

Notes on the Early History of Tontines. By FREDERICK HENDRIKS, Esq., Actuary to the Globe Insurance Company.

IN the third of my papers entitled "Contributions to the History of Insurance and of the Theory of Life Contingencies,"* after treating upon the earliest examples which, after a somewhat tedious search, I could find of tontine associations practically carried out—examples confined, as it will be recollected, to some comparatively small projects of the *Dutch* municipalities of Kampen, Middelburg, and Groningen, employed for raising capital sums, by the grant of tontine life annuities, in 1670 and 1671—the circumstance was mentioned, that the credit of the invention was properly accorded to the Italians, or more particularly to the Italian *Tonti*, whose name has been so effectually incorporated into several languages through the word "tontine."

Upon the occasion referred to (writing in 1852), I mentioned that it would be desirable to ascertain whether previous tontine annuity schemes—as, for instance, those instituted by *Tonti*, in France or elsewhere, and prior in date to 1670—included any tables assimilating to that of the Kampen tontine of the same year.

Although the special object of this note was not stated, it may be mentioned that it was as follows :—The sixth column of the table of the Kampen tontine showed an estimate of the number of persons who, from the age of 1 to 60 years, in each twelve years, and thenceforward for each year up to the age of 80 years, are assumed

* *Vide Assurance Magazine and Journal of the Institute of Actuaries*, vol. iii., pp. 93-120, and particularly § 29, p. 111, and Note, p. 116.

to remain still in existence. The projectors of the tontine stated (with reference to this column) that they are aware that anything like a precisely accurate calculation of the proportion dying out of a given number is not attainable, but "the assumed numbers had been framed upon a new elaborate scrutiny and observation, and there was no ground for assuming that the results to be experienced would range either below or above the anticipated number of survivors." Upon this I suggested in the context, that the idea of a *life table*, arranged in the form of the number surviving to a given age out of a specified number living at any age, *originated*, roughly though it may have been, in these tontine annuity schemes.

Although ten years have elapsed since this suggestion, such researches as have been made hitherto for the particulars of Tonti's scheme have not enabled us to discover them. If they do still exist, it is probably in a manuscript form in some of the French State archives. In the course, however, of these inquiries, details respecting the biography of Tonti have come under my notice which are not only interesting in themselves, as supplying information not obtainable from English sources, but as establishing the fact that it was not until 1689 that any tontine scheme was successfully carried out in France, although it would appear to have been projected before 1648.

The letters of Tonti to Colbert still remaining in the French archives were brought to light for the first time in France in 1852; but buried as they are in the vast mass of ancient administrative correspondence published by the Government, it will be useful to reproduce them in a more easily available form. I have, therefore (see Appendix A) translated them, and also the excellent prefatory remarks of the late M. Depping; and I am not without hope that they may serve to indicate to future writers, who, in biographical or politico-economical collections, have to refer to Tonti, that more may now be said of his career than the meagre notice, which is all that can be usually found respecting it, as to his place of birth having been Naples, and as to the tontine system having been named after him.

In a paper read to the Statistical Society in May, 1857,* I took occasion to point out that the writings of an old and important author on economical science, John Houghton, showed how early in England, upon the introduction of the tontine system, was the appreciation of the sketch of a table of mortality given by Graunt

* "On the Statistics of the British Land Tax Assessment," *vide* Journal of the Society, vol. xx.

in his well-known *Observations upon the Bills of Mortality*, the first edition of which appeared in 1662. Houghton was an apothecary in the city of London, a Fellow of the Royal Society and a contemporary of Halley, Evelyn, Pepys, and Sloane, who all had a high opinion of his talents and contributed to the serial publications which he issued, in twopenny and penny numbers, between Sept., 1681, and Sept., 1703. The mass of these publications appeared under the title of *Collections of Letters for the Improvement of Trade*. Such of them as had appeared in *folio* (omitting the advertisements, the wind and rain tables, the stock and share lists, the weekly prices of corn in various parts of the country, the prices in the provision and other markets, and a condensed notice of special news from the *London Gazette*) were republished, twenty-four years after the date of the last paper, by Richard Bradley, Cambridge Professor of Botany (3 vols. 8vo.; London, 1727). In this republication Bradley notices that he "had the greatest pleasure in the opportunity of restoring to the world Mr. Houghton's useful writings, which, in all probability, would never else have been again published; and" (he continues) "it is very likely that there are not, in all our English libraries, ten complete sets; for, as they were published in single papers, many of them were undoubtedly lost, and the few that are now left are esteemed as valuable as choice manuscripts."

