

## The Edict of Diocletian: A Study of Price Fixing in the Roman Empire

H. Michell

*The Canadian Journal of Economics and Political Science*, Vol. 13, No. 1 (Feb., 1947),  
1-12.

Stable URL:

<http://links.jstor.org/sici?sici=0315-4890%28194702%2913%3A1%3C1%3ATEODAS%3E2.0.CO%3B2-W>

*The Canadian Journal of Economics and Political Science* is currently published by Canadian Economics Association.

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/cea.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

---

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



THE CANADIAN JOURNAL OF  
ECONOMICS AND POLITICAL SCIENCE

Volume XIII

FEBRUARY, 1947

Number 1

THE EDICT OF DIOCLETIAN:  
A STUDY OF PRICE FIXING IN THE ROMAN EMPIRE

IN 301 A.D. the Emperor Diocletian, with whom were associated his three co-rulers, promulgated an edict which fixed for the whole Roman Empire maximum prices for commodities, freight rates, and wages.<sup>1</sup> According to the evidence available, and it is certain that the whole edict has not been recovered, price "ceilings" for over 900 commodities, 130 different grades of labour, and a considerable number of freight rates, were fixed and severe punishment promised to all "black market" operators who dared to buy or sell above the maximum. So elaborate a scheme of price control was not tried again until 1,600 years had passed. The reasons that led to this drastic interference in the economic life of the Empire and the success it attained, or rather did not attain, in regulating prices, provide a study for the historian which is well worth while.

*The Chaos of the Third Century.* In order to understand the circumstances that led to the issuing of this edict, it is necessary to envisage the appalling state of affairs which marked the third century of the Christian era. Utter anarchy engulfed the Roman world; emperors and pretenders to the imperial throne struggled for the great prizes of power. Armies marched and remarched over every province, plundering the wretched inhabitants. In 193 the Empire was put up for sale by auction by the Praetorians, the imperial guards, and bought by Didius Julianus. It is interesting to note that he enjoyed his bargain for exactly sixty-six days. Such cynical disregard for the glory of the imperial purple was too much even for those days and he was murdered. As each claimant reached the goal of his ambition, the first thing he had to do was to pay the soldiery that backed him. The imperial treasury was looted and empty, and the enormous sums necessary to satisfy the army could only be met by piling tax on tax, by confiscating the wealth of opponents and, worst of all, by debasing a currency that already was fast approaching the point when it was next to worthless. In 260, there came the last and most shocking degradation when the Emperor Valerian, who was trying to defend the eastern frontier, was captured by the Persians and held for six years in captivity until his death. The Empire was clearly breaking up in misery and confusion, bankruptcy and anarchy.

<sup>1</sup>T. Mommsen, *Das Edict Diocletians de pretiis rerum venalium* (Leipzig, 1851); H. Bluemner, *Der Maximaltarif des Diocletian* (Berlin, 1893); Elsa, R. Graser, "The Edict of Diocletian on Maximum Prices" (in *An Economic Survey of Ancient Rome*, ed. Tenney Frank, vol. V, Baltimore, 1940). Elsa R. Graser, "The Significance of Two New Fragments of the Edict of Diocletian" (*Transactions of the American Philological Association*, vol. LXXI, 1940, p. 157). Miss Graser's admirable edition of the edict supersedes the older versions of Mommsen and Bluemner. L. C. West, "Notes on Diocletian's Edict" (*Classical Philosophy*, vol. XXXIV, 1939, p. 242).

But the complete dissolution of the Empire was still postponed. The amazing thing was that it rallied and the barbarians were driven back. Italy and Gaul were saved and the Persians were repulsed in the east. By the time of Aurelian (270-5) the Empire was on the mend; his successor Probus (276-82) decisively beat off the last of the invaders, and Diocletian (284-305) reigned, with his three co-regents, over an Empire that was, in comparison with the anarchy of the last century, at peace. But it was the peace of exhaustion and, as Tenney Frank has remarked, it is doubtful if the Empire was worth saving under such conditions.<sup>2</sup> Such was the almost incredible history of what was, probably, the most unhappy and intolerable century in which mankind has suffered for the ambitions of headstrong men.

