1. Hypertext content: slides NN **1**, 2, 2, 3, 2, 3, 4, 2, 3, 4, 5, 2, 3, 4, 5, 6, 2, 3, 4, 5, 6, 7, 2, 3, 4, 5, 6, 7, 8, 2, 3, 4, 5, 6, 7, 8, 9
10. Partnership System ZORAN
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12. Response to skeptics
13. In what item, however, skeptics may be right – rough analogies can be find out always
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20. But this is not catastrophic situation!
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22. Fuzzy or not concrete data
23. Co-using of definite and fuzzy data
24. What purposes new data types are necessary for (analyzing and evaluation of a past)

2. Hypertext content:2. Hypertext content: slides NN 1, **2**, 3, 3, 4, 3, 4, 5, 3, 4, 5, 6, 3, 4, 5, 6, 7, 3, 4, 5, 6, 7, 8, 3, 4, 5, 6, 7, 8, 9

3. Hypertext content:3. Hypertext content: slides NN 13. Hypertext content: slides NN 1, 2, **3**, 4, 4, 5, 4, 5, 6, 4, 5, 6, 7, 4, 5, 6, 7, 8, 4, 5, 6, 7, 8, 9

4. Hypertext content:4. Hypertext content: slides NN 14. Hypertext content: slides NN 1, 24. Hypertext content: slides NN 1, 2, 3, 4, 3, 5, 6, 5, 6, 7, 5, 6, 7, 8, 5, 6, 7, 8, 9

5. Hypertext content:5. Hypertext content: slides NN 15. Hypertext content: slides NN 1, 25. Hypertext content: slides NN 1, 2, 35. Hypertext content: slides NN 1, 2, 3, 4, 5, 6, 6, 7, 6, 7, 8, 6, 7, 8, 9

6. Hypertext content:6. Hypertext content: slides NN 16. Hypertext content: slides NN 1, 26. Hypertext content: slides NN 1, 2, 36. Hypertext content: slides NN 1, 2, 3, 46. Hypertext content: slides NN 1, 2, 3, 4, 5, **6**, 7, 7, 8, 7, 8, 9

7. Hypertext content:7. Hypertext content: slides NN 17. Hypertext content: slides NN 1, 27. Hypertext content: slides NN 1, 2, 37. Hypertext content: slides NN 1, 2, 3, 47. Hypertext content: slides NN 1, 2, 3, 4, 57. Hypertext content: slides NN 1, 2, 3, 4, 5, 6, **7**, 8, 8, 9

8. Hypertext content:8. Hypertext content: slides NN 18. Hypertext content: slides NN 1, 28. Hypertext content: slides NN 1, 2, 38. Hypertext content: slides NN 1, 2, 3, 48. Hypertext content: slides NN 1, 2, 3, 4, 58. Hypertext content: slides NN 1, 2, 3, 4, 5, 68. Hypertext content: slides NN 1, 2, 3, 4, 5, 6, 7, **8**, 9

115. Incomplete data
116. Indefinite data
117. Dependent data
118. Illustration of dependence
119. Multivariant data
120. Paradoxical data
121. Distributed data
122. Nonevident data
123. Data classification
124. Complex data processing
125. And what is user to do?
126. There is scale-ability also!
127. Exclusive services
128. So, I offer
129. My advantages

9. Hypertext content:9. Hypertext content: slides NN 19. Hypertext content: slides NN 1, 29. Hypertext content: slides NN 1, 2, 39. Hypertext content: slides NN 1, 2, 3, 49. Hypertext content: slides NN 1, 2, 3, 4, 59. Hypertext content: slides NN 1, 2, 3, 4, 5, 69. Hypertext content: slides NN 1, 2, 3, 4, 5, 6, 79. Hypertext content: slides NN 1, 2, 3, 4, 5, 6, 7, 8, **9**

10. Partnership System ZORAN

Is the best universal tool for exclusive fiscal, budgetary, business and investment projects creating, analyzing, correcting, developing and supporting at real-time mode in any economic sphere and scale.

11. Main difference!

The main difference of Partnership System ZORAN in comparison with any other computer program is real possibility to calculate or recalculate any economic project at conditions of data indefiniteness and incompleteness at real-time mode. Classical example here is creating of expenses estimate, when some data are unknown simply, while some other data can not be determined exactly.

12. Response to skeptics

They consider always during many years, that there are a great number of computer programs like as Partnership System ZORAN, and these programs are using actively everywhere. But this is untruth. **Firstly**, everyone who is thinking so could not demonstrate me concrete examples of a real direct analogous program in past, and at present time there is no changes in demonstrating process; every such person is limiting oneself always by very primitive proofless opinions only, something about: it is impossible that there is no anything like Partnership System ZORAN in the whole world... It goes without any saying that SOMEWHERE ELSE SOMEBODY SOMETHING analogous worked out already, and even unless, then SOMETHING analogous will be realized very soon!.. **Secondly**, author by himself during several years was looking for analogous products, but could not find out nothing similar at all, excluding very rough analogies (something about tables with possibility of fuzzy data input). **Thirdly**, let's open software catalogues; there are: thousands of one-day programs, tens of serious highly specialized products and only a few huge program systems, realized on a base of a complex scientific theory and a most expensive technology; so, there are no **direct** analogies at all! Well, **fourthly**, at last, to create program system like as Partnership System ZORAN it is necessary to have not only new on principle ways and conceptions, but fundamental scientific investigations must be done also, which are increasing automatically in hundreds and even in thousands times expenses for any product developing. In short, high technologies – are not carrot at a bad – it is impossible to grub up a lot of ones!

13. In what item, however, skeptics may be right – rough analogies can be find out always

Really, there are a number of know-how realized in computer programs, basing upon which consulting companies are rendering different services to customers. Many of such programs are not selling in software market at present, and they will never be sold in future, because monopolistic using of these programs makes it possible to render really exclusive and therefore very expensive services (just because of this reason Partnership System ZORAN is not a «box» public product now). And there are experienced specialists with great results at the sphere of exclusive business management. But, in the greater part, these great results are the desert of these specialists exactly; these achievements were reached owing to experience, skills, methods, strategies and intuition of mentioned specialists only. Computer programs, undoubtedly, are rendering necessary supporting, but only there, where definiteness is existing. When definiteness is finishing, there is no supporting from the side of trivial software nearly always, which is able to process definite data only.

Well, then the question will be about data processing.

14. Definite or concrete or exact data

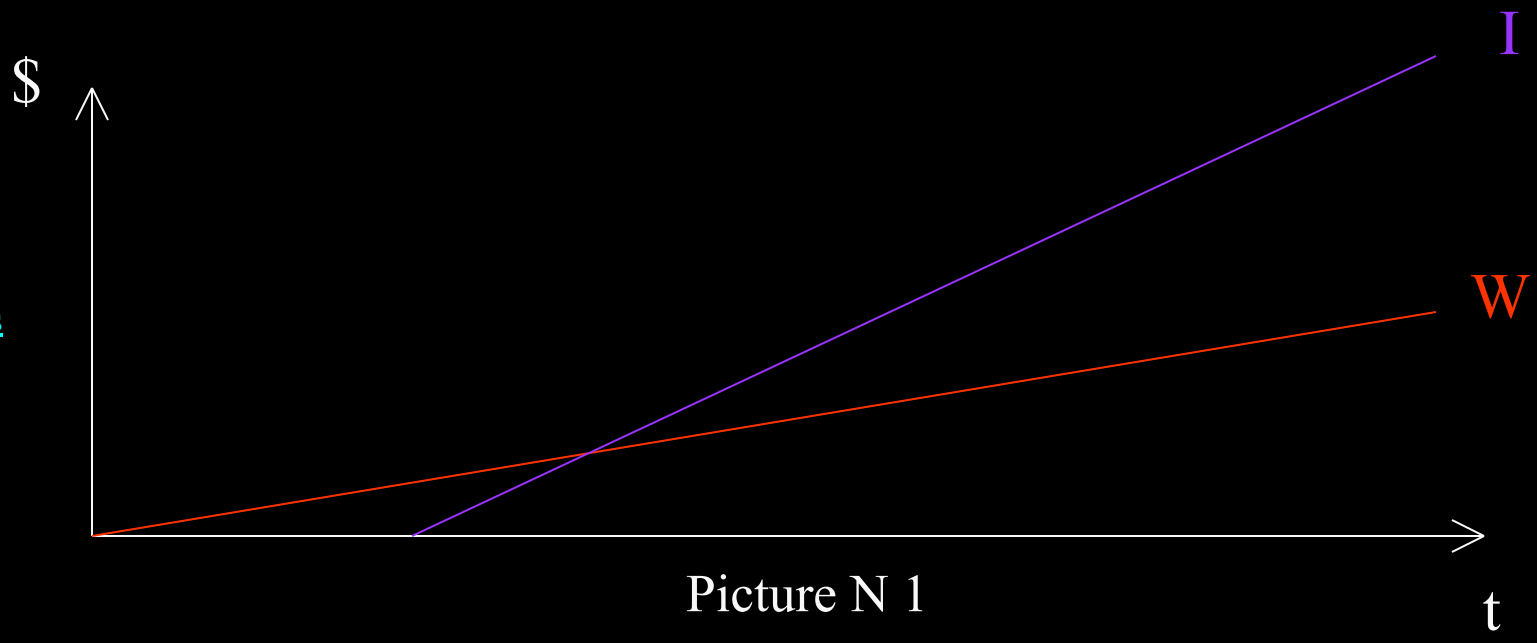
All classical computer programs are able to process traditional ***definite*** or ***concrete*** or ***exact*** data as well as Partnership System ZORAN. For example, You know, that according to conditions of Your contract with bank, credit sum will be **100000$** exactly. These are ***concrete*** data. Such ***definite*** data are using during data processing by classic book-keeper computer programs, for instance. But very often it is impossible to present data at a **concrete** way. For instance it may be at enterprise activity planning processes when some data are **not concrete** and some data even are **not known** by personnel. There are great problems in this case. Real headache.

15. Limit of possibilities for exact calculations (**introduction**)

On next pictures the maximum possible result is shown clearly, which can be calculated by any usual computer program (even neurocalculator!), while processing definite values only. The point of crossing of income and expenses lines here – this is the point of the zero-profit (when income is equal to expenses). Besides it, attention must be paid to the point additionally, that every chart is basing upon linear functions (for greater obviousness), while in real life lines of income and expenses can represent themselves more complex curves.

16. Limit of possibilities for exact calculations (**graph:** positive profit)

W – exact expenses (absolute value); I – exact income

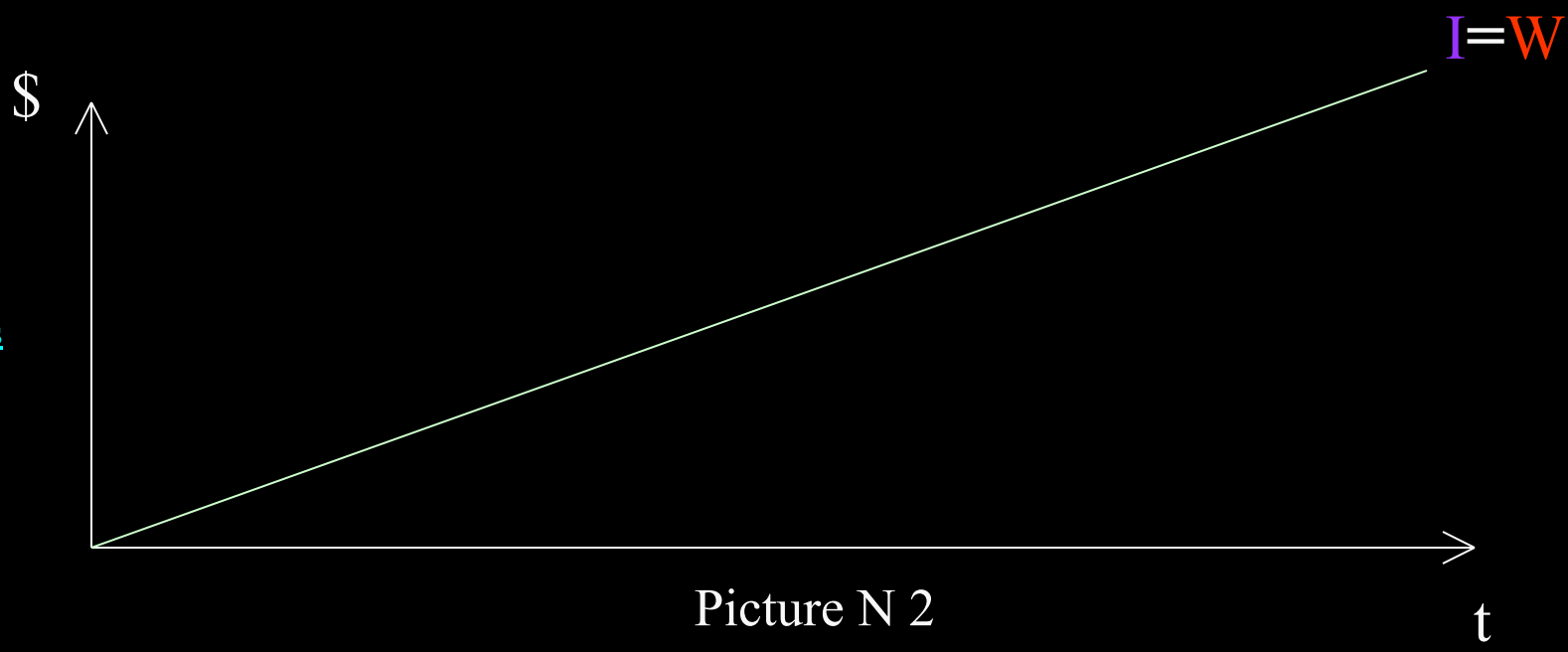


Picture N 1

All pictures

17. Limit of possibilities for exact calculations (**graph:** zero-profit)

W – exact expenses (absolute value); I – exact income

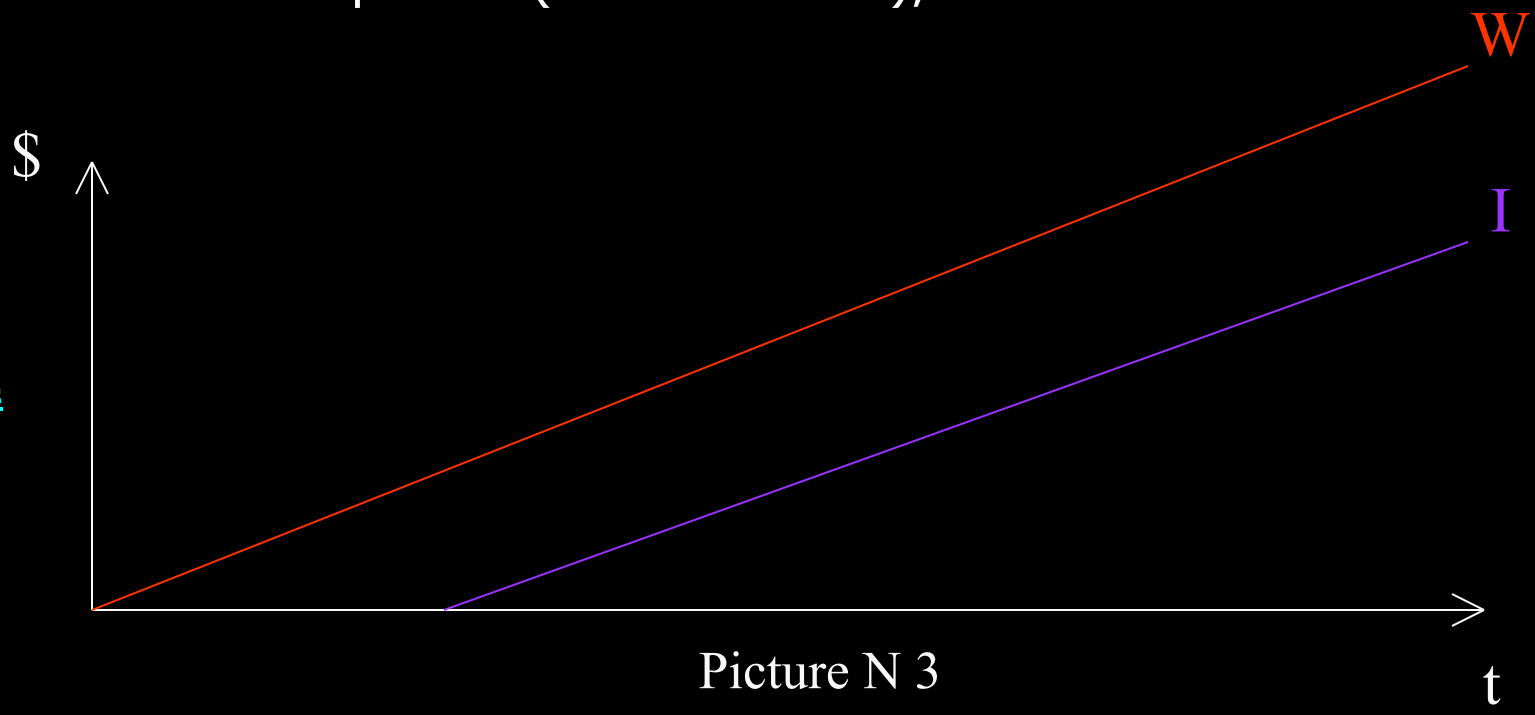


Picture N 2

All pictures

18. Limit of possibilities for exact calculations (**graph:** negative profit)

W – exact expenses (absolute value); I – exact income



Picture N 3

All pictures

19. Limit of possibilities for exact calculations (generalization)

Let's generalize aforesaid. Let's enumerate basic, the most important variants of graphical representation of calculating results for concrete data. First of all these are:

1. Income is greater than expenses in absolute value after going out from the point of zero-profit (positive profit, Pic. N 1);
2. Income is equal to expenses in absolute value (zero-profit, Pic. N 2);
3. Income is smaller than expenses in absolute value (negative profit, Pic. N 3).

20. But this is not catastrophic situation!

To get over possibility limitation for exact calculations Your ought to use computer program of new generation - Partnership System ZORAN, which is able, owing to unique features, to process many actual up-to-date tasks. This system is basing upon great skill to calculate tasks containing outstandard data types, which are described below.

21. What purposes new data types are necessary for (forecasting of future)

Calculating results, received by means of traditional computer programs, are always exact, even in the case when it is necessary to evaluate qualitatively and quantitatively totals of forecasting events (events, which must take place in future only). But this is erroneously absolutely, because in our world, as the empiric rule, possible future is not strictly determinate; various chances both good and bad, different force majeur circumstances can occur always. Undoubtedly, exceptions are possible sometimes, when, for example, a contract of equipment delivering for strictly determinate sum was concluded; in this case data can be represented in a concrete way. But always, during forecasting and calculating of a future, it is necessary to take into consideration a some degree of indefiniteness, uncertainty, "erosion", fuzziness. Since definite data can not reflect adequately fuzzy values, author was forced to put into operation new data types, which make it possible to get over stated limitation of definite data, and also, of course, for confusion excluding author was forced to work out classification of these new data types. Both the classification and new data types are described below.

22. Fuzzy or not concrete data

At first, these are *fuzzy* or *not concrete* data. For instance, You know, that 100 PC lot cost is equal now 100000$. This lot You want to buy in two months. Usual practice for computer market - periodical prices reduction. Therefore, with some confidence range You can wait that in two months 100 PC lot cost will be lower down to 1-10%. May be so. And at the same time may be not. Nobody can know exactly. This is indefinite situation.

Human being is able to process in his mind 1-2-...-10(perhaps) indefinite situations. And what about 50? 200? 500? 1000? indefinite situations? Who can process such amount? Where can You find out a genius for work from? Who is able to process correctly at least 25 indefiniteness?

Let's return to our example. After not complex calculations You can determine that in two months 100 PC mentioned lot cost will be equal 90000$<>100000$ (from 90000$ up to 100000$). But suddenly You are informed that in 1.5 month delivering prices will be increased up to 10% exactly (1000$ additional expenses). As the result Your expenses in future will be something about 91000$<>101000$.

These *fuzzy* data can be put into computer program Partnership System ZORAN which will process these data correctly together with other *fuzzy* data and also together with *concrete* data usually presenting at calculations. Single thing here which a user must to do - to put data into PC.

23. Co-using of definite and fuzzy data

Thus, usefulness of fuzzy data using for prognosis purposes can not arise any doubts. One would think that everything is clear here: definite data must be used for traditional calculations of determinate past, while indeterminate future is necessary to evaluate using fuzzy values only. Unfortunately, exceptions are possible always. In a lot of cases a future can be described in exact data. Well, a past simultaneously, results of finished events, are not always becoming known in good time; therefore, sometimes they are forcing to represent such past by means of fuzzy data. Besides it, practically always a great deal of events in unities of events are not beginning at the same time and have different time duration. That is, in the course of time, any prognosis, plan, scheme, a number of events is going little by little from past into future, decreasing final indefiniteness in ideal case. On the whole, they are forcing to correct data constantly, using for correction definite values as well as fuzzy ones. Therefore, they ought to use both definite and fuzzy data together, situationally, depending from availability of such requirements.

24. What purposes new data types are necessary for (analyzing and evaluation of a past)

As it was mentioned just now, from time to time one is forcing to come across necessity of representing of finished events results in the form of fuzzy values. Indeed, how can one give correct evaluation of what was going on, if data about it are hiding carefully, and therefore there is nothing for one but to be content, very often, with fragmentary, incomplete and contradictory information only? It happens that even large groups of professionals are not able to work out opportune conclusion concerning analyzing of a current situation. But especially actual this is becoming for economical secret services, when it is necessary to carry out careful, scrupulous quantitative and qualitative analysis of competitors activities for purposes of adequate evaluation of potential threats to economical and political interests. As the result, to get over limit of possibilities for exact calculations in a usual way, great financial and human resources are required to be used, and what is more, there are no guarantees from miscalculations arising during a process of manual calculations execution, and also during a process of transitions from definite and fuzzy information obtained by secret service to definite data for exact computer calculations and inversely – but again to fuzzy representation of results. While co-using of definite and fuzzy data during calculations process makes it possible to reduce the price of these calculations greatly and decrease quantity of arising miscalculations in many times.

25. How to get over possibility limitation for exact calculations

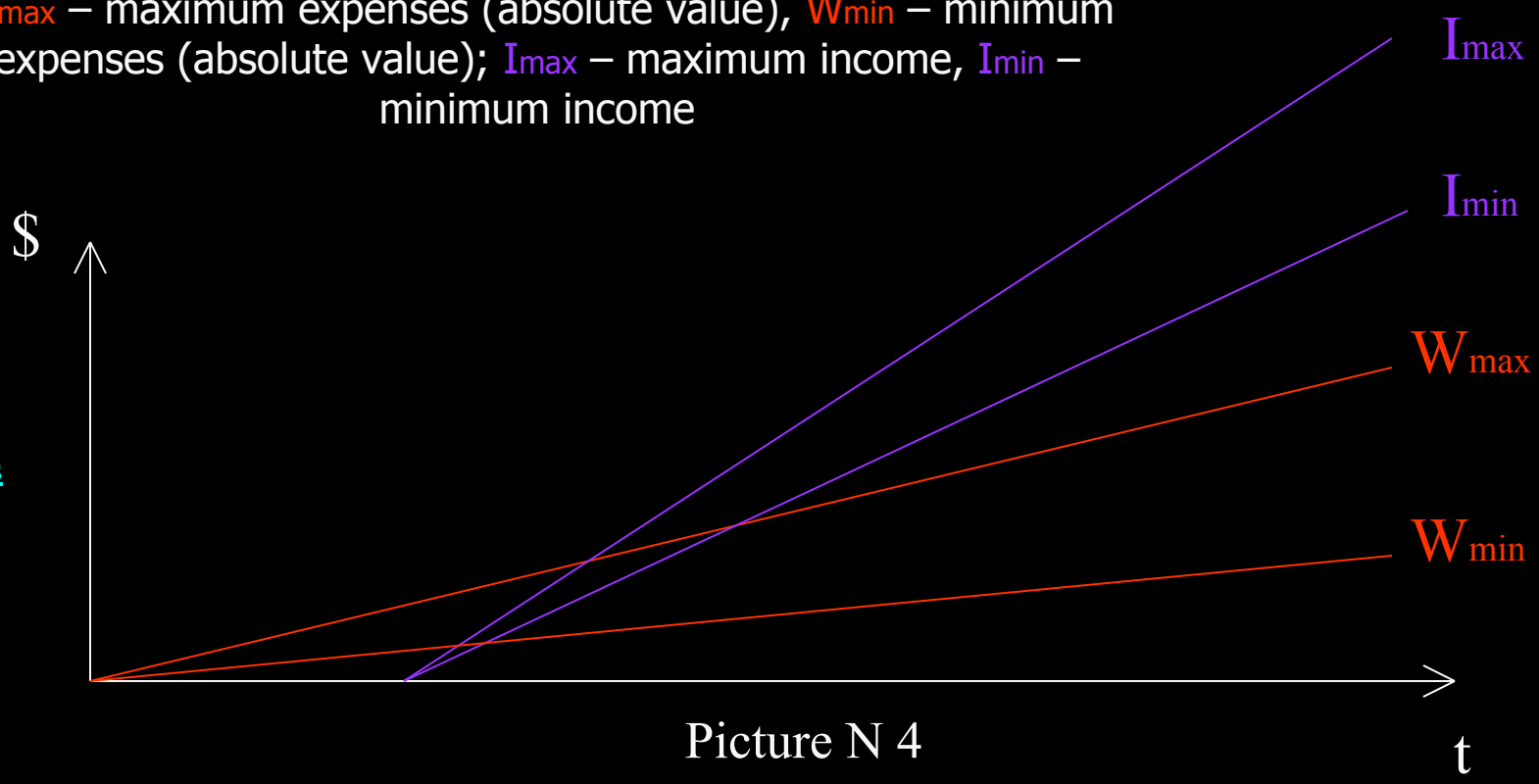
Next slides show clearly (with explanations) calculating results, which can be received after fuzzy values processing, and also after co-processing both definite and fuzzy values, including the situation, when either the income total or expenses total (but not both together!) are adding with definite values absolutely from the very beginning. Principal difference in comparison with the PicturesPictures NN 1Pictures NN 1, 2Pictures NN 1, 2, 3 is seen quite vividly without any problems. Here attention must be paid to the point again, that every chart is basing upon linear functions (for greater obviousness), while in real life borders of income and expenses can represent themselves more complex curves.

26. Business project is absolutely profitable (**introduction:** income and expenses are fuzzy)

Next picture demonstrates the situation, when in some time after beginning business project is becoming absolutely profitable. In this case the minimum income after going out from the state of zero-profit will be always greater than maximum expenses in absolute value. Classical computer programs for business projecting, to some extent, can show similar results, processing, for example, averaged values. But mentioned programs will never demonstrate all nuances of transition from negative profit to positive one.

27. Business project is absolutely profitable (**graph:** income and expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 4

All pictures

28. Business project is absolutely profitable (**generalization:** income and expenses are fuzzy)

Now let's enumerate basic, the most important features of the variant of calculating results graphical representation for fuzzy data, basing upon description of previous situation (Pic. N 4). First of all, these are:

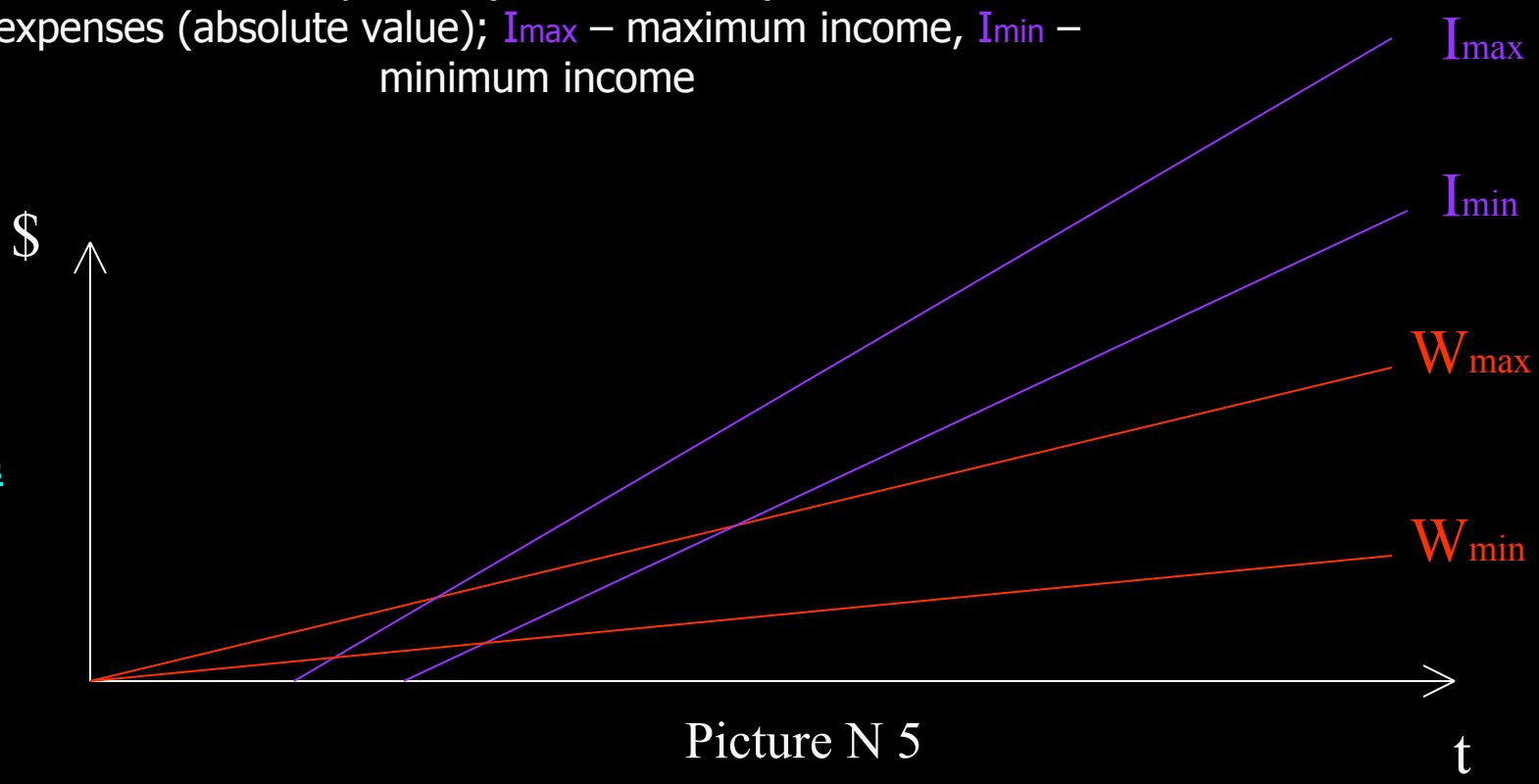
1. Availability of a zone of a simply negative profit (below than line of minimum expenses), that is conforming to common sense, because for profit receiving in business one must invest usually some money for it beforehand;
2. Availability of a zone of a zero-profit state in plane between lines of income and expenses borders (for exact calculations this is a point of zero-profit). Just here main indefiniteness is concentrating – You see, it is impossible to determine exactly, in what moment a negative profit will be transformed into zero-profit or even into positive one. Besides, temporary transitions from a positive profit to zero-profit and even negative one are possible here;
3. Availability of a zone of a simply positive profit. In this case the minimum income after going out from the zone of zero-profit will be always greater than maximum expenses in absolute value, while ***averaged income***, accordingly, after going out from the zone of zero-profit will be always greater than ***averaged expenses*** in absolute value.

29. Business project is absolutely profitable (**introduction, generalization:** income and expenses are fuzzy, variants of graphs)

Following pictures are demonstrating situations, when business project either is absolutely profitable from the very beginning or is becoming the same in some time after beginning. In these cases also, minimum income either after going out from the state of zero-profit or from the very beginning is greater always than maximum expenses in absolute value. But risks are smaller here, and enumerated situations are creating on the basis of Pic. N 4. All this shows clearly, how much calculations, processed exclusively in exact values, are inaccurate.

30. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

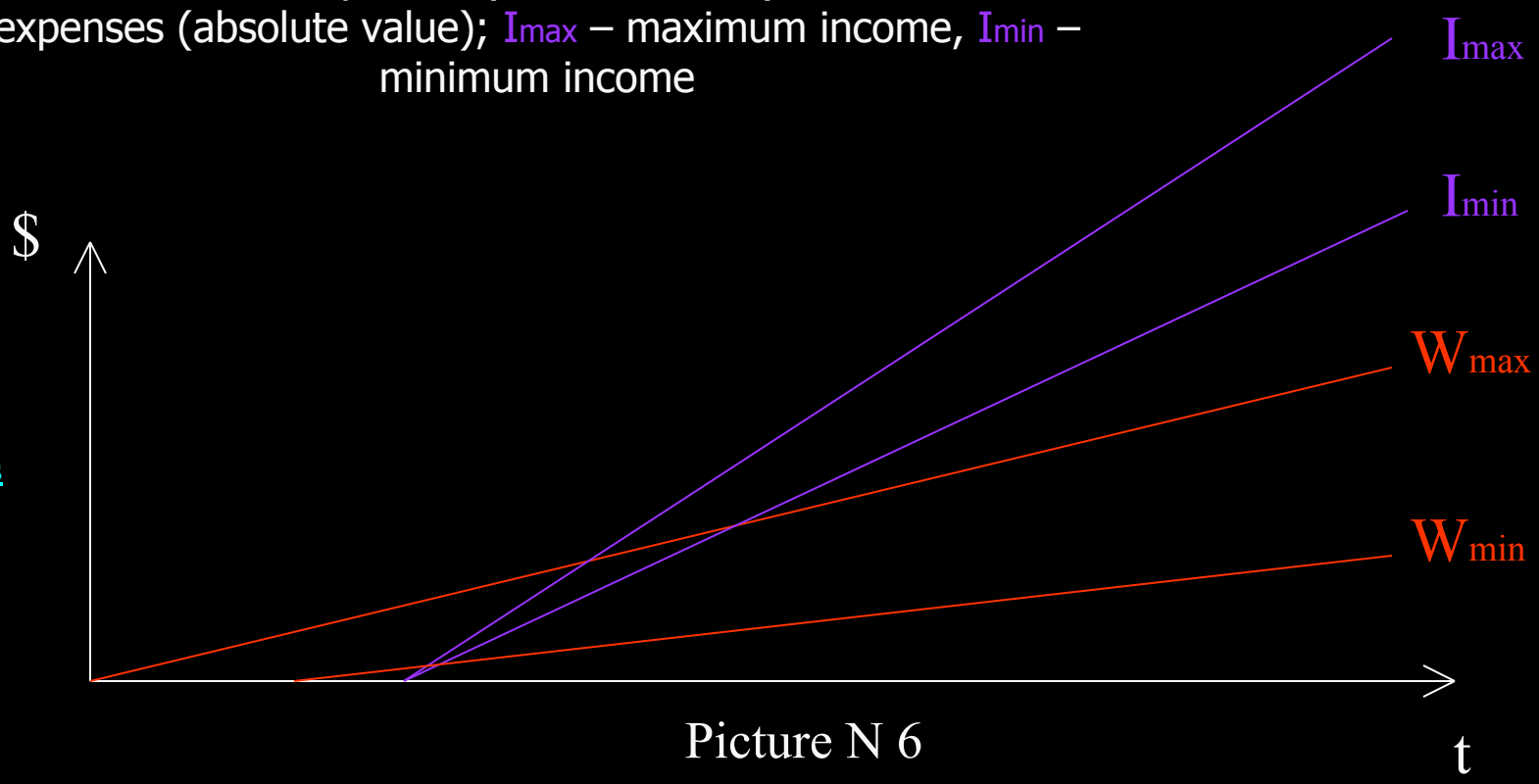


Picture N 5

All pictures

31. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

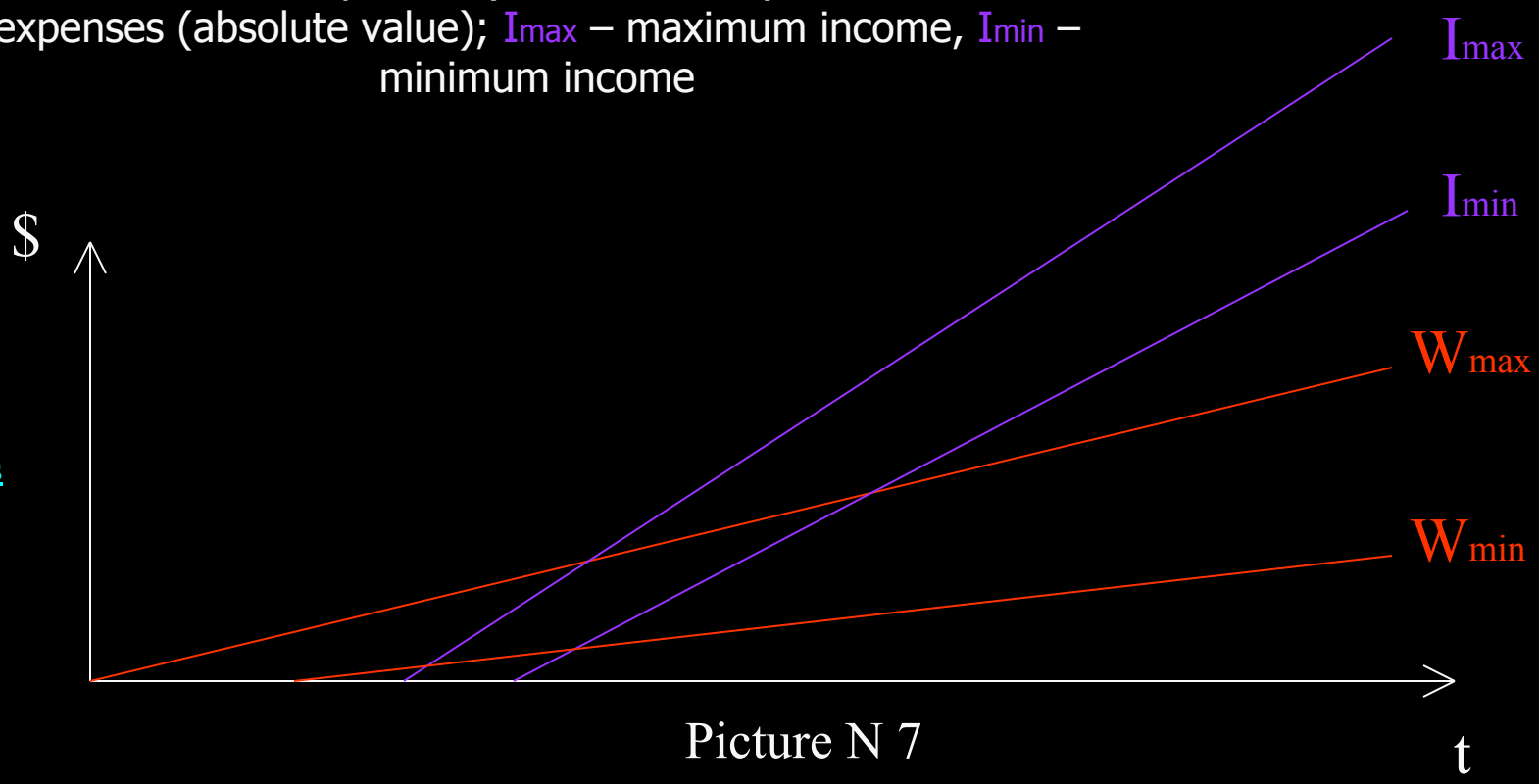


Picture N 6

All pictures

32. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 3)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

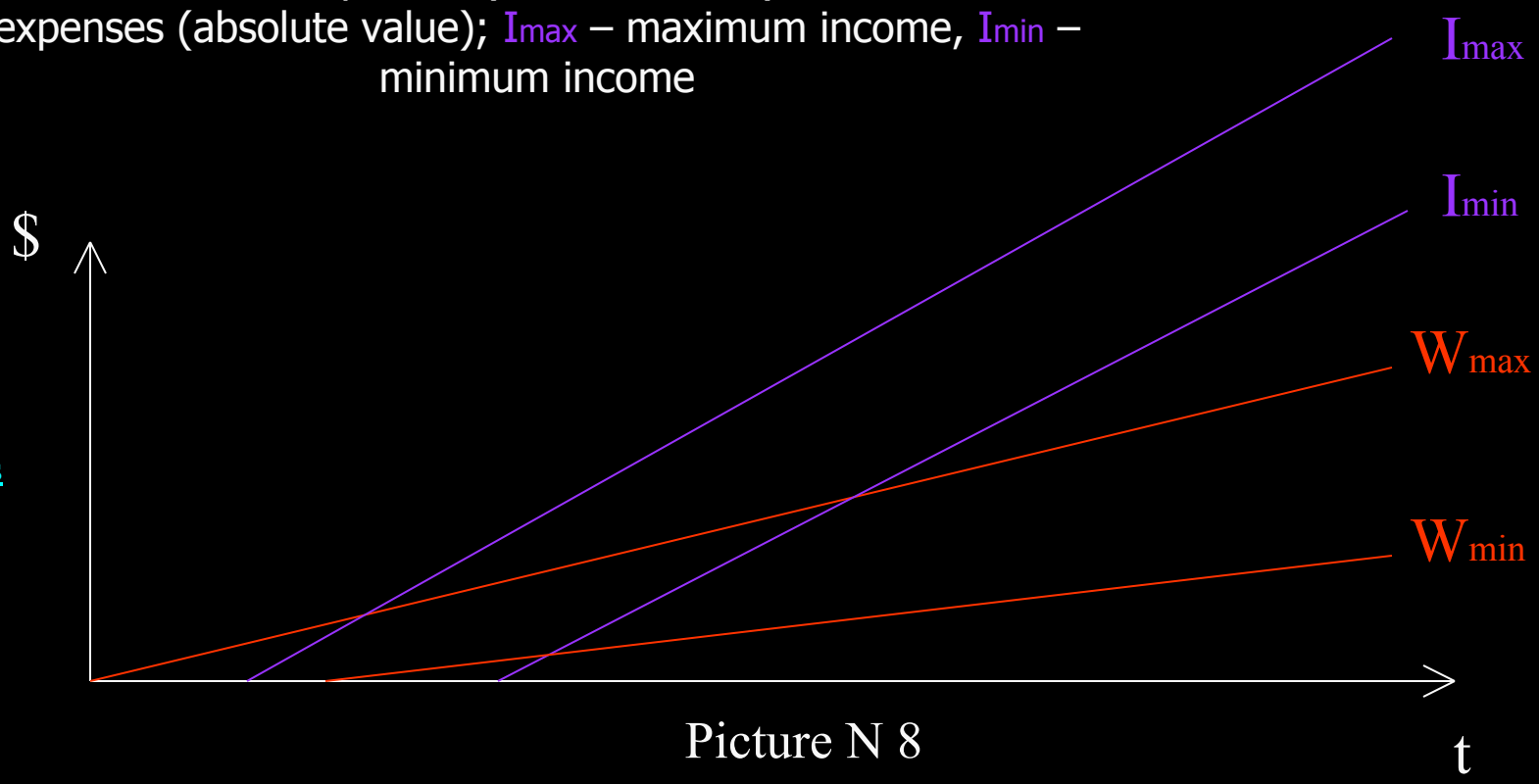


Picture N 7

All pictures

33. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 4)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

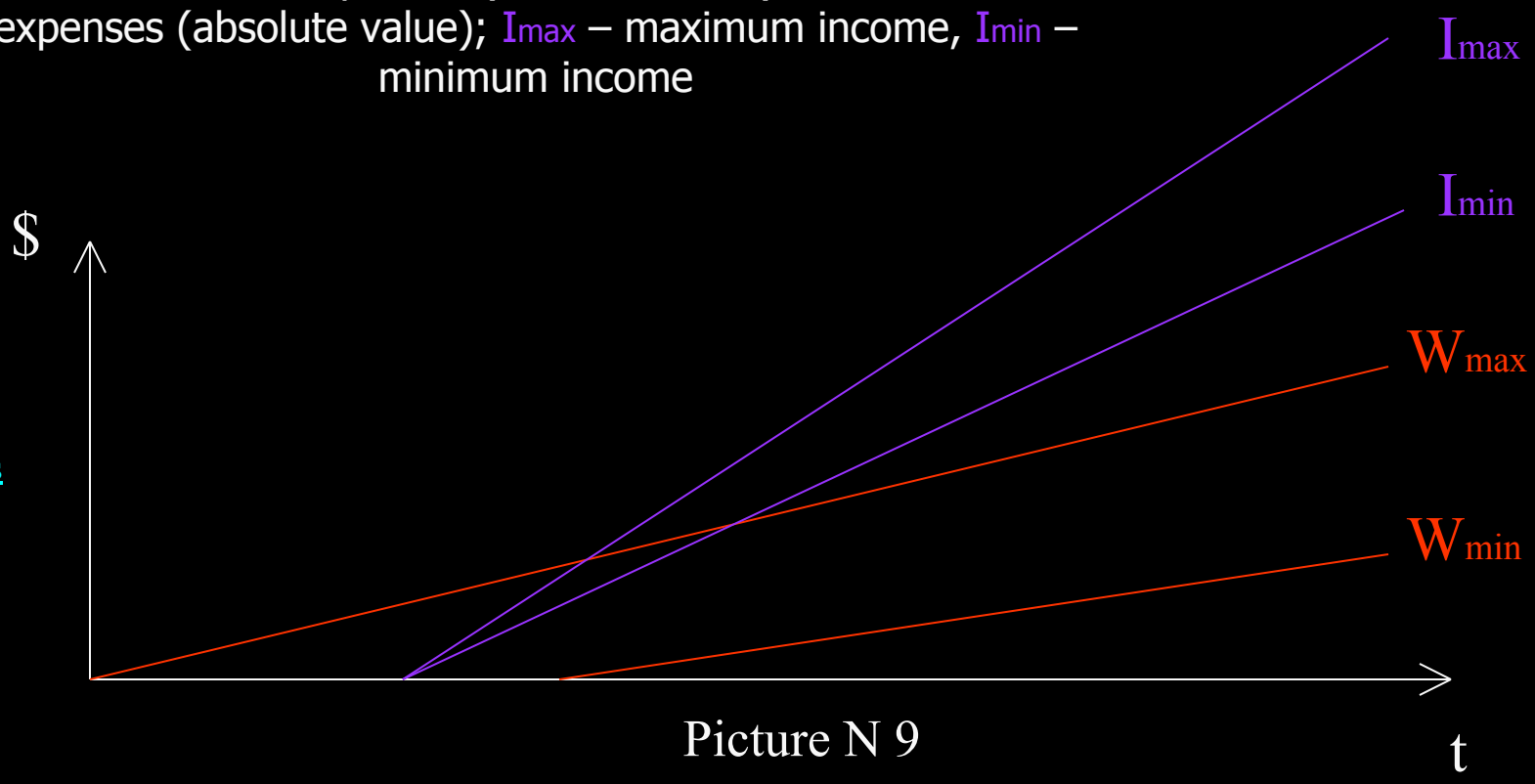


Picture N 8

All pictures

34. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 5)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

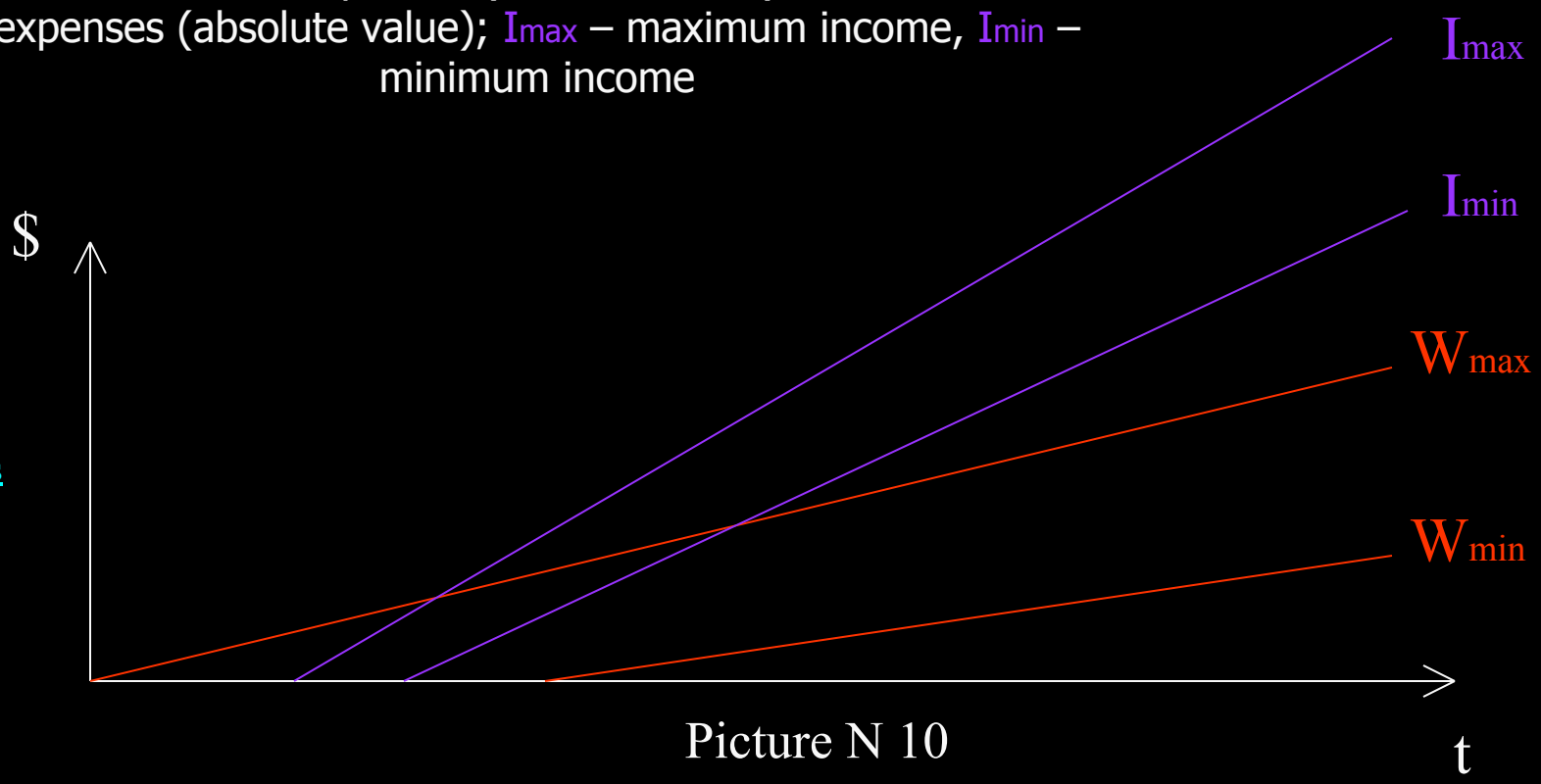


Picture N 9

All pictures

35. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 6)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

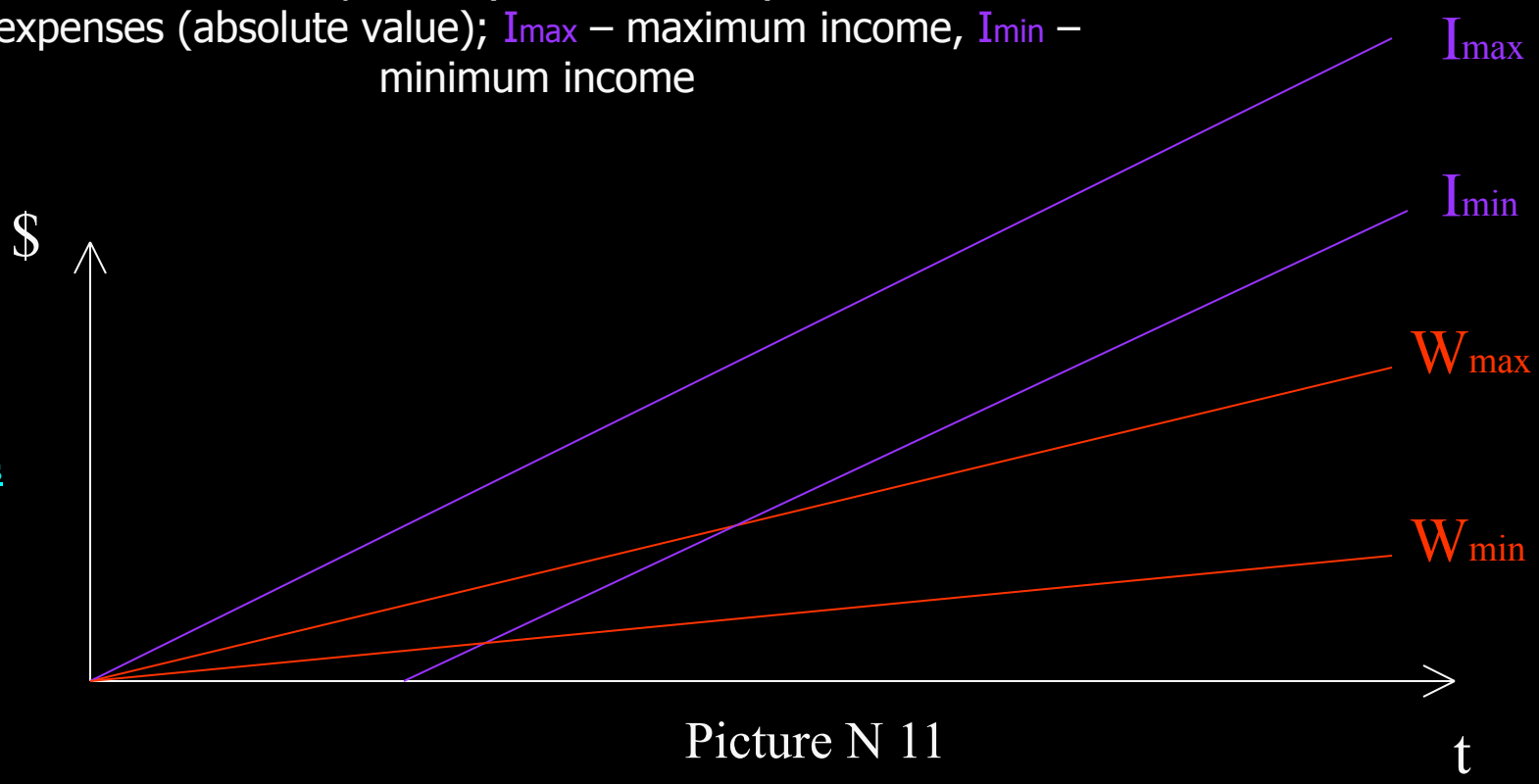


Picture N 10

All pictures

36. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 7)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

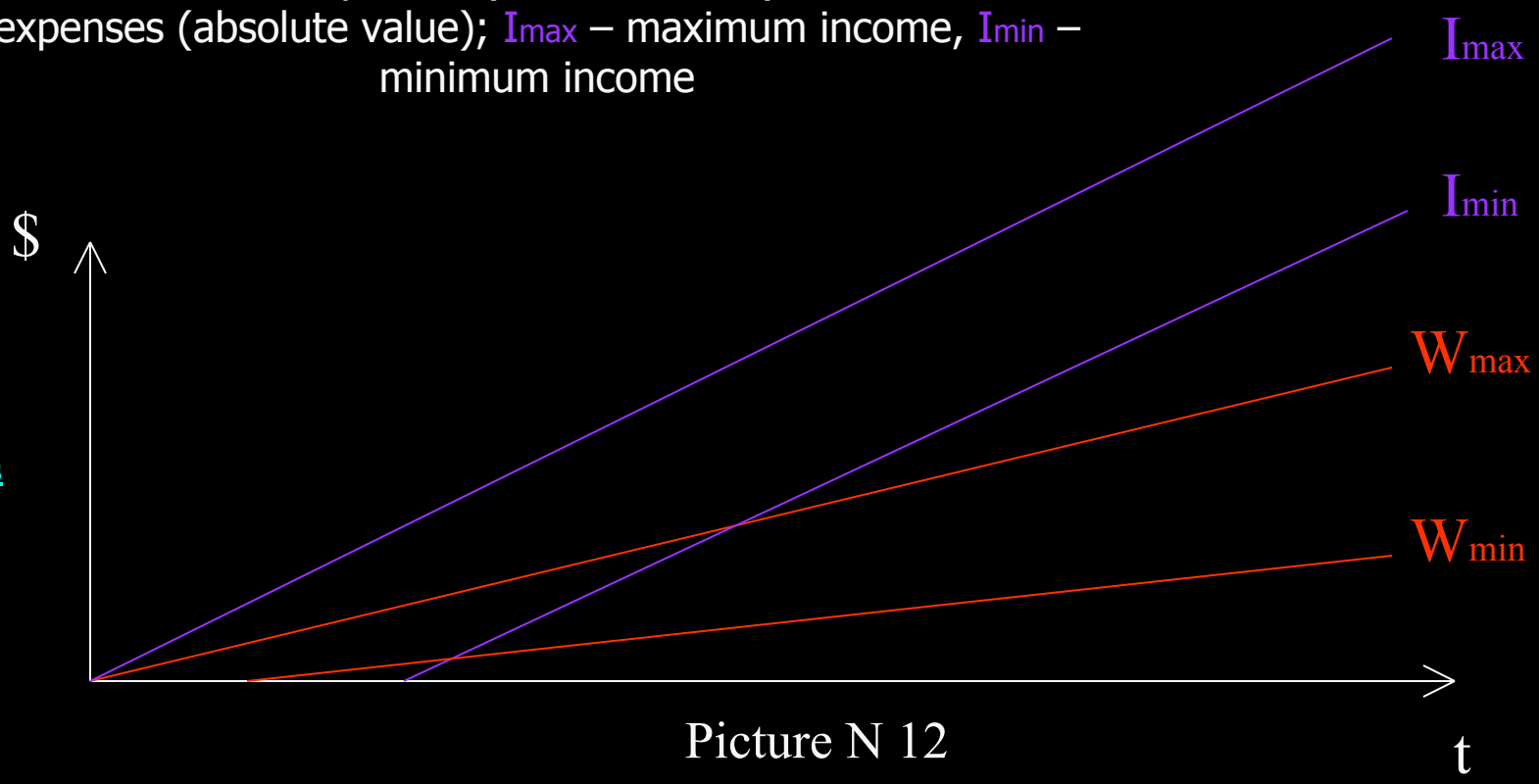


Picture N 11

All pictures

37. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 8)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

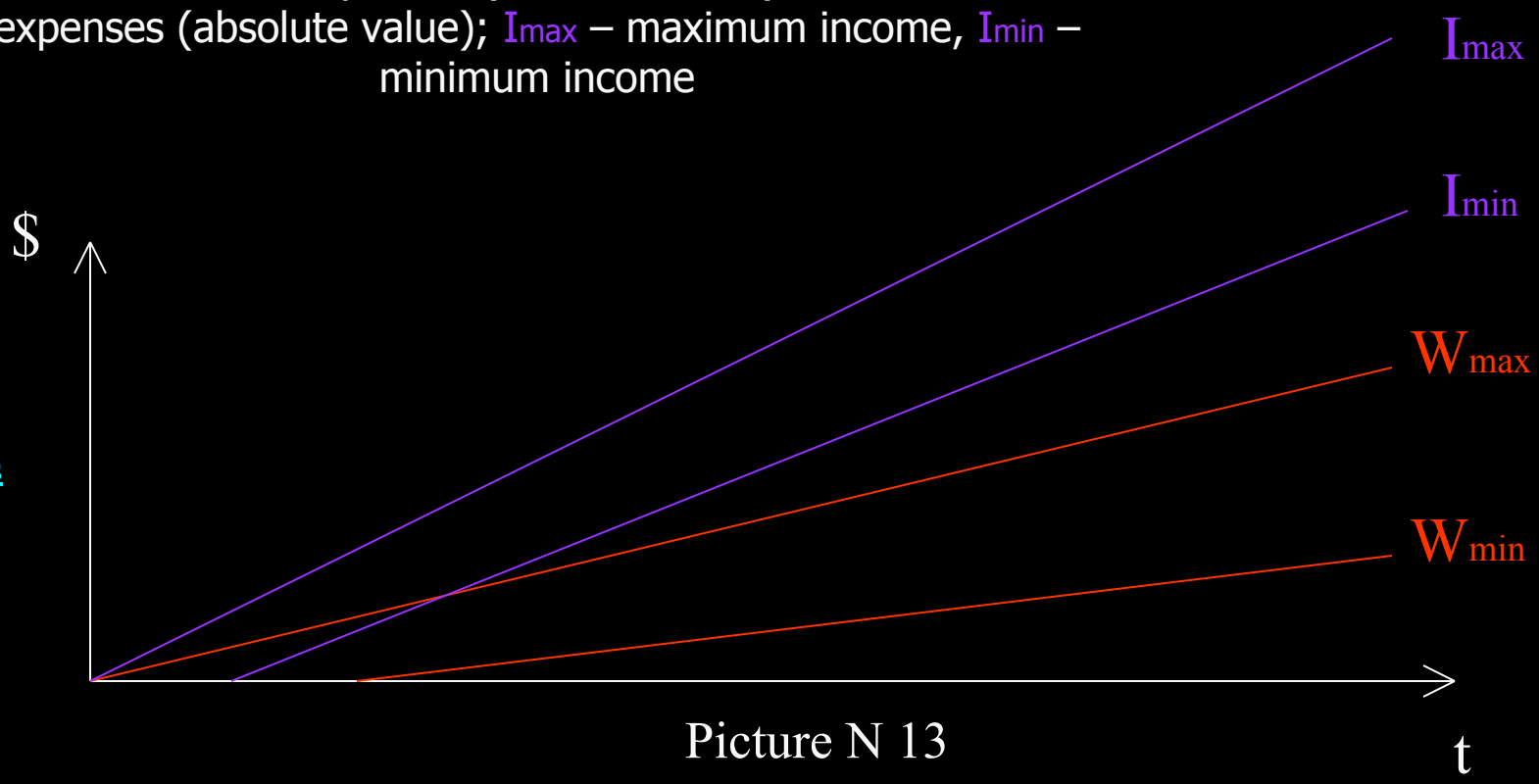


Picture N 12

All pictures

38. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 9)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