Bradley was either unacquainted with, or else could not obtain, the papers which Houghton had published in a *quarto* form between 1681 and 1693. In one of these papers (No. 13, for Tuesday, Feb. 13, 1683), entitled "Some Considerations upon the Proposals approved of by the City of London for Subscriptions on Lives, wherein are some Observations and Conjectures upon the East India Company and Bankers," the tontine plan is so well described, and the statement it contains of Graunt's Table of Deaths, in decades of age, as applicable to determine the "reasonable" expectations of survivorships, is so important—preceding in date, as it does, the more learned mathematical researches of Dr. Halley on the Breslau Table—that it cannot fail to be interesting to the actuarial as well as the general readers of the *Assurance Magazine*.* It is with this view here reproduced from my printed copy. (See Appendix B.)

* The identification, by Houghton, of Petty's labours with Graunt's, where he observes that "Major Graunt, or rather that learned and ingenious virtuoso, Sir William Petty, in his admirable *Observations of the Bills of Mortality of London, &c.* . . . This great man saith," &c., may appear to lend some colour to the early origin of the question which Mr. Hodge and Professor De Morgan discussed in this *Journal*, as to which of the two (Graunt or Petty) was the real author of the celebrated *Observations*; but I am inclined to the same conclusions as Professor De Morgan, that Graunt was *the* man, and that Sir William Petty may have very materially assisted him.

APPENDIX A.

The following notes and correspondence are extracted from *Correspondance Administrative sous le Règne de Louis XIV., entre le Cabinet du Roi, les Secrétaires d'État, &c.* Recueillie et mise en ordre par G. B. Depping. (Paris; Imprimerie Impériale, 1852; 4to.) See volume iii., "Affaires de Finances, Commerce, Industrie:" Introduction.

M. Depping remarks upon its being evident from Tonti's letters to Colbert, that it was under the ministry of Cardinal Mazarin that Tonti came to Paris and offered his plan of a tontine to the Government. The Cardinal understood, or rather exaggerated to himself the advantages of this financial enterprise, and fancied he perceived in it millions of profit for the State. The tontine was adopted, and the inventor received a pension of 6,000 livres, which proves to what degree the Cardinal's mind had been struck by the importance of the financial ideas of his countryman. The latter, in his letters to Colbert, says that he received this pension from 1648 to 1660; that in the following years he received no more than trifling instalments. From that time his letters are filled with lamentations upon the discomfort in which he was living with a family of seventeen or even nineteen persons. He avows his miserable condition, expresses his fear of being cast into prison by his creditors, and implores the pity of the king and of the minister—conjuring the latter, by the name of Mazarin, their former common protector, to come to his help. These complaints are very earnestly expressed in the years 1663, 1664, and 1665—that is to say, at the very time when the royal edicts confirmed the establishment of the tontine as a State institution. He asks for Madame Colbert and the queen to interest themselves in his daughters '*grandes et bien faittes*,' as he says, in order that they may be admitted into convents. His embarrassments do not prevent him from meditating upon other projects useful to France. He proposes the establishment of a new India Company, which would procure for the State a fund of 40 to 50 millions; he advises plantations of mulberry trees upon all the great roads of the kingdom, so as to dispense the population from having recourse to foreign silks. Then one learns from his correspondence, that he had written, in 1664, a relation of the present conduct of the court of France; that the chancellor, Le Tellier, in the king's name, had prohibited him from publishing this work, which, nevertheless, in spite of himself, so it is asserted, a bookseller caused to be printed.*

We are ignorant of what occurred concerning him during the subsequent years; it is a question whether this work or some other indiscreet act drew down upon him disgrace at court. It is not in my power to answer. Tonti disappears from the scene of this world, and I confess that I have been extremely surprised to find a letter of his dated from the Bastille, 4th March, 1675, and conveying the information that he had been languishing for seven years in that prison with his two sons, and that his

* "Last day of August, 1665. I humbly supplicate your Excellency to obtain for me, from the king, the justice for which I have appealed to His Majesty, against a bookseller who has had the effrontery to cause to be printed the account of the present conduct of the court of France, which I composed last year, and which His Majesty had commanded me, for certain reasons, through M. Le Tellier, not to have printed. I hope for this favour through the goodness of your Excellency." (*Vol. Verts, C.*)

family, from whom he was cut off, was living in the profoundest misery. The unfortunate man does not ask for his liberty; he knows, perhaps, that he will not obtain it; he only implores Colbert, in the name of God, and by his veneration for the memory of Cardinal Mazarin, to continue to have pity upon him, and not to leave those belonging to him without help.*

From this period the traces of his existence vanish. The Bastille has presented more than one mystery of such a kind. It is only known that one of this Tonti's sons became a distinguished officer and signalised himself in the expeditions against the savages in America. It is strange that the historians of Louis XIV. and contemporary memoirs preserve silence respecting the fate of the unfortunate Italian, who probably had more ideas than experience, more dash (*plus d'abandon*) than prudence.

