

<sup>1</sup> Joseph S. Berliner, *Factory and Manager in the USSR*, Cambridge, Mass., 1957, Chapter x.

<sup>2</sup> V. Tsonev, "Falsification of Soviet Industrial Statistics" (unpublished manuscript for Research Program on the USSR), New York, 1953, p. 7.

<sup>3</sup> By "worker" I mean anyone who both produces and reports output to the management of the enterprise; the term therefore subsumes foremen and other junior supervisory personnel.

<sup>4</sup> Figures for 1928-1935 refer to man-hours worked over the years in question; those for 1936-1955 to the number of workers in that year (for 1936-1938—at or near the end of the year). The figures for 1940 and 1955 pertain to *all* industry.

Sources: 1928-1935—*Sotsialisticheskoe stroitel'stvo SSSR* [Socialist Construction in the USSR], Moscow, 1936, p. 526; 1936-1938, 1940—E. L. Manevich, *Zarabotnaia plata i ee formy v promyshlennosti SSSR* [Wages and Their

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1928	57.5	1935	69.8	1940	75
1929	58.8	1936	76.1	1955	77
1930	56.7	1937	74.9		
1931	58.7	1938	74.6		
1932	63.7				

It may be assumed that the percentages are even higher for those workers who have any output to report, i.e. those engaged in direct production as opposed to those performing auxiliary operations (janitors, guards, quality inspectors, etc.), the latter typically being paid on a time basis. In the later thirties, over 40 per cent of piece-rate workers were on "progressive piece rates,"<sup>5</sup> frequently with sharply graduated rates for above-norm output.

Apparently some of the most sharply graduated piece rates are found in the coal mining industry, where nearly half of *all* workers were on progressive piece rates before the war<sup>6</sup> (and probably still are). Here, certain "leading" underground jobs were paid as follows: 80 to 100 per cent fulfillment of the basic work norm—double the base piece rate, everything over 100 per cent fulfillment—triple the base piece rate.<sup>7</sup>

Some piece-rate workers also receive premiums for above-norm performance in respects other than sheer quantity of output. Thus, they may directly benefit from the economical use of raw materials, power, fuel, equipment, and other inputs, or from meeting and surpassing certain minimum quality requisites of output. Input economy is typically expressed as the difference between the norm of input per unit of output and the actual ratio achieved by the worker. It is clear that, *ceteris paribus*, the higher the output that is credited to the worker, the better his apparent record of input utilization.<sup>8</sup>

To summarize, the Soviet industrial worker may have the following motives for writing up his actual output or for exaggerating its quality:

1. To earn more on a piece-rate basis, and especially on the progressive piece-rate basis.
2. To earn higher premiums for economizing on the use of one or more inputs.

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Forms in USSR Industry], Moscow, 1951, pp. 80, 82; 1955—V.E., 1955, No. 8, p. 7.

<sup>5</sup> Manevich, *op.cit.*, p. 82.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*, p. 143; A. A. Zvorykin *et al.*, *Ekonomika ugol'noi promyshlennosti SSSR* [Economics of the USSR Coal Industry], 2nd ed., Moscow, 1954, p. 180.

<sup>8</sup> Manevich, *op.cit.*, pp. 153-160.

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3. To receive a share of the saving in money unit cost of production, as may be provided in certain cases.
4. To earn premiums for quality of production.
5. To be eligible for higher rations when these are tied to performance, as during periods of consumer rationing or in corrective labor camps.
6. To receive the material or intangible benefits that are accorded to the "better" workers, such as housing, vacations, honorable mention, etc.
7. To justify a higher than necessary allocation of inputs for his use in order to dispose of them illicitly and to his personal profit.

The writing up of the physical output of individual workers, or of teams of workers, in order to raise their earnings seems to be widespread in the Soviet economy, including the industrial sector.<sup>9</sup> The relevant question here, however, is not how widespread such write-ups are, or how large they are on the whole, but to what extent they affect the industrial firm's accounting (and therefore reporting) of *finished output*. It would seem that in the latter respect the significance of write-ups by (and for) workers is perhaps smaller than their ubiquity might indicate for two reasons:

1. The recording of finished output is usually a more complicated operation, involving quality inspection (*OTK*) and formal acceptance by the warehouse, than the recording of the output of intermediate components and parts, not to mention the recording of operations which leave little if any measurable evidence of the product.

2. Much of the writing up of workers' output is done with the connivance (and often cooperation) of the supervisory personnel which, however, for its own protection, tends to channel such write-ups toward jobs that leave little or no tangible evidence of the actual amount of work performed by the worker.<sup>10</sup> These are, of

<sup>9</sup> Cf. Berliner, *op.cit.*, pp. 172-174. There is also considerable evidence of the prevalence of this practice—*tufta* in Russian slang—in the forced labor camps, although the especially harsh conditions may make it more of a necessity there. See, for example, the vivid description in Susanne Leonhard (*Gestohlenes Leben*, Frankfurt, 1956, pp. 613-615), who quotes the prisoners' philosophy: "with *blat* [illicit deals, "pull"] and *tufta* one can take it for ten years."

<sup>10</sup> Berliner, *op.cit.*, pp. 173-174. For similar reasons, the construction industry may be the worst offender in the Soviet economy when it comes to the exaggeration of volume of finished output on the basis of write-ups by (and for) individual workers. Here, jobs are frequently unstandardized, checking the

course, generally auxiliary and intermediate jobs, rather than the production of finished output.

Write-ups by the worker are hardest to effect in continuous flow production, and therefore they are significant in job lot or batch production. This is recognized in a Soviet book on auditing.<sup>11</sup> In lot or batch production the foreman, who attests the work performed by signing the work order, is frequently no less interested in exaggerating output than the worker himself. Some sources consider the storekeeper, to whom the completed semifinished or finished items are turned over, to be a significant obstacle to write-ups by workers because he is financially responsible for the inventory under his jurisdiction. Thus the same textbook on auditing states: "The output indicated in the work order may be regarded to be unquestionably valid when it is entered by a financially responsible person in the intermediate storeroom or warehouse where such parts are accepted by tale, weight, or measure." And adds: "However, production conditions do not permit such intermediate storerooms to be organized everywhere."<sup>12</sup>

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the amount of work done by the individual worker is often difficult after the fact, and the total volume of output by the construction enterprise is apparently often arrived at by merely summing the individual workers' contribution. For instance, an audit of work orders in construction organizations conducted in Moscow in 1951 revealed overpayment of wages on the basis of write-ups of 25 per cent on the average (*V.E.*, 1955, No. 8, p. 53). An audit by physical measurement conducted in the Bashkir ASSR in 1955 found that the volume of reported construction work had been exaggerated by over 25 per cent (*ibid.*). Similarly, it was found in 1952-1953 that the mechanized equipment pools of the Ministry of Construction had been writing up the volume of excavation work by as much as 30 to 40 per cent. "By 1954 [these] write-ups had diminished sharply, but were far from eliminated" (*Finansy SSSR*, 1955, No. 7, p. 47). Write-ups of construction work of 19 per cent are reported in another case (*P.Zh.*, 1955, No. 11, p. 28).

These practices continue. Writing in *Finansy SSSR* (1957, No. 7, pp. 35-37), the head of the Kirgiz branch of the *Prombank* (i.e. the Industrial Bank, which is charged with financing and supervising investment in industry and related branches of the economy) complains that physical audits within his jurisdiction have revealed numerous cases of writing up in construction, in one instance to the extent of 41 per cent of the claimed amount of work; that the agencies of the Procuracy, though charged with initiating formal prosecution against guilty parties when evidence of write-up is presented to them by the Bank, have hardly ever "in our experience" in the Kirgiz SSSR done so; and that consequently "in 1956, the number of instances of write-up not only did not diminish in comparison with 1955, but actually increased."

<sup>11</sup> D. I. Alenchikov, *Organizatsiia i tekhnika dokumental'noi revizii* [Organization and Method of Documents Audit], 4th ed., Moscow, 1954, pp. 129f.

<sup>12</sup> *Ibid.*, p. 130.

A recent article discussing a specific case in the tractor industry suggested that the recording of parts production can be rendered accurate by turning this function over to the intermediate storeroom as well as to the shop at the next stage of production.<sup>13</sup> Similarly, a prewar article on related problems in the machine-building industry urged the establishment of records at intermediate points in the production process (*pooperativnyi uchet*) in order to minimize write-ups and other abuses, which were conceded to be prevalent at the time.<sup>14</sup> None of the sources just mentioned is concerned with the recording of *finished* output. Moreover, we shall see later in this chapter that the storekeepers do not represent an insuperable barrier to write-ups.

In general, write-ups by workers (and by management) seem to be greatly facilitated by the primitiveness of measuring, counting, and weighing devices. Tsonev recounts from his experience a striking example of primitive recording in the coal mining industry, rendered grotesque by the fact that the clerk was paid a piece rate for the amount of coal recorded.<sup>15</sup> He also reports instances of intentional sabotage of automatic measuring devices,<sup>16</sup> a phenomenon that finds corroboration in the Soviet press.<sup>17</sup>

#### *Write-Ups by Management*

The problems and operating principles of Soviet management have been carefully studied by Western economists;<sup>18</sup> little purpose would be served in reproducing their findings here. Suffice it to mention that they generally agree, diverging only in detail and emphasis, that, in view of the structure of incentives, the behavior of Soviet management is directed toward the fulfillment and over-fulfillment of the output goal, and, to a smaller extent, toward successful performance according to a series of other quantitative and qualitative indicators. The enterprise's output goal for a given period is usually a value figure, which in turn is the sum of the prod-

<sup>13</sup> *Avtomobil'naiia i traktornaia promyshlennost'*, 1955, No. 7, p. 1.

<sup>14</sup> *P.Kh.*, 1939, No. 12, pp. 124f.

<sup>15</sup> Tsonev, *op.cit.*, pp. 102f.

<sup>16</sup> *Ibid.*, pp. 106f.

<sup>17</sup> Cf. *Z.I.*, May 14, 1937, p. 3; this example pertains to the Rostov Agricultural Machinery Plant, one of the "leading" industrial enterprises in the country. See also Berliner, *op.cit.*, p. 139.

<sup>18</sup> See, especially, Berliner (*op.cit.*); Gregory Bienstock *et al.*, *Management in Russian Industry and Agriculture* (Ithaca, 1948); and David Granick, *Management of the Industrial Firm in the USSR* (New York, 1954).

ucts of physical output quotas and fixed prices. But the physical output targets may be major goals in themselves, too.

The fulfillment and overfulfillment of production plans bring very large money premiums and other important benefits, material and intangible, to the successful management.<sup>19</sup> Clearly these rewards can be reaped (and failure avoided) by simulated as well as by actual success. Both the physical output record and the unit price may of course be manipulated or falsified to give the appearance of plan fulfillment or overfulfillment.<sup>20</sup> The reported physical output figures occupy a crucial position in management's thinking, not only for the reasons just cited, but also because they affect success in terms of a number of other indicators. The higher the reported physical output figures, the better the management's record looks on the following counts, all or nearly all of which may determine the material and intangible benefits for the executive personnel of the firm: (1) attainment and overfulfillment of the production plan; (2) attainment of the assortment plan; (3) unit money cost of production; (4) utilization of inputs (labor, materials, fuel, equipment, etc.) per unit of output; and possibly (5) realization of profits, total and per unit of output.<sup>21</sup> In addition, the higher the reported output, the easier it is for management to: (6) obtain the allocation of rationed materials; (7) obtain cash for wage payment; (8) obtain bank credit; (9) conceal sales of output at above-legal prices; (10) conceal diversion of inputs to illicit uses; (11) conceal overpayment of wages and overexpenditure on other inputs; and (12) avoid the unwelcome attention that unsatisfactory performance on points (1) through (5) above might invite.

<sup>19</sup> On the importance of these benefits, and especially on the size of the premiums, see Berliner, *op.cit.*, Chapter III.