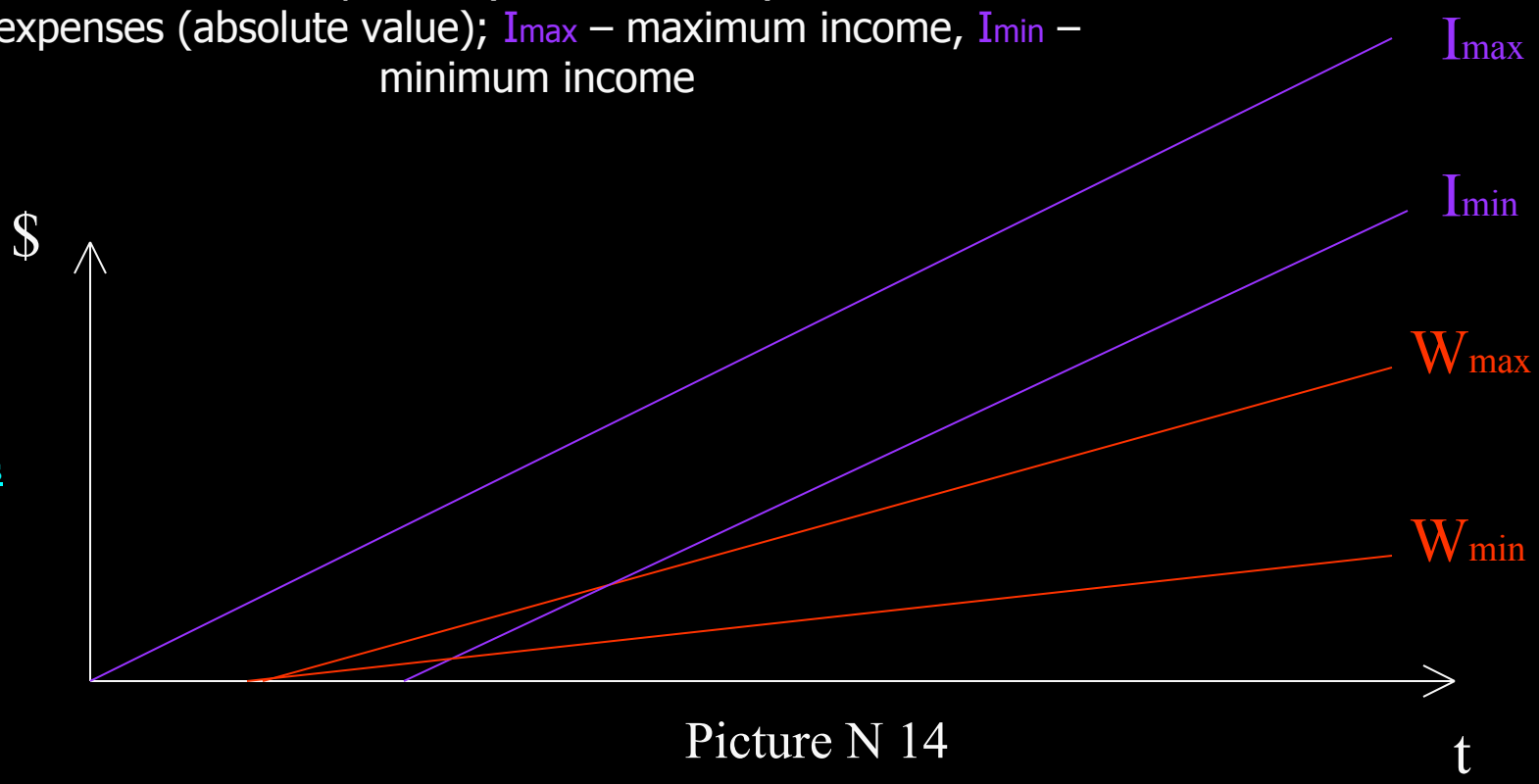


Picture N 13

All pictures

39. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 10)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

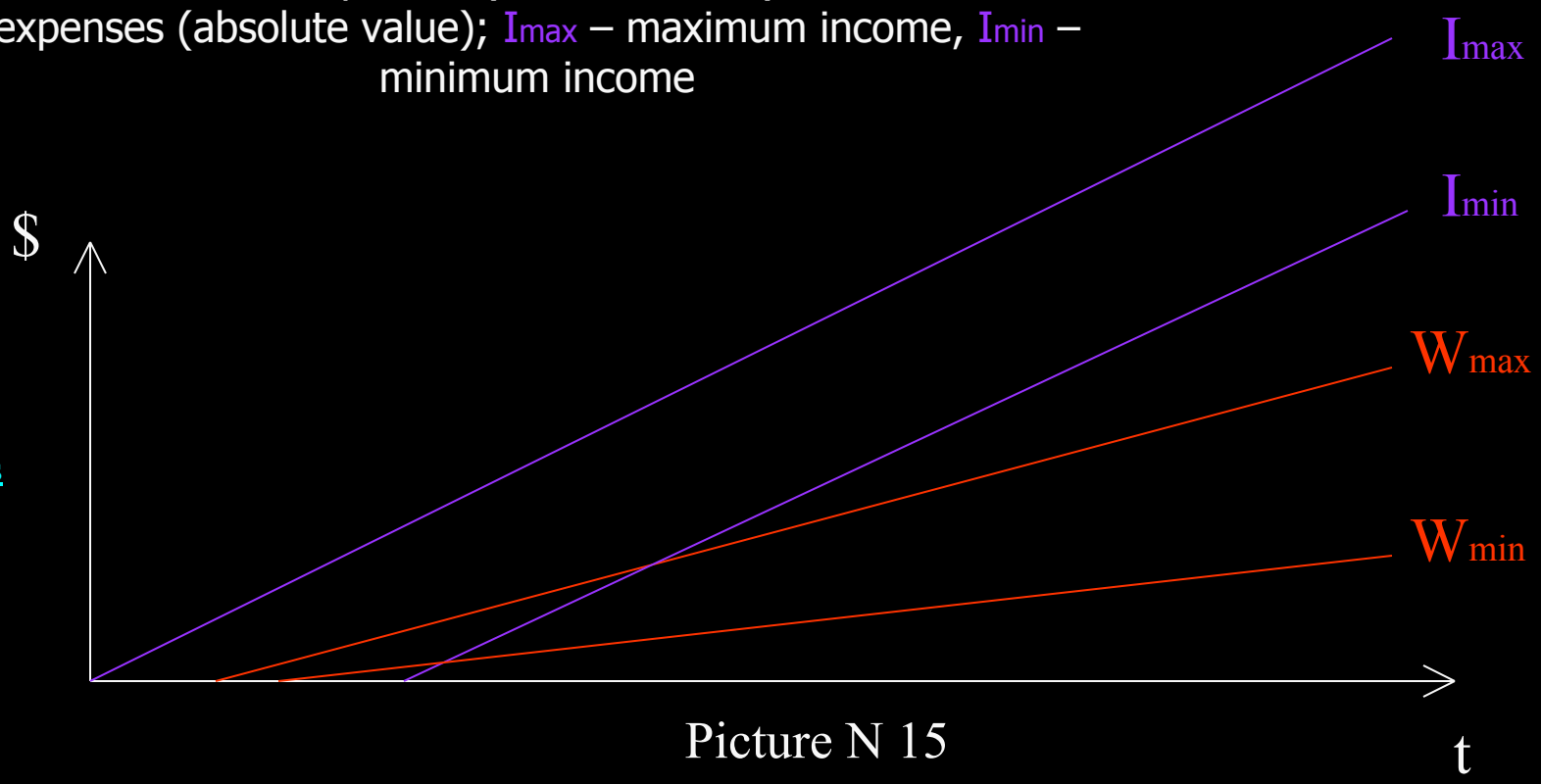


Picture N 14

All pictures

40. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 11)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

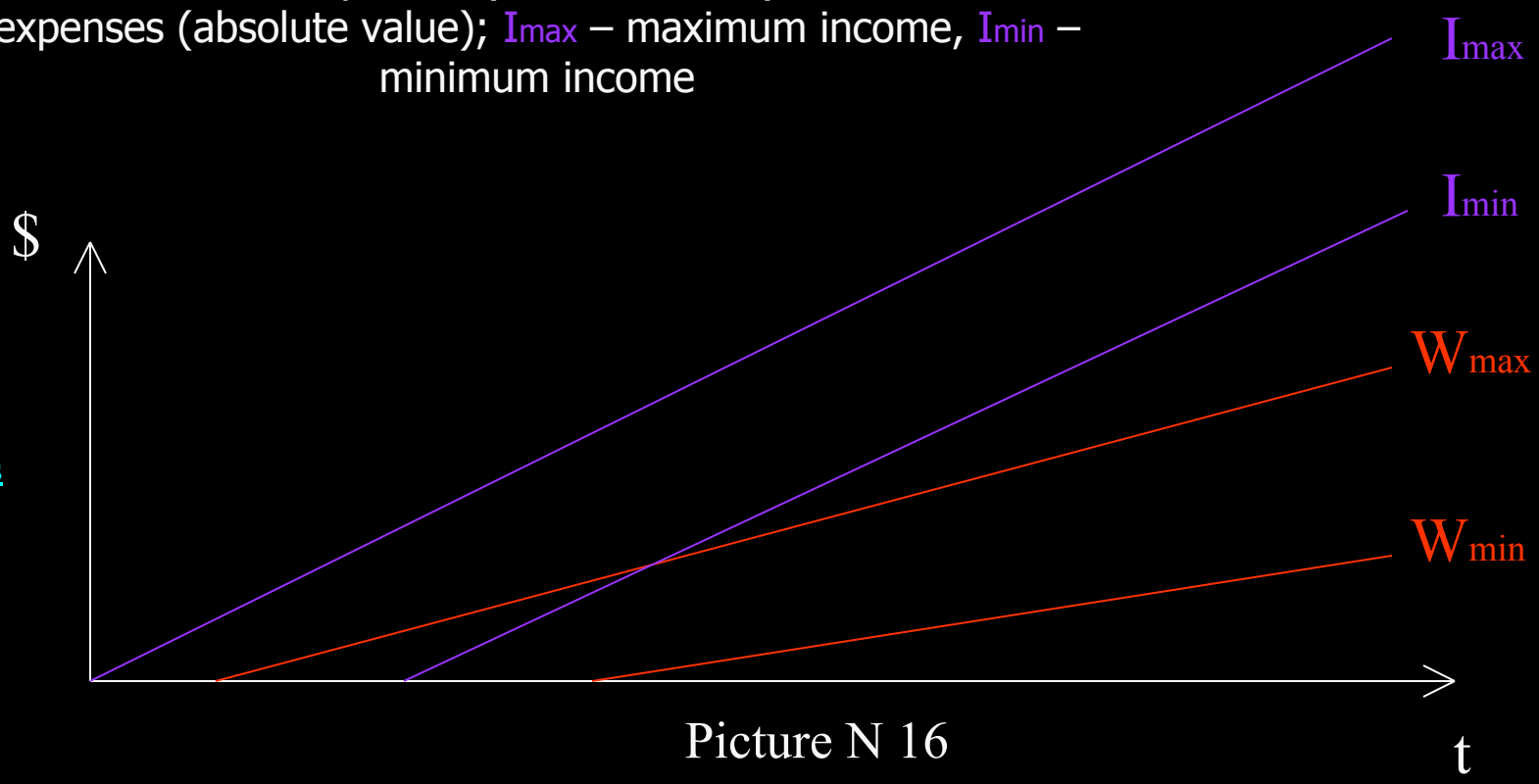


Picture N 15

All pictures

41. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 12)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

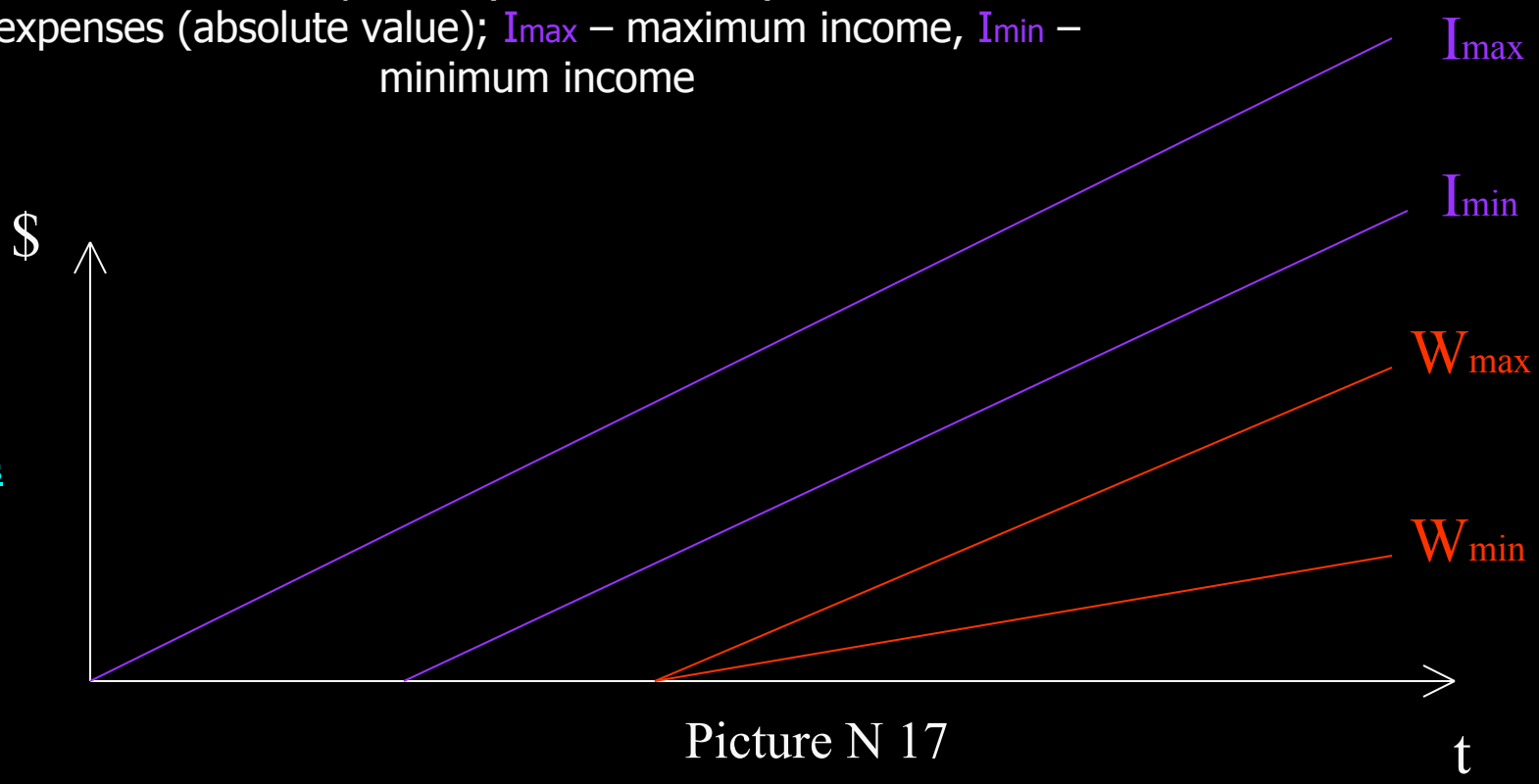


Picture N 16

All pictures

42. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 13)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

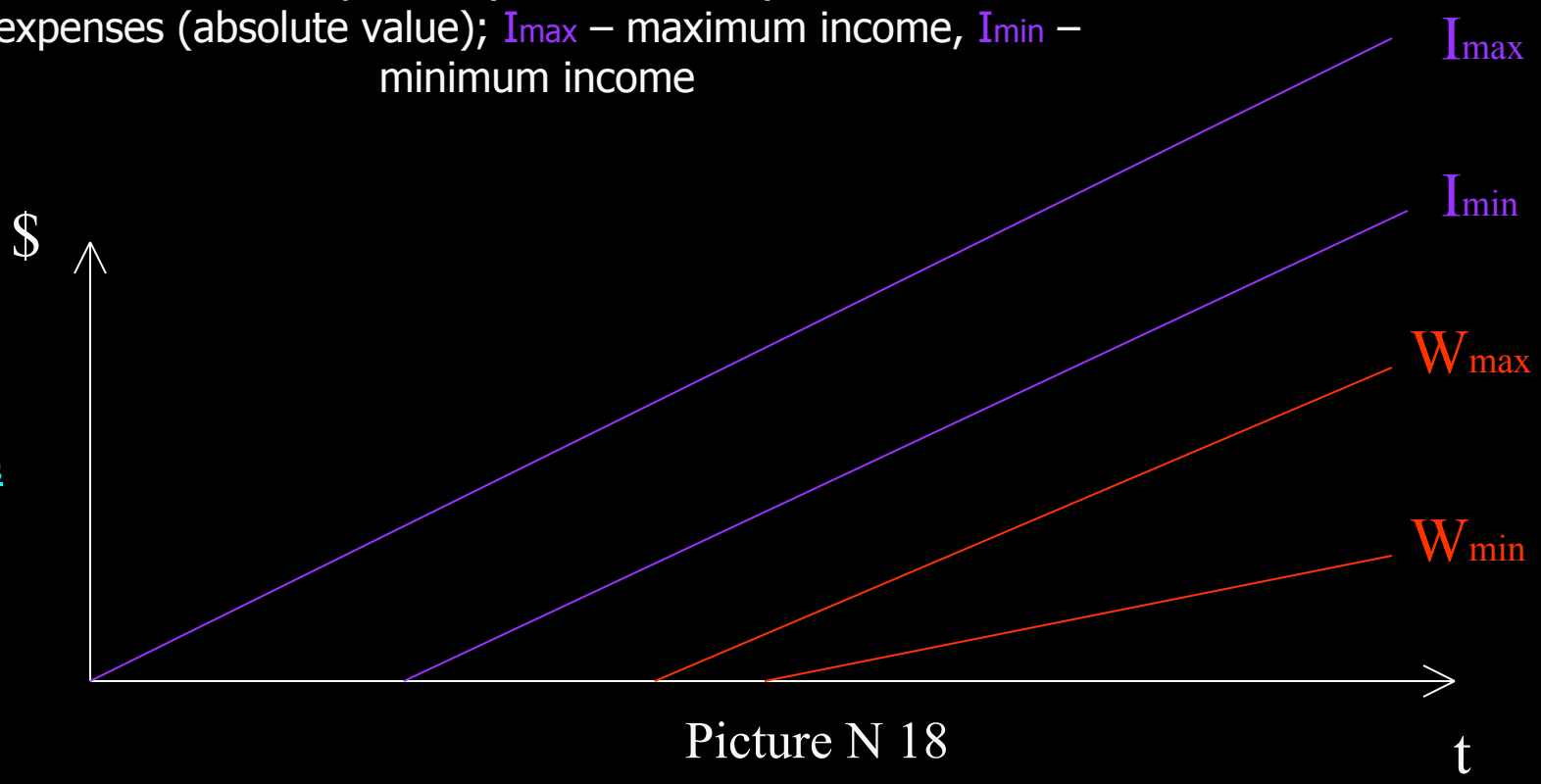


Picture N 17

All pictures

43. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 14)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

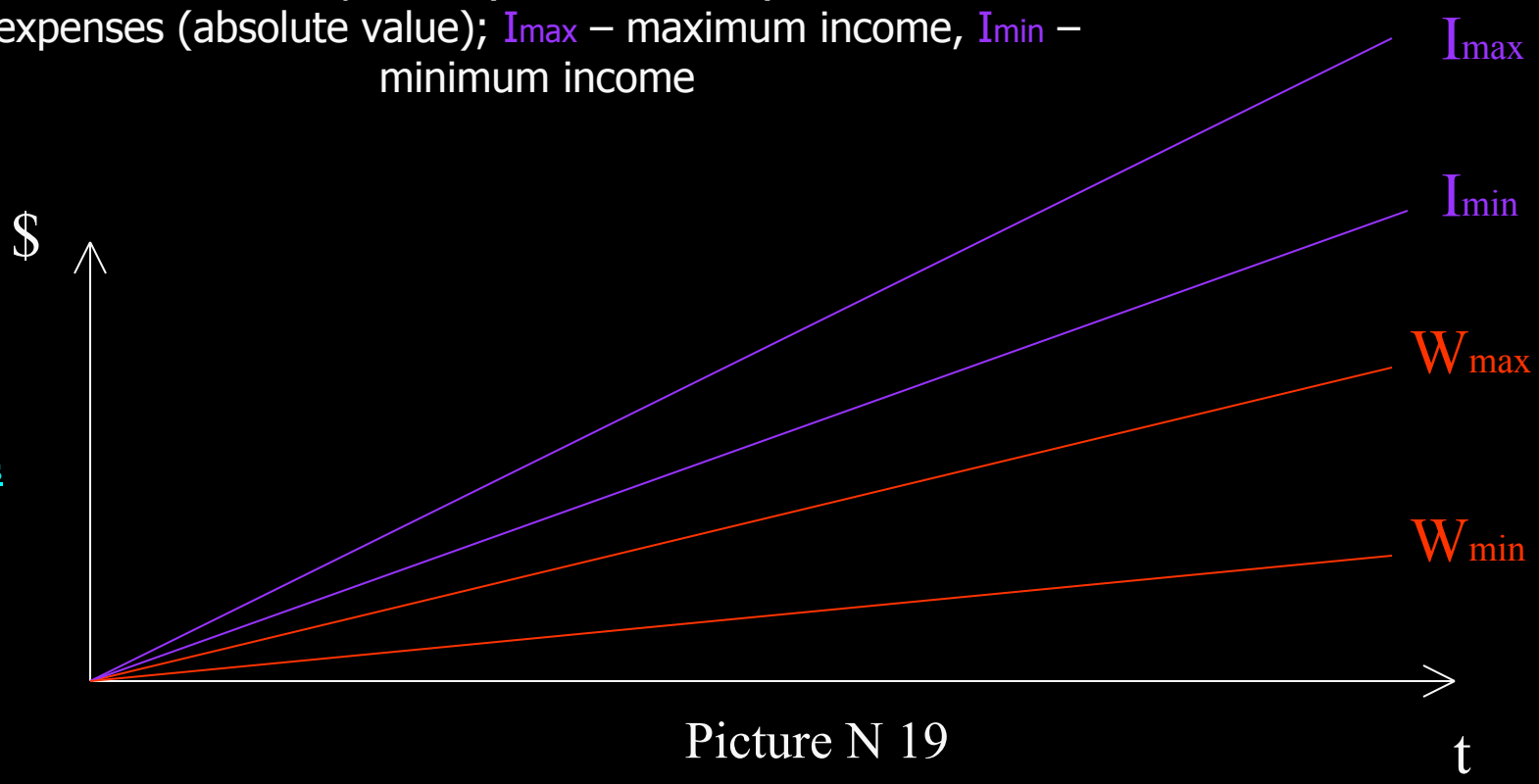


Picture N 18

All pictures

44. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 15)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

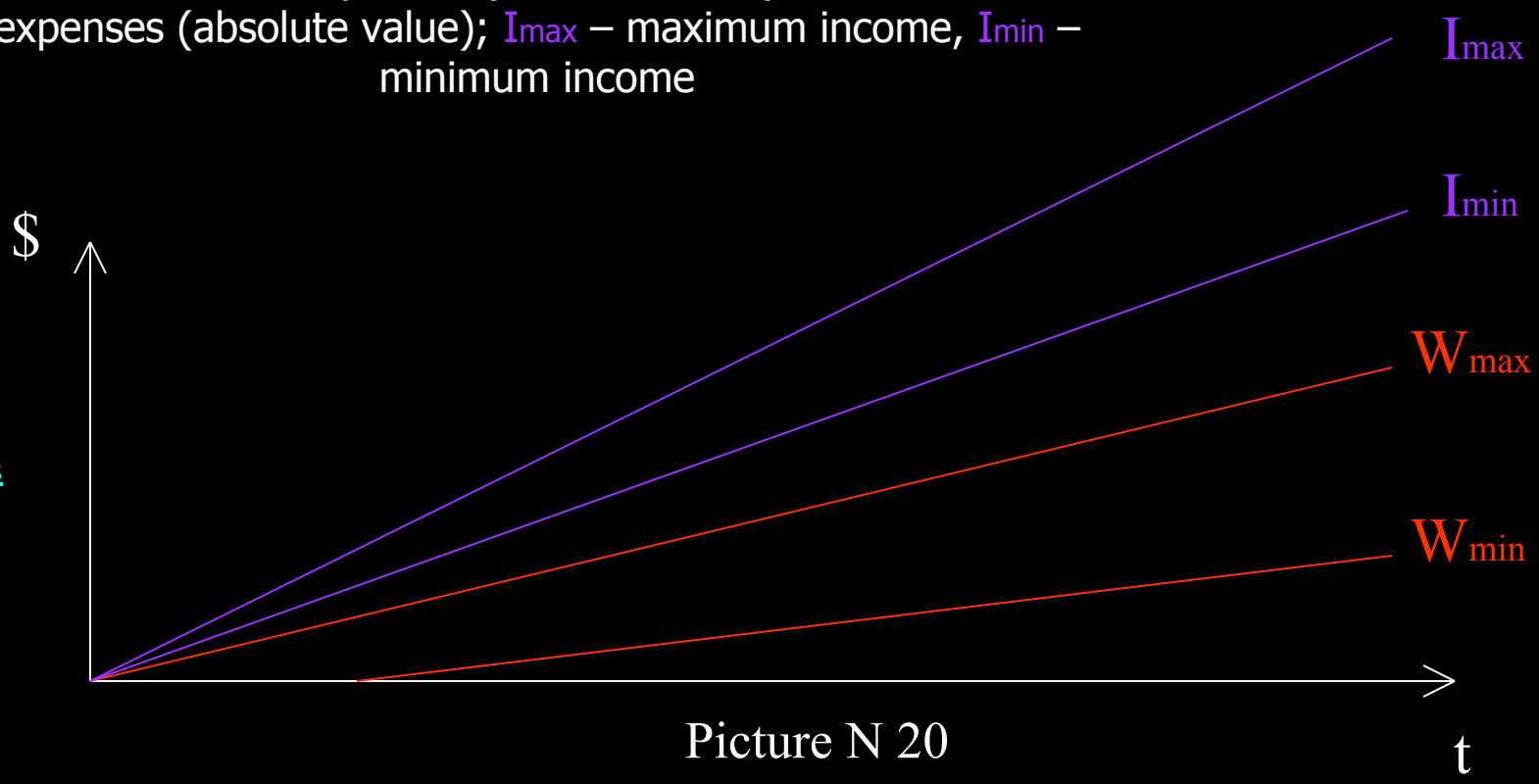


Picture N 19

All pictures

45. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 16)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

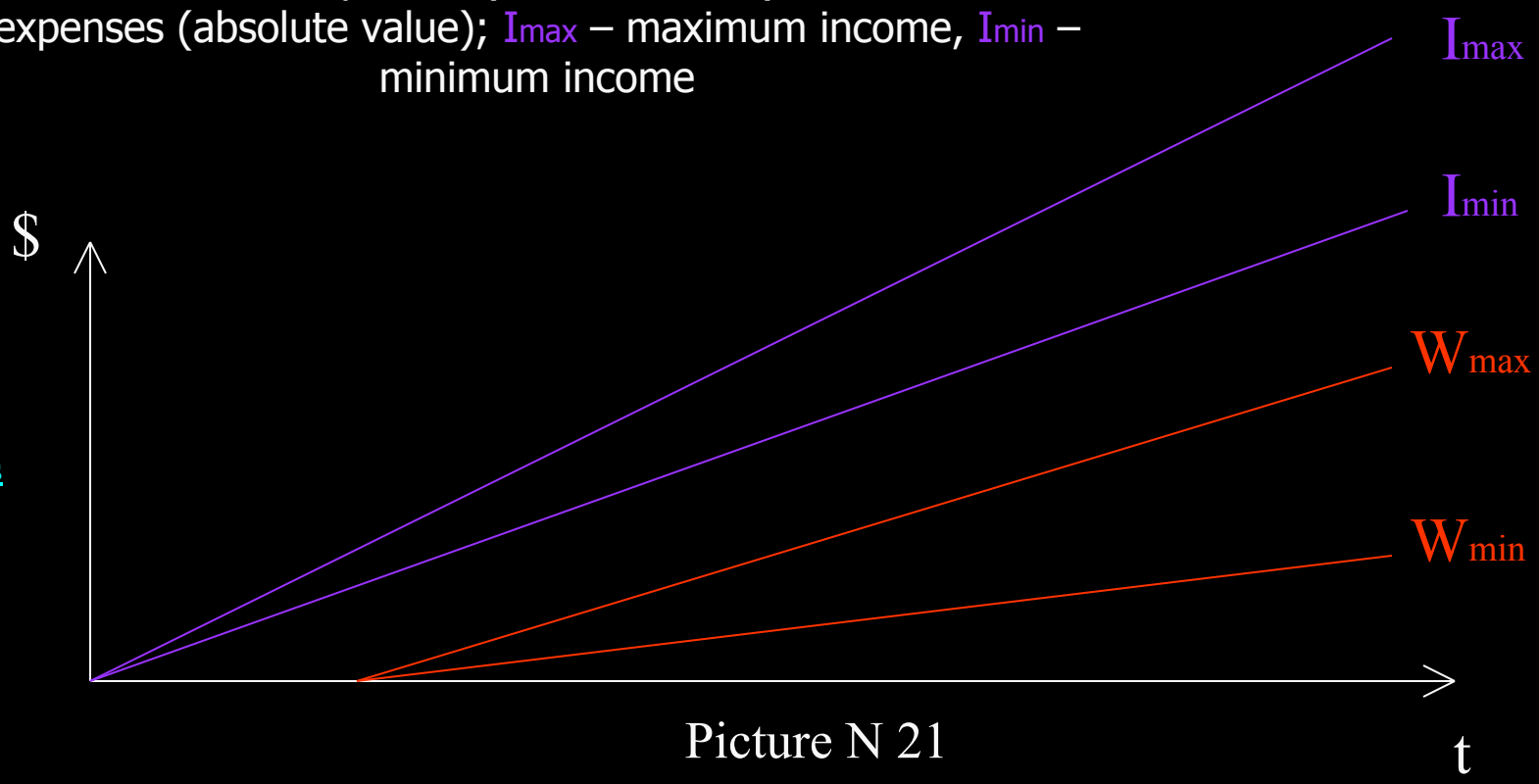


Picture N 20

All pictures

46. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 17)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

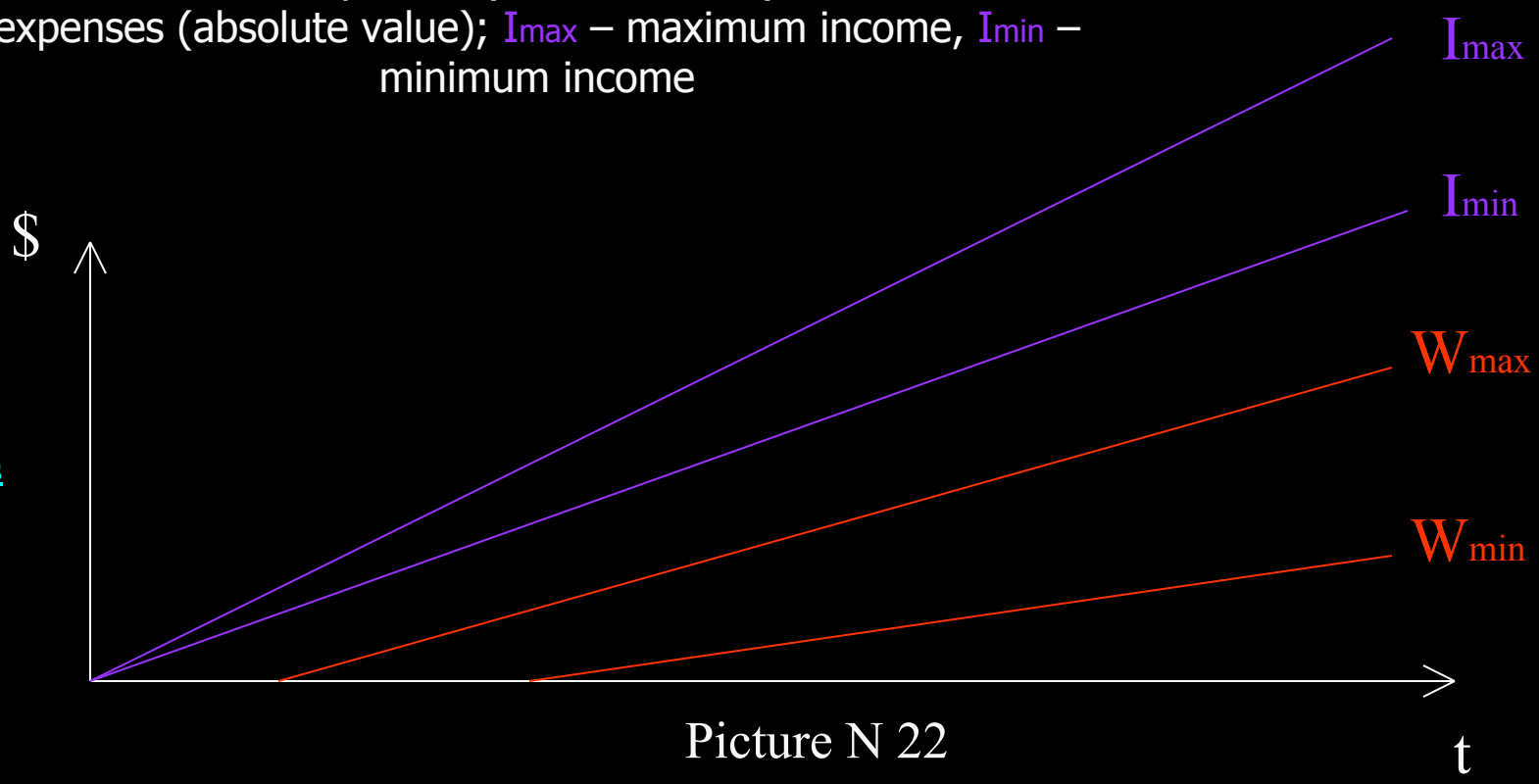


Picture N 21

All pictures

47. Business project is absolutely profitable (**graph:** income and expenses are fuzzy, variant N 18)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 22

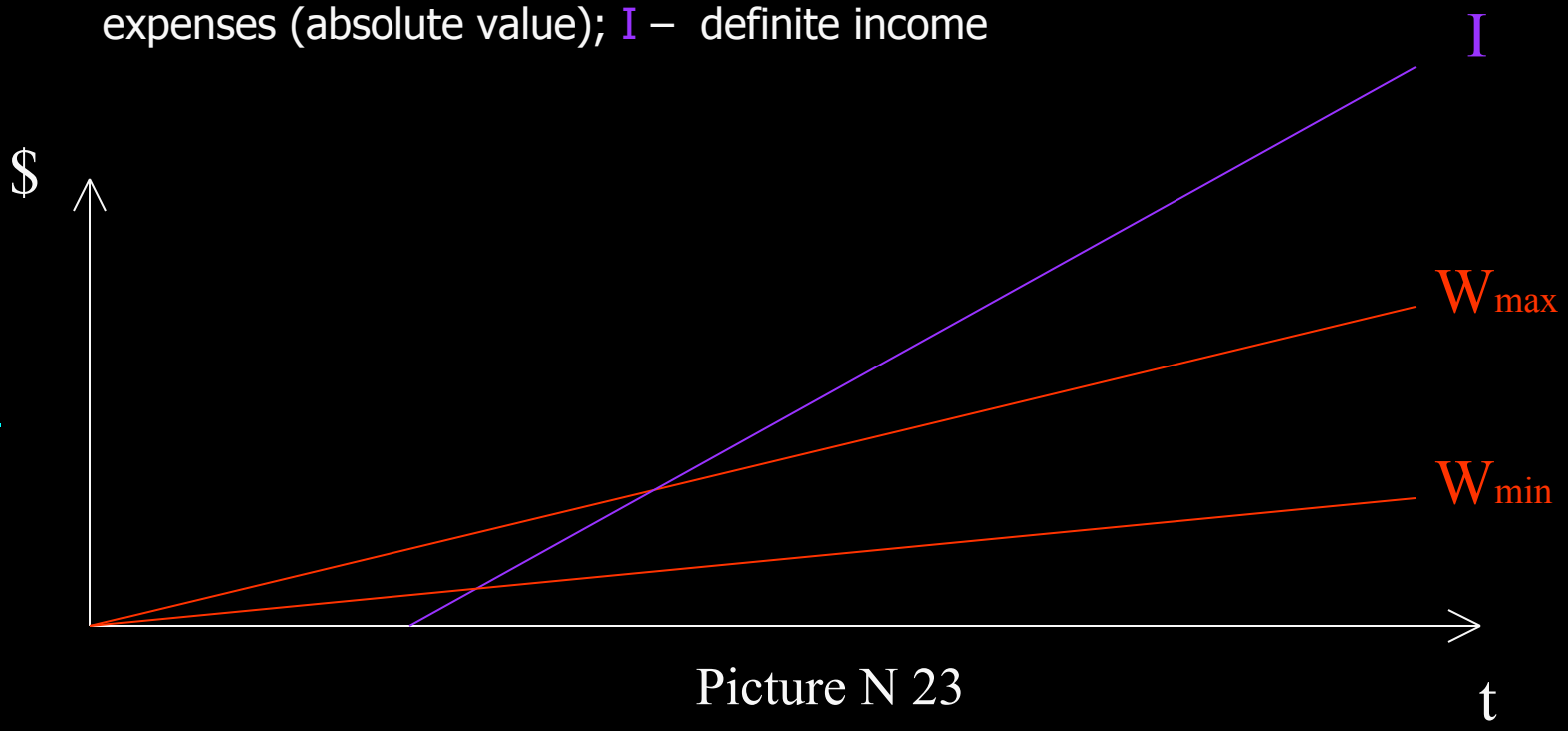
All pictures

48. Business project is absolutely profitable (**introduction:** income is definite, expenses are fuzzy)

Next picture demonstrates the situation again, when in some time after beginning business project is becoming absolutely profitable. In described case ***definite*** income after going out from the state of zero-profit will be always greater than maximum expenses in absolute value. This situation is particular and rare variant of Pic. N 4. In principle, such thing is possible, when, for example, You know definite sums of financing (in a way of grant, subsidy, investment, help from a sponsor, contribution etc) for some purposes; but expenses for realization of these purposes can not be determined exactly because of different reasons.