*Debasement of the Currency.* The story of anarchy in the Roman Empire is reflected by the evidence we have of bankruptcy of the imperial exchequer. If an emperor could not raise money by heavier taxation, or by confiscating the wealth of his rivals, the only way left to him was to debase the currency, in precisely the same way as modern governments increase the note issues of their central banks. Numismatic evidence<sup>3</sup> gives us a very clear picture of the pro-

TABLE I  
SILVER CONTENT OF ROMAN COIN OF DENOMINATION

<i>Issuing Authority</i>	<i>Per cent Silver</i>
Nero 54 A.D.....	94
Vitellius 68 A.D.....	81
Domitian 81 A.D.....	92
Trajan 98 A.D.....	93
Hadrian 117 A.D.....	87
Antoninus Pius 138 A.D.....	75
Marcus Aurelius 161 A.D.....	68
Septimius Severus 193 A.D.....	50
Elagabalus 218 A.D.....	43
Alexander Severus 222 A.D.....	35
Gordian 238 A.D.....	28
Philip 244 A.D.....	0.5
Claudius Victorinus 268 A.D.....	0.02

gressive decline of the purity of the silver *denarius*, the "penny" of the New Testament. The *denarius* of Augustus was, for all practical purposes, pure silver. Some alloy was necessary to harden it and preserve it against excessive loss by abrasion or clipping. Nero (54 A.D.) struck a *denarius* of 94 per cent pure silver, and with unimportant variations this standard was maintained until the time of Hadrian (117), whose *denarius* was 87 per cent pure. There was obviously a certain amount of debasement; but it was not serious and the coins were accepted everywhere at their face value. With Antoninus Pius (138)

<sup>2</sup>Frank, (ed.), *An Economic Survey of Ancient Rome*, p. 303.

<sup>3</sup>The literature on the coins of the Roman Republic and Empire is very large and, except for the expert, often highly confusing and controversial. For the English reader the best is: H. Mattingly, *Roman Coins* (London, 1928); P. H. Webb, *Roman Imperial Coins* (ed. H. Mattingly and E. S. Sydenham, London, 1927), vol. V, p. 1. C. Oman, "Decline and Fall of the Denarius" (*Numismatic Chronicle*, 1916, p. 37).

really serious depreciation began, which ended in the complete degeneration of the currency, as Table I<sup>4</sup> very clearly shows.

Gold coins (*aurei*) practically disappeared from circulation, and what did remain were so reduced by clipping that they passed only by weight. Down to the time of their complete demoralization, the debased silver coins had passed current, simply because they represented the only currency available. As these became more and more debased, they were issued with a silver or tin wash to make them look respectable. But so poor and thin was this coating that it soon wore off and the sham "silver" coins were revealed for what they really were. With the monetary system in complete confusion, trade, except on a barter basis, was seriously hampered. Enormous fortunes were made by far-seeing and utterly unscrupulous speculators and the sight, so familiar to the world since then, of profiteers enjoying their gains amid ruin and bankruptcy was common, until these same speculators attracted too much attention and an emperor confiscated their fortunes. The middle class—the *bourgeoisie*—was almost obliterated and the proletariat was quickly sinking to the level of serfdom. Intellectually the world had fallen into an apathy from which nothing could rouse it. Men lost heart; they were afflicted with an overpowering boredom, a *taedium vitae*, in which nothing was worth while.<sup>5</sup>

The reasons for this economic and spiritual collapse are not far to seek. Basically it can be summed up in a few words—the task of ruling the world had been too great for Rome. It was physically impossible to concentrate so much administrative power into one centre. During the time of the Republic, the Senate had tried to carry out this impossible task and failed. The Empire inaugurated by Augustus had been more successful; but the efficiency of the imperial administration, the upkeep of the armies, and the payments for the doles which supported the Roman proletariat had been paid for at a ruinous price in taxation. How often in the Bible do we hear of the exactions of the Roman tax-gatherers, the "publicans and sinners."

*The Era of Diocletian.* To the Emperor Diocletian,<sup>6</sup> fell the task of reconstruction, and he went about it with energy and wisdom. His "reforms," if we may call them that, may be summarized as follows: (1) To overcome the paralysis of administration through over-centralization, he divided the task of ruling into four, associating with himself three "associate emperors." (2) He reorganized the civil service, increasing its efficiency, but, unfortunately, also enhancing its cost. (3) Since the taxes could not accurately be measured in terms of money that was so violently depreciated as to be next to worthless, he instituted a system of payment of taxes in kind, "*annona*" as they were called.

<sup>4</sup>T. Hammer, "Der Feingehalt der griechischen u. römischen Münzen" (*Zeitschrift für Numismatik*, vol. XXVI, 1907, p. 97).