His plan of a tontine was, besides, conceived more in the interest of Government than of private persons investing in it. It was a voluntary loan which he desired to effect through its means, by offering to lenders the temptation of a large future interest. One is forced to believe that the public was not taken by it, and that it was from mistrust that the French—who, in general, at that period, were not at all used to risk their funds in speculations of chance—showed but little eagerness to enter into the tontine association. The first which Tonti proposed, in 1653, was not carried out; the second, which was brought before the public three years subsequently, under the name of the 'Royal Bank', and which concealed a lottery, but wherein the Parisians persisted in seeing another tontine, was, by virtue of royal letters patent, registered, and had a commencement of organisation, but was not supported by the investments of the public. Untired of invention, the Neapolitan economist would soon have carried out another project, that of the ecclesiastical tontine, to furnish funds with the view of extinguishing the debts of the clergy, which was again a loan. No one allowed himself to be taken with it, and as the poor inventor was languishing in prison, there was no further question of tontines. But in the sequel, when the embarrassments of the treasury obliged recourse to all kinds of expedients, the Count de Pontchartrain wished also to try and revive the tontine—that is to say, to procure funds for the State by means of the plan originally conceived by Tonti. In 1689, therefore, there appeared a royal edict for the organisation of a tontine, in which each person, by depositing a sum of 300 livres, might assure, for his old age, a rent increasing with age. This, at least, was completely enough carried out to encourage the Government, some years after the first edict, to found a second tontine upon the same plan. If it did not have all the success hoped for from it, the two associations contributed at least to diminish a little the distress of the treasury.

The letters referred to by M. Depping are the six following :—

* "Bastille, 4th March, 1675. I return you a million thanks for the aid of 600 livres that your Excellency has obtained for me from the king, which have been used in procuring for me clothes and linen, as also in giving like articles to my two sons, who are confined in this place with me. I hope also that your Excellency will procure for me from His Majesty, when the good God shall inspire him to do so, the 1,600 livres which I owe to the people of this castle, who have furnished me, for seven years, with the things which were necessary for me and likewise for my sons; and nevertheless, Monseigneur, I implore you, in the name of God and by the memory of the late Monseigneur the Cardinal Mazarin, to continue to me your bounty for the subsistence of my daughter, who has the charge of the rest of my family, which is reduced to the last stage of distress." (*Vol. Verts, C.*)

(1) TONTI to COLBERT.

“Paris, 19th January, 1663.

“M. Le Tellier has this morning told me that the King had commanded him to return you my petition, similar to the one which is hereto annexed, which I presented to His Majesty a few days ago; and he has ordered me to see you thereon. You will recollect, if you please, Sir, that you had led me to hope for some relief if the matter depended upon you; and now that it is in your hands by order of His Majesty, I very humbly beseech you to do me the favour, when you speak to him about it, to represent to him the deplorable state to which I am reduced, with a numerous family of seventeen persons, by having sacrificed myself for his service, and by the great losses I have undergone through the same cause. And, if my past services are no longer to be considered, I entreat you to submit it to His Majesty that I am on the point of perishing in a prison, and of being denounced; and should this take place it would bring a notable harm to the tontine business, which the late Cardinal esteemed as a mine of gold for the King, and that there might be drawn from it every year several millions which would never be subject to redemption. I hope, by your goodness, and your zeal in the King's service, to receive from His Majesty, through your medium, a prompt help to solace me in my afflictions, and to remain for ever obliged to you for it.”

(2) TONTI'S PETITION TO THE KING.

“Laurens Tonty humbly beseeches your Majesty to consider that he has been, and still is, obliged to go to much expense for the advancement and establishment of the tontine, delayed on account of the Chamber of Justice; and that he has received nothing from your Majesty for the years 1661 and 1662 of the pension of 6,000 livres a year which the late Cardinal Mazarin caused to be given him, by order of your Majesty, in consideration of the great services he had rendered to your Majesty, both within and without the kingdom. And petitioner finding himself burdened with a family of nineteen persons, and, amongst others, with five grown up and well favoured daughters, it is altogether impossible for him to be able to subsist any longer if your Majesty should not have the goodness to order the said pension of 6,000 livres to be paid up for the past years. M. du Plessis Guénégaud, Secretary of State, can testify to your Majesty that he has issued, by order of His Eminence, every year, down to the year 1660, the ordinances for payment of the current instalments of the said sum of 6,000 livres, which were paid to him by the treasurers of the savings fund. And will, in duty bound, pray God for your Majesty's health and prosperity.”