49. Business project is absolutely profitable (**graph:** income is definite, expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income



Picture N 23

All pictures

50. Business project is absolutely profitable (**generalization:** income is definite, expenses are fuzzy)

Now let's enumerate basic, the most important features of the variant of calculating results graphical representation for definite income and fuzzy expenses, basing upon description of previous situation (Pic. N 23). First of all, these are:

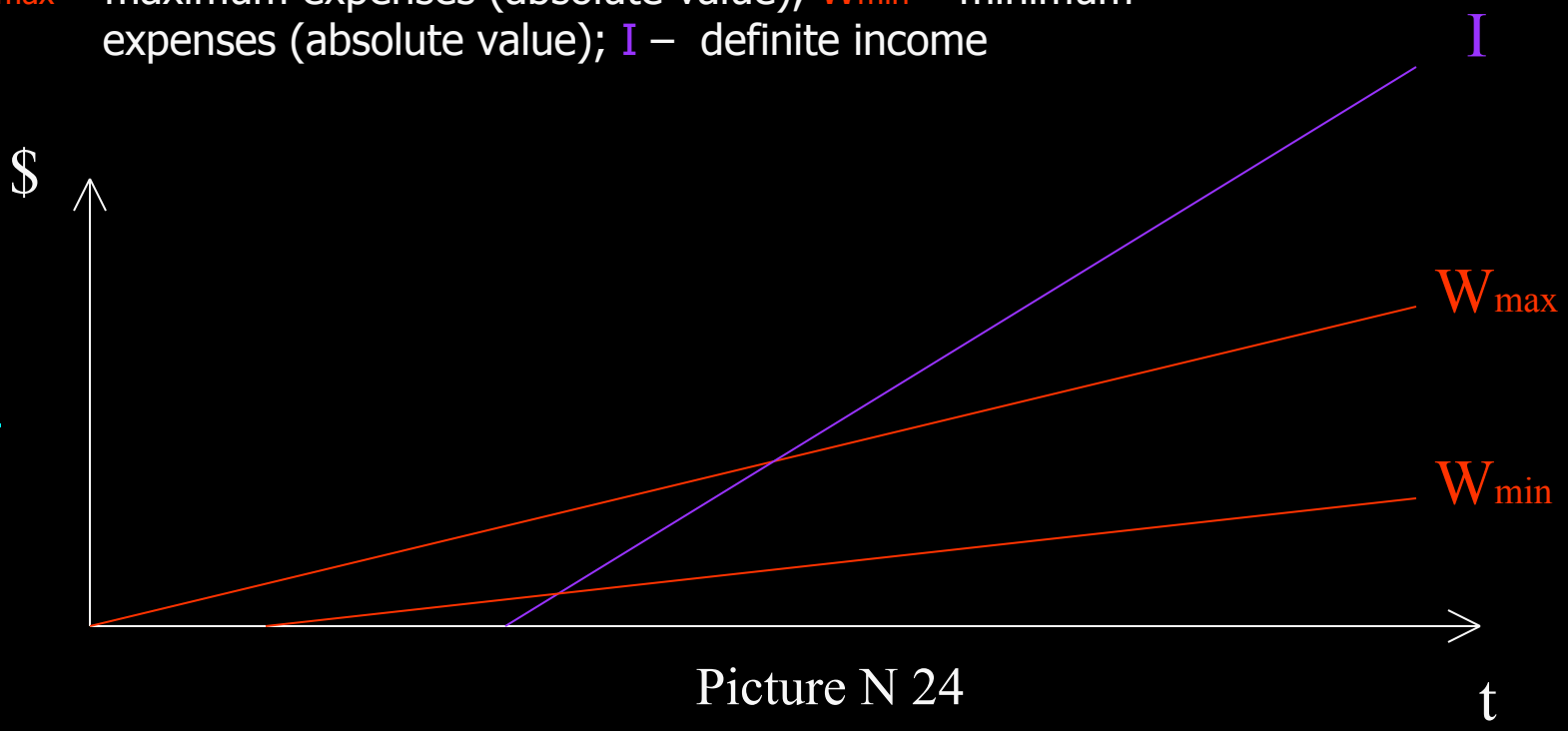
1. Availability of a zone of a simply negative profit (below than line of minimum expenses), that is conforming to common sense, because for profit receiving in business one must invest usually some money for it beforehand,– analogously to Pic. N 4;
2. Availability of a zone of a zero-profit state in ***line*** of ***definite*** income between lines of expenses borders (for exact calculations this is a point of zero-profit). Just here main indefiniteness is concentrating – You see, it is impossible to determine exactly, in what moment a negative profit will be transformed into zero-profit or even into positive one. Besides, temporary transitions from a positive profit to zero-profit and even negative one are possible here,– analogously to Pic. N 4, but indefiniteness is smaller here;
3. Availability of a zone of a simply positive profit. In this case ***definite*** income after going out from the zone of zero-profit will be always greater than maximum expenses in absolute value, and accordingly, it will be always greater (after going out from the zone of zero-profit) than ***averaged expenses*** in absolute value,- similarly to Pic. N 4.

51. Business project is absolutely profitable (**introduction, generalization:** income is definite, expenses are fuzzy; variants of graphics)

Following pictures are demonstrating situations, when business project either is absolutely profitable from the very beginning or is becoming the same in some time after beginning. And in these cases also, ***definite*** income either after going out from the state of zero-profit or from the very beginning is greater always than maximum expenses in absolute value. But risks are smaller here, and enumerated situations are creating on the basis of Pic. N 23. All this shows clearly again, how much calculations, processed exclusively in exact values, are inaccurate. Besides, attention must be paid to the thing, that the quantity of graphical variants here is smaller considerably in comparison with the case, when income and expenses are fuzzy.

52. Business project is absolutely profitable (**graph:** income is definite, expenses are fuzzy; variant N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income

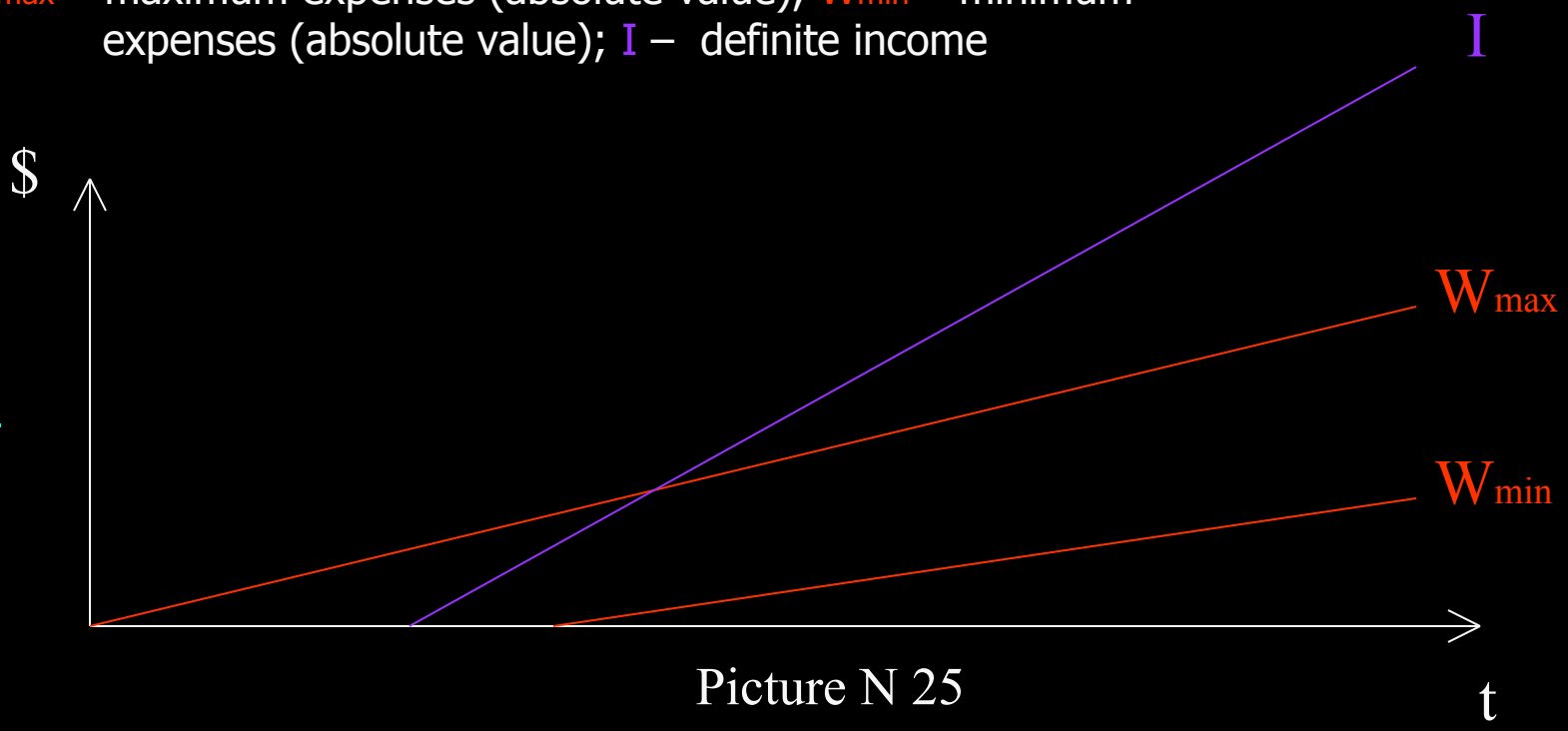


Picture N 24

All pictures

53. Business project is absolutely profitable (**graph:** income is definite, expenses are fuzzy; variant N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income

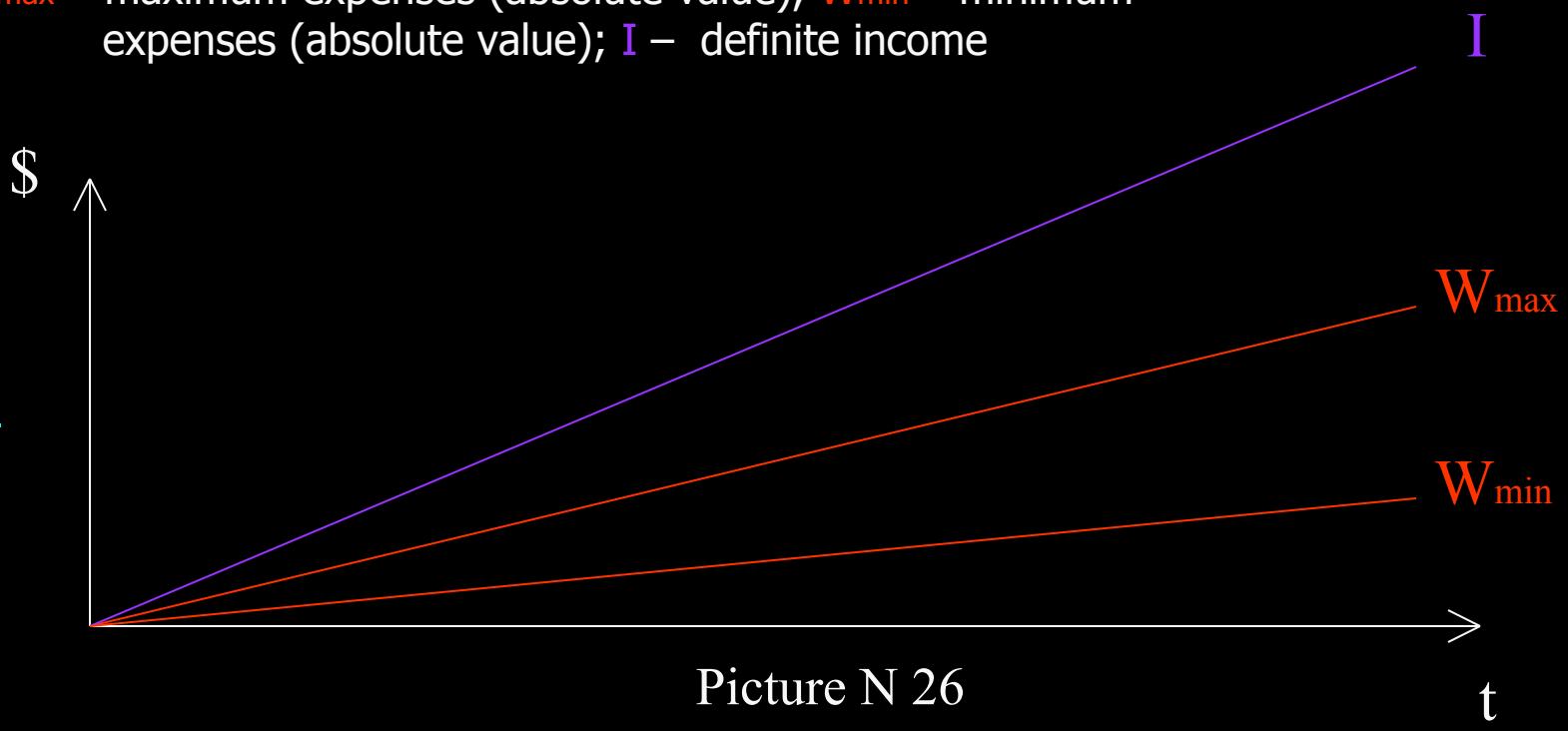


Picture N 25

All pictures

54. Business project is absolutely profitable (**graph:** income is definite, expenses are fuzzy; variant N 3)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income

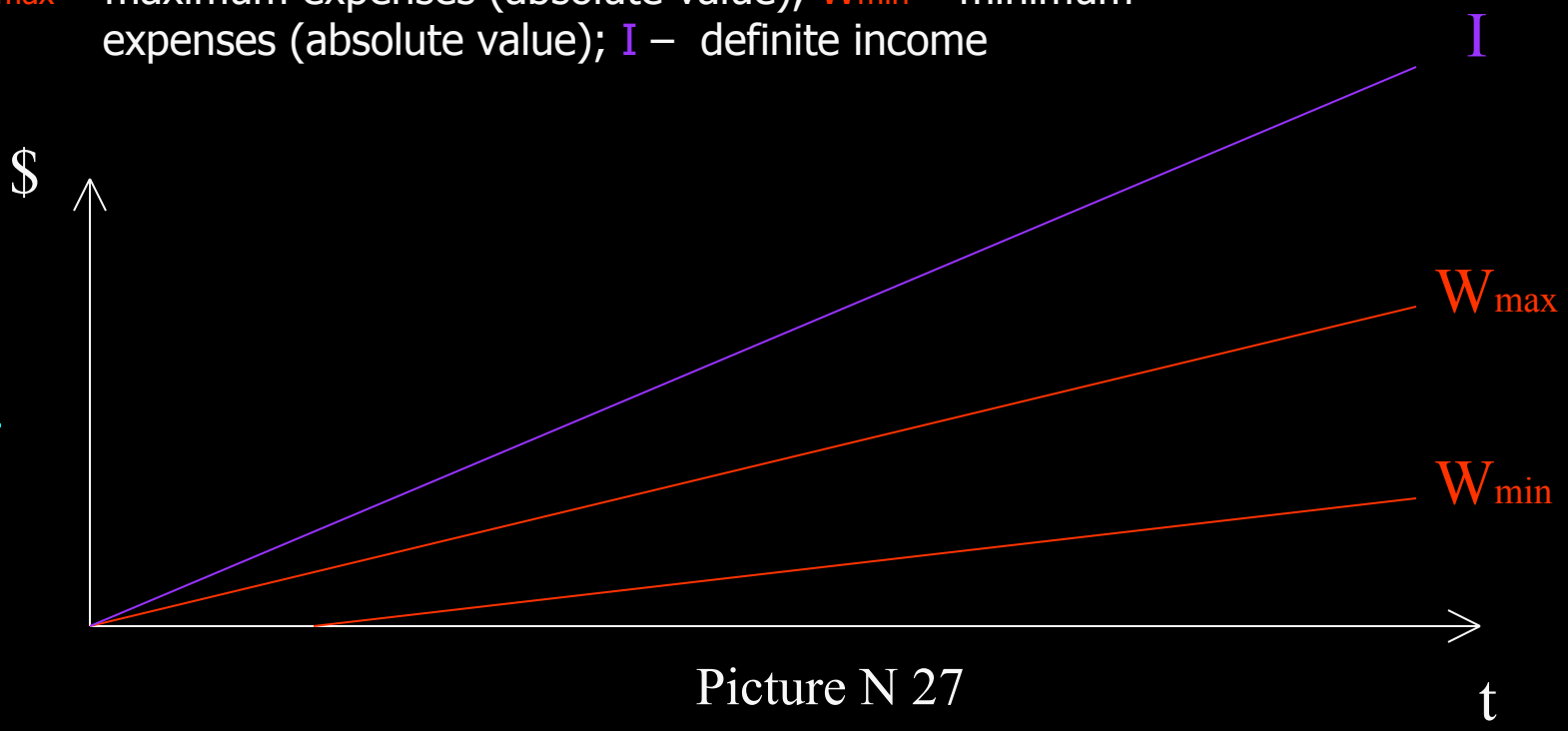


Picture N 26

All pictures

55. Business project is absolutely profitable (**graph:** income is definite, expenses are fuzzy; variant N 4)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income



Picture N 27

All pictures

56. Business project is absolutely profitable (**introduction:** income is fuzzy, expenses are definite)

Next picture demonstrates the situation over again, when in some time after beginning business project is becoming absolutely profitable. In described case minimum income after going out from the state of zero-profit will be always greater than ***definite*** expenses in absolute value. This situation is particular and rare variant of Pic. N 4 also. In principle, such thing is possible, when, for example, You know definite sums of expenses (expenditures) according to contracts with suppliers; but income can not be determined exactly because of different reasons.

57. Business project is absolutely profitable (**graph:** income is fuzzy, expenses are definite)

Picture N 28

All pictures

58. Business project is absolutely profitable (**generalization:** income is fuzzy, expenses are definite)

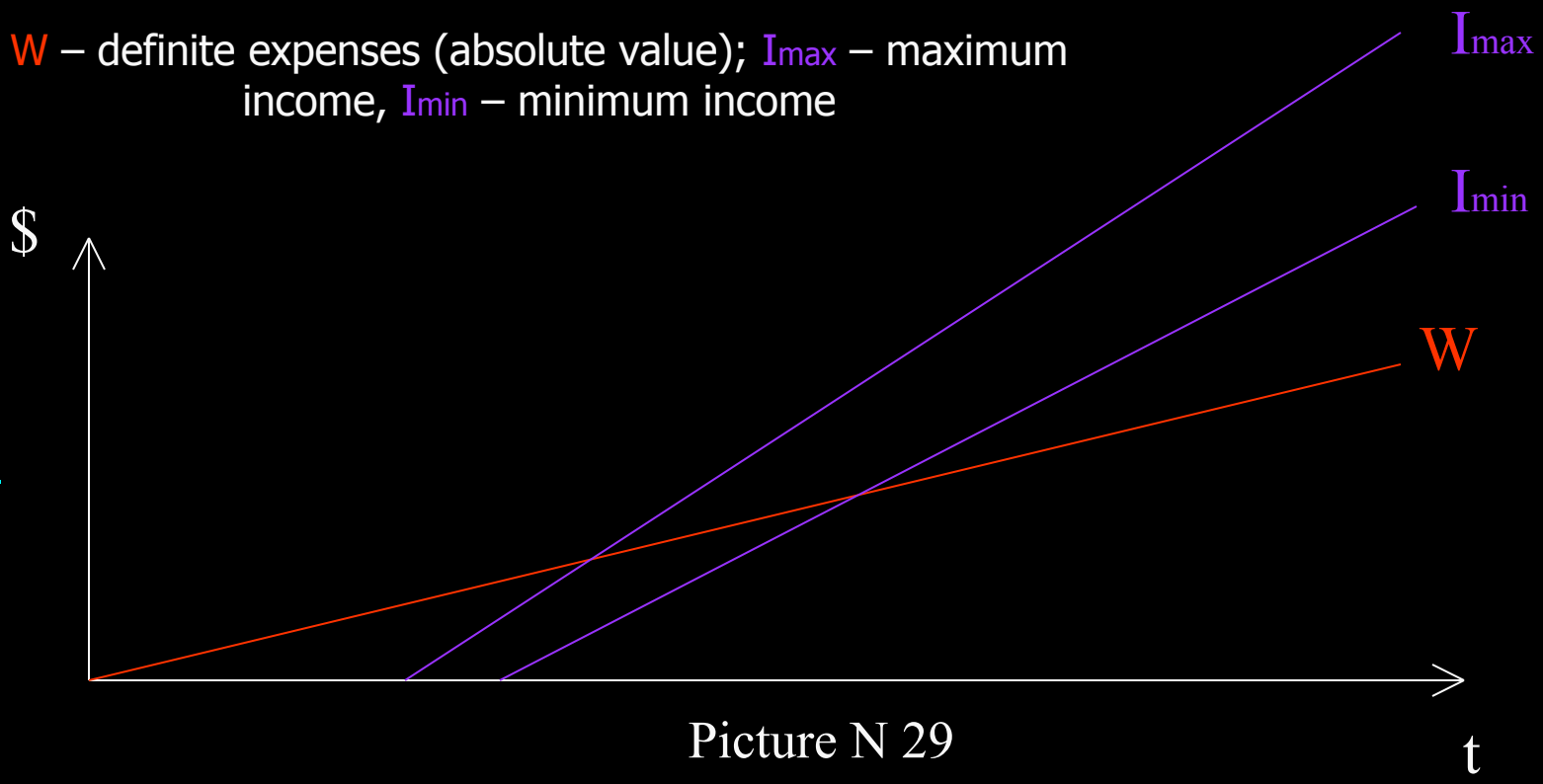
Now let's enumerate basic, the most important features of the variant of calculating results graphical representation for fuzzy income and definite expenses, basing upon description of previous situation (Pic. N 28). First of all, these are:

1. Availability of a zone of a simply negative profit (below than line of ***definite*** expenses), that is conforming to common sense, because for profit receiving in business one must invest usually some money for it beforehand,– analogously to Pic. N 4;
2. Availability of a zone of a zero-profit state in ***line*** of ***definite*** expenses between lines of income borders (for exact calculations this is a point of zero-profit). Just here main indefiniteness is concentrating – You see, it is impossible to determine exactly, in what moment a negative profit will be transformed into zero-profit or even into positive one. Besides, temporary transitions from a positive profit to zero-profit and even negative one are possible here,– analogously to Pic. N 4, but indefiniteness is smaller here;
3. Availability of a zone of a simply positive profit. In this case minimum income after going out from the zone of zero-profit will be always greater than ***definite*** expenses in absolute value, and accordingly, ***averaged income*** after going out from the zone of zero-profit will be always greater than ***definite expenses*** in absolute value,- similarly to Pic. N 4.

59. Business project is absolutely profitable (**introduction, generalization:** income is fuzzy, expenses are definite, variants of graphics)

Following pictures are demonstrating situations, when business project either is absolutely profitable from the very beginning or is becoming the same in some time after beginning. And in these cases also, minimum income either after going out from the state of zero-profit or from the very beginning is greater always than ***definite*** expenses in absolute value. But risks are smaller here, and enumerated situations are creating on the basis of Pic. N 28. All this shows clearly again, how much calculations, processed exclusively in exact values, are inaccurate. Besides, attention must be paid to the thing, that the quantity of graphical variants here is smaller considerably in comparison with the case, when income and expenses are fuzzy.