<sup>20</sup> Intentional raising of the so-called constant prices at which the reported output is valued may, in some respects, provide even greater opportunities for management to present the appearance of success. Unlike the exaggeration of physical output, the raising of the so-called constant prices is not subject to most of the checks discussed in this chapter, and its benefits last beyond the given accounting period. An instance of such price manipulation is reported in V.S., 1951, No. 5, p. 59. Apparently a favorite device of raising the so-called constant prices is to pretend that a new product has replaced an old one (cf. A. Nove, "1926/27 and All That," *Soviet Studies*, October 1957, p. 121). Other advantages that accrue to the enterprise from reclassifying an old product as a new one are discussed in Berliner, *op.cit.*, p. 158.

<sup>21</sup> On the last point, it would appear at first glance that the realization of higher profits depends on actual and not simulated increases in output, but thanks to the ingenuity of Soviet accountants and the sellers' market, this is not necessarily so. See, for instance, the reference to higher profits due to write-ups in *Finansy SSSR*, 1955, No. 7, p. 47.



The incentive for management to write up output in its periodic reports must, therefore, be very strong, and that management does so respond, though to varying degrees and in diverse ways, cannot be doubted by anyone familiar with the relevant literature. We have already noted in the preceding chapter that the frequent references to write-ups in the speeches and articles of the statistical authorities, the exhortations from above to be honest and to abide by "principles," the periodic announcement of penalties for distortion of reported data, and so forth. A great amount of anecdotal material on write-ups and similar acts of deception is scattered through the Soviet press; it is extensively supplemented by the eyewitness accounts of former residents of the USSR.<sup>22</sup>

There are many ways in which the physical output of a given enterprise in a given period of time may be overstated, but not all of them are of equal significance for our purpose. It will be recalled that by Soviet definition "finished output" is supposed to meet certain specific quality standards, to be accepted by quality inspectors (*OTK*), and to be turned over to the warehouse by midnight of the last day of the period. The *OTK* inspectors are also frequently called upon to determine the quality grade of the product. Such rigor in statistical definition of finished output is, of course, necessitated by, among other reasons, the system of planning and the existence of a command economy, and especially the dispensation of rewards and punishments for plan fulfillment. Rigor in quality specifications laid down by the central authorities is also necessary because some of the forces that tend to maintain or even raise quality standards in other economies—competition among sellers or the "countervailing power" of the buyers—are typically of little consequence in the Soviet sellers' market. (By this I do not mean to imply that maintenance of quality standards, in the broadest sense of the phrase, is not a problem in market economies. As we well know, it is. Nor do I mean to suggest that some of the permissive causes of poor quality of goods in market economies—such as consumer ignorance—do not operate in command economies. They do.)

In his able survey and analysis of "simulation" of plan fulfillment by Soviet management, Berliner distinguishes between deviation from the assortment plan, deterioration of quality of output, and falsification of reports (which approximately is what I have called

<sup>22</sup> Such eyewitness accounts can be found in Tsonev, *op.cit.*, *passim*, and Berliner, *op.cit.*, Chapters VIII-X.

“numerical distortion”).<sup>23</sup> It is with numerical distortion that I shall be concerned in the remainder of this section, postponing the discussion of the quality of reported output and of the composition of heterogeneous commodities for the next section of this chapter. Two qualifications should be noted at this point, however. First, while deviation from the assortment plan may be of great importance for the operation of the Soviet economy, for our purpose it is not important as long as the various commodities of the assortment are planned and accurately reported as separate commodities. Thus if an enterprise is ordered to produce in a given period  $x$  trucks and  $y$  passenger cars, but in fact produces  $x + v$  and  $y - w$  units, respectively, and so reports its output, no statistical distortion *need* be involved. On the other hand, if the enterprise reports the output of a commodity that is recognized as a single item in its plan, but which in fact is heterogeneous, as most commodities are, the question of assortment *within* this commodity category becomes significant for our purpose. This question will be taken up in the next section. Secondly, considerations of quality cannot be dismissed even in a discussion of “straight” numerical distortion, because there is a point in the definition of finished output at which “quality becomes quantity.” That is to say, if the quality of an article fails to meet certain minimum commonly accepted or officially laid down specifications, that article should not be included as part of finished output. Its inclusion may be fairly regarded as a case of numerical distortion. At the same time, as we shall see, the production and outshipment of substandard or defective products—the so-called *brak*—is an ever-present and serious problem in Soviet industry.

Turning to numerical distortion as such, as to be expected, the techniques that leave little or no lasting record of illegal action are among the most favored. These techniques are primarily (1) “borrowing” output from the first few hours or days of the next period and reporting it as the given period’s production, and (2) exaggerating the value of goods in process, where changes in the inventory of such goods enter into “gross value of output.” The latter device, however, does not seem to affect Soviet statistics of physical output, since it pertains to intermediate stages of production rather than to finished products, and to value rather than physical magnitude.<sup>24</sup>

<sup>23</sup> Berliner, *op.cit.*, Chapters VIII-X. Although Berliner’s data refer primarily to the thirties, there seems to have been little fundamental change in this regard (cf. *P.Kh.*, 1956, No. 1, p. 65).

<sup>24</sup> A commonly employed method of quickly and painlessly increasing the

Though the practice is undoubtedly extremely widespread,<sup>25</sup> it is difficult to say whether "borrowing" from the future appreciably affects Soviet physical output statistics for a significant number of commodities, even for individual years. Some of the complaints in the literature on this score involve (at least for our purposes, if not from the standpoint of the harassed manager) rather trivial dipping into the future, for instance, to the extent of one shift.<sup>26</sup> Other cases reported are less trivial, though perhaps not very typical, as the case of a Moscow plant which "borrowed" five to ten days each month, for example.<sup>27</sup> This looks like an instance of not being able to get out of "debt," and in the months for which the "indebtedness" changes very little, there is also very little effect on the reliability of the reported statistics. Extreme individual instances apart, there would seem to be a limit to the inflation of this type of "debt." I am, therefore, inclined to conclude that the "borrowing" technique is more important as a means of smoothing out, in a minor way, the apparent time curve of industrial output rather than as a way of distorting the larger and longer-run output picture.

More serious distortion of output statistics may be provided by a variant of the "borrowing" technique found in machine-building, namely, the inclusion of items whose assembly is to be completed after the end of the given period.<sup>28</sup> Judging by the number of complaints in the Soviet press, such items are frequently never completely assembled before shipment to the buyer. This practice can, of course, also be regarded as cheating on the quality of output, or the shipping out of *brak*.

Of greater interest to us are those distortions that constitute a *net* write-up, rather than a mere redistribution of the output pattern over time. Berliner's informants tended to belittle the incidence of sheer invention of production figures by management as being too risky. Yet one comes across such cases from time to time in the Soviet press: e.g. in oil extraction,<sup>29</sup> timber cutting and hauling (where the reported figure was triple the actual one),<sup>30</sup> and coal

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*value* of output before the books for the period are closed is to shift materials from the storeroom to the production floor. This immediately transforms them into "goods in process," and thus augments the enterprise's "gross value of output" for the period.

<sup>25</sup> Cf. Berliner, *op.cit.*, pp. 161ff.

<sup>26</sup> V.S., 1956, No. 1, p. 60.

<sup>27</sup> Alenchikov, *op.cit.*, p. 49.

<sup>29</sup> Alenchikov, *op.cit.*, p. 50.

<sup>28</sup> V.S., 1951, No. 5, p. 59.

<sup>30</sup> V.S., 1955, No. 6, p. 11.

mining.<sup>31</sup> That such sheer invention is a significant problem is also hinted at in the statements of the statistical authorities.<sup>32</sup>

A safer and clearly very widespread method of writing up output is the inclusion of *brak* in the reported amount of finished product. Direct references in the Soviet press, eyewitness testimony, and the continual complaints about the substandard quality of industrial products bear such ample and conclusive evidence of the prevalence of this practice in Soviet industry, despite severe criminal and administrative sanctions against it, that it is not necessary to dwell on it further at this point.<sup>33</sup> The general problem of quality is taken up in the next section, while in the last section of this chapter, I shall discuss how the enterprise can "get away with" reporting and shipping out *brak*. (I assume that any *brak* shipped out to the customer was naturally also recorded and reported as finished output.) However, there seems to be a loophole for the producer in reporting *brak* as finished output, which is worth mentioning at this point. *Brak* that has been discovered as such and returned by the buyer to the producer need not be deducted from the producer's recorded (and reported) output unless discovered before the end of the accounting year during which it was produced.<sup>34</sup> Considering the typical bunching of shipments toward the end of the accounting year and the "red tape" that prevails in interfirm relations, this loophole may be of appreciable practical significance.

There are, of course, other methods of writing up output (e.g. the presentation of old inventory as newly produced goods<sup>35</sup>) which

<sup>31</sup> *Z.I.*, June 1, 1936.

<sup>32</sup> E.g. the editorial in *Vestnik statistiki* which complains of inclusion "in plan fulfillment reports of output that has not been actually produced" (1952, No. 4, p. 13).

<sup>33</sup> Cf. Berliner, *op.cit.*, Chapter ix, where the problem of *brak* receives careful attention.

<sup>34</sup> S. A. Shchenkov, *Otchetnost' promyshlennykh predpriatii* [Reporting by Industrial Enterprises], Moscow, 1952, p. 37.

<sup>35</sup> Cf. *Z.I.*, Nov. 16, 1936; a similar case is related from personal experience by Victor Kravchenko (*I Chose Freedom*, New York, 1952, p. 299).

A peculiar but apparently not unique case of writing up was recently reported in some detail by *Pravda* (April 8, 1959, p. 2). A creamery in Khodorov, Drogobych *oblast'*, colluded with a number of villages to purchase butter from them instead of milk, which was credited to the villages against their milk sales quotas. The butter was purchased by the village authorities in the stores of nearby towns, and in turn was presented as its own output by the creamery. To this extent the butter, of course, entered Soviet production statistics twice. In the preceding year, according to the article, the director of the creamery bought the butter himself in order to fulfill his milk purchasing quota, entering it on the books as receipts of milk. The local (*raion*)

amount to a net exaggeration of production over time, and only a skilled Soviet practitioner of the art could compile a reasonably complete catalogue of such techniques.

### *Devaluation of the Physical Unit of Measure*

Because its fortunes depend primarily on fulfilling and overfulfilling the production plan in physical terms, or in value terms derived directly from physical output, the management of the Soviet industrial enterprise is strongly motivated to stress sheer quantity of output at the expense of other considerations, such as quality. Cost targets and input-utilization norms have the same effect. The physical unit of measure in question here is, of course, the one that is specified in the enterprise's plan and in terms of which its performance is appraised by superior agencies. Let us call this unit the "specified physical unit of measure." Given the system of planning and the structure of rewards, the Soviet industrial enterprise has been discovered as such and returned by the buyer to the physical unit of the product. And since we may assume a high positive correlation between the effort by the producer and the utility of the product to the user (consumer), there is therefore a built-in tendency toward *devaluation* of the specified physical unit of measure, that is, a tendency for the specified physical unit to represent less use-value (intrinsic value, utility).<sup>86</sup> Naturally there

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Party authorities tried to cover up the fraud when its exposure was threatened, passing a resolution which categorically denied the existence of any machinations in the procurement of agricultural produce in the villages or at the creamery. *Pravda*, however, alleged that writing up is widely resorted to in the agricultural reports in the Khodorov *raion*, and hinted that the same may be going on in the other *raions* of the *oblast'*. On April 20, 1959, *Pravda* carried a brief follow-up notice which stated that the director of the creamery was reprimanded and discharged from the job, and the first secretary of the *raion* Party committee was relieved of his post (but not discharged from the Party). Nothing was said about any sanctions against the implicated village authorities. A rather similar case of purchase of butter by a creamery in order to meet its production plan, but this time with financial contributions toward the undertaking on the part of certain officials in the *raion*, was reported in *Krokodil*, 1959, No. 1, p. 7. It seems likely that these events are in some way connected with the "campaign" to surpass the United States in the per capita production of milk, butter, and meat, which was launched by Khrushchev in May 1957.