(3) TONTI to COLBERT.

“1st March, 1663.

“I return you a million thanks for your goodness in causing the second edict for the tontine to be sealed; and I hope that, through your ministry, the King will soon see this business established, to draw from it the great advantages which may be expected immediately and prospectively. Following your advice, I have spoken to the King, supplicating him very humbly to have mercy upon me, by having continued to me the help which the late Cardinal accorded me, as much in consideration of the services I had rendered to the State, and the loss of property I have endured in

sacrificing myself for the crown, as of the judgment which His Eminence had formed upon the tontine affair as a hidden treasure in this kingdom. But I hope everything from your protection; and as you have graciously told me that this affair (the tontine) is a good one, I conjure you, in God's name, and by the memory of His Eminence, to inspire the King with the same sentiments respecting it as you have; and, at the same time, to do me the service of representing to him the trouble in which I am, with a family of nineteen persons, as also that I am continually forced to be at expense and care in perfecting this affair, for which I am not in a competent condition without the help of His Majesty, and which I entreat you, Sir, very humbly, to procure for me, and shall for ever be obliged."

(4) TONTI to COLBERT.

"19th October, 1663.

"The Marshal de la Meilleraie had decided upon the tontine affair as extremely good and very advantageous for the province of Brittany, but considered that you could not wait for the issue of the affair, seeing that the States would have to pay every month a portion of the money for which they were bound for the King's buildings, and that another fund would have to be created for the tontine, which is impossible for them at present, on account of the engagements which the said province has been obliged to undertake, finding the whole of its means alienated for four or five years. That which consoles me for not having been able to succeed in that country is the order which the King has caused to be conveyed to me through M. de Lionne, not to send this (tontine) affair to Rome, where it would have infallibly succeeded, to the prejudice of His Majesty; and, if it had been put into operation in Brittany, would by this time be published throughout the country.

"I took the liberty, within the last few days, to give you occasion to beg Madame, your wife, to be good enough to contribute, by her interest and endeavours, to give two of my daughters as spouses to Jesus Christ, and they will pray all their lives for the health and prosperity of all your family.

"I have submitted a petition to the King, humbly begging him to consider, that for three years I have only received 3,000 livres of the pension of 6,000 livres a year which His Majesty had caused to be paid me from the year 1649 down to 1660, in consideration of my services; and as I am pursued by my creditors, and am bound to give honourable subsistence to my family of seventeen persons, according to my position, I have had recourse to His Majesty to receive of his goodness the wherewithal to remedy my present necessities. I very humbly entreat you to support it with your protection, and to continue to me your favours, which will secure my lasting obligation."

(Accompanying this letter is a note addressed by Tonti in favour of his daughters, "*grandes et bien faites*," for the placing of whom in a convent he wishes that the Queen would interest herself.)

After the lapse of a year, Tonti was again driven to solicit payment of his pension. He wrote to Colbert on the 27th November, 1664:—"You will remove your favouring protection from a family of condition which is very numerous, and for whom it is impossible to find further means of

subsistence, as it is on the point of seeing me perish in prison, if your Excellency does not procure it some prompt assistance from His Majesty out of what is due to me for the past, and by the restoration of the pension which has been paid to me from the year 1648 down to 1660. I conjure this most pressing, by the glorious memory of his late lordship the Cardinal Mazarin, by your own individual generosity, and by the respectful submission with which I am," &c.

(5) TONTI to COLBERT.

"It has occurred to me, that, after the approbation with which your Excellency has honoured the tontine, and after the evidences which you have given of wishing for its establishment, your Excellency would not disapprove of the liberty which I take to disclose to you an expedient which has come into my mind, and which I submit to your judgment and good pleasure in the contingency of the redemption of the rents of the Hotel de Ville. The majority of those who will have received their money will experience difficulty in investing it safely and usefully—being possessed, perhaps, of that alone for their subsistence—and will be rejoiced to place it advantageously. To which end it has seemed to me that the establishment of the tontine will be most appropriate, by giving, through His Majesty, to those who voluntarily consent to it, a quarter more in places in the tontine for the whole of their redemption, or for a part of it, of that which it shall be fixed to give them in ready money at their own choice and liberty. Wherein the advantage would be reciprocal, inasmuch as, instead of a small fixed sum which the proprietors of the said rents accepting the said places would receive, after many difficulties raised by the officials to delay the payment, they would have their revenue at 7·14 per cent. (*au denier 14*), and would see it increase every year. And in order to compensate for the loss of their funds in case of death, they would put themselves into a position, by this voluntary acceptance of places for a whole or part of their redemption money, to enjoy, previous to their death, sums to the extent of 100,000 livres of revenue, which would exceed not only the principal, but also the rent of their money in some traffic or legitimate trade in which they might employ it; and the great advantage to His Majesty would be, that, without opening his purse, he would inherit the revenues of each class by the death of the last survivor in it, and would thereby find himself relieved from payment of the interest of the places without redeeming the funds.