60. Business project is absolutely profitable (**graph:** income is fuzzy, expenses are definite; variant N 1)

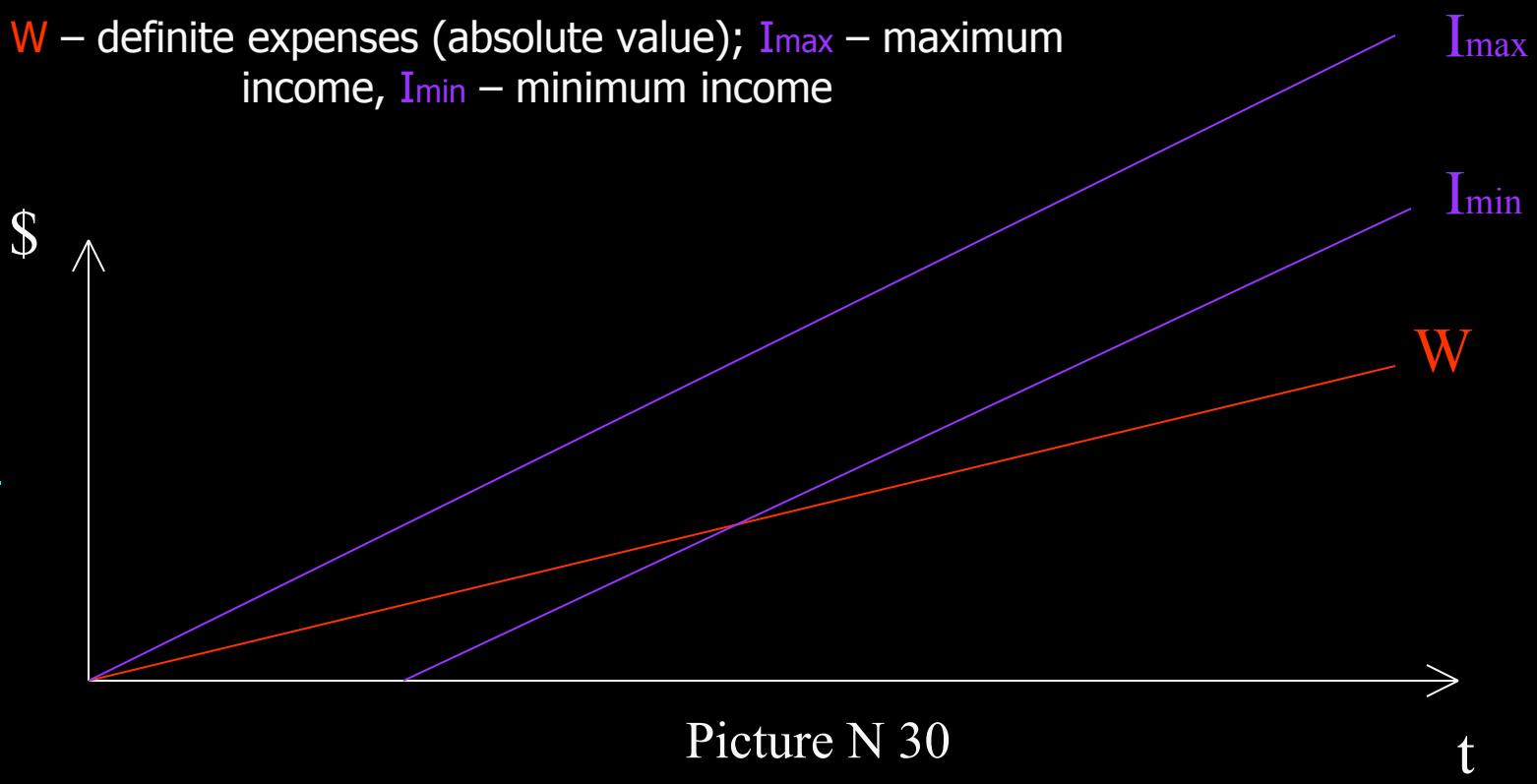


Picture N 29

All pictures

61. Business project is absolutely profitable (**graph:** income is fuzzy, expenses are definite; variant N 2)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

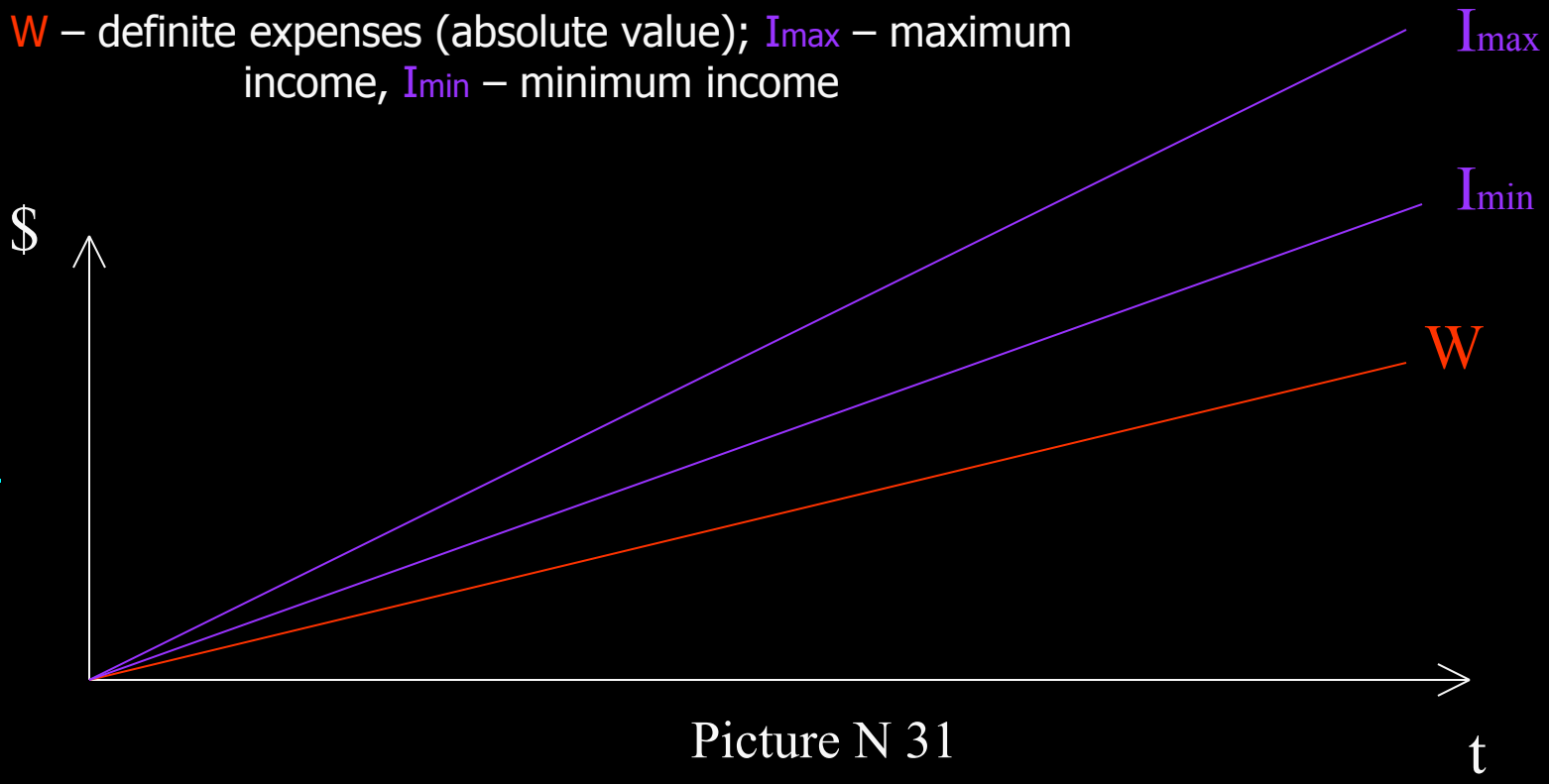


Picture N 30

All pictures

62. Business project is absolutely profitable (**graph:** income is fuzzy, expenses are definite; variant N 3)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

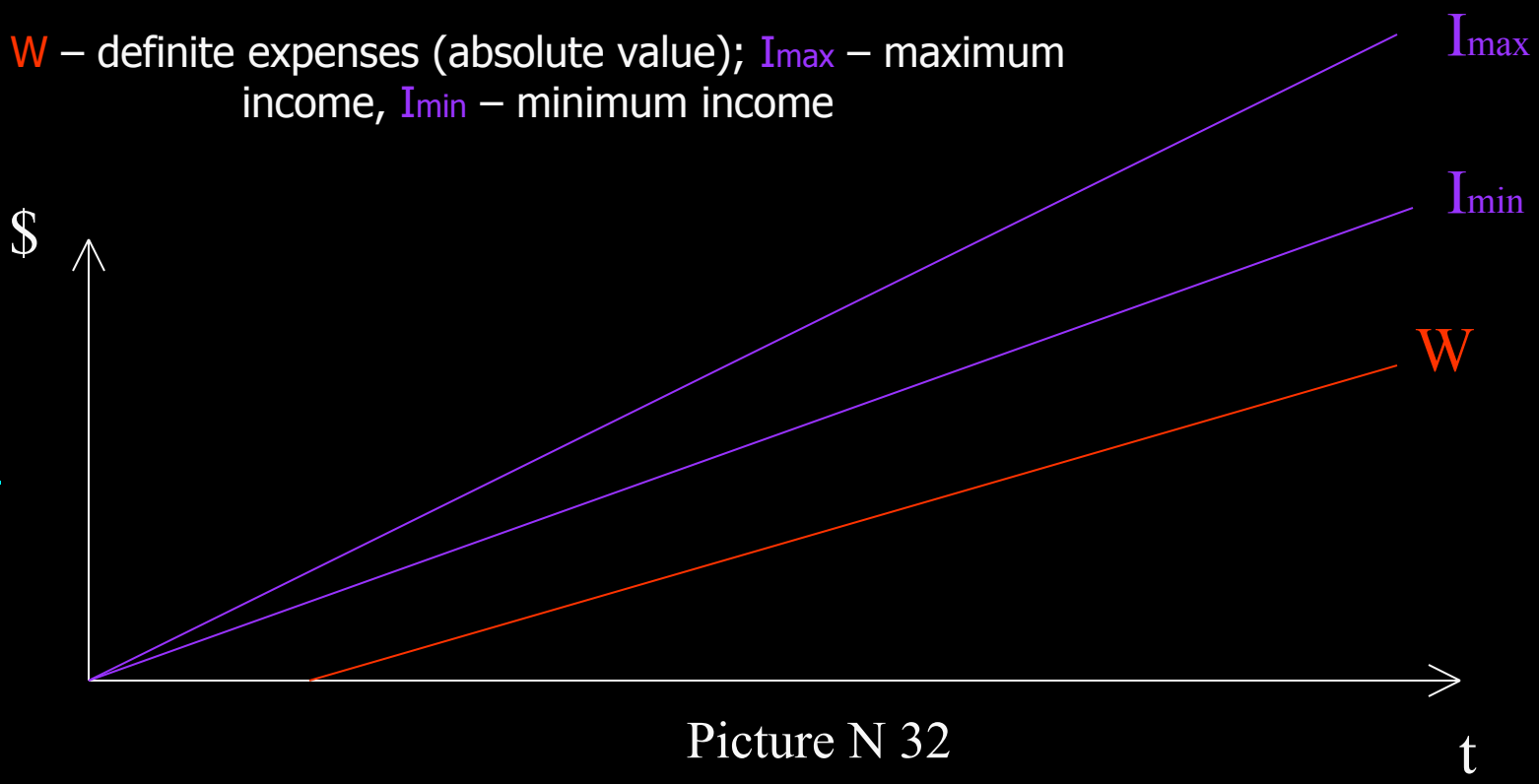


Picture N 31

All pictures

63. Business project is absolutely profitable (**graph:** income is fuzzy, expenses are definite; variant N 4)

W – definite expenses (absolute value); Imax – maximum income, Imin – minimum income



Picture N 32

All pictures

64. Business project is becoming risky (**introduction:** income and expenses are fuzzy)

Pic. N 33 describes nonsimple situation already, which is almost impossible to be determined by means of definite data processing in traditional computer programs.

Here minimum income is greater than minimum expenses in absolute value (negative profit, because in absolute value minimum income is smaller than maximum expenses), maximum expenses in absolute value are greater than minimum income (negative profit and Your risk to lose money!), and maximum income is greater than maximum expenses in absolute value (positive profit).

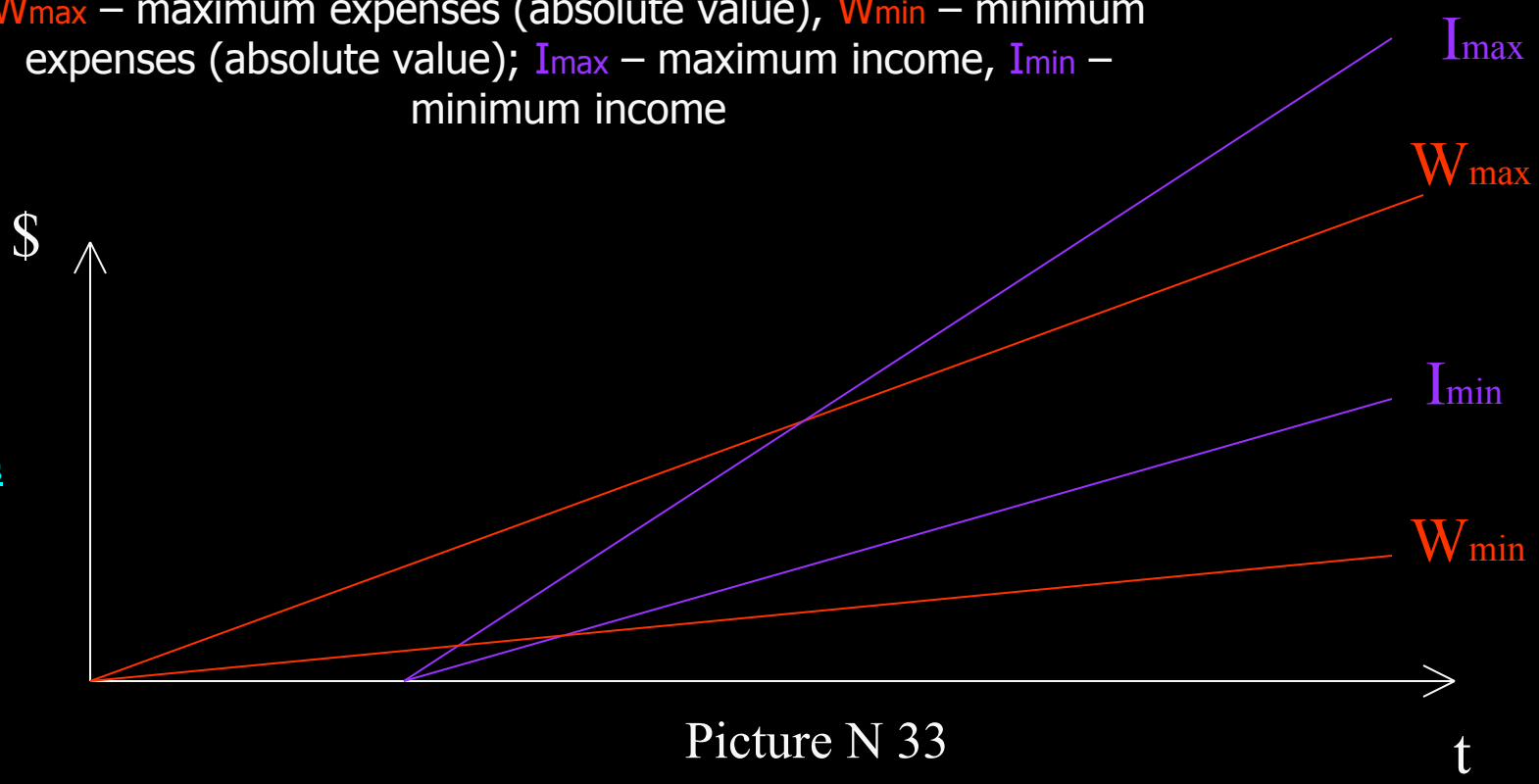
As the result nonsimple situation is turning out, which is fraught with serious financial wastes.

Pic.Pic. NN 34Pic. NN 34, 35 – these ones are special cases with diminished risks.

Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic. NN 5Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7, 8Variants of graphs, if these ones ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7, 8, 9Variants of

65. Business project is becoming risky (**graph:** income and expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

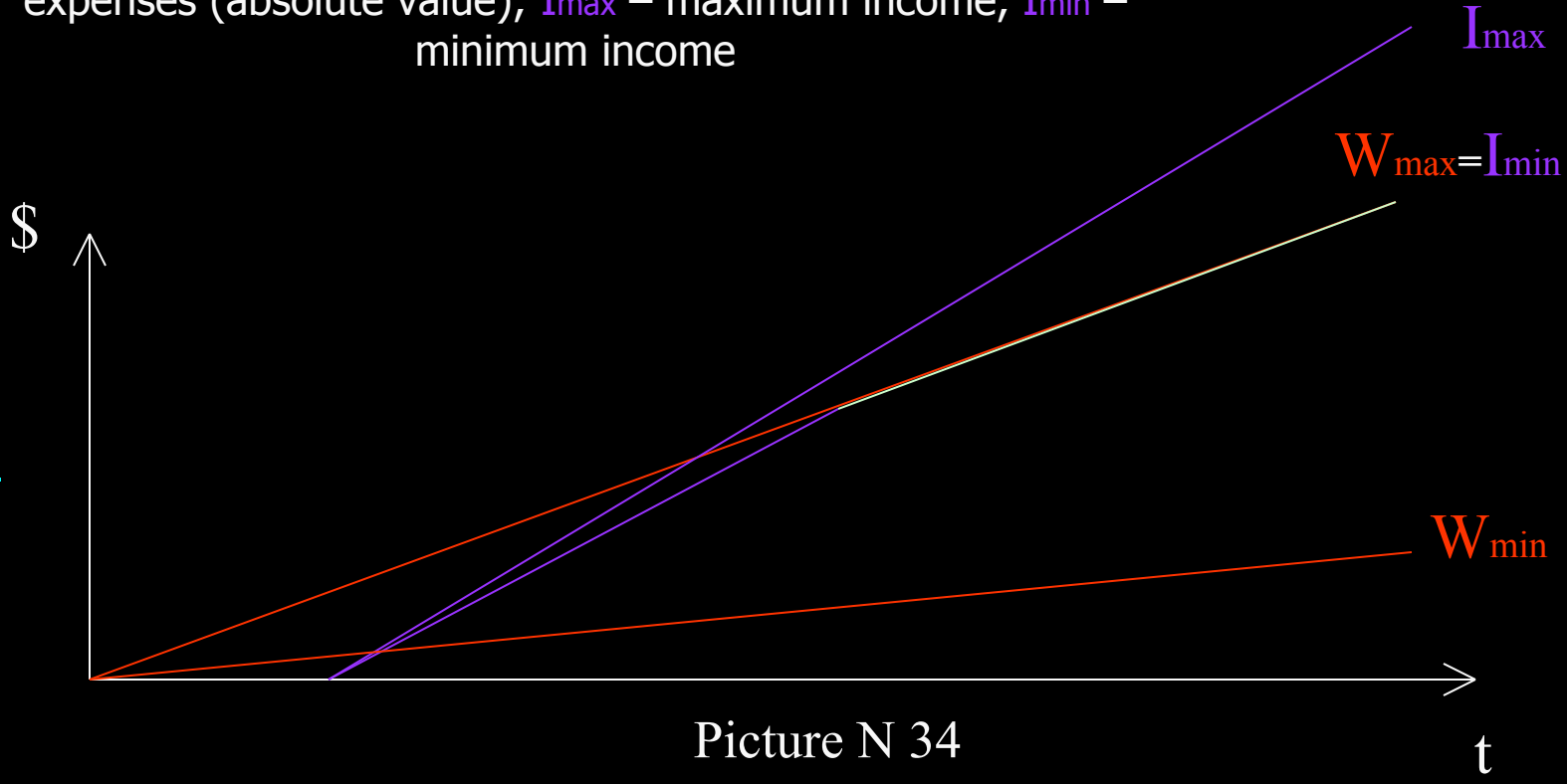


Picture N 33

All pictures

66. Business project is becoming risky (**graph:** income and expenses are fuzzy, special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

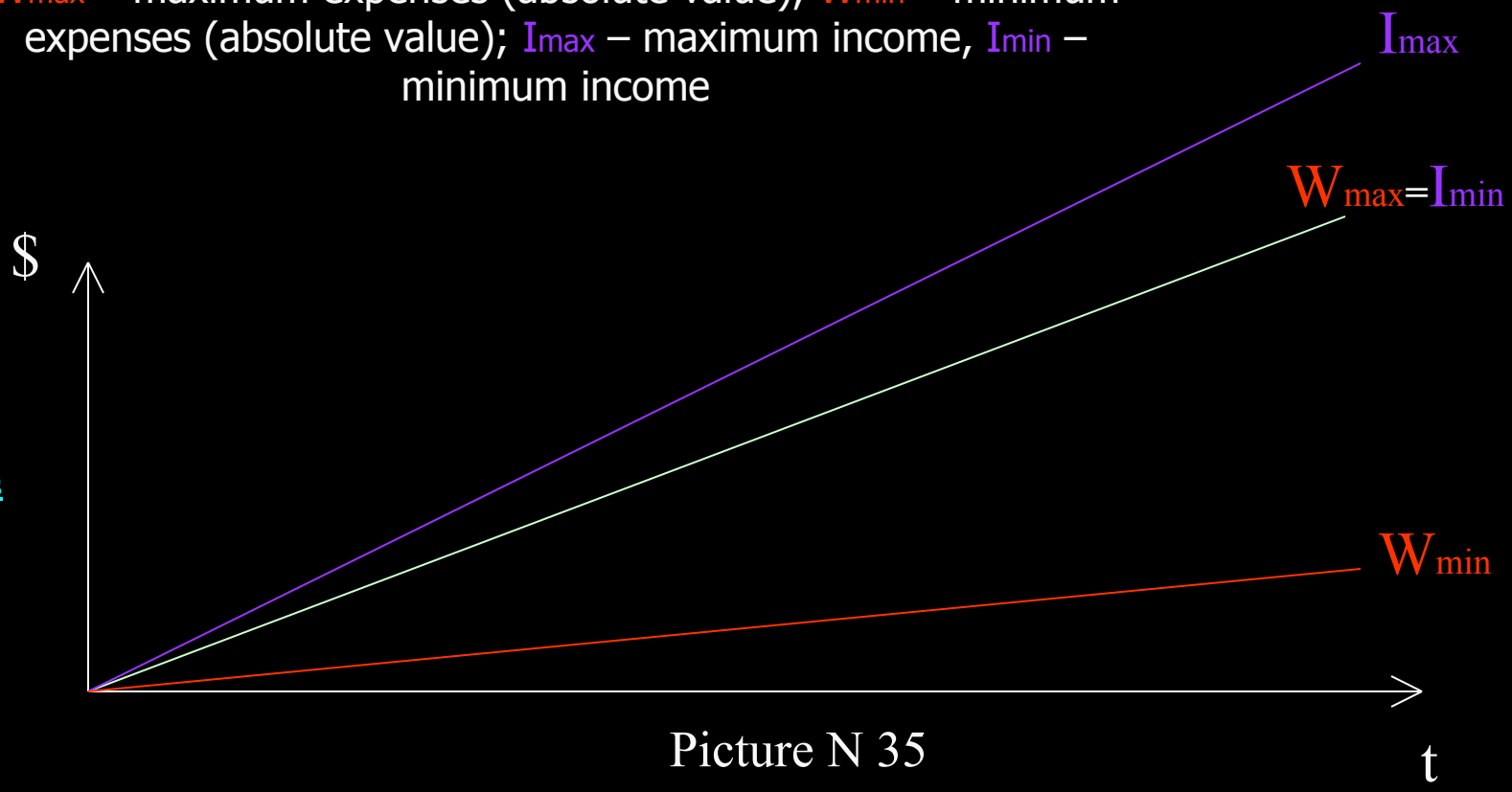


Picture N 34

All pictures

67. Business project is becoming risky (**graph:** income and expenses are fuzzy, special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 35

All pictures

68. Business project is becoming risky (**generalization:** income and expenses are fuzzy)

Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic.Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 33Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 33, 34Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 33, 34, 35). First of all, these are:

1. Minimum income is greater than minimum expenses in absolute value (negative profit), maximum expenses in absolute value is greater than minimum income (negative profit again), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit),– all risks are represented clearly (Pic. N 33);
2. Special cases with diminished risks: minimum income is greater than minimum expenses in absolute value (negative profit), maximum expenses in absolute value is equal to minimum income (zero-profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) - Pic.Special cases with diminished risks: minimum income is greater than minimum expenses in absolute value (negative profit), maximum expenses in absolute value is equal to minimum income (zero-profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) - Pic. NN 34Special cases with diminished risks: minimum income is greater than minimum expenses in absolute value (negative profit), maximum expenses in absolute value is equal to minimum income (zero-profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) - Pic. NN 34, 35.

Moreover, following variants of graphs on the basis of averaged values are possible:

69. Situation is getting worse (**introduction:** income and expenses are fuzzy)

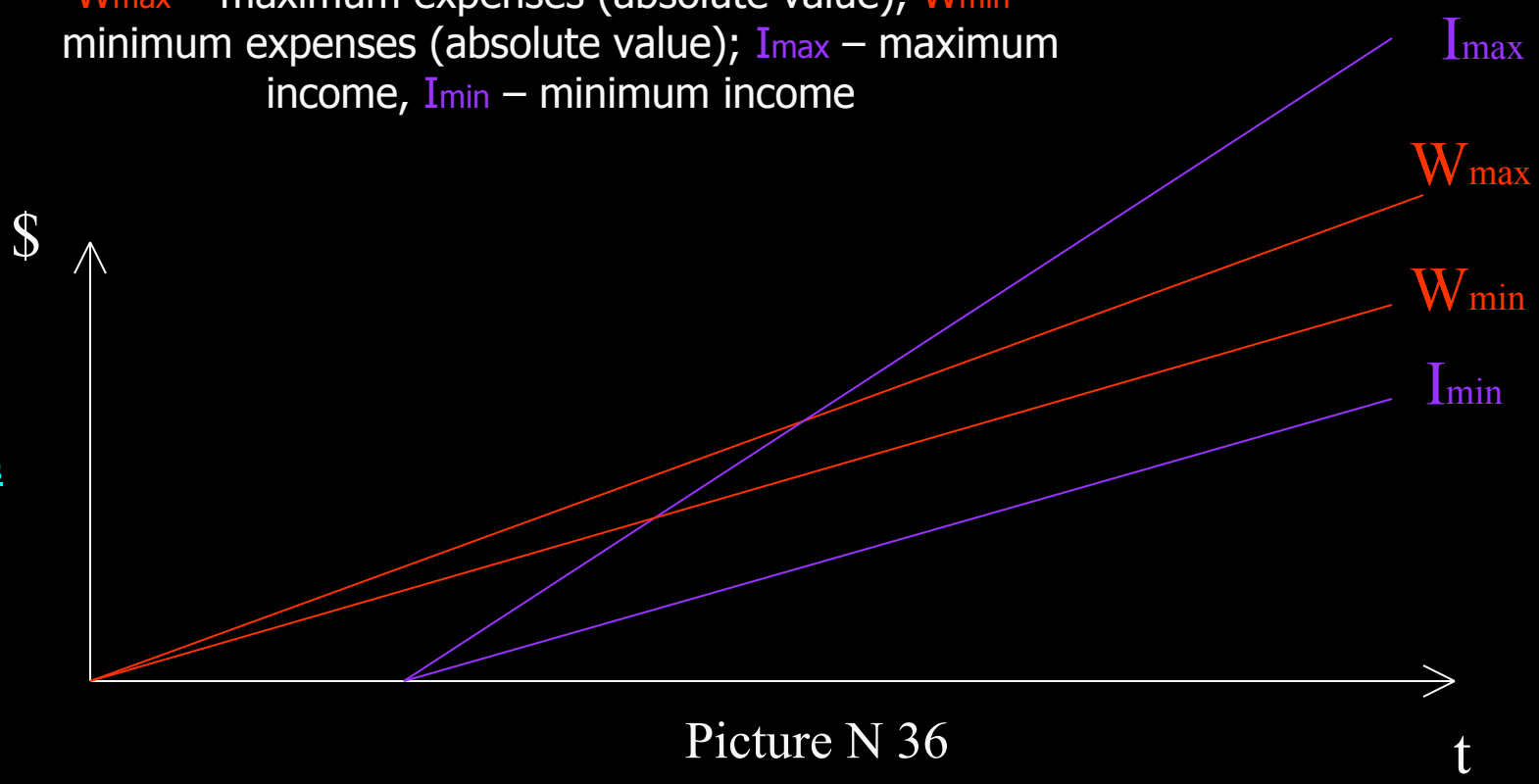
Pic. N 36 illustrates the more difficult situation in comparison with previous graphs. And again usual computer programs can not suggest nothing more worth-while, than average values processing, with quite inadequate final results delivering. Here minimum income is smaller than minimum expenses in absolute value (negative profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit).

Pic.Pic. NN 37Pic. NN 37, 38 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7Variants of graphs, if these ones can be existing, are creating analogous to graphs

70. Situation is getting worse (**graph:** income and expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

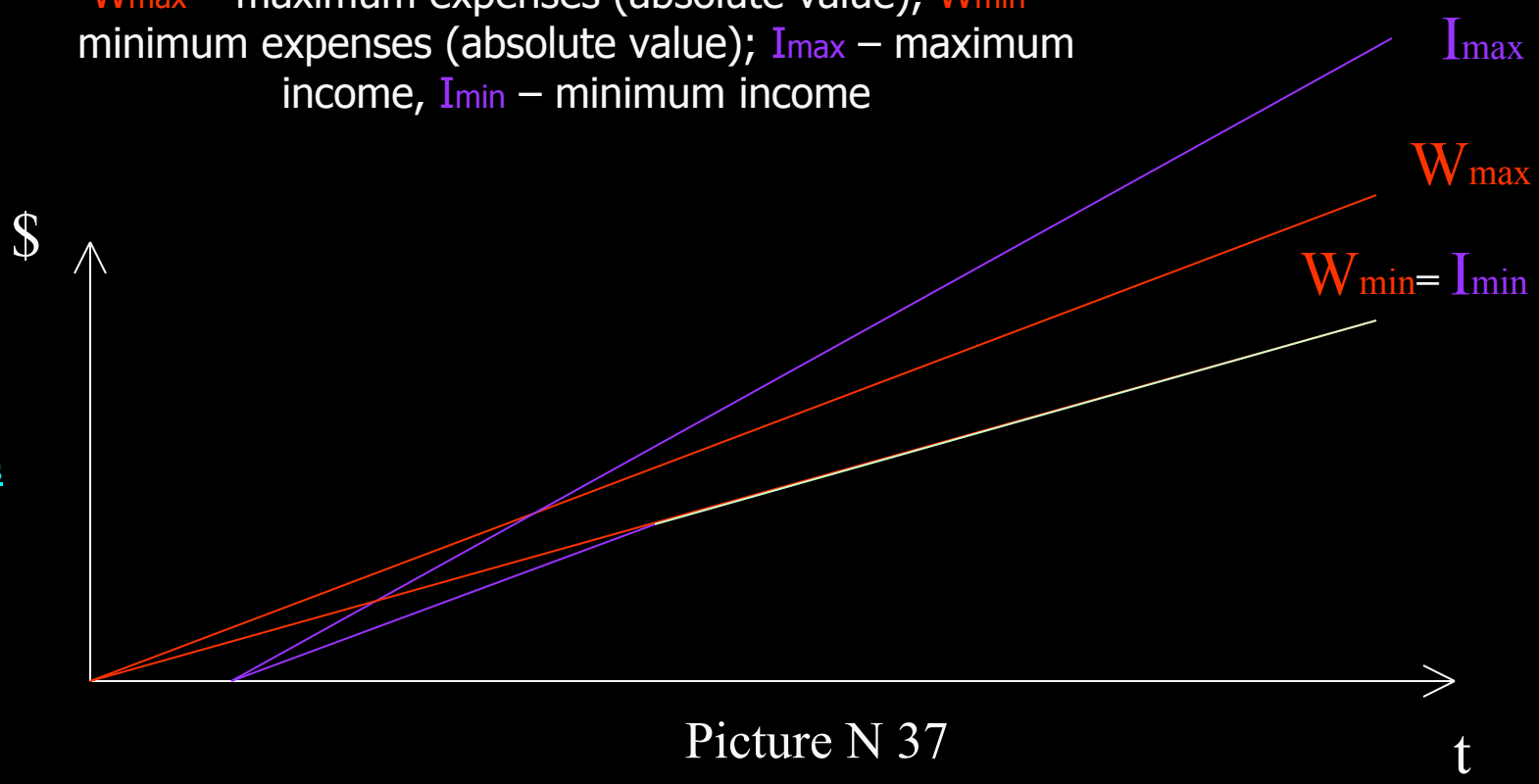


Picture N 36

All pictures

71. Situation is getting worse (**graph:** income and expenses are fuzzy, special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

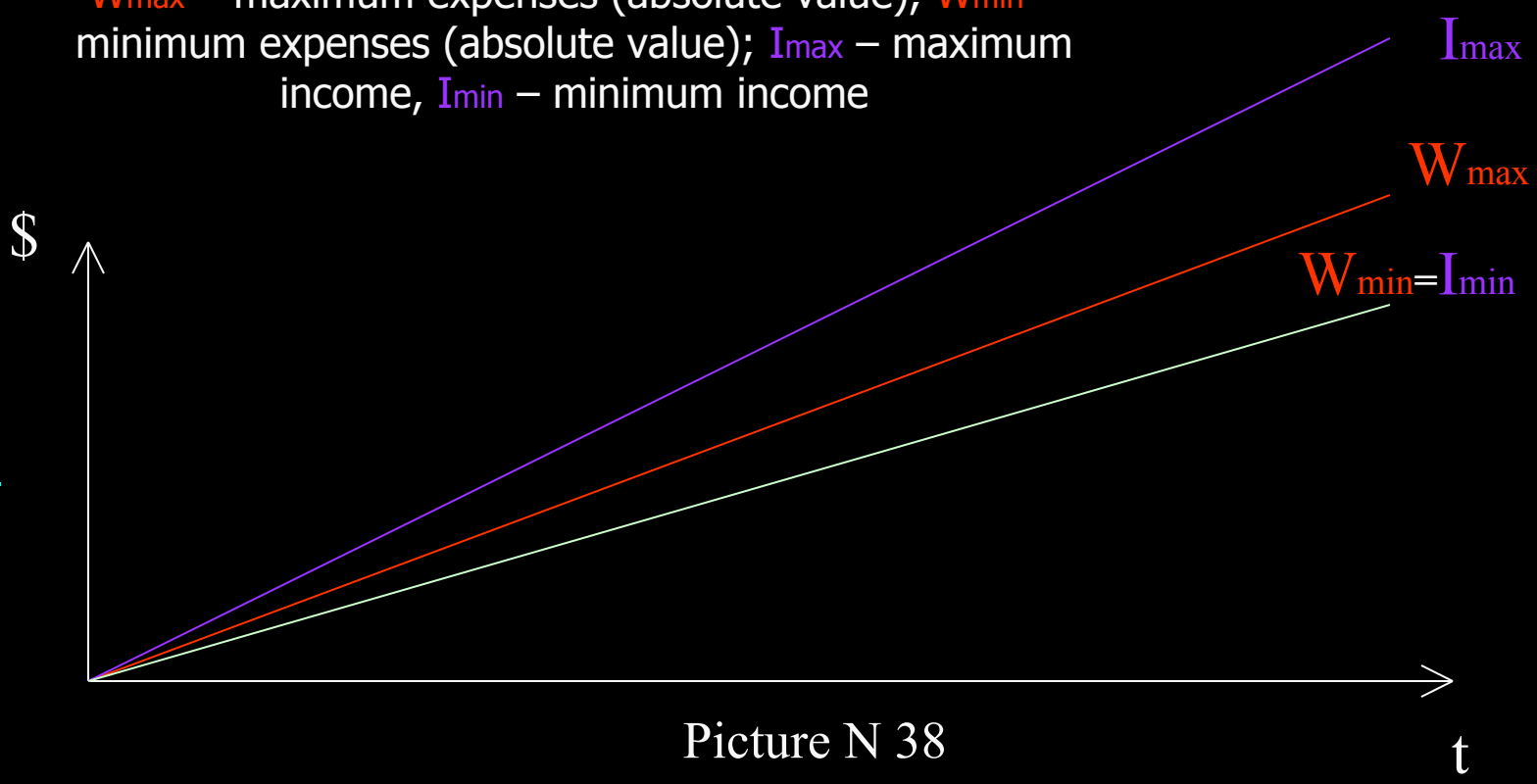


Picture N 37

All pictures

72. Situation is getting worse (**graph:** income and expenses are fuzzy, special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 38

All pictures

73. Situation is getting worse (**generalization:** income and expenses are fuzzy)

Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic.Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 36Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 36, 37Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 36, 37, 38). First of all, these are:

1. Minimum income is smaller than minimum expenses in absolute value (negative profit), and maximum income, in a result, is greater than maximum expenses in absolute value (positive profit),– all risks are represented clearly (Pic. N 36);
2. Special cases with diminished risks: minimum income is equal to minimum expenses in absolute value (negative profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) – Pic.Special cases with diminished risks: minimum income is equal to minimum expenses in absolute value (negative profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) – Pic. NN 37Special cases with diminished risks: minimum income is equal to minimum expenses in absolute value (negative profit), and maximum income, as a result, is greater than maximum expenses in absolute value (positive profit) – Pic. NN 37, 38.