<sup>86</sup> By analogy with monetary economics, "depreciation" may be more apt than "devaluation," since what I have in mind here is not an official downward redefinition of the use-value of a physical unit of the commodity, but a spontaneous and possibly continuous process of attrition of value, like the external or internal depreciation of a currency. However, I forego the term "deprecia-

are limits to this. Soviet goods are generally not of "zero quality." The devaluation is checked or even reversed by other forces, such as fear of criminal or administrative sanctions, the impact of the customer's countervailing power, financial inducement (which may vary with the quality of the product), and the producer's pride of workmanship or his sense of responsibility to society. In this section we shall discuss the effect of this devaluation on the quality and intracommodity assortment of goods.

#### QUALITY

Deliberate deterioration of quality may be regarded as an alternative, and generally a safer and easier alternative, to write-ups among the Soviet manager's methods of simulating plan fulfillment. Indeed: "Deliberate deterioration of quality is a classic form of simulation."<sup>87</sup>

We have seen that the laying down of minimum quality standards from above is of particular importance in the Soviet economy because of the weakness or absence of some of those forces that tend to maintain or raise quality in a market economy. It is especially so in view of the built-in tendency to stress quantity at the expense of quality. Consequently, violation of quality standards or specifications is a serious criminal offense. The major prewar

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tion" to avoid confusion with its other meaning within the context of an industrial enterprise. Still by analogy with monetary economics, devaluation of the physical unit of measure may also be thought of as an inflation in the quantity-to-use-value ratio. The analogy, incidentally, is not so far-fetched if we consider that the ruling behavioral principles in the Soviet economy and in a market economy are, respectively, maximization of output in physical terms and maximization of money profits. "Following the rules of the game," entrepreneurs in a market economy push for higher sales prices, thereby tending to depreciate the currency, while Soviet managers contribute to devaluation of the physical unit of measure and (it may be added) also to inflation of the so-called constant ruble prices, such as the notorious 1926/27 prices, in terms of which their plan fulfillment is evaluated.

<sup>87</sup> Berliner, *op.cit.*, p. 136. In view of this and of the high incidence of low-quality output in Soviet industrial practice, the following statement by Berliner is open to question: "Of the various courses of action open to the manager for simulating plan fulfillment, quality deterioration is fraught with the greatest danger. It is certainly not resorted to lightly, nor without considerable assurance that it can be gotten away with" (*ibid.*, p. 155). If what the author has in mind here, as appears from the context, is not any deterioration, but one that brings the quality level below acceptable standards, i.e. results in spoilage (*brak*), the statement is perhaps more defensible. But even so, the very frequent complaints that goods are substandard or incompletely assembled suggest that the decision is not as difficult to make for the Soviet manager as one might assume from the above statement.

legislative acts in this regard were a resolution of SNK, dated December 8, 1933, which provided for sentences of up to five years for producing goods of low quality or delivering incomplete products, and (this time on the highest legislative level) an edict of the Presidium of the USSR Supreme Soviet, dated July 10, 1940, which provided for sentences of five to eight years.<sup>38</sup> The latter asserted that "the output of industrial products that are of poor quality or incomplete or that violate compulsory standards is a crime against the state equivalent to wrecking." The provisions of the 1940 edict were interpreted by the USSR Supreme Court to apply to goods that had passed *OTK* and were ready for delivery to the customer, as well as to goods actually delivered,<sup>39</sup> in other words, to goods reportable as "finished output." However, except possibly immediately after their enactment, these criminal sanctions seem to have been quite unsuccessful in attaining their objectives. This much is clear from the ever-present complaints in the Soviet press, from the testimony of former eyewitnesses, and even from official admission. The official admission came in connection with the next legislative act, the resolution of the USSR Council of Ministers, dated September 23, 1952,<sup>40</sup> which stated that "executive officials of the ministries and departments struggle unsatisfactorily to improve the quality of output, as provided for in the edict . . . of 1940 . . . and connive with the violators of the edict" while "the Procuracy of the USSR . . . discharges unsatisfactorily its absolute obligation to enforce the edict. . . ." The resolution went on to specify a long list of administrative measures, including the strengthening of quality control departments (*OTK*), aimed at improving the situation, and charged the law enforcement agencies anew with enforcing the provisions of the 1940 edict. It is not clear whether there has been any substantial change in quality of output since 1952, but there is daily evidence in the Soviet press that the low quality of industrial products and the delivery of uncompleted (or incompletely assembled) articles remain very serious problems. It is hard to believe that a considerable portion of it is not deliberate, in the sense

<sup>38</sup> Kh. E. Bakhchisaraitsev, *Spravochnik po zakonodatel'stvu dlia rabotnikov gosudarstvennoi promyshlennosti SSSR* [Legal Manual for Personnel in State Industry in the USSR], Moscow, 1951, pp. 372ff. See also the discussion of these acts and of their enforcement (or lack of it) in Berliner, *op.cit.*, p. 153.

<sup>39</sup> Bakhchisaraitsev, *op.cit.*, 373 (paragraph 3).

<sup>40</sup> *Direktivy KPSS i Sovetskogo pravitel'stva po khoziaistvennym voprosam* [Directives of the Communist Party of the Soviet Union and of the Soviet Government on Economic Subjects], Vol. III, Moscow, 1958, pp. 642ff.

of being a conscious response to the incentive structure in the industrial enterprise.

Since deliberate quality deterioration is an alternative to write-ups as a method of simulating good performance, one may expect that as often as not the two vary inversely over the short run, one being practiced and the other eschewed according to the side from which "the heat is on" at the given moment. An event such as the enactment of the 1940 edict may, at least temporarily, shift the balance between the two. In the long run, however, the incidence of quality deterioration and of write-ups may well vary together, since both are responses to the same fundamental circumstances, i.e. the severity of the plans, the efficiency (or inefficiency) of the supply system, the structure of rewards for plan fulfillment, the harshness of the political atmosphere, and so forth.

#### INTRACOMMODITY ASSORTMENT

In addition to a specified unit of measure, every product possesses by its very nature other quantitative dimensions. For example, if the specified unit is a weight unit, the other quantitative dimensions may be size, count, area, rated capacity, and so forth. Thus, since the product may vary according to a number of physical criteria while being reported as a single commodity measured in terms of a single (specified) physical unit, we can speak of *intracommodity assortment*; this is not to be confused with *intercommodity* assortment, where the various commodities are explicitly specified in the enterprise's plan and which, of course, gives rise to the classic Soviet "problem of assortment."<sup>41</sup> Needless to say, there is no sharp line separating quality and intracommodity assortment, but the distinction may nonetheless be useful.<sup>42</sup>

But while there are strong over-all legal sanctions against low-quality output and less severe sanctions against the violation of *intercommodity* assortment plans, there seem to be none directed specifically against improper *intracommodity* assortment. By defini-

<sup>41</sup> See Berliner, *op.cit.*, Chapter VIII.

<sup>42</sup> See John P. Hardt, "Economics of the Soviet Electric Power Industry" (processed), Research Studies Institute, Air University, 1955, Chapter IV; and *idem*, "Soviet Capacity Will Not Provide for Industrial Load Growth by 1960," *Electrical Engineering*, November 1956. This is not to be confused with the fact that in the USSR electrical output is expressed gross of consumption by the power stations for their own uses, while in the U.S. it is expressed net of such consumption (see V.S., 1958, No. 1, p. 85). For comparability, postwar Soviet figures should be reduced by about 6 per cent (see *Promyshlennost' SSSR* [The Industry of the USSR], Moscow, 1957, p. 21).



tion, intracommodity assortment is not specified in the enterprise's plan; hence, nonfulfillment of the plan is not involved, although noncompliance with contractual provisions may be and often is. And yet the problem is an important one for the operation of the Soviet economy as well as for the appraisal of Soviet statistics.

Even if we disregard time-utility and space-utility, it is very difficult to think of an industrial commodity that is entirely homogeneous, at least, short of such a fine breakdown of commodity nomenclature that would render it impracticable for planning and statistical purposes. At any rate, the enterprise usually has some choice, and often a great deal of choice, in intracommodity assortment while fulfilling the plan for the given product in terms of the specified physical unit of measure. It will obviously tend to select the assortment that will maximize "physical" output of the commodity, given the resources of the enterprise. If the specified unit of measure is changed by directive from above, as it may be in order to induce a change in assortment, the enterprise will tend to adjust the intracommodity assortment to maximize "physical" output under the new conditions. A striking illustration, no less instructive for possibly being apocryphal, is provided by Nove:<sup>43</sup>

"The classic example of this is a factory which makes nails. When the plan was established in *numbers*, only small nails were made; so the basis of the plan was changed to weight, and then there were only large nails. If the plan is expressed in money, then only those which are cheapest to make will be produced, and probably all of the same size; if each type of nail is to be separately specified in the plan, this would be a glaring case of bureaucratic over-centralization."

Many actual examples may be cited. Thus, the output of wool cloth being measured in linear meters, its width averages 106 cm, compared to a technical optimum of 142 cm.<sup>44</sup> The average width of

<sup>43</sup> A. Nove, "The Pace of Soviet Economic Development," *Lloyds Bank Review*, April 1956, p. 10. It must be noted that considerations other than fulfillment of the production plan also affect the management's decision with regard to assortment. For example, D. D. Kondrashev (*Tsenoobrazovanie v promyshlennosti SSSR* [Price Formation in USSR Industry], Moscow, 1956, pp. 136-138) assigns considerable importance to the relative profitability of products as a determinant of the assortment.

<sup>44</sup> *Sotsialisticheskiĭ trud*, 1957, No. 1, p. 50, cited by A. Nove in "The Problem of 'Success Indicators' in Soviet Industry," *Economica*, February 1958, p. 7. Cf. Kontorovich in *P.E.G.*, Oct. 3, 1956. In 1959 the specified physical

linen cloth diminished in the past quarter century as follows: 1932—101.5 cm, 1940—96 cm, 1955—90.3 cm.<sup>45</sup> "A certain metal works increased its output of roofing iron in a five-year period by 20 per cent in tons, but by only 10 per cent in square meters; the plan, of course, was expressed in tons, and the enterprise reached its output target by an economically and technically unnecessary increase in weight."<sup>46</sup> The targets for finished steel, castings, and many kinds of machinery are usually set in tons; hence the well-known tendency for Soviet plants to produce unnecessarily heavy products of this sort.<sup>47</sup> At times this may be done within the limits of standard specifications by including the maximum permissible "positive tolerances" (*pliusovye dopuski*) in such finished steel products as beams, plate, and pipe. These practices in the steel and machine-building industries were the subject of a special lengthy resolution of the Council of Ministers, dated August 16, 1952,<sup>48</sup> and were also singled out by Bulganin in his report on industrial efficiency to the Party Central Committee in July 1955.<sup>49</sup> But even

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unit of measure for all textile fabrics was apparently changed from linear meters to square meters; *Pravda*, July 14, 1959, p. 2.

<sup>45</sup> A. M. Korneev, *Tekstil'naiia promyshlennost' SSSR i puti ee razvitiia* [The USSR Textile Industry and Ways of Its Development], Moscow, 1957, p. 277.

<sup>46</sup> *Sotsialisticheskii trud*, 1957, No. 1, p. 50, as quoted by Nove in *Economica*, February 1958, p. 5. Similarly with regard to paper where the quest for tonnage leads to fewer, but heavier, units of area, and incidentally also to below-plan unit cost (*P.E.G.*, March 22, 1957, p. 3).