"It is for your prudence, my Lord, to decide this, and for the perfect knowledge which your Excellency has of the equity or possibility of things and of the proper time to put them into practice; the introduction only of the subject have I thought it open to me to make with the submission which is due," &c. &c.

(6) TONTI to COLBERT.

"22nd May, 1666.

... "I believe there is an easy means whereby to procure fresh funds of 40 to 50 millions. It should be managed so that all persons in the kingdom—nobles, officers, and others—will ask to subscribe, and with joy, even when they might be sure to lose their investment, by reason of the great advantages they would otherwise derive. If the whole of this great fund cannot be at once employed in commerce, the King might make

use of a part to redeem his domain, and for the execution of other designs. This might be done without its being known; and should it be known, no complaint against it would be brought forward, as interest would be paid to the Society.* By the same means everyone would speak well of the Society, and would procure its preservation and augmentation, instead of as at present, everyone speaking ill of it. Officers particularly complain that they were constrained to enter it—that it is a trap to catch the money of those who have invested in it. To shut the mouths of the dissatisfied, if your Excellency judge it to be expedient, after this great fund shall have been created, one might make an offer to all those who had already entered the Society, to return them their money if anyone regretted having done so. Not a single person would withdraw, because of the great advantages he would derive through my expedient. If the proposition be agreeable to your Excellency, I will also present the methods of showing the facility with which it may be carried out.”

APPENDIX B.

A COLLECTION OF LETTERS FOR THE IMPROVEMENT OF HUSBANDRY AND TRADE.

Numb. 13.—Tuesday, February 13, 1683.

The contents :—Some Considerations upon the Proposals approved on by the City of London for Subscriptions upon Lives, wherein are some Observations and Conjectures upon the East India Company and Bankers.

SIR,—In my last I gave you an account of the great undertaking, to promote trade by a bank, approved on by the City of London. Now I must give you an account of another great affair, carried on by the same persons, and 'tis printed in a large sheet by them as followeth, viz. :—

“Proposals made and approved by the City of London for a yearly increase of wealth, by subscriptions, to advance money at interest, for lives, of whatsoever age or sex, under ten several ranks or classes; which subscriptions will produce great advantage to the survivours, as is particularly instanced in the schemes and paragraphs following, viz. :—

	The particular Summs to be subscribed.	The Number of Persons requisite for each Rank.	Total Summe to be Subscribed by each Rank.	The Yearly Interest thereof.
1	5	2,000	10,000	600
2	10	1,000	10,000	600
3	20	500	10,000	600
4	25	400	10,000	600
5	50	200	10,000	600
6	100	100	10,000	600
7	200	50	10,000	600
8	400	25	10,000	600
9	500	20	10,000	600
10	1,000	10	10,000	600

* M. Depping states that this has reference to the organisation of a grand India Company, a project upon which Tonti does not give further explanation.

The Subscribers' Names, Qualities, Sexes, and Places of Habitation.	1. Rank of Persons under 7.	2nd. Between 7 and 14.	3rd. Between 14 and 21.	4th. Between 21 and 28.	5th. Between 28 and 35.	6th. Between 35 and 42.	7th. Between 42 and 49.	8th. Between 49 and 56.	9th. Between 56 and 63.	10th. Between 63 and 70.
A. B., of Cheapside, London, Goldsmith, for his son John	5									
The same, for C. D., of Cornhill, Gent.	5						
E. F., of Paternoster Row, Mercer, for himself	5		

“By which schemes it appears there is £10,000 to be subscribed on each rank or class of summs and persons, the interest of which comes to £600 per annum. But no subscriber shall be held obliged to pay his money until the said summ of £10,000 be fully underwritten—(that is to say) if he have subscribed £5, until £1,999 other persons of the same rank or class (as to age) have each of them subscribed £5 to make up the same £10,000; or, if he have subscribed £50, until 199 other persons of the same rank or class (as to age) have each of them subscribed £50.