<sup>5</sup>M. Rostovtzeff, *History of the Ancient World* (Oxford, 1927), vol. II, pp. 363 ff. M. Rostovtzeff, *Social and Economic History of Rome* (Oxford, 1926), pp. 478 ff. Rostovtzeff ignores the factor of the failure of the precious metals to support the price structure.

<sup>6</sup>For the latest treatment of this period *vide* H. M. D. Parker, *History of the Roman Empire 138-337* (London, 1935), part V, chap. V. *Cambridge Ancient History*, vol. XII, chap. VII, "Economic Life of the Empire" by F. Oertel.

This system was a good one only in so far as it was the only possible one. But it led to the last degradation of the free peasantry; since obviously, if taxes were to be paid in natural products, such as wheat or other grains, their production must be guaranteed and agricultural workers must be on hand to till the soil. In other words, the peasantry must be bound to the soil (*ascripti glebae*), they became serfs, "villeins," and for them the transition to the feudal system was natural and inevitable. (4) He reformed the monetary system of the Empire. (5) He attempted to set maximum prices for commodities, freight rates, and services, as will be seen hereafter.

*Diocletian's Reform of the Currency.*<sup>7</sup> As is unavoidable in any study of monetary systems of the ancient world, some of the details of the new system introduced in 293-6 are by no means perfectly clear, and have given rise to considerable controversy among numismatists. It does seem certain, however, that Diocletian put the imperial mint to work turning out coins of gold, silver, and bronze, which, at least for the first two categories, were a return to the best standards of the early Empire. In gold, a coin called the *aureus* was issued at the rate of sixty to the pound weight of 12 ounces, and in silver an *argenteus* of which ninety-six went to the pound, a return to the silver *denarius* of Nero. So much is certain; it is over the bronze coins that the experts fall out. The best conclusion seems to be that Diocletian minted three bronze pieces of 150, 60, and 20 grains Troy weight respectively. Without going into the hopelessly involved and obscure problems connected with the issue of these coins, it may be said that Diocletian demonetized the coin known as the *valentinianus*, which was tarified at 25,000 to the pound of gold, and substituted the *follis*, or what was officially called the "common penny" or *denarius communis*, at 50,000 to the gold pound. In other words, copper was revalued in terms of gold at one-half of its former entirely fictitious worth.

That we are on safe ground in this conclusion is found, amusingly enough, in a private letter from an official named Dionysius to an underling named Apion saying that he has "inside" information that the currency is about to be recast and that the "*nummus*" is to be reduced by half, i.e. tarified at 50,000 instead of 25,000 to the gold pound. He bids Apion buy any commodity he can lay his hands on and at any price to hold for a rise. The letter ends with a warning to Apion not to give the writer away or try to do Dionysius out of his cut of the profits, a thoroughly characteristic communication from one rogue to another.<sup>8</sup>

The whole episode of the monetary reform of Diocletian bristles with difficulties. Tenney Frank is surprised that he had enough silver at his command

<sup>7</sup>The literature on this subject is very extensive and the theories advanced widely divergent. The conclusions arrived at here follow largely those of Otto Seeck, "Münzpolitik Diokletians und seiner Nachfolger" (*Zeitschrift für Numismatik*, vol. XVII, 1890, pp. 63 ff). An important article is by G. Mickwitz, "Geld und Wirtschaft im römischen Reiche des vierten Jahrhunderts nach Chr" in the Finnish learned journal *Soc. Scient. Fennica, Comment. Hum. Lit.* 6. Helsingfors, 1934; also K. Voetter, "Die Kupferprägungen der Diokletianischen Tetrarchie" (*Numismatische Zeitschrift*, 1899, p. 1).