<sup>47</sup> For a discussion of this particular phenomenon, see M. A. Tseitlin, "O natural'nom izmerenii promyshlennoi produktsii" [On Measuring Industrial Output in Physical Terms] in *Nauchnye zapiski* [Scientific Notes] Leningrad, 1955, p. 49; and with regard to machinery in general, see *Finansy SSSR*, 1957, No. 6, p. 19. Specifically with respect to steel pipe, see the article by Petukhov in *P.E.G.*, July 13, 1956, p. 2; with regard to consumer hardware, see the article by Emdin in *P.E.G.*, Sept. 7, 1958, p. 3.

<sup>48</sup> *Direktivy KPSS*, Vol. III, pp. 634ff. On the problem of "positive tolerances" for building materials, see G. E. Paraubek, "Nekotorye voprosy kachestva stroitel'stva" [Some Questions of the Quality of Construction] in *Voprosy ekonomicheskoi effektivnosti novoi tekhniki v stroitel'stve* [Problems of the Economic Efficiency of New Construction Processes], Moscow, 1958, p. 375; with respect to finished steel products, the article by Bargol'ts in *P.E.G.*, June 27, 1956, p. 3.

<sup>49</sup> *Pravda*, July 17, 1955. The problem was brought up again at the XXI Party Congress (January-February 1959). A delegate from Moscow charged that "nearly all the rolled steel arriving at factories manufacturing reinforced concrete [construction] components has positive tolerances. Last year's laboratory tests showed that 83 per cent of the tested items of reinforcing steel had positive tolerances, which in the case of 50 per cent considerably exceeded even the maximal standards" (speech by V. I. Ustinov, *Pravda*, Jan. 29, 1959, p. 3). Another speaker, L. I. Brezhnev, noted similar complaints about rolled

if a seemingly more rational physical unit is specified for equipment, it may turn out perversely. Thus *Pravda* reported: "The output of heating furnaces is being incorrectly planned: the factories' plans are not in terms of number of furnaces with allowances for their heating capacity, thermal efficiency, and other characteristics, but in terms of [square] meters of heat-transfer surface. Therefore a bulky and ineffective furnace such as Universal-3 turns out to be more advantageous to produce than a compact modern furnace."<sup>50</sup>

Two other instances, however, may be cited at some length because they have received careful analysis in Soviet sources, in itself a rare occurrence. The first is a case study of the glass industry conducted by Tseitlin during his interesting inquiry into the logic of physical units of measure in the planning of industrial output.<sup>51</sup> At one time a variety of units was employed, but in the early thirties tonnage became the specified physical dimension in all branches of the glass industry (window glass, bottles, flasks, tumblers). It was chosen for easier production planning (i.e. the construction of input-output ratios, capacity utilization rates, etc.) since both the raw materials for glassmaking and the semifinished product, raw glass, were measured by weight. It was, so to say, material-oriented. But this led the plants to produce the thickest and heaviest sheet glass and glassware, thus greatly contributing to the acute shortage of glass and glassware generally at the time. (The production of thick window glass was also stimulated by technical difficulties in mastering the new continuous sheet glassmaking process.) Seen another way, the materials for glassmaking, especially alkali, which were also very scarce, were being used very ineffectively. The crisis finally led to a special resolution of SNK, dated April 2, 1934, which imposed utility-oriented rather than material-oriented units of measure: square meters for window glass, and number of pieces for glassware. Tseitlin does not say what happened after that, and whether only the thinnest window glass and the smallest and thinnest glassware has been produced since, or whether this has been avoided (as in Nove's nail example) by a finer breakdown of the nomenclature, with attendant risks of overcentralization.

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steel products in general, alluded to unspecified measures against the practice supposedly worked out by the Party and the government, and appealed to the steel industry to manufacture rolled steel products with negative tolerances so as to "save hundreds of thousands of tons of metal" (*Pravda*, Jan. 31, 1959, p. 9).

<sup>50</sup> *Pravda*, Sept. 5, 1958, p. 2.

<sup>51</sup> Tseitlin, *op.cit.*

It may be worth digressing to note that Tseitlin's thesis is that a single specified physical unit of measure is not desirable in most industries. Instead he would have concurrently a material-oriented unit, to facilitate production planning and materials allocation, and a utility-oriented unit, to ensure the production of usable goods. One of them, preferably the latter, would have priority as a success indicator for the enterprise. But his relatively flexible approach still leaves certain questions unanswered. For instance, if the conversion coefficient between the two units is not fixed (and if it is, one of the units is redundant), will the Soviet system of planning be able to cope with dual units? And, more important, how is it possible to ensure the right intracommodity assortment with a success indicator based chiefly on a single specified unit of measure, even if that unit is utility-oriented?

The second instance is a criticism of a proposal to change the specified physical unit in the tanning industry from an area unit to a weight unit, and is of particular interest because it came from the pen of the director of a tannery, a certain Mindin.<sup>52</sup> He noted that in 1930, in order to improve the quality and increase the quantity of output (presumably in terms of area!), the plans of tanneries had been changed from a weight basis to an area basis. In 1935 a few tanneries had reconverted for planning and statistical purposes to a weight basis, and at the time of his writing the whole industry had been directed to reconvert to a weight unit by 1936. This directive, in Mindin's view, was a retrograde step because it would induce tanneries to obtain the maximum number of *kilograms* of leather from a given amount of raw material. (He did not discuss whether it was rational to obtain the maximum number of *square meters* of leather from the supply of hides.) To explain how the tanneries would do this, Mindin presented, in considerable detail, nine ways of maximizing leather output in terms of weight, some of which are worth citing. Thus, the tanneries would not clean the hides well; they would let the hides soak up excessive amounts of chemicals and tanning extracts, and would not bother to rinse these out; and they would leave a high moisture content in the leather. Mindin wrote as though these practices would be virtual certainties if the unit of measure were changed, and implied that

<sup>52</sup> V. V. Mindin, "Za planirovanie i uchet vykhodov gotovoi produktsii po ploshchadi" [For Planning and Recording Finished Output in Terms of Area], *Kozhevenno-obuvnaia promyshlennost' SSSR*, 1936, No. 3, pp. 46f.

they would go into effect immediately after the change-over. It appears that the change-over did take place.

To conclude the discussion of intracommodity assortment, for our purpose the crucial events are: (1) the change-over in the specified physical unit of measure, and (2) the change in the scope of the commodity category, that is, its aggregation or disaggregation. As to (1), substitution of one specified physical unit of measure for another presumably tends to bring about a quick adjustment of intracommodity assortment on the part of the enterprises to correspond to the new situation. Now it does not matter here whether the new assortment is in some sense an improvement over the old. What matters is that a chained series that purports to represent the physical output of that commodity, spliced at  $t$  (the year of the change-over) will show a greater growth (smaller decline) than if the series were expressed either in the new or in the old unit throughout. The more numerous are such change-overs during the period in question, the greater presumably is the degree of exaggeration, except, of course, when restoration of a previous specified unit of measure permits direct physical comparison between early and late years in the output time series.

As to (2), an aggregation of the commodity category in the enterprise's plan probably gives additional scope for the management to manipulate intracommodity assortment to its advantage, and thus to devalue the physical unit of measure. Disaggregation works in the opposite direction. This must be borne in mind in connection with the fluctuations in the detail of planning. In recent years the tendency has been toward less detail in the central plan, and possibly also less detail in the plans of the enterprises, i.e. toward aggregation in commodity categories.

To recapitulate, other things being equal, devaluation of the physical unit of measure may occur in four ways: continuously, owing to the emphasis on quantity at the expense of quality and to the seeking out of more advantageous intracommodity assortment;<sup>58</sup> and discretely following change-overs in specified units of measure and aggregation of commodity categories. (Disaggregation of com-

<sup>58</sup> It *may be* that the steady increase in the average ash content of coal mined in the USSR—15.2 per cent in 1940, 17.1 in 1950, and 18.7 in 1957 (*P.E.G.*, Aug. 20, 1958, p. 2)—is a case in point. The authors who cite these figures and many other instances of the deterioration of the quality of coal and of relative shortages of better grades of coal, while poorer grades are in oversupply, argue that it is within the power of the coal industry to reverse these trends by paying greater attention to quality.

modity categories tends to have the opposite effect.) Of course, other things do not remain equal, and we cannot conclude from this analysis that the quality of Soviet industrial products has steadily deteriorated. On the contrary, there have undoubtedly been periods in Soviet history when the quality of industrial products was generally rising.

#### *Underreporting; Write-Downs*

While the tendency of Soviet enterprises to overreport output has been, on the whole, well known to students of the Soviet economy for some time, before the publication of Berliner's inquiry there seems to have been less appreciation of the tendency to *underreport* physical output.<sup>54</sup>

Much of the underreporting is either a consequence or a by-product of widespread pilferage and theft of "socialist" property by workers and employees of industrial plants, or by outsiders. Indeed, petty crimes of this nature are so often mentioned or alluded to in the Soviet literature and are so frequently related by former Soviet citizens that it is not necessary to give specific citations here.<sup>55</sup> Some of the stealing is done rather ingeniously; much apparently with the connivance or even active participation of the numerous guards.<sup>56</sup>

A priori, one would expect pilferage and theft to be a relatively higher percentage of total output where: (1) the goods are not too heavy or bulky to steal, smuggle out of the plant, carry away, and

<sup>54</sup> Berliner, *op.cit.*, pp. 164ff. Earlier recognition of the presence of underreporting appeared in Alexander Gerschenkron, "Reliability of Soviet Industrial and National Income Statistics," *The American Statistician*, April-May 1953, p. 18; and in Nove in *Lloyds Bank Review*, pp. 2f.

<sup>55</sup> Boris Konstantinovsky in *Soviet Law in Action—The Recollected Cases of a Soviet Lawyer* (Cambridge, Mass., 1953, p. 19) offers the following interesting observation: "Mass thefts in Soviet enterprises and the tolerant attitude of public workers to thieves of 'socialist' property are also explained by the fact that not only the Soviet state, but the Soviet worker, strictly distinguishes between state and personal property. People of unimpeachable honesty, with whom one could trust any kind of 'personal' property, busy themselves with the systematic theft of state goods—simply because a Soviet worker's pay is lower than the barest 'living' minimum."

<sup>56</sup> A former Soviet citizen has related to me from personal experience how large amounts of fish were smuggled out by the workers of a fish-curing plant with the tacit consent of the guards. Indeed, articles in law enforcement journals, such as *Sotsialisticheskaia zakonnost'*, suggest that the guards are often the first to be suspected in any investigation of theft, and with good cause.

store;<sup>57</sup> (2) the goods are such that they can be readily sold or exchanged on some sort of black or open market (e.g. consumer goods, small hardware, spare parts, etc.);<sup>58</sup> (3) average real wages are low compared to previous years, or are declining; (4) rationing obtains; (5) open or black market prices are high; and (6) enforcement is less strict.

Pilferage and theft by workers and employees (including managerial personnel) may or may not result in the underrecording and underreporting of output. Obviously, if the stealing takes place before the output is recorded, neither the enterprise's books nor its reports to higher authorities, nor for that matter the published statistics, will include the stolen portion of the product (unless, of course, there is a conscious attempt to correct the books accordingly, in which case the "technical" problems of recording and reporting are the same as with write-ups). If the stealing takes place after the output is initially recorded, the consequence is either an apparent inventory shortage or a conscious attempt by management to conceal inventory shortage by writing down output. In the event of such a write-down, again, the data available to the higher authorities, and therefore also the published statistics, will not include the stolen portion of the output—unless, of course, at some level above the enterprise a correction is made on this score.<sup>59</sup>

Apart from this, Soviet management may—and does—write down physical output for the following reasons: (1) to ensure a "safety factor" in future plan fulfillment; (2) to "play the rates" of the

<sup>57</sup> However, under favorable conditions even most bulky goods are apparently stolen by workers. In a *feuilleton* describing the tribulations of private citizens building their own homes, *Pravda* (July 2, 1958, p. 3) writes:

"Stone and cement [for private home construction] are supplied by people whose hearts are not of stone. These hearts beat fast at the sight of a bribe. Certain storekeepers at construction organizations easily trade scarce cement for altogether unscarce vodka; while dump trucks loaded with building stone willingly change their destinations, and, for a standard price of 80 rubles, unload on the private builders' lots." In these instances, no underreporting of cement output is presumably involved since the theft takes place not at the cement plant but at the storehouse of a construction organization. Whether the building stone comes directly from the quarry or not is not clear; if it does, possibly its output is correspondingly underrecorded.