Moreover, following variants of graphs on the basis of averaged values are possible:

- Averaged income is greater than averaged expenses in absolute value (Pic.Averaged income

74. Situation is getting worse (**introduction:** income is fuzzy, expenses are definite)

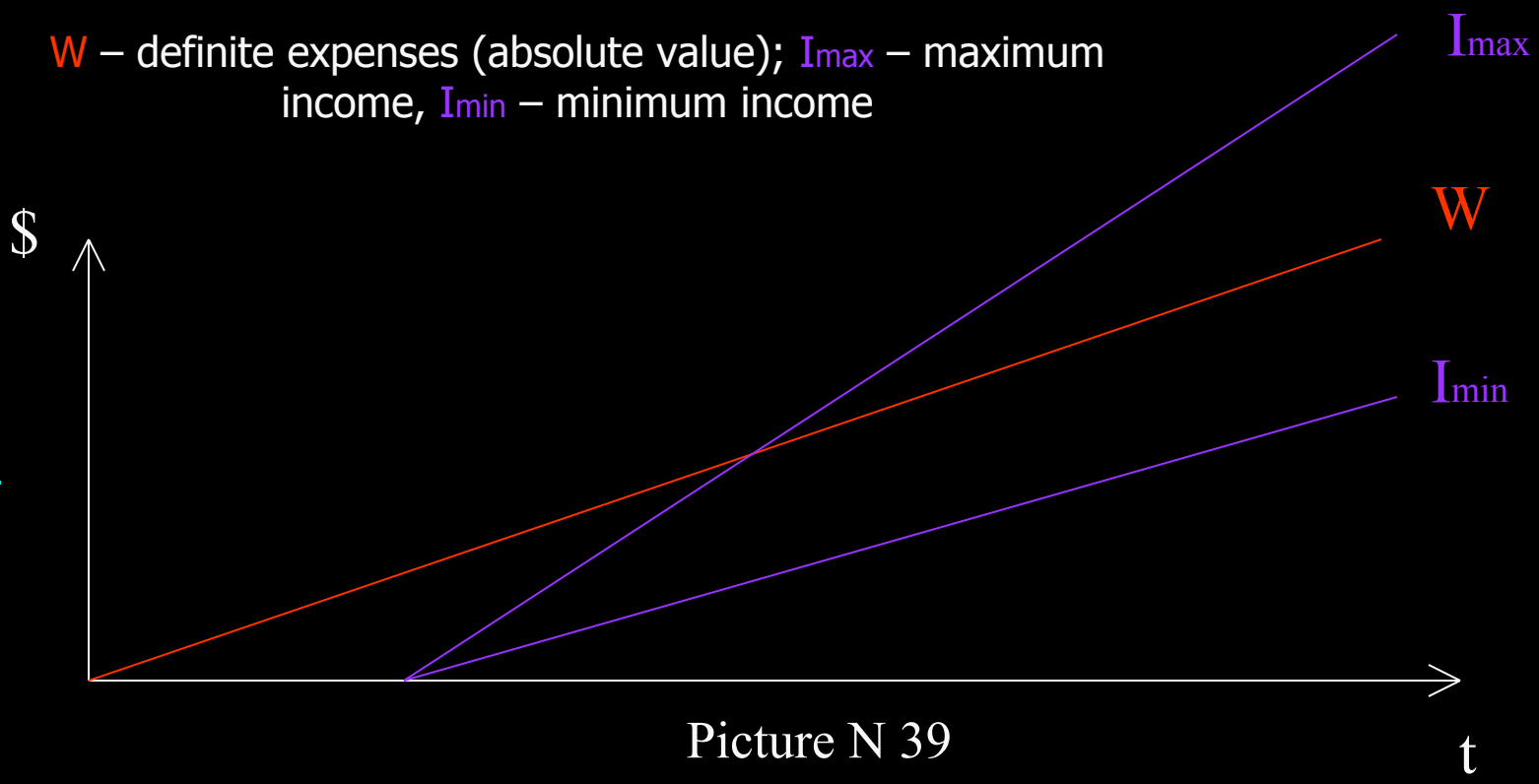
Pic. N 39 illustrates the variant of describing situation, when ***definite*** expenses are concluded between borders of fuzzy income. Here minimum income is smaller than ***definite*** expenses in absolute value (negative profit), and maximum income, as a result, is greater than ***definite*** expenses in absolute value (positive profit).

Pic.Pic. NN 40Pic. NN 40, 41 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 29Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 29, 30Variants of

75. Situation is getting worse (**graph:** income is fuzzy, expenses are definite)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

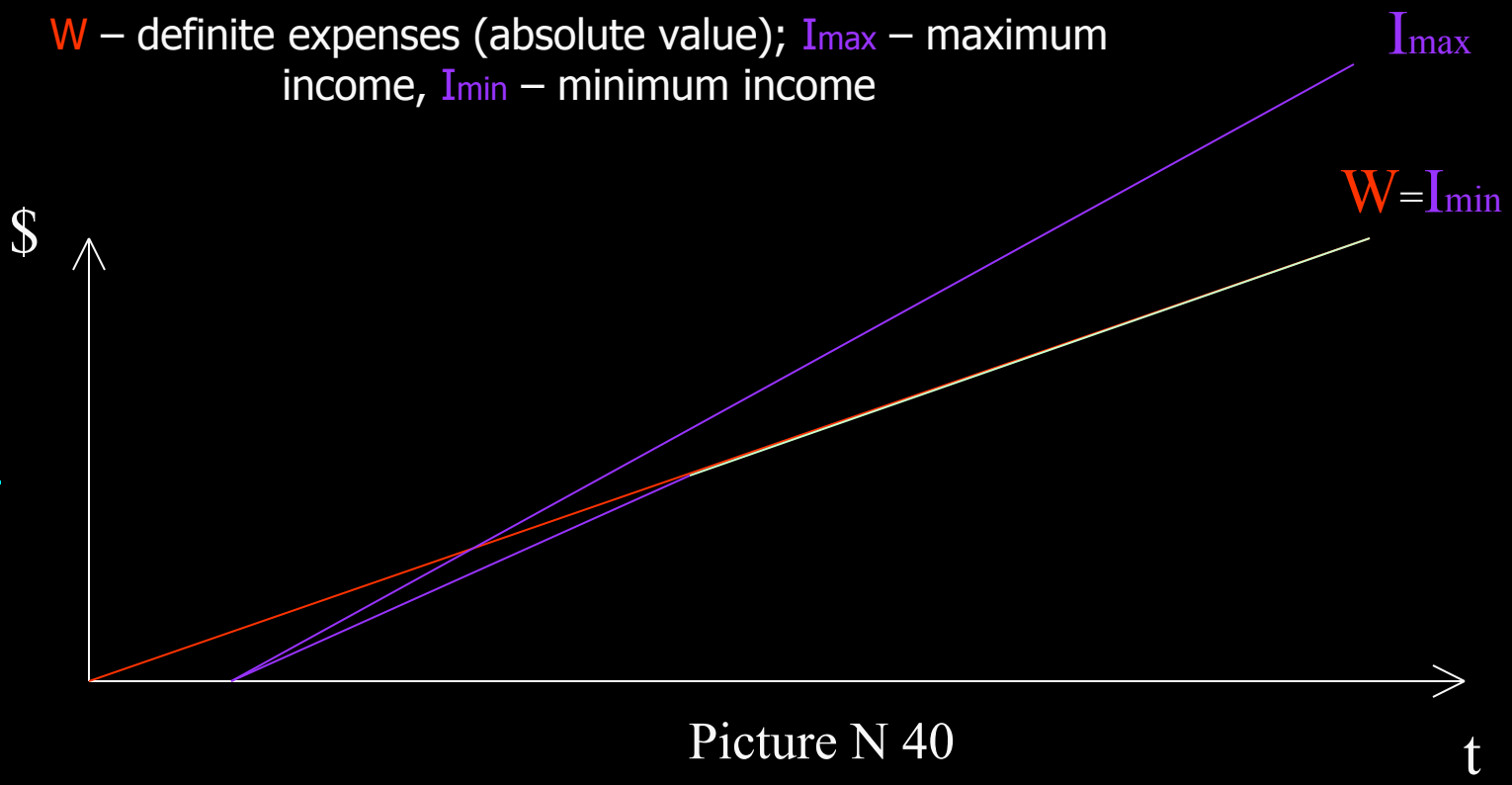


Picture N 39

All pictures

76. Situation is getting worse (**graph:** income is fuzzy, expenses are definite; special case N 1)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

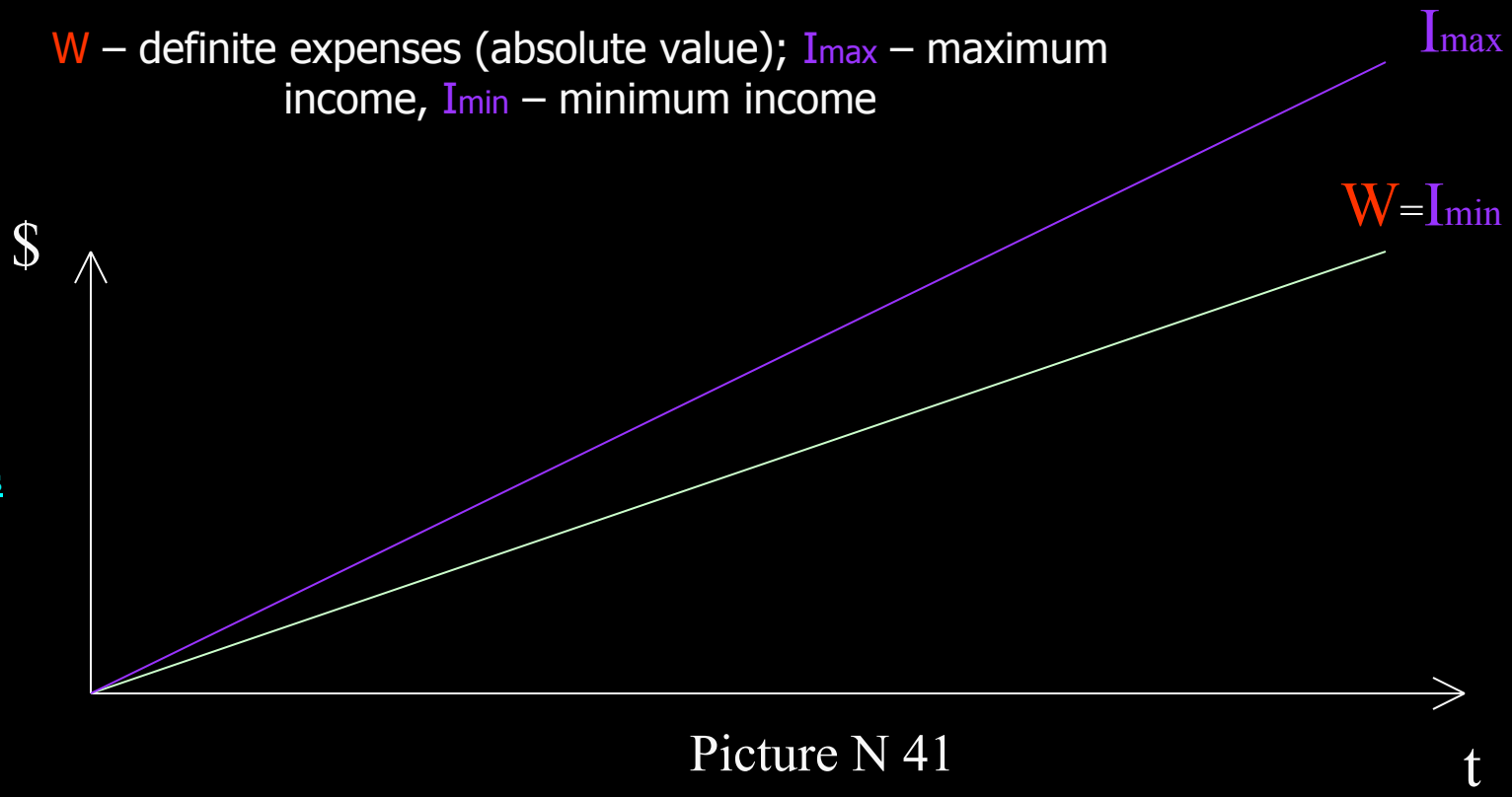


Picture N 40

All pictures

77. Situation is getting worse (**graph:** income is fuzzy, expenses are definite; special case N 2)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 41

All pictures

78. Situation is getting worse (**generalization: income is fuzzy, expenses are definite)**

Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic.Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 39Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 39, 40Now let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 39, 40, 41). First of all, these are:

1. Minimum income is smaller than ***definite*** expenses in absolute value (negative profit), and maximum income, as a result, is greater than ***definite*** expenses in absolute value (positive profit),– all risks are represented clearly (Pic. N 39);
2. Special cases with diminished risks: minimum income is equal to ***definite*** expenses in absolute value (zero-profit), and maximum income, as a result, is greater than ***definite*** expenses in absolute value (positive profit) – Pic. expenses in absolute value (positive profit) – Pic. NN 40 expenses in absolute value (positive profit) – Pic. NN 40, 41.

Moreover, following variants of graphs on the basis of averaged values are possible:

- Averaged income is greater than ***definite*** expenses in absolute value (Pic. expenses in absolute value (Pic. NN 39 expenses in absolute value (Pic. NN 39, 40 expenses in absolute value (Pic. NN 39, 40, 41);
- Averaged income is smaller than ***definite*** expenses in absolute value (Pic. expenses in absolute value (Pic. NN 39 expenses in absolute value (Pic. NN 39, 40)

79. Risk is increasing (**introduction:** income and expenses are fuzzy)

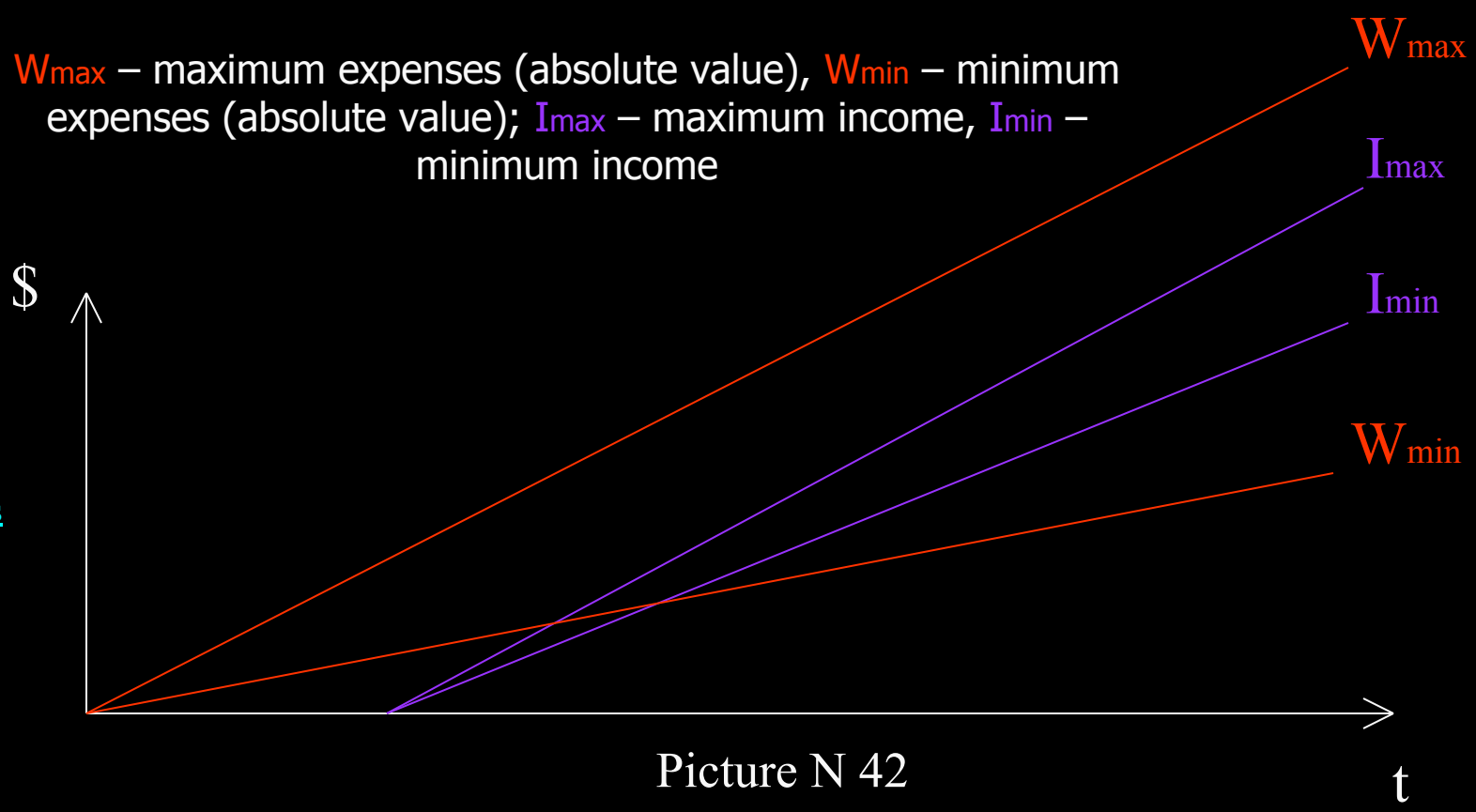
Pic. N 42 describes the more hard situation which is not absolutely hopeless, however. Here maximum expenses in absolute value are greater always than maximum income (negative profit), but maximum income, as well as minimum income, as a result, are greater than minimum expenses in absolute value (negative profit again). And over again usual computer programs can not suggest nothing really constructive or adequate.

Pic.Pic. NN 43Pic. NN 43, 44 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7Variants of graphs, if these ones

80. Risk is increasing (**graph:** income and expenses are fuzzy)

Wmax – maximum expenses (absolute value), Wmin – minimum expenses (absolute value); Imax – maximum income, Imin – minimum income

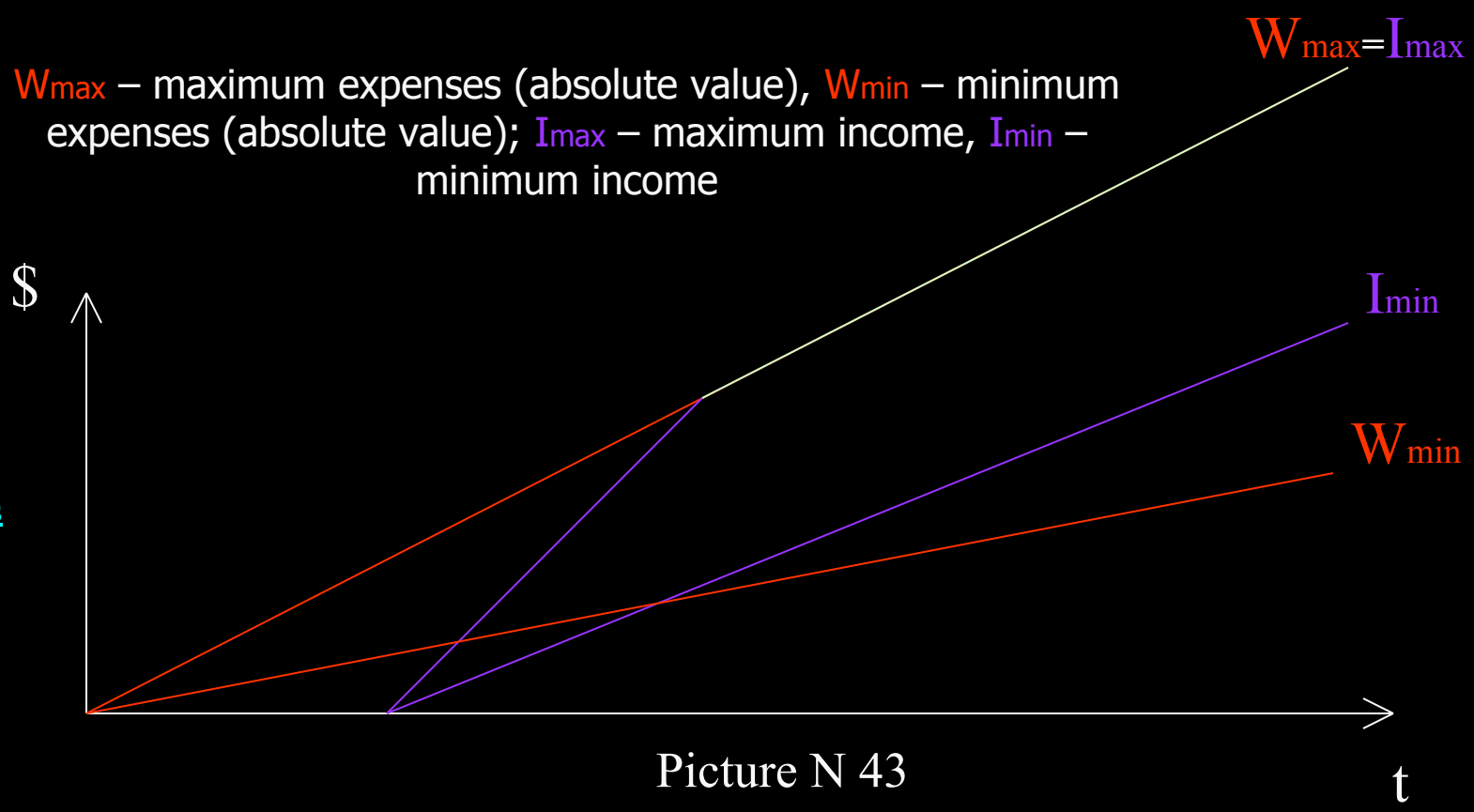


Picture N 42

All pictures

81. Risk is increasing (**graph:** income and expenses are fuzzy, special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

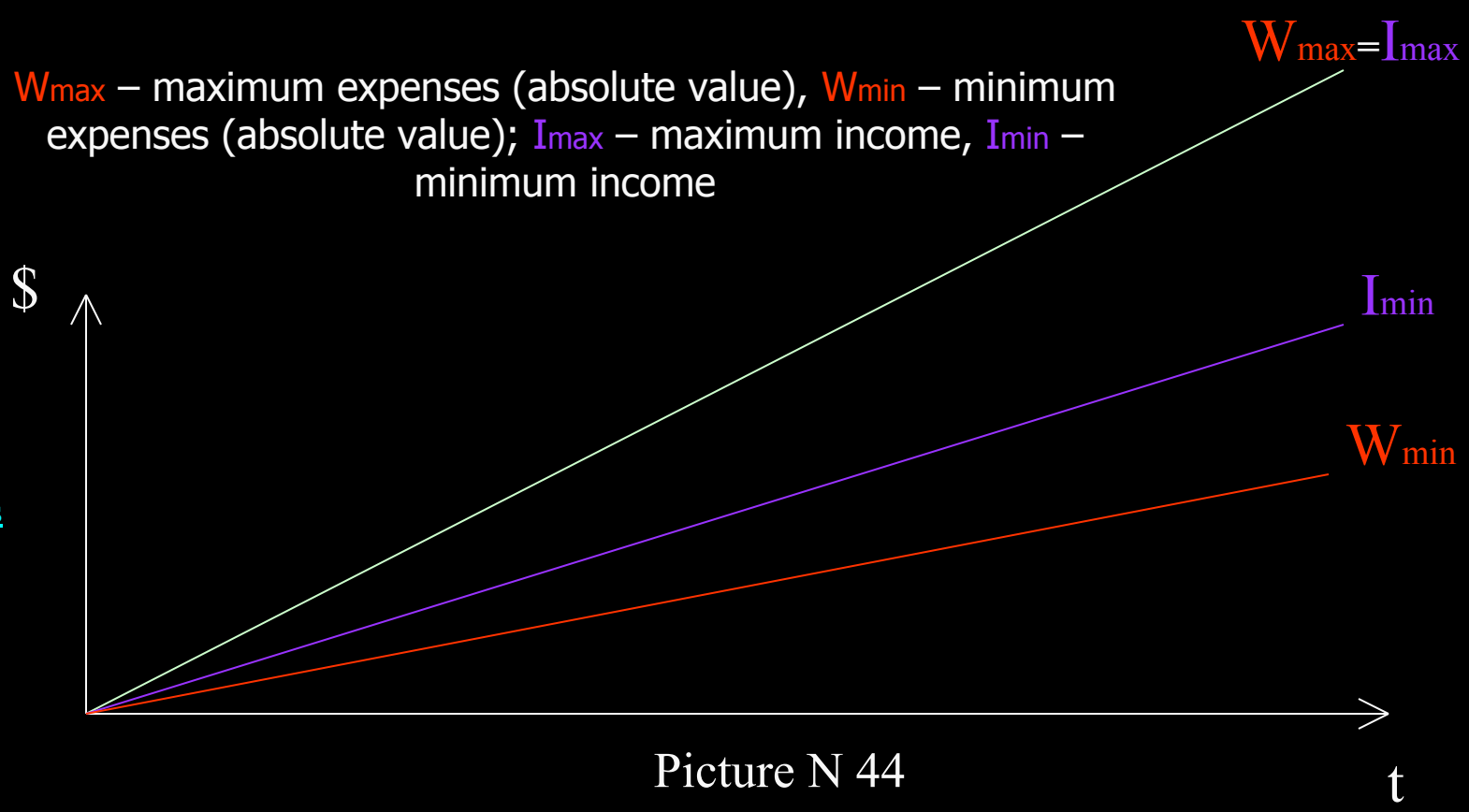


Picture N 43

All pictures

82. Risk is increasing (**graph:** income and expenses are fuzzy, special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 44

All pictures

83. Risk is increasing (**generalization:** income and expenses are fuzzy)

Again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic.Again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 42Again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 42, 43Again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 42, 43, 44). First of all, these are:

1. Maximum expenses in absolute value are always greater than maximum income (negative profit), and maximum income as well as minimum income, as a result, are greater than minimum expenses in absolute value (negative profit again),– all risks are represented clearly (Pic. N 42);
2. Special cases with diminished risks: maximum income is equal to maximum expenses in absolute value (zero-profit), and minimum income, as a result, is greater than minimum expenses in absolute value (negative profit) - (Pic.Special cases with diminished risks: maximum income is equal to maximum expenses in absolute value (zero-profit), and minimum income, as a result, is greater than minimum expenses in absolute value (negative profit) - (Pic. NN 43Special cases with diminished risks: maximum income is equal to maximum expenses in absolute value (zero-profit), and minimum income, as a result, is greater than minimum expenses in absolute value (negative profit) - (Pic. NN 43, 44).

Moreover, following variants of graphs on the basis of averaged values are possible:

- Averaged income is smaller than averaged expenses in absolute value (Pic.Averaged income is

84. Risk is increasing (**introduction:** income is definite, expenses are fuzzy)

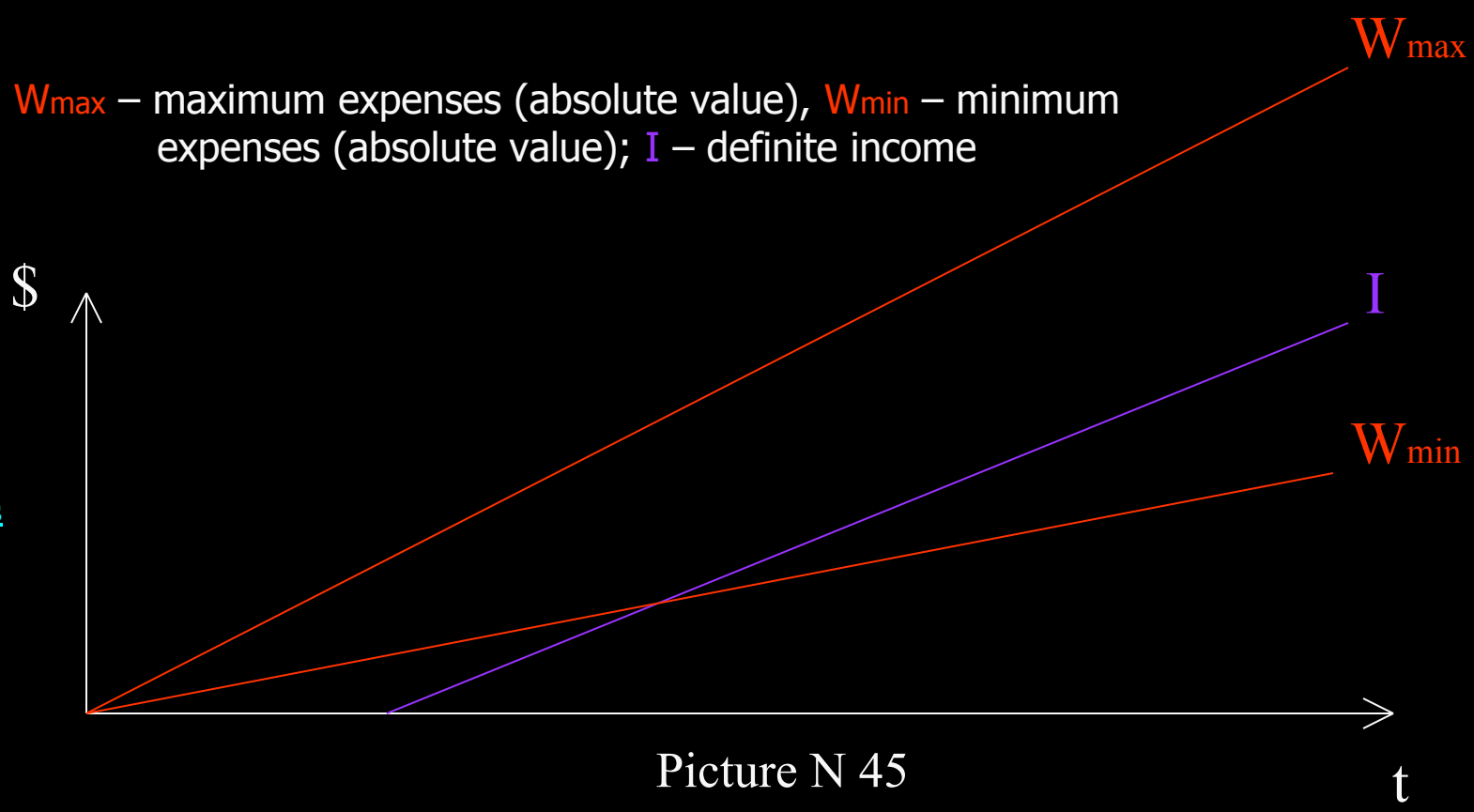
Pic. N 45 describes variant of depicted situation, when ***definite*** income is concluded between borders of fuzzy expenses. Here maximum expenses in absolute value are greater always than ***definite*** income (negative profit), but ***definite*** income, as a result, is greater than minimum expenses in absolute value (negative profit again).