“Every person for whom a subscription shall be made, shall, from the time his money is paid, receive interest after the rate of six pounds per cent. per annum; and as any of those that are in the same rank dye, the survivors of that rank shall receive the interest money that should have been paid to the deceased, equally divided amongst them: (that is to say) if one of the ten subscribers for £1,000 each man, do dye, the other nine that shall survive shall receive, besides the interest for their own £1,000 (each) subscribed (which is £60 per annum), their equal share of that £60 which would have accrued to the deceased, and so of the rest.

“Every subscriber, when he comes to subscribe, shall declare the age or ages of the persons for whom he doth subscribe—(viz.) whether they be under the age of 7 or above 7, and under the age of 14 or above 14, and under the age of 21 or above 21; and so of the rest of the said ranks. And if any person underwriting, either for himself or any other, shall declare and subscribe the person for whom such subscriptions shall be made to be of any other age than by the rules or instances aforementioned are allowable to pass in such rank or class as he shall underwrite for, such subscriptions, and the moneys thereupon paid, shall be forfeited, and go to the rest of that rank.

“If any person shall underwrite the first five summs above mentioned, which amounts to but £110, and enter himself, or those for whom he underwrites, according to their respective ages, in five several ranks or classes, he hath thereby a possibility of receiving five times £600, which is £3,000 per annum, during his life, if he survive the rest. And so if any shall underwrite (in like manner) all the ten summs first abovementioned, which amounts to £2,310, he hath like possibility of receiving ten times £600 per annum during his life, if he survive the rest.

“Every person, when he comes to demand any interest money, must bring certificate from the trustees of the respective rank or class in which

the subscription was made, that the person upon whose life the money is demanded was alive at the time when the interest by him demanded became due; but if no demand be made of any person's interest by the space of three years successively, such persons shall be held as dead, and his interest for the said three years, and until he shall afterwards appear to make demand, shall be lost to him, and divided among the rest of the subscribers; which said trustees shall, for the first year, be nominated and chosen by the major part of the subscribers in each rank respectively, as soon as the said rank or class shall be filled up, and afterwards annually.

“If any person desires to transfer his interest, it will sell every year for more money than it would have done the year before; for, the more persons dye, the greater will the income be to the survivors; and any man may transfer his interest to whom he pleases.

“This fund, for the security of the payment of the said interest, shall be settled to the satisfaction of the subscribers, as shall be advised by council learned in the law.”

But to these proposals I hear two great objections—

- 1st. That the subscribers shall have but common interest, and loose the principal; which is not a pennyworth for a penny.
- 2ndly. That people may club together, and leave to the longest liver interest and principal; or it may be again divided among the heirs, or the heirs may come in afresh upon interest, and it may be a fund for such interest *ad infinitum*.

These objections I'll consider with all fairness imaginable; and first, of the first.

'Tis true the subscribers shall have no more but what the law calls common interest—viz., 6 per cent; but whether the currant interest of the town and country is like to be such, is to be enquired into; and so much as the interest shall be less worth, so much will the proposals appear better; and if my foresight fails me not, within a while interest will not be so much worth. My reasons take as follow:—

Within this two years I went myself to the East India Company, in behalf of a friend, to offer them some money at 3 per cent.; and though I made one of the officers my friend, to entreat for me, yet it would not be accepted. And 'tis notorious that, about that time, abundance of people did lend them at that rate; the reason, I suppose, was, because they could not get more with security to their satisfaction. Nay, to others 'twas lent at 4, 4½, and 5, currantly; and although now 'tis risen to 6, yet when the cause of its rise shall be removed, it must of necessity again fall (for it is out of the power of laws to ascertain interest, as is apparent by these instances, and the high rates the King and others have given when their extraordinary occasions have forc't it, besides procuracy, continuation, &c.), and the causes of its rise, according to my best observation, have been as follows:—

Besides the great quantities of money carryed out by the Turkey Company, and to several other places in Europe, according to common custom, several interlopers for India provided themselves with a great quantity. The East India Company hoping, by a very great trade, to prejudice these interlopers, provided much more than ever they did before. These extraordinary occasions, unless the quantities were proportionably increase,