<sup>58</sup> See the account by Konstantinovskiy (*op.cit.*, pp. 18-22) of the pilferage problem faced by a large bread-baking establishment for which he was legal counsel. For a recent account of blatant pilferage by the whole staff of a meat-packing plant, from the director down to the guards, see the article by Krasnov in *Pravda*, July 10, 1959, p. 6.

<sup>59</sup> For such corrections at higher levels, see the discussion of milk production statistics at the end of the next chapter.

## REPORTING AT THE ENTERPRISE LEVEL

premiums scales; (3) to conceal illicit diversion of goods, and the embezzlement of funds that frequently accompanies it; (4) to conceal production for own use; and (5) to evade taxation and other obligations to the state.

### REASONS (1) AND (2)

Berliner finds that Soviet management is on guard against giving the appearance of such plan overfulfillment as will result in a more difficult future assignment. It strives to preserve a margin of safety to facilitate plan fulfillment in the future. When there is substantial overfulfillment in a given period, it may "lend" output to the next period; that is, it may deliberately write down one period's output, and correspondingly write up output in a future period. Under the same circumstances, management may also "lend" output to the next period in order to assure itself of premiums for plan fulfillment in the next period. Berliner concludes:<sup>60</sup>

"The combined operation of the premium motivation and the safety factor results in a tendency to falsify reported fulfillment in a way that evens out the reported month by month plan fulfillment. In the unsuccessful months output is 'borrowed' from the future and in the successful months output is 'lent' to the future or 'repaid' to the past."

However, as with the "borrowing" technique discussed above, the writing down that accompanies the "lending" of output to a future period—be it motivated by the safety factor or by premiums—is in itself unlikely to affect significantly the reliability of physical output data (especially for whole industries) for larger segments of time, such as a year. Of more lasting importance may be write-downs of types (3), (4), and (5).

### REASON (3)

The illicit diversion of "socialist property" by managerial personnel may be—and undoubtedly often is—simply for the direct personal benefit of the individual. As such, it is not very different, for the present purpose, from pilferage and theft by anyone else, and the problems of underreporting and writing down that have been

<sup>60</sup> Berliner, *op.cit.*, pp. 165f. The use of the borrowing-lending technique, with deliberate underreporting in some periods, is also reported in agricultural procurement in *P.Zh.*, 1955, No. 11, p. 28; and for an industrial plant in *V.S.*, 1956, No. 1, p. 60.



indicated earlier in this chapter apply here too. (However, we may note that managerial personnel has power not only over the goods themselves, but also over the paperwork that is supposed to control the transfer and disposal of goods. Hence it presumably has greater latitude in falsifying, or not falsifying, records than do others who "help themselves" to the goods.)

But at times the illicit diversion of goods may be for the enhancement of the position of the enterprise as such, personal benefit being indirect or secondary. "Gifts" to suppliers, party officials, inspectors, and auditors; the distribution of goods (or cash obtained from unauthorized sale of goods) to the enterprise's personnel as incentives; barter transactions of various sorts; sales at illegally high prices in order to replenish the till—these are some of the uses to which goods under the control of the management may be put in order to further the interests of the enterprise as such. At times such transactions are extremely complicated; and, of course, the direct interests of the individual (theft, embezzlement) and the interests of the enterprise may be furthered by the same transaction. Often the logic of such situations demands that the goods be deliberately underreported and underrecorded.

An illuminating case of write-downs was described in some detail by the investigating judge who cracked it. A certain *kombinat* (vertically integrated enterprise) producing starch and syrup from potatoes had large amounts of potato waste. To utilize it, a distillery was added to the establishment. There being no records of the waste going for fermentation and no mechanical device to measure the amount of alcohol produced, the way was open for illicit transactions. Only some of the alcohol was officially recorded and reported. "The unrecorded alcohol was systematically pilfered by the personnel of the *kombinat* and in part was expended in payment of various jobs [for the *kombinat*]. The material damages inflicted on the state in this manner totaled, at current wholesale prices, 2,642,000 rubles."<sup>61</sup>

It is also interesting to note what the alcohol was bartered for. The *kombinat* itself obtained a generator, packaging material, and various supplies. The chief accountant personally traded the alcohol for flour and other consumer goods, her customer being a village

<sup>61</sup> S.Z., 1948, No. 5, pp. 47-49. Cf. I. Ia. German, *Finansovyi kontrol' i dokumental'naiia reviziia v mestnoi promyshlennosti RSFSR* [Financial Control and Documents Audit in Local Industry in the RSFSR], Moscow, 1948, p. 61, where the illicit sale of unrecorded output at a chemical plant is mentioned.

cooperative store. The personnel of the store in turn entered the alcohol on the books as vodka, pocketing the difference in value.

In the above case, writing down was easy because neither the input nor the output was systematically recorded. If the input is strictly controlled, the limits on write-downs are presumably narrower, and any serious rise in the input-output ratio may alert superiors to the pilferage.<sup>62</sup> But a seemingly safer and probably much more widespread method of writing down output than not recording it at all is to record above-standard products as *brak* (spoilage, rejects). The practice is reported by Berliner's informants,<sup>63</sup> and auditors are alerted to it in Soviet textbooks.<sup>64</sup> As Berliner notes, for this reason enterprises may overreport *brak* up to the maximum limit permitted by regulations. Because of the peculiarities of the price system, the goods so reclassified are at times sold, under the guise of *brak*, for much more than they would bring at the fixed prices applicable to above-standard products.

## REASON (4)

Because of the pronounced and persistent sellers' market, Soviet enterprises tend to establish their own sources of supply. For the same reason, they would tend, under some conditions, to avoid reporting the production of goods for their own use, lest they be deprived of outside supplies or be forced to market their own intermediate products. I have no direct evidence that such concealment of production takes place, but it is strongly suggested by the logic of the situation, as well as by ample indication in the Soviet literature and other sources that enterprises go to great lengths to conceal *inventories* of materials and other inputs. The step from the under-

<sup>62</sup> This was the way in which pilferage was uncovered in the bakery case described by Konstantinovsky (footnote 58 above). An accounting expert recently wrote in the journal of the Ministry of Finance: "Financial auditors . . . must keep in mind that materials expenditure in excess of plan . . . may frequently conceal an inventory shortage *or failure to record output*" (*Finansy SSSR*, 1958, No. 6, p. 48; my italics). Thus one way to conceal pilferage of the product is to underrecord the inputs received from the outside. In the meat-packing plant case (footnote 58), this was done by cheating the collective farms on the weight of the livestock delivered by them to the plant. Anyway, in this case the existence of pilferage was known to city authorities, but they took no action because the director "was fulfilling his plan." (Of course, the city fathers may have been "in" on the pilferage in a more tangible way as well.)

<sup>63</sup> Berliner, *op.cit.*, pp. 146f. Cf. Granick, *op.cit.*, p. 146.

<sup>64</sup> See German, *op.cit.*, p. 38; and A. Kh. Ermolaev and G. R. Nak, *Dokumental'naiia reviziia na zheleznodorozhnom transporte* [Documents Audit on Railroads], 2nd ed., Moscow, 1950, p. 124. The latter mentions the illicit sale of nails without appropriate allocation orders under the guise of *brak*.

statement of inventories of materials to the underreporting of production for own use seems to be a small one.

With regard to such inventories, the incentive is strong and only in one direction: to understate. The pages of *Vestnik statistiki* are full of complaints by the statistical authorities in this regard. For instance, one article in this journal presents a very instructive description of the heights of ingenuity scaled by enterprises in the concealment of inventory, and of the progressive elaboration of the census blank by the statistical authorities to counteract the efforts at concealment.<sup>65</sup> It is interesting to note that the *MVD* (Ministry of Internal Affairs) itself is not immune to concealing inventories. A German scientist who spent some time in a research establishment operated by the *MVD* describes the burying of stocks of supplies in the ground by camp authorities before the arrival of an auditing commission.<sup>66</sup>

#### REASON (5)

Lastly, deliberate underreporting may take place to evade taxes and other obligations to the state. This would apply particularly to enterprises not owned by the state. We have already noted that at the end of the twenties *TsSU* believed that the returns from the then still extant private industrial enterprises understated their output. The same may well be true of the reports of industrial cooperatives during the Plan era, which have been subject to taxes on profits since 1930 and to very highly progressive taxes since 1933.<sup>67</sup> While I have no evidence on this score, it is reasonable to suppose that industrial cooperatives (including the industrial establishments subsidiary to *kolkhozy*) tend to write down their output in order to understate their net profits or to facilitate the illegal (but profitable) disposal of their products. While the share of cooperatives in over-all industrial output is rather small<sup>68</sup> and has

<sup>65</sup> P. Pod'iachikh, "O nedostat'kakh v provedenii perepisei materialov i proverki ikh itogov" [On the Shortcomings in the Conducting of Censuses of Materials and in the Checking of Their Results], *V.S.*, 1951, No. 5, *passim*.

<sup>66</sup> Otto Maar, "Kutschino," *Der Monat*, February 1955, pp. 409-424.

<sup>67</sup> For a brief history of taxes on industrial cooperatives, see Franklyn Holzman, *Soviet Taxation: The Fiscal and Monetary Problems of a Planned Economy*, Cambridge, Mass., 1955, pp. 211-213.

<sup>68</sup> According to official Soviet data, and in terms of the official industrial production index, cooperative and private establishments accounted for the following shares of the total gross output of industry in the given years:

	1928	1937	1950	1955	1956
Cooperative	13.0	9.5	8.2	8.1	6
"Capitalist and petty private"	17.6	0.2	none	none	none

been declining over the long run, nevertheless it continues to be significant in certain lines of production. Furthermore, if there is a significant difference in the accuracy of reporting between similar state-owned and cooperative enterprises (on which there is no evidence at hand), then the transfer of a large number of enterprises from cooperative to state ownership in a short span of time, as happened in 1956,<sup>69</sup> may appreciably distort output comparisons for certain commodities over the period in question.

### *Checks to Distortion*

Enough has been said in the preceding sections of this chapter to demonstrate the existence of strong forces working to distort production statistics at the enterprise level. These forces spring chiefly from the self-serving activities of producers, although at times the motive may be devotion to duty conceived in a broad sense. The distortion may be accomplished intentionally in order to simulate the fulfillment of norms and plans, to reduce effort per unit of reported output, to have a "safety factor," or to conceal the diversion of goods to unauthorized uses. Or it may be carried out unintentionally (if not entirely unknowingly, let alone unsuspectedly), as in the case of underreporting occasioned by the theft of products before they even reach the stage of primary recording.

While distortion thus indisputably takes place in the reporting of industrial output within and by the enterprise, it is also obvious that it must be subject to certain limits. This not only suggests itself intuitively, but may be inferred from an examination of the published statistics, which are not patently nonsensical, and may be deduced from what we know of the operation of the Soviet economic system. (Consider that the existence of the "safety factor" in production planning as a principle of managerial behavior is in itself presumptive evidence that there are limits to statistical falsification by the Soviet manager, for if he could report any output figure at will he would have no need to attempt to obtain an easy plan.) But the limits to distortion are surely not primarily imposed by the incessant exhortations to abide by "high principles," or even by the mere existence of the relevant laws and regulations on the books.

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(*Narodnoe khoziaistvo SSSR v 1956 godu* [USSR National Economy in 1956], Moscow, 1957, p. 47.)

<sup>69</sup> Note the sharp decline from 1955 to 1956 in the share of cooperatives shown in the preceding footnote. During 1956 some half million working persons were affected by the transfer of ownership (*ibid.*, p. 50).