Pic.Pic. NN 46Pic. NN 46, 47 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 24Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 24, 25Variants of graphs, if these ones can be existing, are creating

85. Risk is increasing (**graph:** income is definite, expenses are fuzzy)

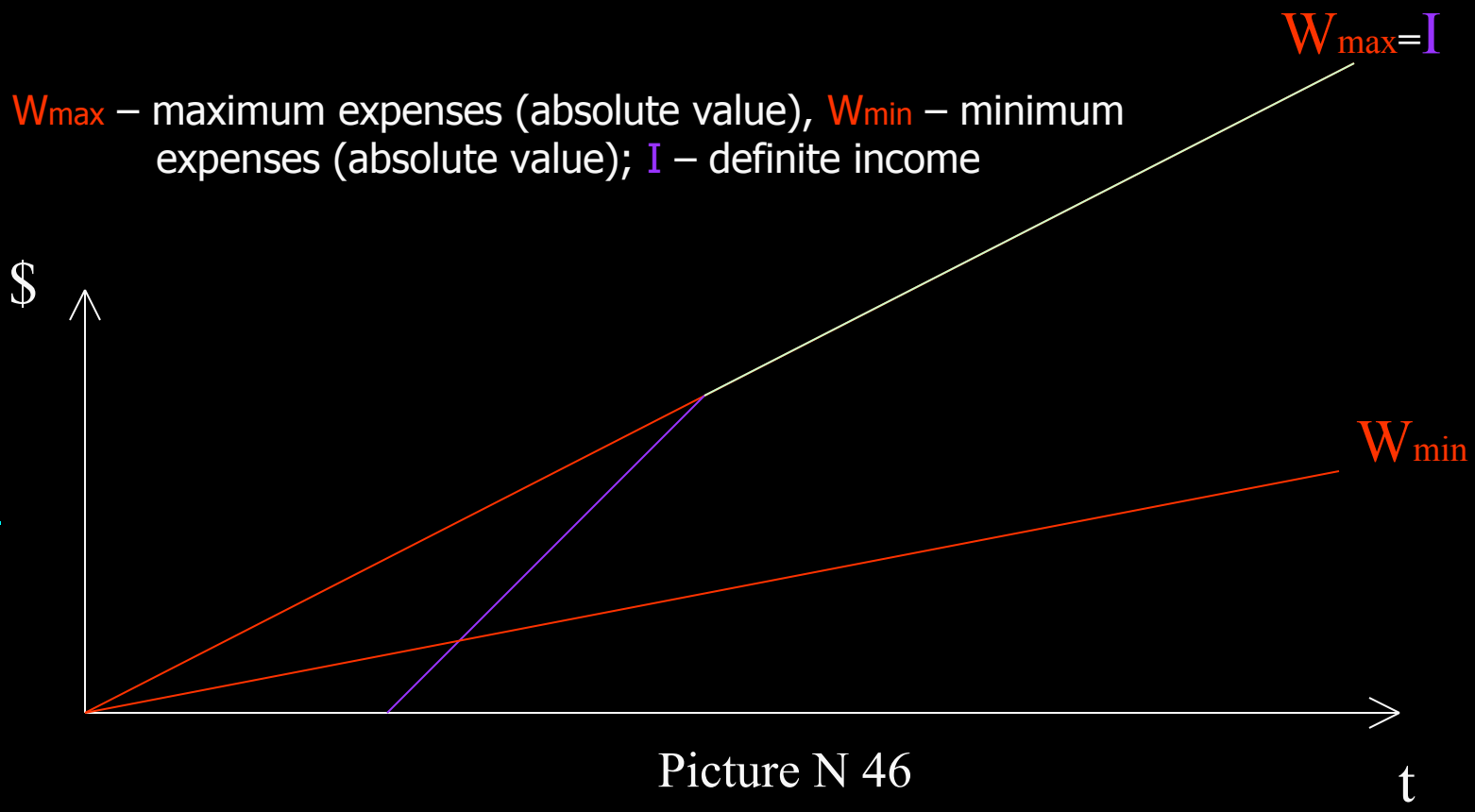
W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income



Picture N 45

All pictures

86. Risk is increasing (**graph:** income is definite, expenses are fuzzy; special case N 1)

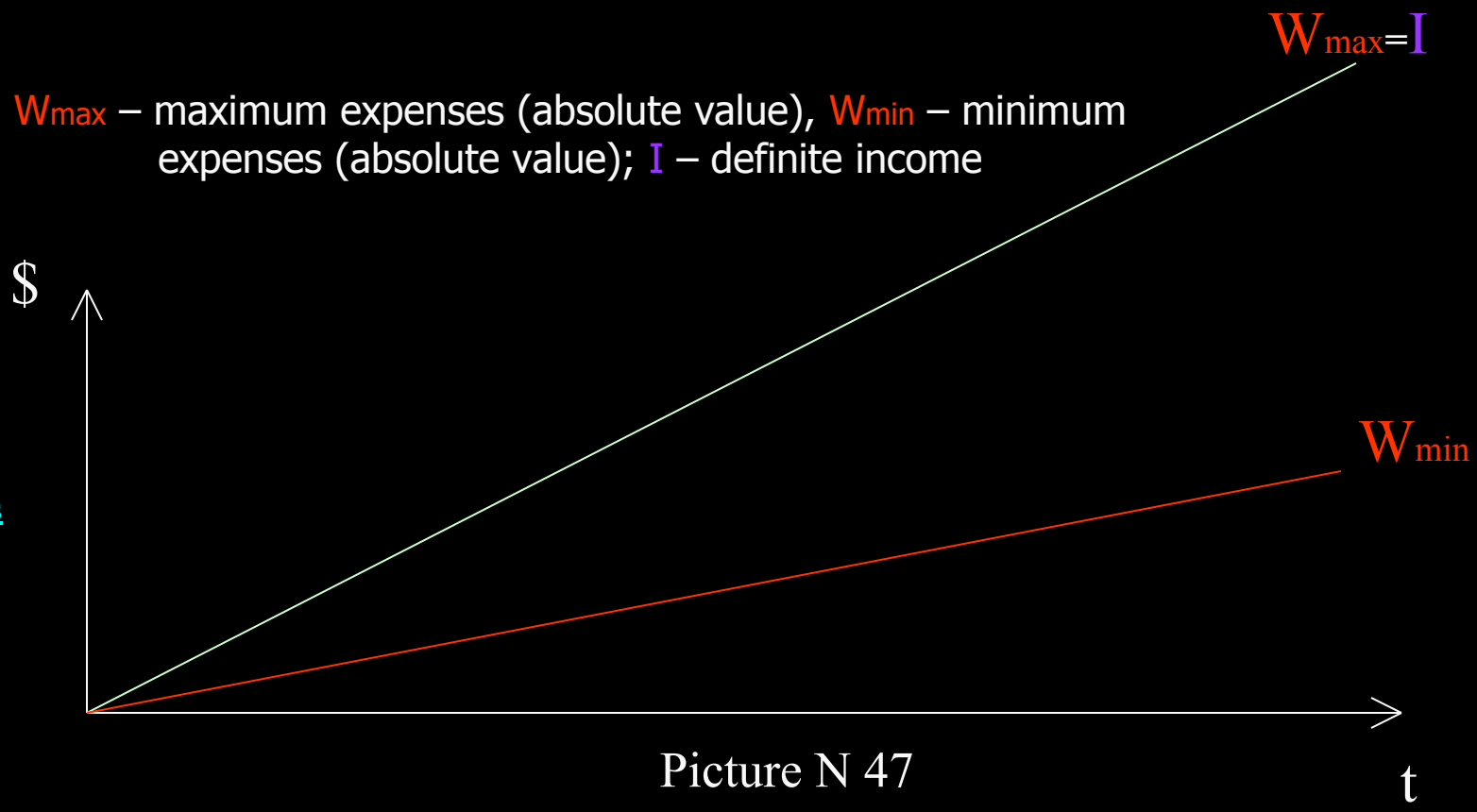


Picture N 46

All pictures

87. Risk is increasing (**graph:** income is definite, expenses are fuzzy; special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income



Picture N 47

All pictures

88. Risk is increasing (**generalization:** income is definite, expenses are fuzzy)

Again let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic.Again let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 45Again let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 45, 46Again let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 45, 46, 47). First of all, these are:

1. Maximum expenses in absolute value are greater always than ***definite*** income (negative profit), ***definite*** income, as a result, is greater than minimum expenses in absolute value (negative profit again),– all risks are represented clearly (Pic. N 45);
2. Special cases with diminished risks: ***definite*** income is equal to maximum expenses in absolute value (zero-profit), and minimum expenses, as a result, are smaller than ***definite*** income in absolute value (negative profit) - Pic. income in absolute value (negative profit) - Pic. NN 46 income in absolute value (negative profit) - Pic. NN 46, 47.

Moreover, following variants of graphs on the basis of averaged values are possible:

- ***Definite*** income is greater than averaged expenses in absolute value (Pic. income is greater than averaged expenses in absolute value (Pic. NN 45 income is greater than averaged expenses in absolute value (Pic. NN 45, 46 income is greater than averaged expenses in

89. Worse and worse (**introduction:** income and expenses are fuzzy)

Pic. N 48 describes the most difficult situation; but one is capable of going out from this one with a profit, however.

Here maximum expenses in absolute value are greater always than maximum income (negative profit), but maximum income, as a result, is greater than minimum expenses in absolute value (negative profit), and minimum income is smaller than minimum expenses in absolute value (negative profit again).

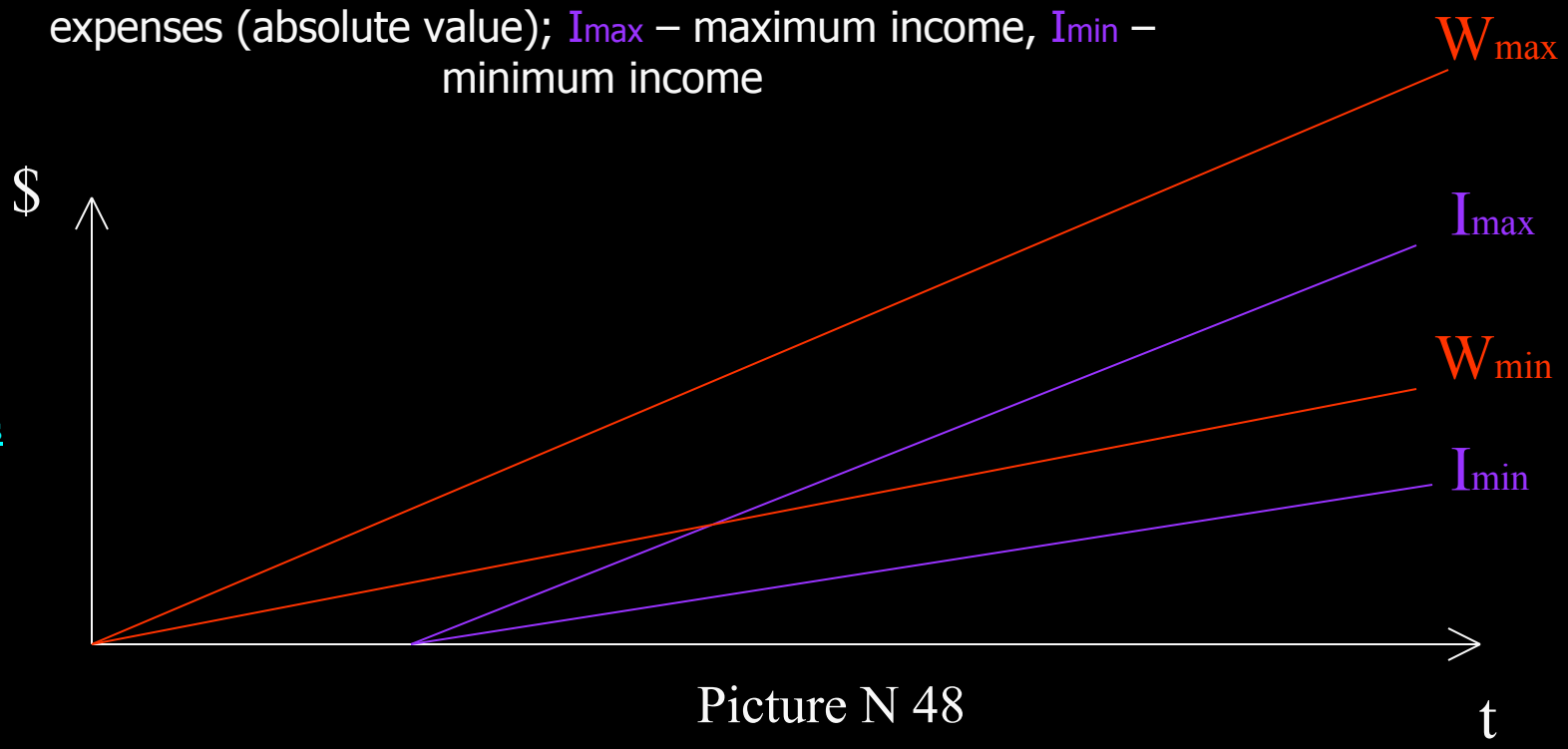
And over again usual computer programs can not suggest nothing really constructive or adequate.

Pic.Pic. NN 49Pic. NN 49, 50Pic. NN 49, 50, 51Pic. NN 49, 50, 51, 52Pic. NN 49, 50, 51, 52, 53Pic. NN 49, 50, 51, 52, 53, 54 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7Variants of graphs, if these ones can be existing, are creating

90. Worse and worse (**graph:** income and expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

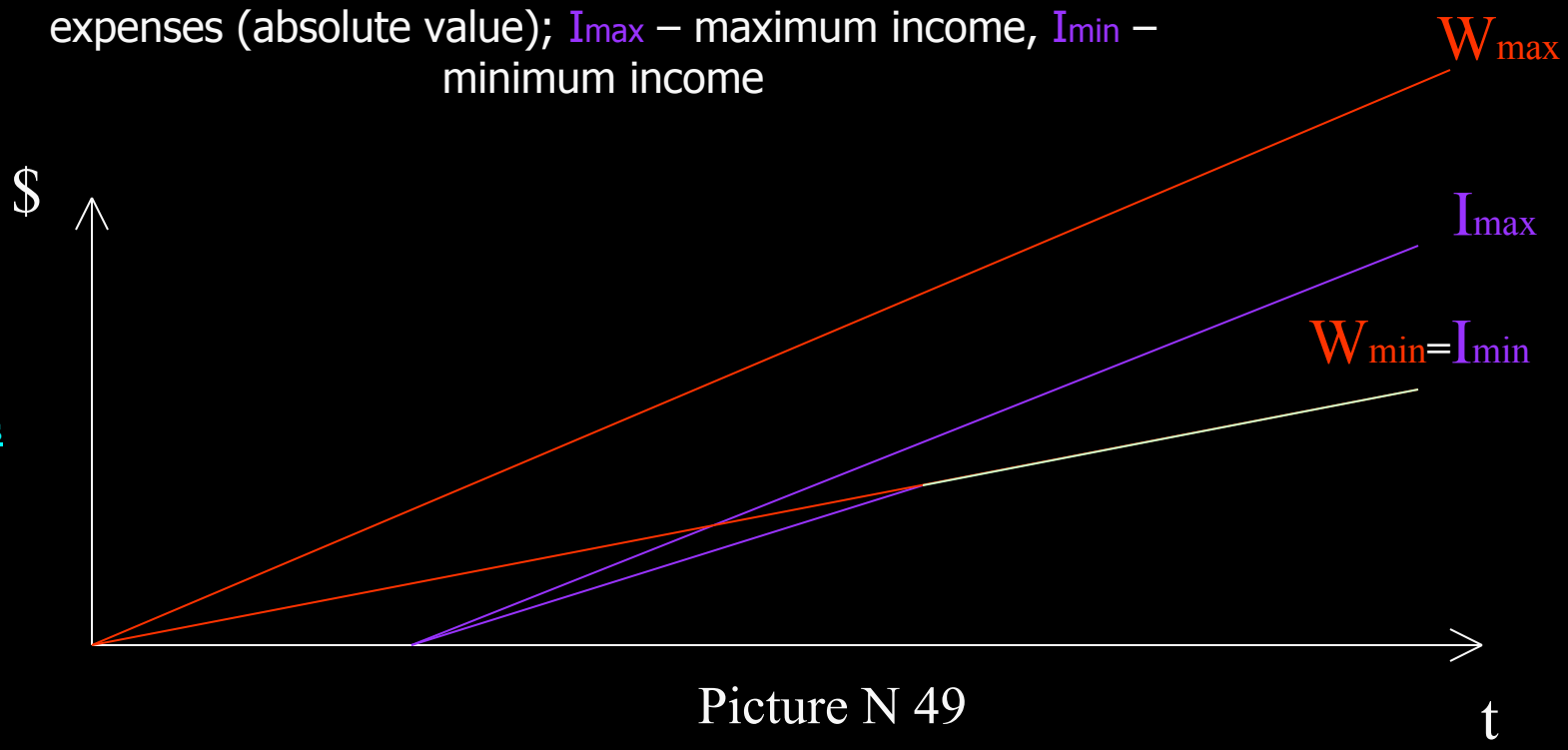


Picture N 48

All pictures

91. Worse and worse (**graph:** income and expenses are fuzzy, special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

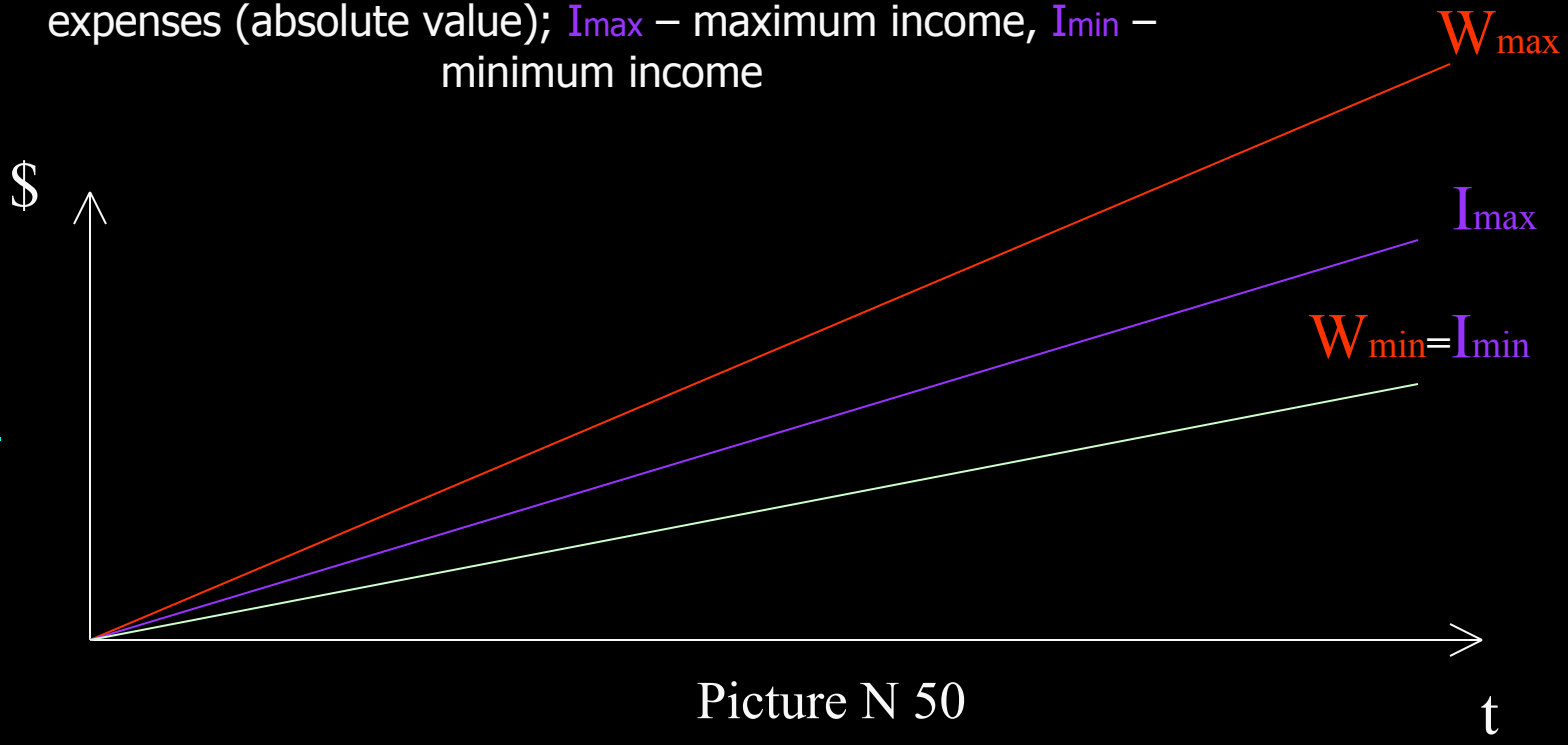


Picture N 49

All pictures

92. Worse and worse (**graph:** income and expenses are fuzzy, special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

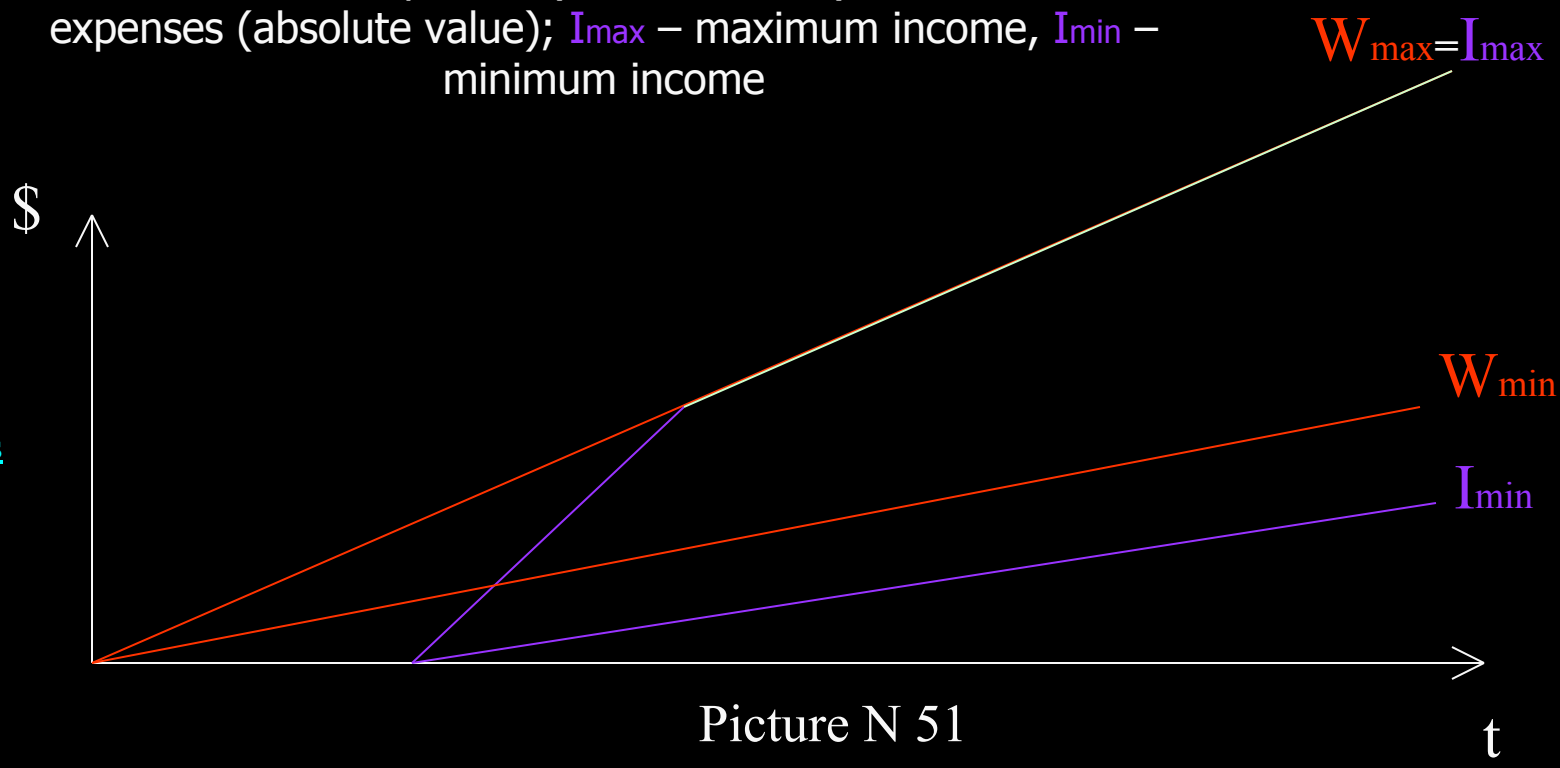


Picture N 50

All pictures

93. Worse and worse (**graph:** income and expenses are fuzzy, special case N 3)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

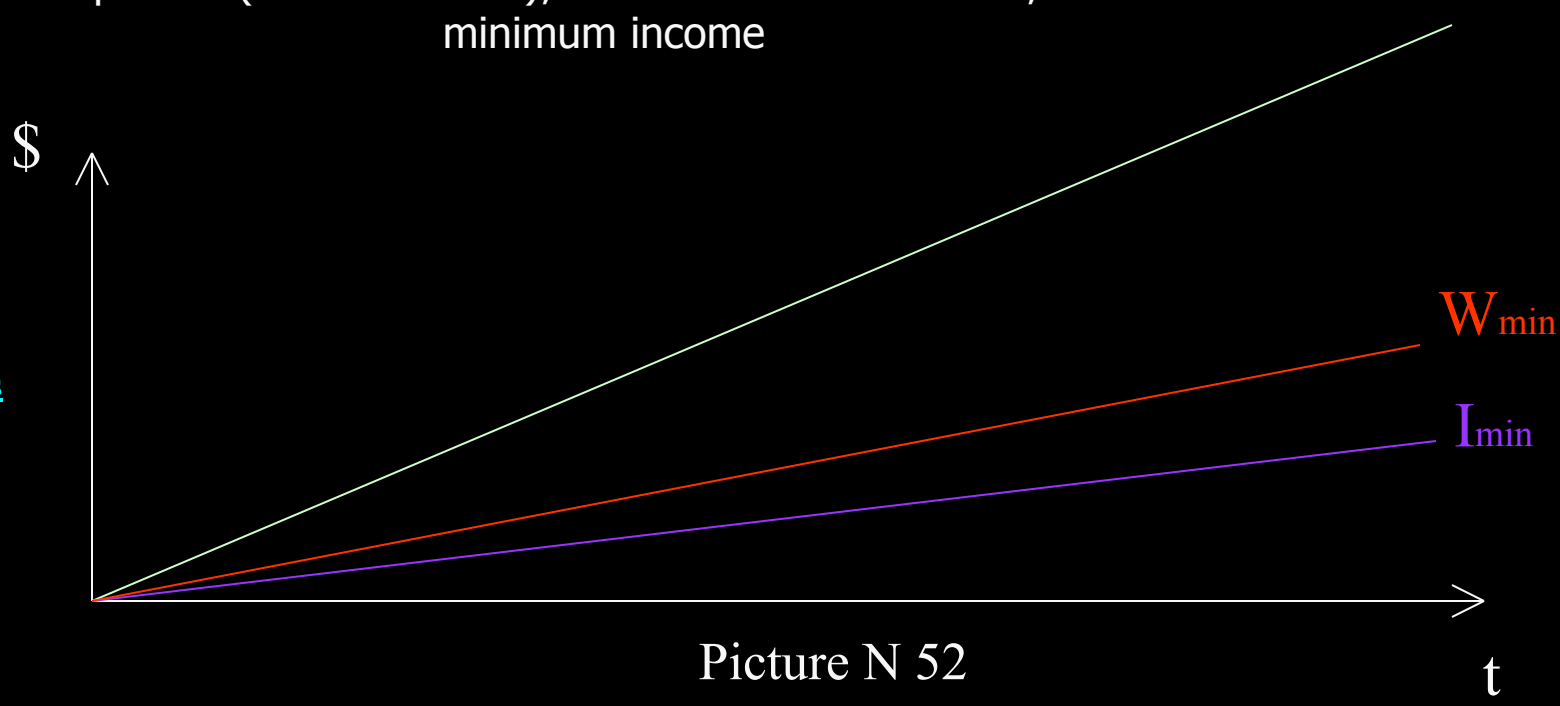


Picture N 51

All pictures

94. Worse and worse (**graph:** income and expenses are fuzzy, special case N 4)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

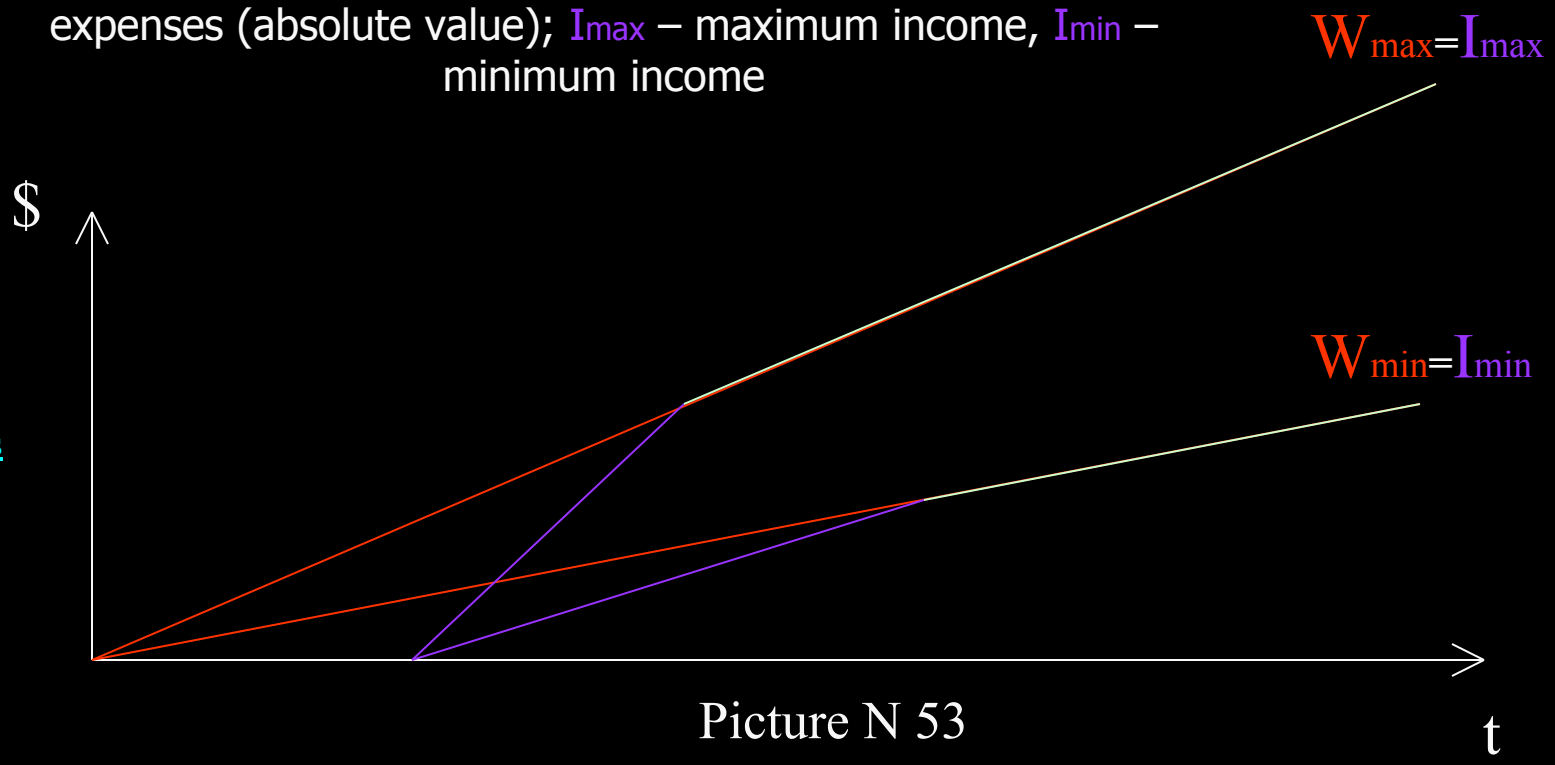


Picture N 52

All pictures

95. Worse and worse (**graph:** income and expenses are fuzzy, special case N 5)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