<sup>8</sup>C. H. Roberts, and H. Mattingly (*Transactions of the International Numismatic Congress*, 1936, London, 1938, p. 246).

to coin the new *argentei*, and surmizes that he had brought a good deal in booty back from his campaigns on the eastern frontiers, the balance being made up by plundering temples of their sacred vessels, and private individuals of their plate. That is quite possible, although there is no evidence to substantiate it; but what is apparent is that there was not enough silver, and less gold, to support a price structure founded on the precious metals. The bronze coins, the *nummi* that Dionysius was talking about, were tariffed too high in relation to the new gold standard that the emperor sought to introduce. The pound weight of gold was fixed as being worth 50,000 bronze *denarii*. In the open market it was worth a good deal more, and no one was going to sell gold at the mint rate when a handsome profit could be made by dealing in the open or "black" market. The *denarius* was not worth what it was officially tariffed at in gold, and the whole structure of the newly reformed monetary system was in danger of breaking down in a confusion as bad as any that had gone before. Diocletian had done his best to give the Empire an honest currency in gold and silver, which would have been successful if the stock of precious metals at the disposal of the imperial mints had been sufficient to support it. But that was exactly what it was not, and we may be sure that "Gresham's Law" was hard at work. Bad money—the grossly inflated bronze *denarii*—was driving the good, the *aureus* and *argenteus*, out of circulation.

Diocletian and his co-regents were faced with a deadly dilemma, either to inflate or deflate and one was as disastrous as the other. It was true that the Empire had been saved from complete collapse; it was at least a going concern, albeit hardly and painfully. But to keep it going was a costly business. To maintain a disciplined army, without which the frontiers could not be held, was a never-ending drain upon the exchequer, for without regular and sufficient pay it would become mutinous and the old anarchy would break out again. An efficient civil service was almost as costly and we know that Diocletian had greatly increased the number of officials, which made for efficiency and also for greater expense. The administration of the Empire had been turned into a vast bureaucracy over which presided four imperial courts, maintained with oriental luxury and ostentation, which may have been highly impressive but cost enormously. To deflate was, therefore, impossible; to do so would bring down the whole elaborate fabric of civil and military government. To inflate would be equally disastrous in the long run. It was inflation that had brought the Empire to the verge of complete collapse. The reform of the currency had been aimed at checking the evil, and it was becoming painfully evident that it could not succeed in its task. There was only one chance to maintain economic equilibrium. It was a poor chance and not likely to succeed, but at least it was worth trying. That was to maintain a stationary price level, or as near stationary as could be hoped for, by decreeing maximum prices, wages, and freight rates, and enforcing the decree with the utmost rigour.

*The Edict on Maximum Prices.* This remarkable document, promulgated in 301 A. D., fixed "ceilings" or maximum prices on most, if not all, commodities and freight rates, and maximum wages for all workers. Even in the incomplete form in which it is at present extant, its comprehensive nature is abundantly

evident. In the various categories into which the document may be divided, price maxima are set for the commodities listed in Table II. Although we may be certain that the list is incomplete in its present form, it is to be observed that the omissions here are even more remarkable than the number of commodities included. For instance, where are the metals, iron, copper, lead, tin, bronze? There are no prices for clay products. Gold and silver are included for a special purpose, as will be seen later. Some of the schedules of prices seem curiously over-elaborate. Vegetables, herbs, and meats are in great variety, while fish, which might reasonably be expected in even greater detail, have only five quotations; seafish first and second quality, fresh water ditto, and salted fish.

TABLE II

## SCHEDULES OF PRICES AND WAGES COVERED BY EDICT

PRICES	
Foods .....	222
Hides and leather.....	87
Timber and wood products.....	94
Textiles and clothing.....	385
Wicker and grass products.....	32
Cosmetics, ointments, incense.....	53
Precious metals.....	17
Miscellaneous .....	31
WAGES	
General, skilled, and unskilled.....	76
Silk workers and embroiderers.....	13
Wool weavers.....	6
Fullers .....	26

The schedules for wages are highly detailed, and worthy of more intensive analysis than can be given here. In general the standard wage for unskilled labour is 25 *denarii* per diem; for skilled 50, with maintenance, with considerably higher rates for the most skilled classes. For instance, a wall painter receives 75 *denarii* and a figure painter 150. Why a shipwright working on a sea-going vessel should receive 60, and one on a river-going ship only 50 is hard to say. The extremes in piece rates are sometimes extraordinary and amusing. Thus, for an advocate in opening a case the rate is 250 *denarii*; for pleading a case, 1,000, while a clothes-guard receives 2 *denarii* per bather. The rates for teachers are interesting. An elementary instructor may charge 50 *denarii* per pupil monthly; a teacher of arithmetic or shorthand 75; a teacher of Greek or Latin literature and geometry 200; and a teacher of rhetoric or public speaking 250. The most highly paid workers are those in the precious metals in which a craftsman in gold receives 5,000 *denarii* per pound weight. This must refer to skilled smelters, refiners, and assayers, while gold cutters receive 3,000 *denarii* per pound. A gold spinner receives 2,500 per ounce and for unornamented gold work 2,000 plus per ounce.