could do no less than raise interest (every one raising their commodity according to the eagerness and multiplicity of good chapmen); but that which made it more than ordinarily break out was, that some persons that were not pleased with Sir John More's government in his mayoralty, thought to prejudice him by draining Ben. Hinton, his intimate, a goldsmith and banker in Lombard Street. This was told to me about a fortnight before the first bankers of this late storm—viz., Mr. Addis and his partners—went off; and this is confirmed to me by a considerable man in this city, who tells me that Dissenters say the bank will encourage trade too much to be countenanc'd at this time. When money was thus drawn from Mr. Hinton, almost everybody (although 'tis probable the most part knew not why) thought it best to secure their own, and ran with open mouth upon all the bankers for money, thinking it better to let it lye dead a while in their chests, than to run a hazard of trusting such, who, for ought they knew, might do as Mr. Addis and some others near him had done. To joyn with this, some Dissenters being excommunicated, and a discourse that all the rest that would not comply should, made, I suppose, must folk willing to have their money out of such hands. Also the many rich interlopers that went and were designed to go to India, together with all the jealousies imaginable raised by them and their friends upon the Company, made a great many of the fearful members of the Company eagerly sell their stocks; and, perhaps, some of their designing ones too, that they might afterwards have opportunity of buying again cheaper.

This, when the Company had most need of money to set out their numerous fleet—upwards of thirty sail—made their creditors run very earnestly on them also for the money they had lent them, which put them to such straits, that, instead of 3, they were willing to give 5 or 6 per cent., and some say promises of good turns into the bargain. But all would not do, their auctions fell from 365 to 245, and they were forc't to put a stop to payments for three months; and, in the meanwhile, have appointed a sale, and expect several rich ships home, with which they question not to give a stop to all reasonable complaints.

This, all laid together, I take to be the reason why money is at this high rate; but if my conjectures are false, I beg pardon, and I wish some more knowing would give us the true causes. But if I am not mistaken, then it will follow that when the hoarders are weary of keeping up their money, when what was exported last year to all parts shall return with a duck in its mouth, when the East India auctions shall again rise, when the fright shall be over (as usually in these cases it is after a little while), when we shall come to have less disputes and be more united about religion—all which I hope shortly to see—then you'l find money as cheap, if not cheaper, than usually, and the East India Company offered again more money than they have occasion for; and I verily believe they may, if they will, be one of the chiefest funds in the nation; for although they owe a great deal of money, yet 'tis visible that they have a far greater stock; and 'tis also plain that 'tis their interest to keep up their credit, although it were by lending their own private cash, for otherwise they loose more by the fall of their auctions than all their debts come to; as lately 'twas said, their debts were about £800,000, and their principal stock is about £750,000, and every £100 fell in their auctions, as above, from 365 to 245, which is 120 per cent., amounting to £900,000.

This money, or so much of it as will make currant payment, I persuade myself they will raise by themselves and friends, unless they find some better expedient, although, perhaps, forbearance of a dividend or two may do the business. If so, then, seeing the bankers are single and their stocks not so visible, and some or other of them drop off, what should hinder but (this Company appearing thus staunch) most folk should run their money in here cheaper than other places by 1 or 2 per cent. (except in the Guinea Company, which I take to be as safe as this). And as for dangers from interlopers, I see no great reason to fear, because the Guinea Company, in spite of as many interlopers as will go, are in a thriving condition. And this India Company may, with a less gain per cent. in many more hundreds, get more money and more dishearten their adversaries. There is no necessity for a double trade, to have double fortifications, double agents or factories, neither will their need to the great ones in India double presents, nor altogether be among themselves double petty charges. Much more I could say on this subject, but I don't think it needful here; my drift is mainly to show that if money should come again to 3 per cent., then the allowance of 6 will be equivalent to 12 when interest is at 6.

The second part of the first objection is, that the principal will be lost.

'Tis true it will be so, but who is it will find it? Why, 'tis the City of London, from whom most of the money expected to be subscribed hath been gotten; for if they are citizens they give it to their own body and for their own use. 'Tis probable their children may be the orphans to reap the benefit of it. But suppose it should be spent in triumphs, Lord Mayor's shows, publick buildings, festivals: is it not such like that inables us now to live so well, and makes us the renown of the whole earth? I am strongly persuaded that a stately Lord Mayor's shew makes London, from strangers that flock to see, get more money, six times over, than ever the charge of the pageantry came to; and if they had stock to enlarge their glory, I am sure a proportional expense will follow it. O what crouds flockt hither to see the glory of the King's return and coronation.

But if the subscribers should not be citizens, yet it is likely it will turn to their children's advantage; for London is the means of preferment to most of the country's progenie. And I question not, but when the city shall reap these advantages, 'twill be a good argument for preferment to places for the heirs of such subscribers.

To the second objection—viz., that the people may club, &c.