## REPORTING AT THE ENTERPRISE LEVEL

Rather, they are defined by the realities of the situation as perceived by the individuals in question. That is to say, attempts to distort are subject to checks from various directions. Generally speaking, in the subjective estimation of the individual, the risks of detection and punishment at some point begin to exceed the benefits obtainable from the falsification of production data; therefore he does not go beyond that point. The estimation is subjective in two senses: (1) it takes place in the individual's mind; and (2) it reflects the individual's specific and unique situation, that is, his needs and aspirations, his relations with superiors, co-workers, and subordinates, the desperateness (if any) of his position, and so forth.

The checks on attempts to distort output data can be loosely classified into four categories: (1) checks within the enterprise itself; (2) control and supervision by administrative superiors; (3) control and supervision by the numerous Soviet auditing and law-enforcing agencies (other than administrative superiors) which we may call "the outside authorities"; and (4) checks by transactors, especially the buyer and the common carrier. These categories are not to be taken rigidly; the lines of demarcation between them are often vague. For example, the Party may be regarded as an outside authority or as an element within the enterprise, or (in a sense) even as an administrative superior.

Because of the strong subjective element in the picture and also because the "objective" conditions that deter or facilitate distortion of output data vary in time and space, it will obviously be impossible for me to define the exact points at which these checks begin to be effective. Instead, this section will examine why the four categories of checks, taken separately, fail as absolute preventives of inaccurate reporting. What is there in the nature of these checks and in the environment within which they operate that permits a certain amount of distortion in the reporting of output within and by the enterprise?

### I. CHECKS WITHIN THE ENTERPRISE

Besides the director and the shop chiefs, who by virtue of their positions are the main culprits in this drama, the Soviet industrial enterprise typically contains a number of persons who are in some way—administratively, criminally, or financially—responsible for the truthfulness of production records and reports. The more important of these are: (a) the chief accountant, who, of course, is responsible for the accuracy of all of the important paper work in

the enterprise, and who for this reason is supposed to be the champion of state interests within the enterprise; (b) the head of the planning department, who, along with the director and the chief accountant, signs the periodic reports; (c) the chief of the OTK and his quality inspectors, who pass on the quality of output, and especially on its adherence to minimum standards; (d) the warehouse superintendents and storekeepers, who formally receive finished output and are charged with the safekeeping of inventory; (e) the secretary of the Party unit within the enterprise, whose functions in the plant are to ensure compliance with the law and to spur production; and lastly (f) the secretary of the trade union local within the enterprise, whose role, however, I shall not discuss because it is relatively unimportant for our purposes.

In the cases of all of these persons, malfeasance of duty, and especially falsification or other distortion of records and reports, is severely punishable by law. It would, therefore, seem that with so many watchdogs within the walls of his plant, the director's ability to distort output data with reasonable expectation of impunity is very limited indeed. But in fact this is not so, for under ordinary conditions the loyalty of all these individuals, including the Party secretary,<sup>70</sup> is often first to the enterprise and to each other, and only then to the regime or to "socialist legality" in some abstract sense. They are all enmeshed in a heavy "web of mutual involvement," as Berliner puts it. As he explains:<sup>71</sup>

"Awareness of common interests in plan fulfillment often generates within the enterprise a 'family relationship' in which Party secretary, chief accountant, and other control officials facilitate or overlook the transgressions of an enterprising and successful director and share in the rewards and prestige that come with plan fulfillment. It is the fact that the control officials perceive their own fates as closely interwoven with the success of the enterprise that explains the endurance of the irregular practices of management [including the falsification of reports—G.G.]."

To this succinct description one need only add the consideration that the Soviet manager wields great power over his subordinates and is therefore usually able to enlist their passive or active cooperation in his illicit activities. Once the subordinate has coop-

<sup>70</sup> Cf. Berliner, *op.cit.*, Chapter XIII, and pp. 264-271, 324f.

<sup>71</sup> *Ibid.*, pp. 324f.

erated, he has compromised himself in the eyes of the law and weaves his own interests more readily into the fabric of mutual involvement.

The chief accountant is looked upon by the regime as the guardian of legality, and of the state's interests in general, within his enterprise or organization. His appointment, dismissal, or transfer, as well as the awarding of premiums and bonuses to him, is formally undertaken by the agency superior to the one in which he is employed. Interference with his duties is punishable by law.<sup>72</sup> And yet, the accountant's pliability in the hands of the manager is a well-established, almost proverbial, fact, amply attested to both by the continual exhortations addressed to him in the Soviet literature and by the reports of defectors.<sup>73</sup>

The situation is similar with the chief of the department of quality control (*OTK*), the regime's guardian of quality standards. Despite the severe criminal penalties for the production and shipment of substandard or incomplete articles, which penalties apply specifically to the chief of *OTK*, he is typically under great and often irresistible pressure from the director and other officers of the enterprise not to reject products or to upgrade them.<sup>74</sup> This fact received full and frank recognition in the resolution of the USSR Council of Ministers, dated September 23, 1952, on improving the quality of industrial output, to which I have already referred. The resolution stated that the *OTK* "perform their tasks unsatisfactorily . . . are inadequately staffed with competent personnel and enjoy little authority . . . [and] there are cases when the chiefs of *OTK*, acting under pressure from the managements of the enterprises, pass articles that are of bad quality, incompletely assembled, substand-

<sup>72</sup> The latest legal definition of the chief accountant's status, rights, and duties is to be found in the resolution of the USSR Council of Ministers dated Sept. 17, 1947, and the annexed statute (*polozhenie*); see Bakhchisaraitsev, *op.cit.*, pp. 500ff.

<sup>73</sup> Cf. Berliner, *op.cit.*, Chapter XIII.

<sup>74</sup> See *ibid.*, pp. 233f., 238-241, and 254.

Quality inspection absorbs a considerable portion of the resources of Soviet industry. A recent article (S. Kheinman in *P.E.G.*, Oct. 2, 1959, p. 4) states that "according to the latest occupational census conducted by *TsSU SSSR*, the industrial enterprises of the former union and union-republic industrial, construction, and transportation ministries alone employ over 500 thousand quality inspectors, controllers, sorters, and disassemblers (*razborshchiki*), who draw about five billion rubles in wages annually." The date of the census is not known, but apparently it took place before the abolition of most industrial ministries, i.e. before July 1957. In 1956 the total number of wage earners in state-owned industry was 15 million.

ard, or [in other ways] do not meet technical specifications." Annexed to the resolution were model standard statutes (*tipovye polozeniia*) on the structure, rights, and duties of the *OTK* in different branches of industry, which, *inter alia*, stipulated that chiefs of the *OTK* are to be appointed and dismissed by agencies superior to the enterprise; that rewards and punishments are to be dispensed to them by the minister (i.e. not by the director of the enterprise); reaffirmed that *OTK* chiefs are subject to the provisions of the edict of 1940 on quality of output; gave them authority to stop the production or delivery of products that do not meet requisite standards; and provided that a director can overrule this authority only if he immediately and in writing notifies the chief of the corresponding *glavk* and the head of the ministry's Chief Quality Inspectorate.<sup>75</sup> There is no evidence on which to judge the effect of the resolution of 1952 on the authority and effectiveness of the *OTK*. It is, however, quite clear from the Soviet literature that the ineffectiveness of the quality inspectors has not been entirely eliminated.<sup>76</sup>

The storekeepers and warehouse superintendents, being financially responsible for the integrity of the inventories in their charge, might seem to present more effective checks to write-ups by management, since write-ups might appear as shortages in the finished goods inventory. We have already noted that some Soviet sources regard the warehouseman as an effective obstacle to write-ups (though to write-ups by workers rather than by management in the examples cited).<sup>77</sup> However, the total picture given by the Soviet literature is quite different. The continual references to shortages of finished goods inventory in Soviet auditing manuals,<sup>78</sup> in the organ

<sup>75</sup> *Direktivy KPSS*, Vol. III, pp. 642ff. The source reproduces four such "model statutes," numbered Annexes 2 through 5, and together covering nearly all of industry with the exception of the specialized branches producing military and related articles. It seems likely that the unpublished Annex No. 1 refers to these branches.

<sup>76</sup> To pick two recent items at random: An author discussing problems of quality control in the tractor industry considered the *OTK* unreliable in this respect (*Avtomobil'naia i traktornaia promyshlennost'*, 1955, No. 7, p. 1). In the Sestroretsk tool plant in Leningrad "it happens that a quality inspector rejects a lot in the middle of the month, but surprisingly by the end of the month [i.e. at output reporting time—G.G.] the articles turn out to be 'O.K.' and are delivered to the warehouse as above-standard products" (*P.E.G.*, Dec. 11, 1957, p. 3).

<sup>77</sup> See the section on write-ups by the worker.

<sup>78</sup> Cf., *passim*, such books as Alenichkov, *op.cit.*; N. A. Sokolov, *Kompleksnye dokumental'nye revizii na zheleznodorozhnom transporte* [Comprehensive Documents Audits on Railroads], Moscow, 1955; German, *op.cit.*; and Ermolaev, *op.cit.*



of the Procuracy *Sotsialisticheskaia zakonnost'* [Socialist Legality] (especially after the edict of June 4, 1947, on "criminal responsibility for the theft of state and public property"), and in books dealing with the enforcement of the legislation against theft<sup>79</sup>—all leave little doubt in the reader's mind that such inventory shortages are a prevalent phenomenon in Soviet enterprises. Some shortages, such as those of bulk commodities stored in the open, are difficult to detect by the very nature of the goods; others are concealed by the (at times perhaps intentional) disorder in the warehouse; still others are concealed by more ingenious techniques.<sup>80</sup> Of course, not all inventory shortages are the result of write-ups; some, or even most, may be due to ordinary pilferage or theft. But if shortages can be concealed, write-ups of output are invited.

## 2. CONTROL BY ADMINISTRATIVE SUPERIORS<sup>81</sup>

The relationship of the enterprise to its administrative superiors has been investigated by Berliner, with special reference to the un-

<sup>79</sup> E.g. T. L. Sergeeva, *Ugolovno-pravovaia okhrana sotsialisticheskoi sobvennosti v SSSR* [Protection of Socialist Property in Soviet Criminal Law], Moscow, 1954, *passim*; and B. S. Utevsii and Z. A. Vyshinskaia, *Praktika primeneniia zakonodatel'stva po bor'be s khishcheniiami sotsialisticheskogo imushchestva* [The Experience with the Application of Laws Against the Theft of Socialist Property], Moscow, 1954, *passim*.

<sup>80</sup> The following example of an ingenious technique, though referring to materials rather than to finished products, is given by a textbook on auditing (Alenchikov, *op.cit.*, p. 76): "There have been cases where systematic theft of materials from storerooms was covered up for a long time by the filing of knowingly groundless claims against suppliers for shortages allegedly discovered at the time of delivery. Such false claims having been rejected by the suppliers, they were then submitted for litigation, the court, of course, denying the plaintiffs' suits. In this fashion the stolen assets were written off legally as bad debts whose collection was denied by the court."