The most important item in the whole edict is that which values a pound of gold at 50,000 *denarii*. This item is the key to the whole revaluation of the

currency that had been brought into effect some five years earlier. The bronze unit of denomination, the so-called *valentinianus*, had been grossly overvalued at 25,000 to the pound of gold: the new coin, the *folllis*, was tariffed at exactly double that amount. The "black market" price for gold must have been considerably more than 25,000 *valentiniani* per pound, and it is permissible to suppose that the new *folllis* was put at the free market rate.

*Freight Rates.* Fragments of this famous edict have been discovered in a good many places, the latest and a very important one in Italy,<sup>9</sup> a discovery which disproves the idea previously held that the edict applied only to the eastern provinces. This provides a remarkable schedule of maximum freight rates for commodities in inter-Empire trade. Thus, from the port of Alexandria to Rome and nine other places a tariff of charges is laid down for grain per *castrensis modius*.<sup>10</sup> For instance, it cost from Alexandria 16 *denarii* to ship one to Rome; 8 to Ephesus, and so on. There are fourteen rates to other points from "Oriens" and "Asia." The latter refers to the Roman province bordering on the Aegean. The term "Oriens" is puzzling and no certain explanation of it can be given.<sup>11</sup> It will be noticed that the rate from "Asia" to Rome is 16 *denarii* per *castrensis modius*; from "Oriens" it is 18. From Africa, i.e. the Roman province bordering on the Mediterranean, there are thirteen rates varying from 18 *denarii* to Salona to 4 "to the Gauls." The schedules are obviously incomplete, many more rates from various ports must have been originally tabulated. It is also to be observed that "fiscal" rates are much lower than the ordinary commercial charges, which meant that goods carried on account of the imperial treasury (*fiscus*) were tariffed at prices which can hardly have paid the unfortunate shipowner who was forced to carry for the government. There is some indication that grain transported on government account went at half rates.

As denoting the importance of Nicomedia (the modern Ismid at the head of a gulf opening out of the Sea of Marmara south of Constantinople), which Diocletian had designated capital of the Roman province of Bithynia, some thirty freight rates are listed. Its commercial importance lay in the fact that it stood at the confluence of some of the busiest caravan routes from further Asia, and until Constantine made Byzantium the capital of the Eastern Empire, Nicomedia was one of the most important centres of trade. Unfortunately, this fragment of the edict is badly mutilated and only scattered quotations can be deciphered. For instance, the rate from Nicomedia to Rome was 18 *denarii* per *castrensis modius*, to Ephesus, 6, to "Phoenicia," 12. The whole schedule of

<sup>9</sup>E. R. Graser, "The Significance of Two New Fragments of the Edict of Diocletian" (*Transactions of the American Philological Association*, vol. LXXI, 1940, p. 157).

<sup>10</sup>*Castrensium modius*. It is not certain what this measure was. T. Mommsen, *Berichte d. Sachs. Gesell. d. Wiss.*, 1851, p. 58, holds that it was double the ordinary modius, which would make it about half a bushel, modern weight. Vide also F. Hueltsh, *Griech u. Röm Metrologie* (Berlin, 1862), p. 94.

<sup>11</sup>It designates, possibly but far from certainly, ports on the Orontes River in Asia Minor, of which Seleuceia Pieria is the most likely, as being the terminus of caravan routes. Seleuceia did a big transit trade.

freight rates, imperfect as it is, awaits careful analysis. It obviously casts considerable light upon the commerce of the later Roman Empire.