I confess, in theory, all this is true; but 'tis next to impossible to believe that e're it should be practised; for who, without some consideration of loaves for his pain, will gather this club together? or will they *more fungorum*, as mushrooms, all start up together in a night to throw in their dust? But if they should, who should find out a security, search the title, or be council learned in the law, to settle and secure this fund? Or, if paid for, will not the charge of doing these things, when taken out of these little combinations, reduce this profit to a less than what is here proposed? I doubt it will. However, till that be tryed, this is the better; and everyone hath liberty to please himself. I believe I shall never be of that club; whatever I shall be of the other, I can't yet say. If the first part of this objection won't take, the rest ne're can, as being dependants on it.

Hoping that what's here said may be some answer to the objections—or, at leastwise, make the prejudice of subscribing appear not altogether so great as at first it might be thought for—I'll strive now to show what in likelihood will be the advantages of these subscriptions.

'Tis told you 6 per cent.—with the whole, £600 per annum—to be divided among the survivours, even to the last man. Nobody subscribing for himself that looses here, but he that dyes; and rather than he shall want money in the next world, he, if he leads a good life here, shall have a note to St. Peter to turn the key for nothing. But for those that shall live long here, let's see what in likelihood shall be their profit.

Major Graunt, or rather that learned and ingenious virtuoso Sir William Petty, in his admirable *Observations of the Bills of Mortality of London*—a book useful to a multitude of purposes, and a pattern for many other great designs; this great man, I say, in p. 14 of his second edition, saith, "That about one-third of all that were ever quick dye under five years old, and about 36 per cent. under six."

If so, 'tis to be supposed that those of the first rank that shall live but seven years after subscription shall receive upwards of 9 per cent.

But in p. 56, "That three dye yearly out of eleven families, of each eight persons—*i. e.*, eighty-eight; if it were ninety, 'twould be one in thirty. And at this rate, whosoever lives thirty year in a place may have no neighbour that was cotemporary with him in his first year. Therefore, they of the said rank may, in thirty years, reasonably expect almost £200 per annum a piece.

In p. 58 he saith, Of one hundred there dies within the first six years 36; the next ten years,

Or decad	24
The second decad	15
The third	9
The fourth	6
The next	4
Next	3
Next	2
Next	1

From whence it follows, that, of the said 100 conceived, there remain alive

At six years end	64
At sixteen	40
At twenty-six	25
At thirty-six	16
At forty-six	10
At fifty-six	6
At sixty	3
At seventy-six	1
At eighty	0

In p. 65 he saith, In the country about one in fifty dye yearly, but in London about one in thirty; and that London is not so healthful now as heretofore. Wherefore it may be advantageous to subscribe on country lives rather than city ones.

If what I have already said shall appear reasonable, then it may be worth while to consider what people in likelihood it may be fittest for.

I do suppose it very proper for all landed men to put in £5 a piece for their younger children, for if they die quickly the estate will be free to the heir; if not, 'twill be considerable, and the estate shall not need to be clog'd for maintenance.

'Twill be proper for all tradesmen who live gentilely from hand to mouth, but never provide much aforehand; this way their children may have portions, and themselves be well kept in their old age.

'Twill make all sorts of old people be made much on, because the longer they live the more they'l have.

Merchants, several other tradesmen, and gamesters, that live by hazard, may sometimes, at extraordinary hits, put something in here to keep in cases of extraordinary losses.

Poor servants, as soon as they get £5, may by it take care for old age.

Friends may put in for their she relations who are ill marryed, whereby they shall never want; and 'twill be a means for forcing kindness from their husbands.

'Twill be better for wives than joynters, and husbands may employ a great deal of the money that should buy land.

If families grow so low, that there is a necessity for selling of joyntures, some of the money may be secured here, and the widdow fare ne're the worse.

If every University man, when he comes to preferment of £100 per annum, would put in £5, and so for every £100, to have the interest go towards the library of his Colledge, 'twould, in a while, make them very great; and 'twould do the like for Sion Colledge, if each such London minister would do so.

And if twenty good folks would give £5 a piece, for ought I know it might raise such a Colledge as Mr. Abraham Cowley speaks on in his *Discourse of Agriculture for the Improvement of Husbandry*.

Multitudes of other conveniences I could enumerate, but they that will consider these may find enough more that will be agreeable to their own circumstances; and there is a book signed by Mr. Wagstaff, the City Town Clerk, which book is entituled *Proposals for Increase of Wealth by Subscriptions*. That will show you divers other instances.

Whatever is said of £5 will serve for any other summe.

Sir, if these reasons shall be undenyable, I pray encourage this design; if not, persuade somebody to show the contrary. But however, pardon me, who, unless I do subscribe, am like no ways to be concerned in it, except in good wishes for that city from which I have had my well-being.

Farewell, &c.