<sup>81</sup> The exact structure of the economic administrative hierarchy varies from branch to branch, place to place, and time to time. By administrative superiors of the enterprise I mean, of course, such entities as the "trust" (*trst*), the "chief administration" (*glavk*), and the ministry, and (since mid-1957) the regional "council of the economy" (*sovarkhoz*) and its branch administrations (*otraslevye upravleniia*). For the pre-1957 structure of the economic administrative structure in industry, see A. Arakelian, *Industrial Management in the USSR* (translation of *Upravlenie sotsialisticheskoi promyshlennosti*, Moscow, 1947), Washington, 1950, Chapter 4; A. F. Rumiantsev, *Organizatsiia upravleniia promyshlennost'iu SSSR* [Structure of Management of Soviet Industry], Moscow, 1953, pp. 26f.; Granick, *op.cit.*, Chapter II; and *Ekonomika promyshlennosti SSSR* [The Economics of Soviet Industry], Moscow, 1956, Chapter 2. For the structure since mid-1957, see A. N. Efimov, *Perestroika upravleniia promyshlennost'iu i stroitel'stvom v SSSR* [Reorganization of Administration of Industry and Construction in the USSR], Moscow, 1957, Chapter 3.

lawful and informal activities of the management.<sup>82</sup> I have nothing to add to his careful study. The essence of his findings is that the ministries (and other higher-level entities—and, one may suppose, since 1957 also the *sovnarkhozy* and their departments) are judged by the success of their subordinate enterprises; that therefore the interests of the superior entity largely coincide with those of the enterprise (except in some instances, e.g. where the interests of two subordinate enterprises are in conflict); that the “web of mutual involvement” often extends above the enterprise; and that therefore the superior agencies will overlook simulation and other illicit acts by management, and at times will perhaps even actively support such acts. That is to say, the enterprise’s administrative superiors do not, by and large, offer effective checks to distortion of output data on the enterprise level, at least as long as the distortion remains within “reasonable” or “acceptable” bounds. This is not to say that the manager may not try to deceive his administrative superiors in the economic hierarchy in order to obtain a “safety factor” or for other compelling reasons, and they may in turn react by exercising their authority.<sup>83</sup>

There is little reason to suppose that the relations between the enterprise and the higher economic administrative levels have changed radically as a result of the supercession of ministries by *sovnarkhozy* in the middle of 1957. This reform has not, as yet, entailed any radical changes in the system of planning, or in the structure of success criteria and of the corresponding incentives. Nor has the sellers’ market been done away with. There is every reason to believe, therefore, that the old principles and patterns of behavior of the manager—and of his superiors—have survived the reorganization of industrial administration. Indeed, it is possible to argue that, *ceteris paribus*, the *sovnarkhozy* are more prepared to tolerate distortion in the reporting of output than were the ministries. As we have seen, this toleration arises from an identity of interests and is reinforced by a “web of mutual involvement.” Might not the regional economic councils, and the branch administrations under them, identify their interests with those of the individual enterprises, and contrapose them to the interests of “Moscow,” even more than did the far-off *glavki* and ministries? Might there not be greater opportunity for close personal ties between the manager and his administrative superiors under the regional arrangement? To

<sup>82</sup> Berliner, *op.cit.*, Chapter xiv, pp. 165, 283f., and 324.

<sup>83</sup> Cf. *ibid.*, pp. 257f.

further the now institutionalized "localistic" interests, might there not be even greater unlawful diversion of materials and products, with corresponding statistical manipulation, than before?

Although the local Party and Soviet (i.e. governmental) officials are not formally the administrative superiors of the enterprise,<sup>84</sup> they can be regarded as such for present purposes. *De facto*, local Party and Soviet officials wield some (often great) power over the enterprise and are responsible to their superiors for plan fulfillment within their territorial jurisdiction. (The creation of the *sov-narkhozy* has probably augmented the *de facto* authority and responsibility of these officials.) Therefore their interests tend to coincide with those of the enterprise (and now also with those of the *sov-narkhozy*), and they can be expected to take the same attitude toward simulation by the enterprises in their charge as is taken by the economic administrative superior agencies.<sup>85</sup>

### 3. CONTROL BY OUTSIDE AUTHORITIES

It would seem at first glance that the multiplicity of controlling and auditing agencies (beside those discussed in the preceding section),<sup>86</sup> the severity of the punitive measures at their disposal, and the thoroughness of the police system would successfully thwart the commission of such "economic crimes" as the falsification of output data and related illegal acts. Yet even the least acquaintance with Soviet reality leads one to the conclusion that "economic crimes" are extremely prevalent and to the conjecture that for each case that reaches the daylight of publicity there must be many that never do. An important factor is, of course, the inherent advantage that any insider has in concealing irregularities from the outside auditor's view—what in its more extreme form might be called Pooh-Bah's Law<sup>87</sup>—aided by the complexities of the very paper work that is intended to entrap the culprit, and abetted by the inspector's corruptibility and his reluctance to stir up a possible hornet's nest.<sup>88</sup>

<sup>84</sup> Except in the common case where the enterprise is part of "local industry," i.e. administratively subordinated to the local soviet.

<sup>85</sup> Cf. Berliner, *op.cit.*, Chapter xv. See also the role of the local Party authorities in the creamery case (footnote 35, this chapter).

<sup>86</sup> For example, the State Bank, the Ministry of Finance, the statistical apparatus, the trade union, the political police, the ordinary police, the Ministry of State Control.

<sup>87</sup> ". . . as Paymaster-General, I could so cook the accounts that, as Lord High Auditor, I should never discover the fraud."

<sup>88</sup> It is noteworthy that during the early postwar years, the period for which S.Z., the organ of the Procuracy, was available to me, reports of successful

Local Party officials are not unflagging guardians of legality; on the contrary, they may be closely linked by ties of kinship and friendship and through the usual web of mutual involvement to those whom they are supposed to supervise and exhort. Party members often hold managerial positions themselves. Moreover, the greater their authority, the more opportunities there are to turn it to personal advantage. Thus, despite a specific order from the Central Committee requiring all Party organizations to uncover write-ups and to bring the culprits to justice forthwith, membership in the Party does not seem to preclude connivance with, and even participation in, the distortion of reports and other "economic crimes."<sup>89</sup> Bribery of local Party officials in connection with such acts has also been reported.<sup>90</sup>

Very little is known about the alertness of the secret police to false reporting and related crimes, but some information is available on the role of the Procuracy in this regard. This information indicates that, at least in some periods, the Procuracy failed to exercise the expected initiative in supervising the enforcement of economic legislation and to investigate and prosecute anything like all the cases of law violation that came to its attention. An internal order of the Procurator of the USSR, dated February 20, 1936, complained of the "completely unsatisfactory state of supervision" by agencies of the Procuracy over the enforcement of "statistical discipline," and called for an immediate improvement in this respect.<sup>91</sup>

A few years later, the journal of the State Arbitration Commission complained: "There are many instances where agencies of the Procuracy not only fail to exercise initiative in prosecuting individuals guilty of producing *brak*, but even fail to react to notices from arbi-

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discovery of economic crimes were usually concluded by a statement that the investigating judge in charge was promoted and awarded two months' salary for the commendable discharge of his duties. As to corruptibility, my information comes orally from, among other sources, a former inspector for the Ministry of Finance. On the low quality of audits, see also *B.U.*, 1954, No. 4, pp. 1-6, and *P.E.G.*, May 15, 1959, p. 3.

<sup>89</sup> See, for instance, *P.Zh.*, 1955, No. 11, pp. 28-30. Ample confirmation can also be found in the accounts of defectors, e.g. Konstantinovskiy, *op.cit.*, p. 18. Cf. Merle Fainsod, *How Russia Is Ruled*, Cambridge, Mass., 1953, pp. 203ff., on the relations of local Party officials to economic affairs. For a recent complaint that local Party units defend "localistic" interests, see *Pravda*, Sept. 1, 1958, p. 2.

<sup>90</sup> Cf. Konstantinovskiy, *op.cit.*, p. 23. For a recent account of bribery of a local Party official, see *Pravda*, Aug. 27, 1958, p. 2.

<sup>91</sup> *B.F.Kh.Z.*, 1936, No. 13, p. 41.

tration agencies regarding the mandatory prosecution of specific culprits.<sup>92</sup> Konstantinovskiy confirms this general picture when he recalls that in his experience, i.e. before the war, "the number of cases [of inventory shortage] in some years was so great that the organs of the Procuracy and the judicial investigating organs did all they could to prevent, if possible, any more such cases from reaching the courts."<sup>93</sup> This situation seems to have persisted despite—or perhaps because of—the intervening enactment of the harsh 1940 edict on the production of defective goods, the enforcement of which was entrusted to the Procuracy. In 1947, an article in the journal of the Procuracy itself complained that very few such cases were being initiated by the prosecuting agencies, implying that this was due to their negligence rather than lack of grist for the juridical mill; and that such cases as were initiated pertained chiefly to consumer goods, a relatively less important part of the edict.<sup>94</sup> And lastly we may note here, as we have already noted in an earlier section of this chapter, that the 1952 resolution of the Council of Ministers on the quality of industrial production explicitly complained of the failure of the Procuracy to discharge its duties effectively in this regard.<sup>95</sup>

The statistical apparatus itself, of course, is charged with checking the quality and truthfulness of the reports submitted to it, whether by enterprises or by higher entities. The literature of the thirties contains only occasional statements that such checks were not adequately conducted, but the postwar literature is replete with complaints on this score with a definite crescendo from 1949 to 1951.<sup>96</sup>

While it is conceded that the local statistical offices conduct

<sup>92</sup> *Arbitrazh*, 1939, No. 11, p. 3.

<sup>93</sup> Konstantinovskiy, *op.cit.*, p. 17. Granick (*op.cit.*, pp. 190-191) similarly concludes that "the weapon of criminal prosecution against management has been used sparingly" except in "national campaigns to show that the State means business." He notes, moreover, that initiative for criminal prosecution of management was (in the thirties, at least) "retained by economic organs above the firms, such as the glavki," and that ". . . Soviet legal organs have—in the field of industry—been geared primarily to acting in the interests of production 'success'" (*ibid.*, pp. 199-200).

<sup>94</sup> S.Z., 1947, No. 8, pp. 3f. See also footnote 10, this chapter.

<sup>95</sup> See p. 71.

<sup>96</sup> See especially V.S. 1951, No. 2, pp. 91-95, and No. 5, pp. 57-61. In 1949/50 the Party and the government issued directives demanding improvement in this regard; these were followed by an internal order of TsSU (dated Jan. 26, 1950) and accompanied by a series of special conferences (*ibid.*, No. 2, pp. 92f.).

numerous audits of enterprises and departments in order to ascertain the truthfulness of reports, these checks are said to be usually superficial, poorly organized, "formalistic" and routine, and too brief. The quality of audits suffers in part because too many are undertaken. (One wonders to what extent the reports of local statistical offices are themselves "written up" in this regard.) These structures usually appear in the same context as the exhortations to the statistical personnel to be honest, to abide by high principles, etc.

Postwar sources also constantly complain of the "liberal" attitude evinced by the supervising authorities—be they Party organizations, government agencies, or statistical agencies—toward the wrongdoers.<sup>97</sup> Obviously there has been considerable reluctance, probably combined with clogged dockets, on the part of the various authorities to invoke full legal sanctions, and if action was taken at all, it was often, though clearly not always, confined to a "cease and desist" order or a mild reprimand. The relaxation of terror since 1953 may have augmented the feeling on the part of managerial personnel that "one can get away with things," although it may also have reduced the necessity to falsify in order to survive economically. Time may tell whether these conjectures are valid.

#### 4. CHECKS BY TRANSACTORS

If write-ups, unjustified upgrading, the counting of *brak* as valid finished output, and similar practices that overstate the enterprise's performance are not to leave lasting and incriminating evidence in the form of discrepancies between internal records and the physical inventory of finished goods, they must be, so to speak, "shipped out" of the plant and "passed on" to the enterprise's customers. That is to say, the invoices and related papers must overstate the quantity, grade, or quality of the goods shipped. But it would seem that the transactors—the buyers of the goods and the common carriers who haul them away—have a clear interest in thwarting

<sup>97</sup> Cf. *P.Zh.*, 1955, No. 11, pp. 28-30 and 80; *V.S.*, 1951, No. 2, pp. 92f.; No. 5, pp. 55 and 60; 1953, No. 1, p. 23; 1955, No. 6, p. 11. Tsonev (*op.cit.*, p. 153) also notes the mildness of the penalties for transgressions of this sort that have been reported by the press in postwar years, compared with those meted out in the thirties and during the war. On the other hand, this does not mean that harsh penalties were also not dispensed after the war for certain "economic crimes." For instance, the sentences for theft of food mentioned in *S.Z.* during 1947 and 1948, years of great food shortage, can be characterized only as savage.

anything of this sort, and that they consequently provide a very important check to write-ups, etc., on the part of producers. That checks by transactors, especially by buyers, are often more effective than the three types of checks already discussed is indeed occasionally borne out by the evidence. For example, a Soviet author recently wrote:<sup>98</sup>

“It is well known that administrative control, exercised from the top downward, over the activity of enterprises with regard to quantitative and qualitative fulfillment of plans by individual commodities [*po nomenklature*] has never been either effective or timely without the mutual checking of the seller and the buyer at the time of delivery of the goods.”