*Reasons for the Edict.*<sup>12</sup> A careful study of the preamble to the edict will reveal two things. First, it was primarily an effort to fix a universal figure for the new *denarius* that had been introduced at the "reform" of the coinage. For that reason it was not an elaborate price list of all sorts of articles in daily use in terms of a well-established and universally accepted currency, but rather a tariff whereby the new unit of denomination was fixed in terms of goods. In short, the edict on prices cannot be understood unless it be closely related to the new coinage. The two enactments stand or fall together, a fact of which Diocletian and his advisers were very well aware. Was the new coin, the *folles*, really worth half of the old *antoninianus*? Was it tarified too high or too low in terms of gold? Five years' experience had been enough to demonstrate that the chances of making money in arbitrage dealings were very numerous. The edict waxes indignant over the unconscionable gains made in this fashion. "For who is so insensitive and so devoid of human feeling that he cannot know, or rather has not perceived, that in the commerce carried on in the markets or involved in the daily life of cities, immoderate prices are so widespread that the uncurbed passion for gain is lessened neither by abundant supplies nor by fruitful years, so that without a doubt men who are busied in these affairs constantly plan actually to control the very winds and weather." This is a picturesque way of saying that trade had fallen very largely into the hands of profiteers who, through combines and cartels, controlled the markets. Almost identical words had been used 700 years before in Athens, when the city had prosecuted the grain merchants and Lysias declaimed on the wickedness of those who sought to turn public misfortunes to their own gain.<sup>13</sup> All through history, and today as never before, the profiteer has been hated, and when his depredations become too flagrant, prosecuted and punished. Those who fly in the face of nature and seek to control the weather itself so that even in times of abundance prices are kept up are the money changers who, by "rigging the market" and driving the exchanges up or down as is most advantageous to themselves, can make profits whether the harvests be rich or scanty. If arbitrage operations could be stopped, or at the very least considerably hampered, the new coinage and the latest tariffing of bronze in terms of gold could be allowed a chance to make itself decisively felt, and the wild inflation and monetary confusion of the past century be checked.

And secondly, an inspection of the items of the edict will reveal that a majority of the maximum prices ordered refer to articles that enter largely into military stores. Indeed, the words of the preamble make it very clear that it is directed against profiteers who sell to the army so that "sometimes in a single

<sup>12</sup>Karl Bücher, "Die Diokletianische Taxordnung vom Jahre 301" (*Beiträge zur Wirtschaftsgeschichte*, Tübingen, 1922, p. 179). An admirable treatment.

<sup>13</sup>This speech "against the grain dealers," is well worth studying. A ring of wheat importers had cornered the market in Athens and were holding up prices contrary to public policy. It may conveniently be read in the translation of the speeches of Lysias in the Loeb Library edition.

purchase a soldier is deprived of his bonus and salary and that the contribution of the whole world to support the armies falls to the abominable profit of thieves, so that our soldiers seem with their own hands to offer the hopes of their service and their completed labours to the profiteers." The edict is not primarily a price list for army victuallers nor a tariff for quartermaster's stores; but since the army was the single greatest buyer of commodities, if the prices at which these must be sold can be, if not fixed, at least in certain measure controlled, the effect upon the general price level would be highly salutary.

In confirmation of this view of the purpose of the edict, a passage in the *Chronographia* of Joannes Malalas is apposite.<sup>14</sup> Speaking of Diocletian he says, "He also established warehouses for the storage of grain and provided everyone with measures both for grain and other forms of merchandise so that no retailer should be cheated by the soldiery." Joannes Malalas (491-578) was a sixth-century historian or compiler of chronologies in Constantinople and his authority is not beyond criticism. In this case there seems no reason to doubt his accuracy. If the army was to be protected against the profiteer, so must the people in general be protected against the army. It was entirely to the advantage of the four rulers of the Empire that the ruin of the countryside at the hand of an army be avoided. If "ceilings" were to be imposed on purchases for the army, the sellers must be protected against seizure and/or confiscation at impossibly low prices. It is true that no mention is made of minimum prices in the edict, but on the contrary much is made of the blessings of low prices, yet as the chronographer says, it must soon have been realized that "ceilings" demand "floors." The references to warehouses for the storage of grains and other commodities is interesting and important. We know that in Rome and other large cities government storehouses and granaries were maintained largely in order to control supplies for the "dole" to needy citizens. It is not impossible that we see here the inauguration of a system of supply depots for the army, of which we have no previous knowledge. The point, however, is incapable of exact proof.

*Failure of the Edict.* As Tenney Frank<sup>15</sup> very truly remarks, "The principle of a planned economy within a single unified state was in itself not necessarily wrong, for imperial trade in the Empire was practically all domestic, importing and exporting could be forbidden or confined to barter and payment could be made in a coinage that was regulated throughout the trading world. It had not to find its level through foreign exchange." This is broadly true, granting the most vigorous and relentless enforcement, as has been demonstrated during the Second World War.