Moreover, because of the possibility of cross audits by the various control agencies, the seller would presumably avoid entering or declaring on invoices and waybills information that contradicted his internal records and his statistical and accounting reports. Consequently there would seem to exist an unbroken chain of control linking the physical goods with the producer's reports: the buyer and common carrier, acting to safeguard their own interests, verify the invoices and waybills against the physical goods they receive; copies of these documents remain in their files; and, at any later time, any auditing authority presumably *can* check these documents against the seller's (producer's) internal records, statistical and accounting reports, and finished goods inventory on hand. Write-ups and similar practices would thus seem to be precluded.

And yet we already know that some of the links in this chain are rather weak. Even the link involving transactors, though perhaps frequently stronger than the others because of self-interest, is nonetheless far from infallible. Its weakness may derive from three circumstances: (1) collusion between the producer and the customer (or other transactor); (2) domination of the buyer by the seller due to the prevailing seller's market; and (3) in the case of the common carrier, negligence abetted by a possible coincidence

<sup>98</sup> I. M. Broide, “O novykh formakh upravleniia v neftianoi promyshlennosti” [On the New Structure of Management in the Petroleum Industry], *Sovetskoe gosudarstvo i pravo*, 1957, No. 5, p. 46. The article argued for the retention of supply organizations (*sbyty*) after the 1957 reorganization of industry. The phrase “the mutual checking of the seller and the buyer” obviously stands euphemistically for “the checking of the seller by the buyer.”

of interests with the shipper. Of the three, collusion may be the least prevalent, if only because it generally presupposes that the two (or more) colluding enterprises are each other's regular customers. Yet it apparently happens. Consider the following actual case of a dairy and a plywood factory. The dairy sold casein to the plywood factory for the manufacture of glue, while the factory sold plywood to the dairy for boxes to pack the casein (and possibly other dairy products). By collusion, the two enterprises wrote up the output of casein and plywood, respectively; illegally diverted some of the raw materials; and "shipped out" the fictitious portions of output to each other with the aid of false invoices.<sup>99</sup>

As we have just seen, an alternative to "piling up" the written up portion of output—be it *brak* or completely nonexistent products—in one's own warehouse is to "ship it out" to one's customers. This alternative has the advantage of removing the evidence of irregularities (*brak* or shortages) from the producer's premises, but has the obvious drawback that it runs counter to the interests of the customer. At first glance, it would therefore seem, by and large, impossible to cover up the overstated portion of output by "shipping it out." But the Soviet literature leaves no doubt that this is done on a substantial scale; certainly with *brak*, but also occasionally with never-produced output. The explanation of this paradox lies in the specific characteristics of the Soviet economic scene, and particularly of the chronic sellers' market. It does not seem to make any substantial difference in this respect whether the product is under centralized allocation ("funded") or not.

The persistent and sometimes severe excess of demand over supply (at the stated price) frequently causes buyers to overlook deviations from quality specifications and to accept substandard products, to accede to tie-in sales, and occasionally even to wink at shortage in quantity. Buyers tend to "take what they can get" and are reluctant to remonstrate with suppliers or to invoke legal measures for fear of spoiling relations with them. For instance, a 1937 article in *Arbitrazh*,<sup>100</sup> the journal of the State Arbitration Commission, complained that few cases about the quality of supplies were initiated by buyers before that body and explained this fact in approximately the terms given above; while a more recent source inveighed against "the rotten practice [among enterprises]

<sup>99</sup> This case was related to me from personal recollection by Professor Edgars Dunsdorfs of the University of Melbourne, formerly of Riga, Latvia.

<sup>100</sup> No. 15, pp. 3-5.



of granting 'mutual forgiveness' for nonadherence to conditions of delivery."<sup>101</sup> The same is implicit in the endless complaints of buyers, of producer as well as of consumer goods, which have been filling the Soviet press almost daily since the beginning of the Plan era. Only infrequently do these complaints give any reason to believe that the goods were returned to the seller (producer) for being defective in quality or short in quantity.<sup>102</sup>

The common practice of suppliers to hold up delivery until late in the accounting period, when buyers are most desperate to meet their plan targets and are therefore more vulnerable to the supplier's pressures, probably facilitates the shipping out of *brak* and fictitious output. Another contributing factor seems to be the poor organization of the receiving department in many enterprises, mentioned in postwar as well as prewar sources.<sup>103</sup>

This is not to say that some defective goods are not returned to the producer. Thus, the text of the 1952 resolution of the Council of Ministers on the quality of industrial output, already mentioned more than once above, states that in 1951 representatives of the USSR Ministry of Agriculture returned to the plants of the Ministry of Agricultural Machine-Building for elimination of defects 11.2 per cent of the agricultural machines delivered to the former; while the customers of the tractor plants of the Ministry of the

<sup>101</sup> *P.Kh.*, 1956, No. 1, p. 65; cf. *Finansy SSSR*, 1955, No. 7, p. 43.

<sup>102</sup> On the quality of output, see also pp. 70ff. For a fuller discussion of the shipment of *brak* to customers and of the weakness of their resistance to this practice, see Berliner, *op.cit.*, pp. 149ff., 239, and 254. It is clear from the literature that the practice persists and that buyers still have little choice but to take what they are given. For a couple of striking illustrations, drawn virtually at random from the recent literature, and both incidentally referring to high-priority articles (diesel locomotives and heavy mechanical presses), see *P.E.G.*, Sept. 18, 1957, p. 2, and Dec. 11, 1957, p. 3.

An illuminating recent article on the quality of construction contains a brief but pointed discussion of the low quality of building materials and makes it quite clear, if not explicit, that construction organizations can do little but accept defective materials (Parubek, *op.cit.*, pp. 374-377). The author states, for instance, that "at the present time" as much as 60 per cent of the brick does not correspond to standard specifications, some of it deviating [downward?] as much as 2.5 cm from the standard, and that the actual grade of brick reaching the construction site frequently is below that indicated in the corresponding invoice (*passport*). Compare the following statement, also pertaining to the construction industry: "The shortage of materials, parts, components, plumbing supplies, etc., leads to the situation that the contract and the obligations stipulated by it lose their force. Sanctions are not applied. The builders use any supplies that are delivered to them, filing no claims on account of their quality, times of delivery, completeness of assembly, grade of product, and the like" (*V.E.*, 1957, No. 4, p. 82).

<sup>103</sup> Cf. *Z.I.*, June 11, 1937, p. 2; and Alenchikov, *op.cit.*, pp. 105f.

Automotive and Tractor Industry returned 22 per cent of the tractors delivered to them.<sup>104</sup> However, we are not told what effect, if any, this had on the production reports submitted by the agricultural machinery and tractor plants, nor do we know whether the items returned account for *all* the defective products of these plants in the year in question. (We may doubt the latter considering the frequent complaints about the quality of the machines as they arrive in the countryside.) In general, the ability of a producer to "ship out" the written up portion of output (by cheating on quantity, or unjustified upgrading, or delivering *brak*) and to get away with it would seem, to a large extent, to depend on the countervailing power, including the political "pull" and the priority ranking, possessed by the customer. The shoddiness of Soviet consumer goods and the poor quality of building materials, on the one hand, and the excellence of many military articles, on the other, amply illustrate this point.<sup>105</sup>

When the *quantity* of the shipment is overstated, the shipper must face, in addition to the checks imposed by the buyer, the possibility of checks by the common carrier, which is usually the railroad. Since the carrier is responsible for the safe delivery of the goods, it might be expected to make sure that the accompanying documents do not overstate the size of the shipment. But in reality it seems to be rather negligent in this respect, and furthermore its interests seem to be more equivocal. The railroad has its freight loading and freight haulage plans, revenue and unit cost targets, and various other "qualitative norms" to meet and overfulfill. It may thus be quite willing to overlook the shippers' overstatement of weight.<sup>106</sup> We may also note that loading gangs are apparently paid on a piece-work basis<sup>107</sup> and may therefore welcome and abet write-ups of the weight of shipment. These impressions are corroborated by Professor Williams' study of Soviet transportation statistics.<sup>108</sup>

<sup>104</sup> *Direktivy KPSS*, vol. II, p. 642. The text is careful to stress that in both cases the articles had been passed by the OTK.

<sup>105</sup> Cf. Berliner, *op.cit.*, p. 152.

<sup>106</sup> At times the carrier may write up the weight liberally himself; in some trucking firms in Leningrad such write-ups are said to have been as high as 300 to 400 per cent (*Finansy SSSR*, 1955, No. 7, p. 43).

<sup>107</sup> Sokolov, *op.cit.*, pp. 13 and 131.

<sup>108</sup> "Soviet tons originated are clearly overstated as a result of showing on freight waybills more tonnage than is actually loaded in cars, although we cannot say by how much" (Ernest W. Williams, "Soviet Transportation Development: A Comparison with the U.S.," *American Economic Review*, May 1958, p. 414).

The waybill of a Soviet railroad contains spaces to enter the weight of the shipment as determined by both the shipper and the railroad.<sup>109</sup> However, the railroad's representative does not always weigh the freight. Rather, the rule is that he weighs the freight only when it is loaded from the railroad's warehouse or at a station. When the freight is shipped from a plant's siding, or its own warehouse, or other "loading points not in common [open] use," the weighing is done by the shipper.<sup>110</sup> It would seem that the latter is the typical situation with Soviet industrial plants of any substantial size. This may amount to a significant loophole for the overstating of the quantity of goods shipped.

It seems, therefore, that the carrier does not present an insurmountable barrier to the "shipping out" of the written up portion of output.

To conclude this chapter, it has been demonstrated that the Soviet enterprise is a major source of distortion in Soviet industrial output statistics. More often than not the result is overstatement of output (this concept, of course, being understood in a manifold way, including quality standards and other considerations). But in some respects the actions of the enterprise (and of self-serving individuals within it) may cause understatement of output. I shall gather the various strands of the argument in the last chapter.

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We may also note in passing that the data on mileage and ton-mileage in trucking may be considerably exaggerated because drivers are remunerated by the mile or ton-mile. Manipulation of speedometers, dumping of gasoline (when its apparent consumption is taken as evidence of the distance traveled), and writing up of the tonnage carried seem to take place on a large scale. See, for example, *Pravda*, June 5, 1959, p. 4, and *Voprosy stroitel'stva kommunizma v SSSR* [Problems of the Building of Communism in the USSR], Moscow, 1959, p. 352.

<sup>109</sup> I. V. Kochetov, *Zheleznodorozhnaia statistika* [Railroad Statistics], Moscow, 1953, Annex 1.

<sup>110</sup> Article 72 of the Railroad Charter, as cited by V. N. Izvolenskii, *Pravovye voprosy zheleznodorozhnykh perevozok* [Legal Aspects of Railroad Haulage], Moscow, 1955, p. 61. Cf. A. M. Beliakova, "Voprosy otvetstvennosti zheleznomykh dorog po dogovoru perevozki gruzov v praktike Verkhovnogo Suda SSSR" [Responsibility of Railroads with Regard to Freight Haulage Contracts as Interpreted by the USSR Supreme Court] in *Uchenye zapiski* [Learned Notes], Issue 168, Book 7, Moscow, 1954, p. 43. A recent article describing illegal trade in scrap metal states that "the railroad makes out formal papers [*kommercheskie akty*] by weighing only every tenth car and accepting the shipper's documents for the rest," and adds: "What brilliant prospects for dishonest people" (*P.E.G.*, Jan. 8, 1958, 3).