Tenney Frank puts the failure down to the fact that the edict was too simple and too rigid, and that no differences were allowed between wholesale and retail prices, and seasonal variations. This is also true, but it may be remarked that our information is very incomplete on these points. It might well be that within the price structure so set up a good deal of leeway was possible, and that

<sup>14</sup>Joannes Malalas, *Chronographia*, xii, 407 E. (in *Corpus Script. Hist. Byzant.*, ed. E. Dindorf, Bonn, 1831, vol. XIV, p. 307).

<sup>15</sup>*Ibid.*, p. 299.

administrative officers, using the edict as a term of reference, were empowered to administer it in fairly elastic fashion.

It is curious to realize that the only other extant reference to the edict comes from the writings of an early Christian father, Lactantius,<sup>16</sup> who, in his book, *Concerning the Deaths of Persecutors*, dwells with considerable, and excusable, satisfaction on the unhappy end of the Roman emperors who persecuted the Christians. Among other things he says of Diocletian, whom he calls "the author of ill and deviser of misery": When by various extortions he had made all things exceedingly dear, he attempted by an ordinance to limit their prices. Then much blood was shed for the veriest trifles: men were afraid to expose anything for sale and the scarcity became more excessive and grievous than ever until in the end the ordinance having proved disastrous to multitudes was from mere necessity annulled." The evidential value of so violently prejudiced an observer is naturally not high; but it is significant to realize that he does grasp that it was through the "reform" of the coinage five years previously that the alarming rise of prices had been caused. Lactantius is, of course, grossly exaggerating after the manner of all propagandists, but even though we heavily discount what he says, yet it is evident that a strenuous attempt at enforcement was made and that this failed.

Actually this is the only extant reference to the breakdown of the experiment in price regulation, but that it did fail we may be quite certain for other evidence is available which admits of little doubt on the subject. Diocletian had given to the Empire an honest gold and silver currency, an action which, so far as it went, was all to the good. But he had not provided it with an "honest" bronze currency; the same silvered coins were being struck and the so-called *denarius* or *foliis* simply was not worth the rate at which the emperor sought to tariff it, namely 50,000 to the pound of gold. There is reason to suppose, although admittedly the evidence is not perfectly clear, that within two years of the issuing of the edict the impossibility of maintaining that rate had been recognized and the official rate raised to 60,000.<sup>17</sup> That prices rose very rapidly thereafter can be safely inferred from the fact that after 305 the weight of the 20 *denarii* piece of silvered bronze begins steadily to diminish at the mint. In a word, the same disastrous process was at work again.

The emperors could, with perfect justice, point to the splendid gold and silver coins they issued, but there were not enough of them and the trade of the Empire was done on silver-washed bronze which was constantly deteriorating in value and driving out any gold or silver coins that did creep into circulation. Indeed there is evidence that the imperial mint gave up the hopeless job of striking silver altogether, for the instant they appeared they were swallowed up. All commentators are agreed that the purchasing power of the *denarius* constantly depreciated. Unfortunately, however, the widest divergence of opinion arises when the extent of this depreciation is considered. If we follow Mattingly

<sup>16</sup>*De Mortibus Persecutorum*, p. 7. English translation, *The Works of Lactantius*, by W. Fletcher (Edinburgh, 1871), vol. II, p. 164.

<sup>17</sup>O. Seeck, "Die Münzpolitik Diocletians und seiner Nachfolger" (*Zeitschrift für Numismatik*, vol. XVII, 1890, pp. 36 ff. especially pp. 52 ff. and 63).

the course is probably as follows.<sup>18</sup> Within four years of the promulgation of the edict the price of gold had risen from 50,000 to 120,000 *denarii* per pound. Subsequently the advance in price, while not so violent was still steady, rising to 168,000 some time before 324. In that year Constantine seems to have been successful in stabilizing the price at 172,800, and this figure was probably accepted, more or less, throughout the west. It seems certain that this did not endure for long, and as the security of the Western Empire steadily deteriorated, so did the worth of the *denarius*, until it reached the fictitious figure of 473,000 late in the fourth century and in the middle of the fifth it stood at 504,000. These are impossible figures and simply mean that any attempt at preserving a market, let alone a mint ratio, between the bronze *denarius* and the pound of gold was lost. The astronomical figures of the French "assignats," the German mark after the First World War, and of the Hungarian pengo after the second, were not unprecedented phenomena. An even more interesting parallel might be drawn in the efforts of the Greek government to stabilize the drachma which had become valueless. In December, 1944, it issued new drachmas tariffed at a certain rate *vis-à-vis* the English gold pound, and sold gold sovereigns to the public at that rate. As in the case of Diocletian's attempt to stabilize the bronze *nummus* in terms of gold, the stock of gold sovereigns proved inadequate and the new drachma fell violently.

*Conclusion.* The whole episode of the attempt to impose "ceilings" upon commodity and wage levels through the edict of Diocletian is of great interest and deserves more attention from economic historians than it has received. The course of events that led up to it and its failure to achieve its object are quite clear. Diocletian and his advisers thought, or perhaps we had better say hoped, they had given to the world an "honest" currency of gold and silver coins. But the stock of precious metals was not sufficient to make the standard effective; the great mass of bronze in circulation was too overwhelming and what gold and silver currency there was passed out of circulation as soon as it came from the mint.

The mines of the precious metals known to the Romans had been exhausted and no more could be found. The Christian bishop of Carthage, the redoubtable Cyprian, writing about 250 A.D. says, "The diminished quantities of gold and silver suggest the early exhaustion of the metals, and the impoverished veins are straitened and decreased day by day."<sup>19</sup> Strenuous efforts were made to increase production but in vain, neither persuasion nor threats could induce more to

<sup>18</sup>Mattingly, *Roman Coins*, pp. 224 ff. These figures are all doubtful. For another treatment of the subject vide G. Mickwitz, "Ueber die Kupfergeldinflationen in den Jahren der Thronkämpfe nach Diokletians Abdankung" (*Transactions of the International Numismatic Congress*, 1936, London, 1938), pp. 219 ff. Mickwitz puts the figure for the depreciation of the *denarius* much higher. It seems impossible to arrive at any definitive conclusion. But all agree that uncontrollable inflation was present.

<sup>19</sup>*Ad Demetrianum*, p. 3. This letter may be conveniently read in the *Ante-Nicene Christian Library* (Edinburgh, 1868), vol. VIII, p. 423. Cyprian is naturally protesting against the persecution of the Christians; but his shrewd comments on the political and economic troubles of the time are worth reading.

appear when the mines had been worked out.<sup>20</sup> Davies, in his *Roman Mines in Europe*,<sup>21</sup> which is a most careful compilation of all extant evidence, comes to the same conclusion as to the exhaustion of the supply of precious metals, and suggests that the Eastern Empire with its capital in Constantinople was able to survive the eclipse of the west because it was still able to produce at least enough gold and silver to keep its currency on a sound footing. This is perhaps a somewhat too extreme view to take and is open to several severe limitations. It might very plausibly be argued that the shrinkage in trade caused by the downfall of the Empire in the west made the stock of gold and silver in the east adequate to support the price level, or at least make the decline a slow and long drawn out affair. Probably Mr. Davies is right, coupled with this consideration.

The Western Roman Empire declined and fell because it was bankrupt. The task of ruling the world was too great and too expensive. The business of government, the upkeep of the armies, and the holding of the frontiers cost too much: there simply was not enough gold and silver in existence to pay for the crushingly expensive bureaucratic and military organization of the imperial government. But if there was too little gold and silver, there was too much copper, which, in ancient days, was the substitute for our modern paper currency. Copper coins could very easily be manufactured; numismatists testify that the coins of the fourth century often bear signs of hasty and careless minting; they were thrust out into circulation in many cases without having been properly trimmed or made tolerably respectable. This hasty manipulation of the mints was just as effective as our modern printing presses, with their floods of worthless, or nearly worthless, paper money.

The fantastic rise in prices that accompanied this inflation at last sank under its own weight; it toppled over and collapsed. It has often been said that the "dark ages" were dark because they were an era of low prices which prevented manufacture and commerce being carried on profitably. While this is not the whole explanation, it does at least point to one major factor in the eclipse of ancient civilization—the destruction of capital and the inability of medieval finance to provide a new supply. It was not until the coming of the treasures of Mexico and Peru to Europe in the sixteenth century that money in sufficient quantity was available and made possible the next great advance in the evolution of the capitalistic system.

H. MICHELL

McMaster University.

<sup>20</sup>For instance in the *Codex Theodosianus*, x, 19, 3, and 5. In *Corpus Juris Antiquo-Justinianum* (ed. G. F. Haenel, Bonn, 1837). Cf. also Ammianus Marcellinus, xxxi, 6.6; S. Aurelius Victor, *De Caesaribus*, xxxix, 44-5.

<sup>21</sup>O. Davies, *Roman Mines in Europe* (Oxford, 1935), p. 2.