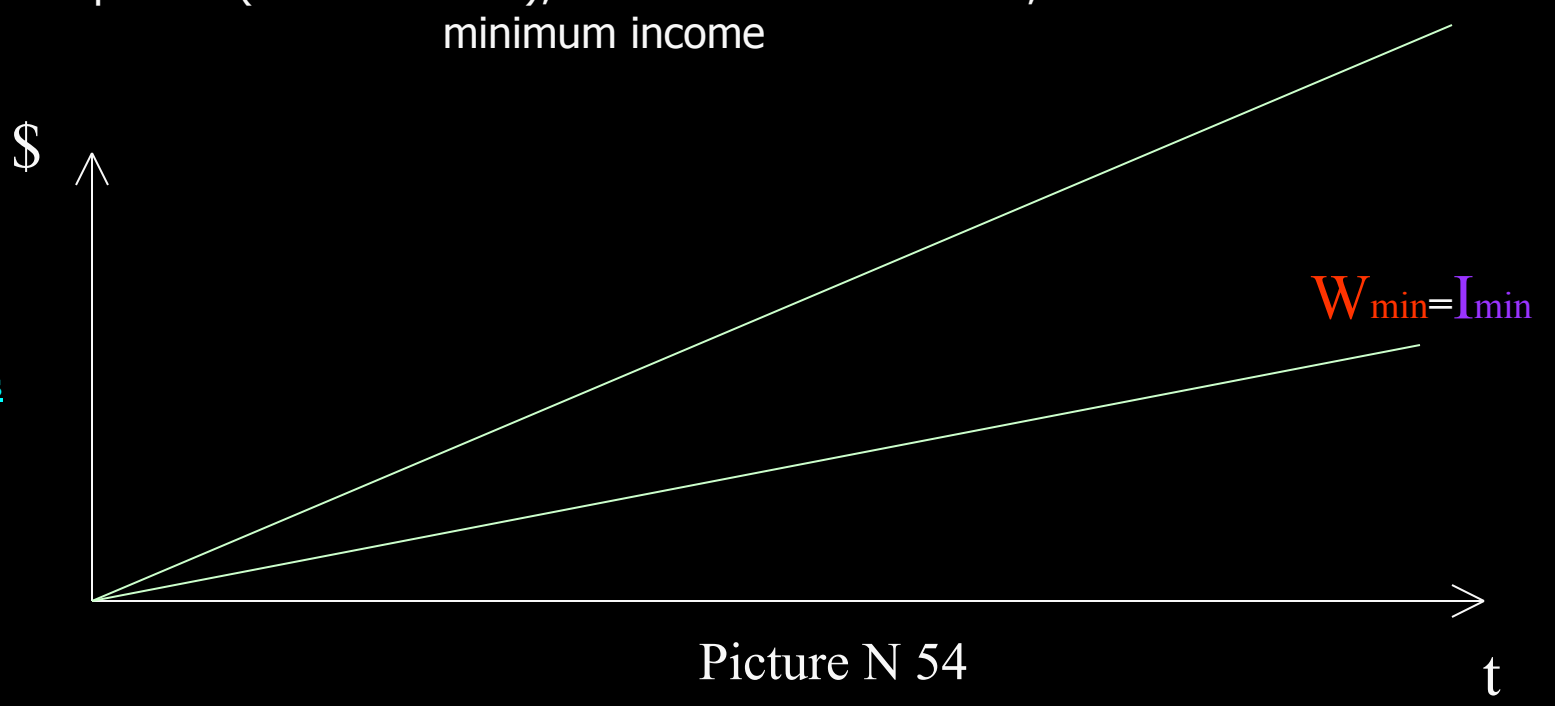


Picture N 53

All pictures

96. Worse and worse (**graph:** income and expenses are fuzzy, special case N 6)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 54

All pictures

97. Worse and worse (**generalization:** income and expenses are fuzzy)

And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic.And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49, 50And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49, 50, 51And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49, 50, 51, 52And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49, 50, 51, 52, 53And again let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 48, 49, 50, 51, 52, 53, 54). First of all, these are:

1. Maximum expenses in absolute value are greater always than maximum income (negative profit), maximum income, as a result, is greater than minimum expenses in absolute value (negative profit), and minimum income is smaller than minimum expenses in absolute value (negative profit again),– all risks are represented clearly (Pic. N 48);
2. Special cases with diminished risks: maximum income is smaller than maximum expenses in absolute value, but at the same time it is greater than minimum expenses in absolute value (negative profit), and minimum income is equal to minimum expenses in absolute value (negative profit again) – Pic.Special cases with diminished risks: maximum income is smaller than maximum expenses in absolute value, but at the same time it is greater than minimum expenses in absolute value (negative profit), and minimum income is equal to minimum expenses in absolute value (negative profit again) – Pic. NN 49Special cases with diminished risks: maximum income is smaller than maximum expenses in absolute value, but at the same time it is greater than minimum expenses in absolute value (negative profit), and minimum income is equal to minimum expenses in absolute value (negative profit again) – Pic. NN 49, 50;
3. Special cases with more diminished risks: maximum income is equal to maximum expenses in absolute value

98. That's quite bad (**introduction: income and expenses are fuzzy)**

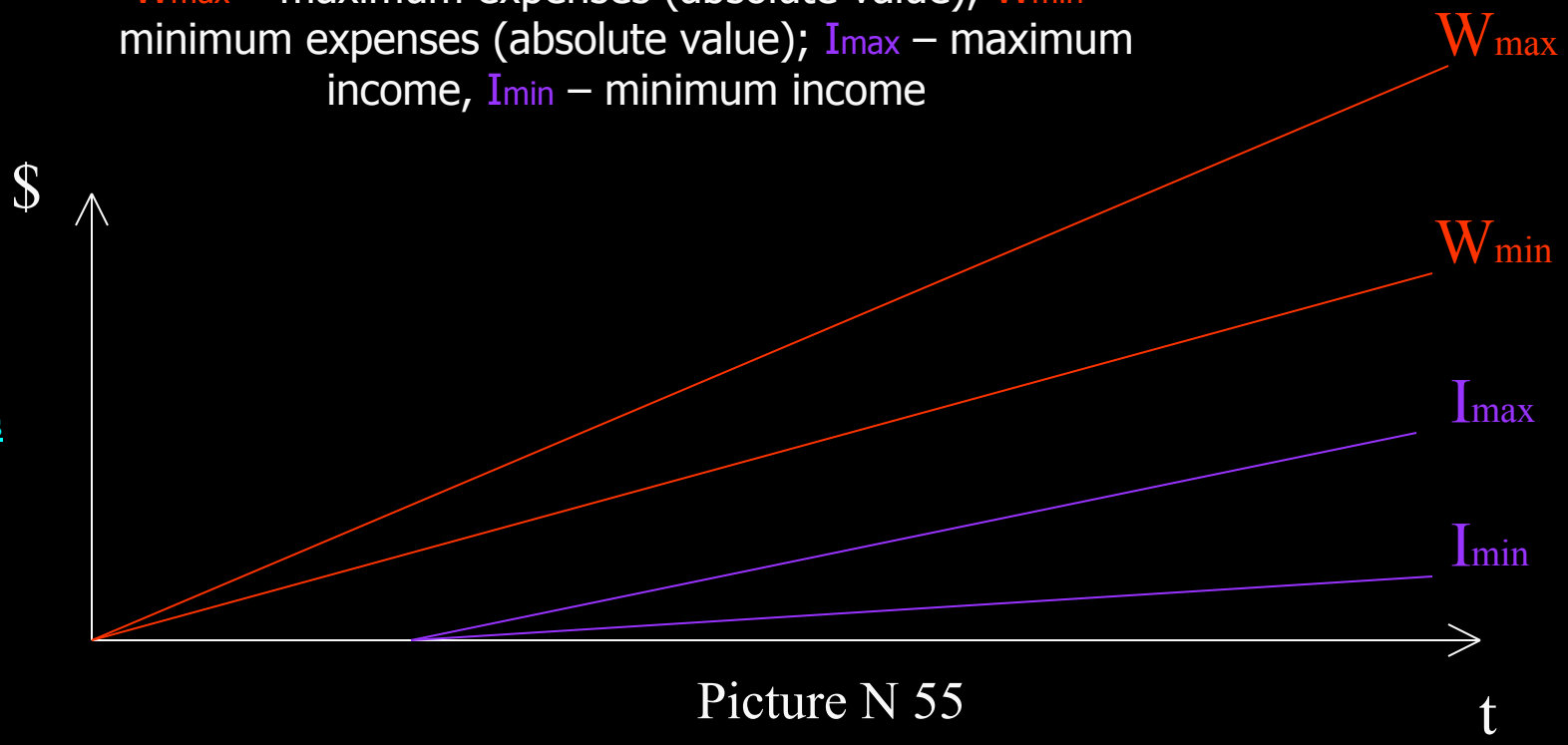
Well, and at last, Pic. N 55: examined project is unprofitable on principal, as, for example, any deficient budget of any state. These results can be calculated in definite values also, because final calculating results are quite comparable both for definite data and for fuzzy ones.

Pic.Pic. NN 56Pic. NN 56, 57 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 5, 6, 7Variants of graphs, if these ones

99. That's quite bad (**graph:** income and expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

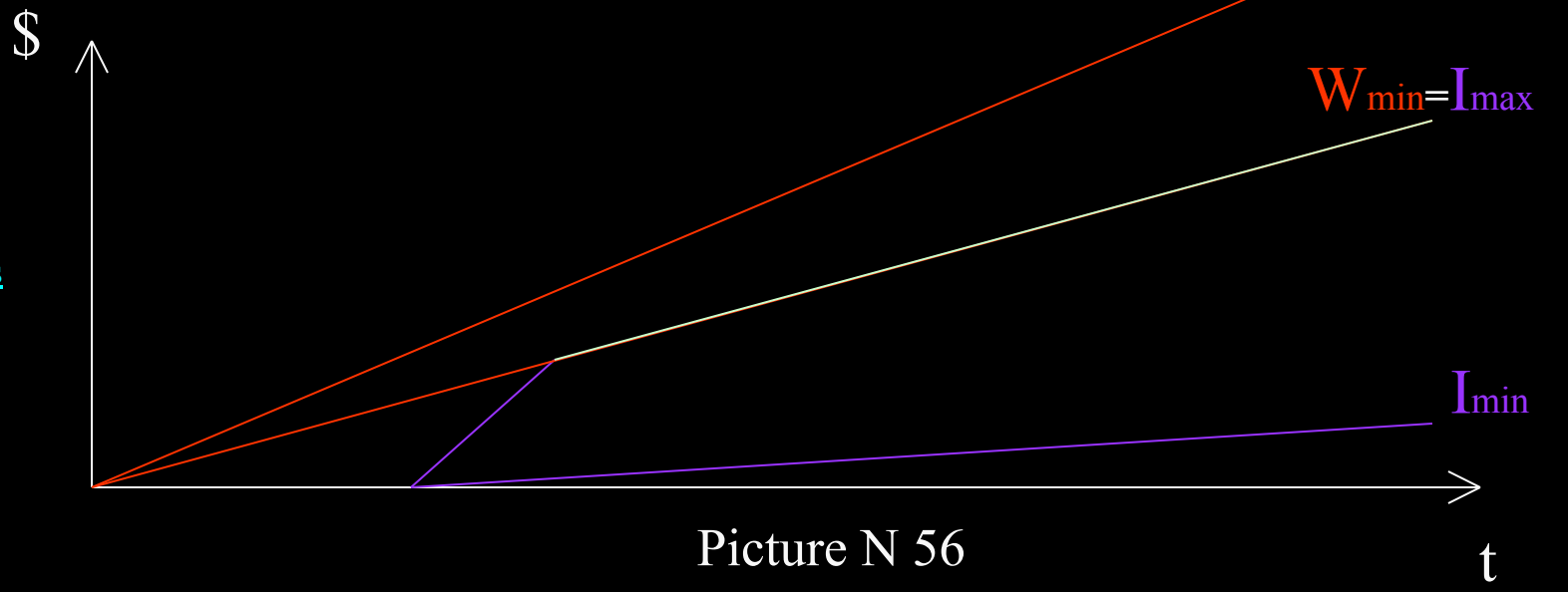


Picture N 55

All pictures

100. That's quite bad (**graph:** income and expenses are fuzzy, special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

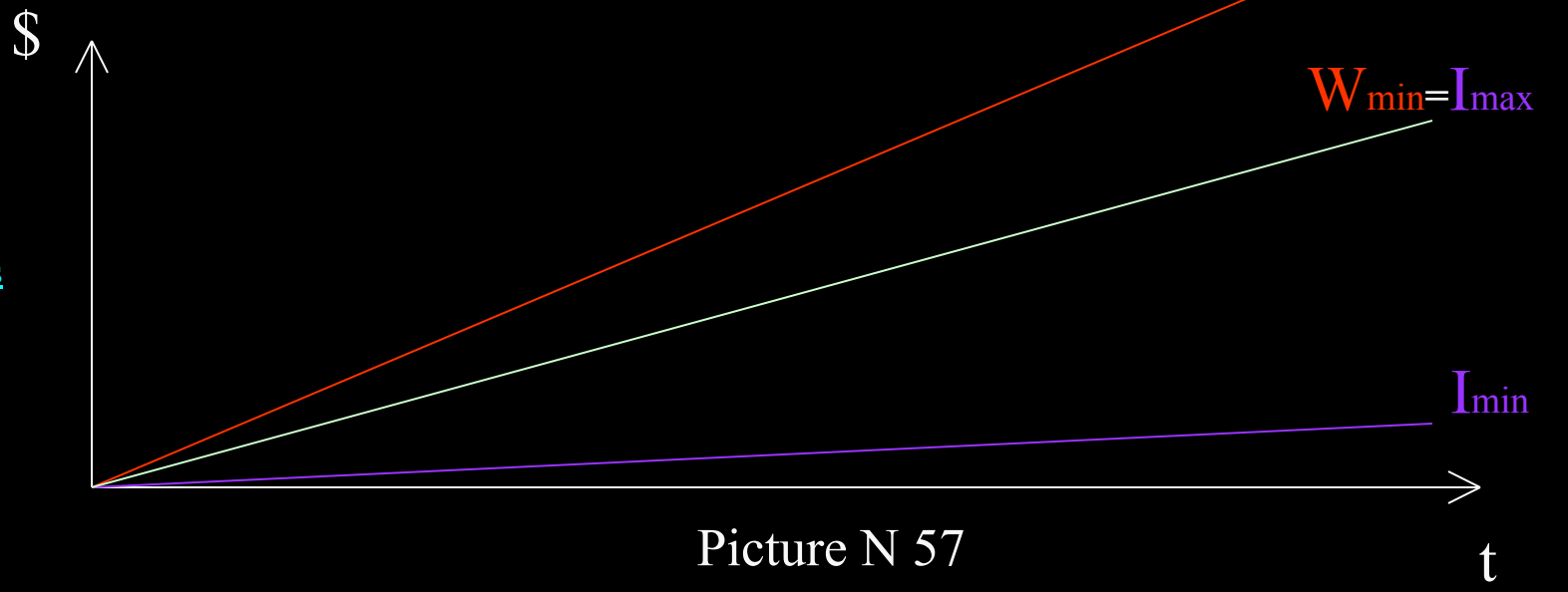


Picture N 56

All pictures

101. That's quite bad (**graph:** income and expenses are fuzzy, special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 57

All pictures

102. That's quite bad (**generalization:** income and expenses are fuzzy)

At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic.At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 55At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 55, 56At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy data, basing upon description of previous situation (Pic. NN 55, 56, 57). First of all, these are:

1. Maximum and minimum expenses in absolute value are always greater than a maximum income (stable negative profit),– all risks are represented clearly (Pic. N 55);
2. Special case with diminished risks: maximum expenses in absolute value are always greater than a maximum income (stable negative profit), and minimum expenses are equal to maximum income in absolute value (negative profit again) – Pic.Special case with diminished risks: maximum expenses in absolute value are always greater than a maximum income (stable negative profit), and minimum expenses are equal to maximum income in absolute value (negative profit again) – Pic. NN 56Special case with diminished risks: maximum expenses in absolute value

103. That's quite bad (**introduction:** income is definite, expenses are fuzzy)

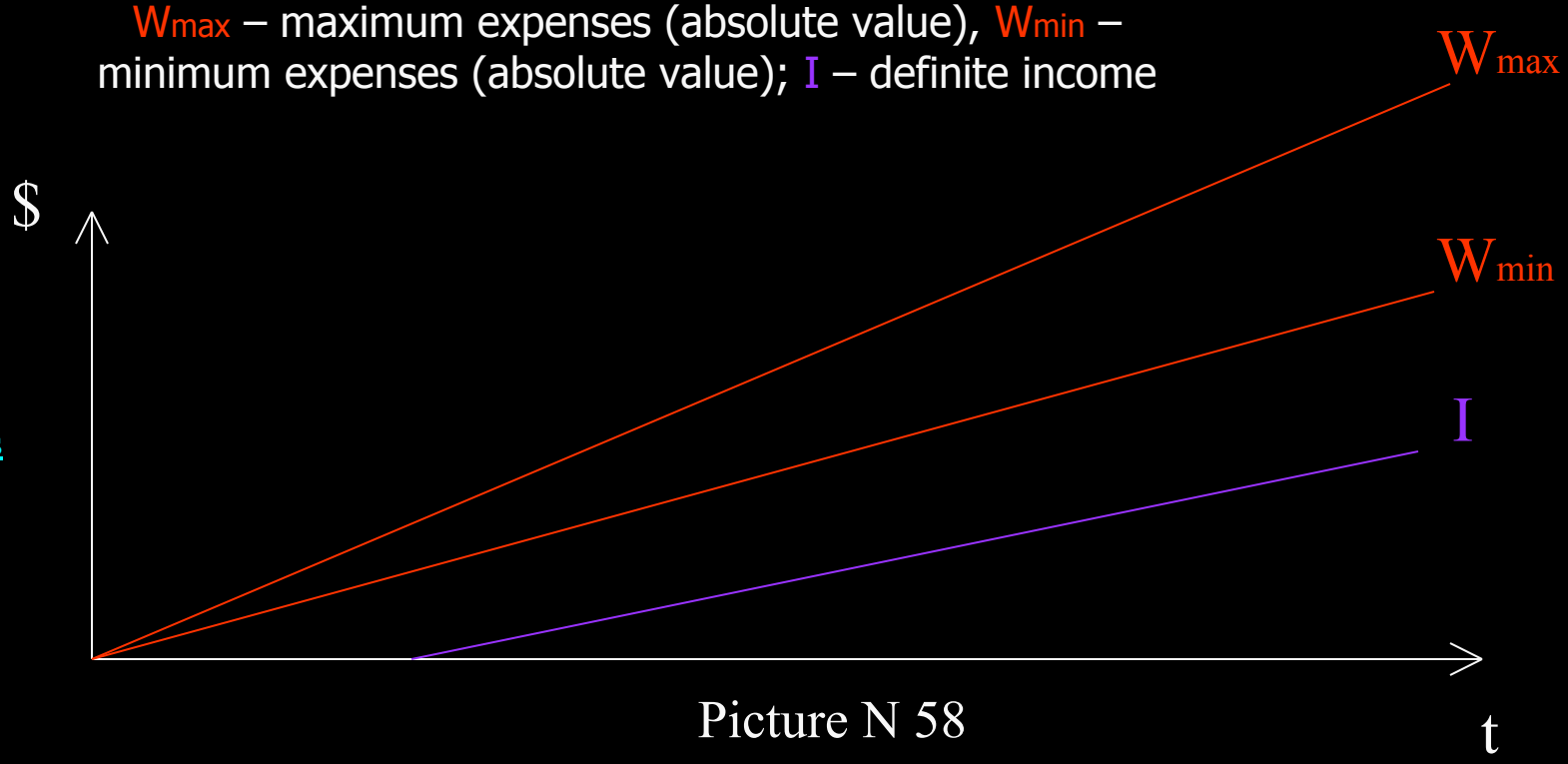
Well, and at last, Pic. N 58: examined project is unprofitable on principal again, as, for example, any deficient budget of any state. However, income is ***definite*** at represented case.

Pic.Pic. NN 59Pic. NN 59, 60 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 24Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 24, 25Variants of

104. That's quite bad (**graph:** income is definite, expenses are fuzzy)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income

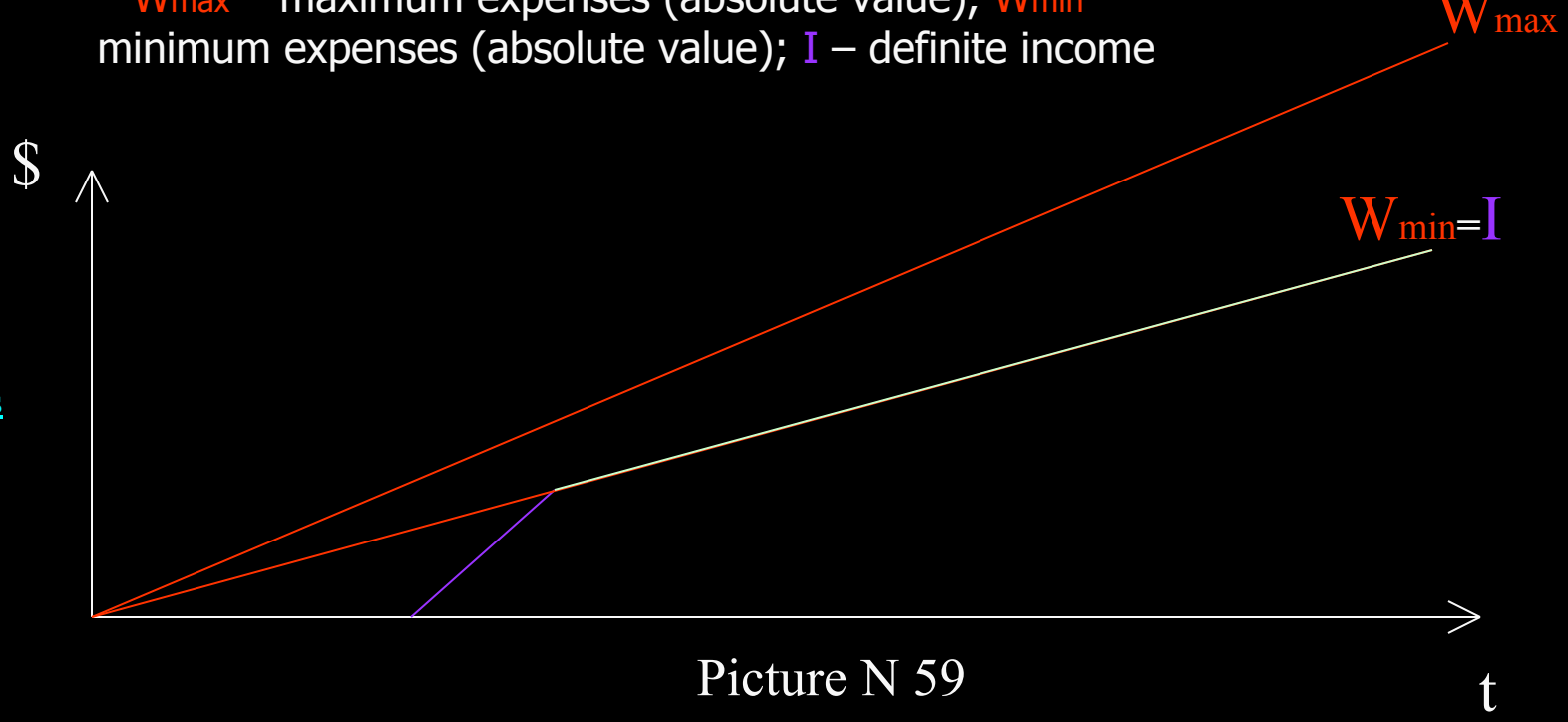


Picture N 58

All pictures

105. That's quite bad (**graph:** income is definite, expenses are fuzzy; special case N 1)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income

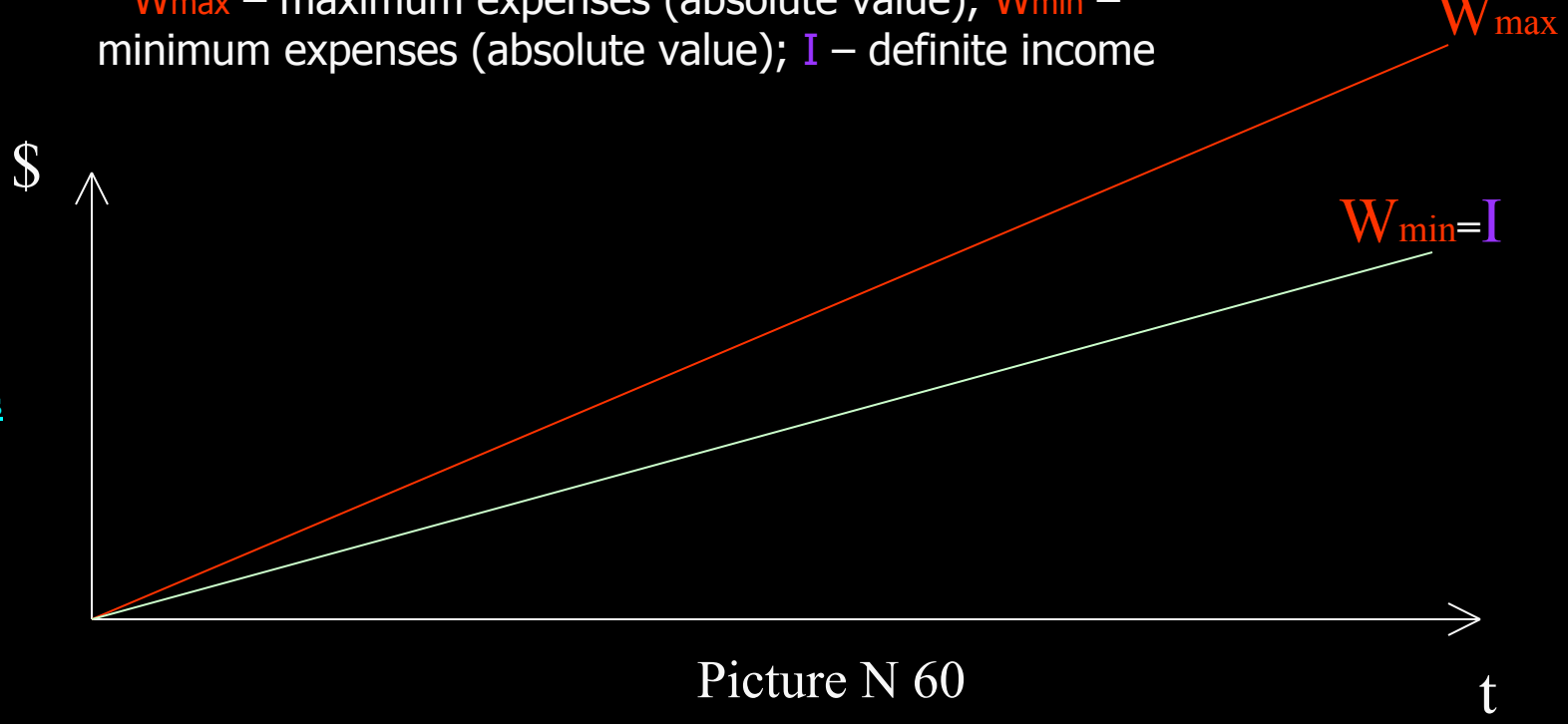


Picture N 59

All pictures

106. That's quite bad (**graph:** income is definite, expenses are fuzzy; special case N 2)

W_{max} – maximum expenses (absolute value), W_{min} – minimum expenses (absolute value); I – definite income



Picture N 60

All pictures

107. That's quite bad (**generalization:** income is definite, expenses are fuzzy)

At last, let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic.At last, let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 58At last, let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 58, 59At last, let's enumerate basic, the most important variants of graphical representation of calculating results for definite income and fuzzy expenses, basing upon description of previous situation (Pic. NN 58, 59, 60). First of all, these are:

1. Maximum and minimum expenses in absolute value are greater always than ***definite*** income (stable negative profit),– all risks are represented clearly (Pic. N 58);
2. Special cases with diminished risks: maximum expenses in absolute value is greater always than ***definite*** income (stable negative profit), and minimum expenses are equal than ***definite*** income in absolute value (negative profit again) – Pic. income in absolute value (negative profit again) – Pic. NN 59 income in absolute value (negative profit again) – Pic. NN 59, 60.

Moreover, a single variant of a graph on the basis of averaged values is possible only:

- ***Definite*** income is ALWAYS smaller than averaged expenses in absolute value (Pic

108. That's quite bad (**introduction:** income is fuzzy, expenses are definite)

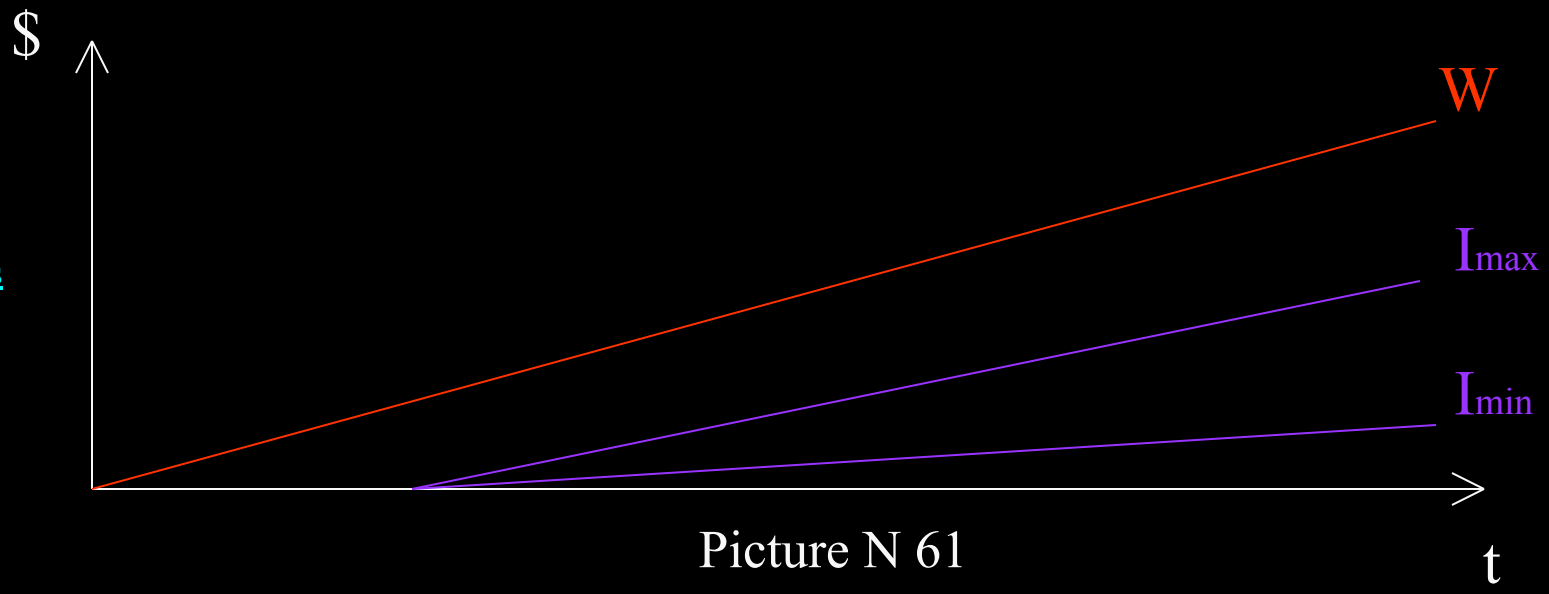
Well, and at last, Pic. N 61: examined project is unprofitable on principal again, as, for example, any deficient budget of any state. However, expenses are ***definite*** at represented case.

Pic.Pic. NN 62Pic. NN 62, 63 – these ones are special cases with diminished risks.

Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic.Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 29Variants of graphs, if these ones can be existing, are creating analogous to graphs, painted at Pic. NN 29, 30Variants

109. That's quite bad (**graph:** income is fuzzy, expenses are definite)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

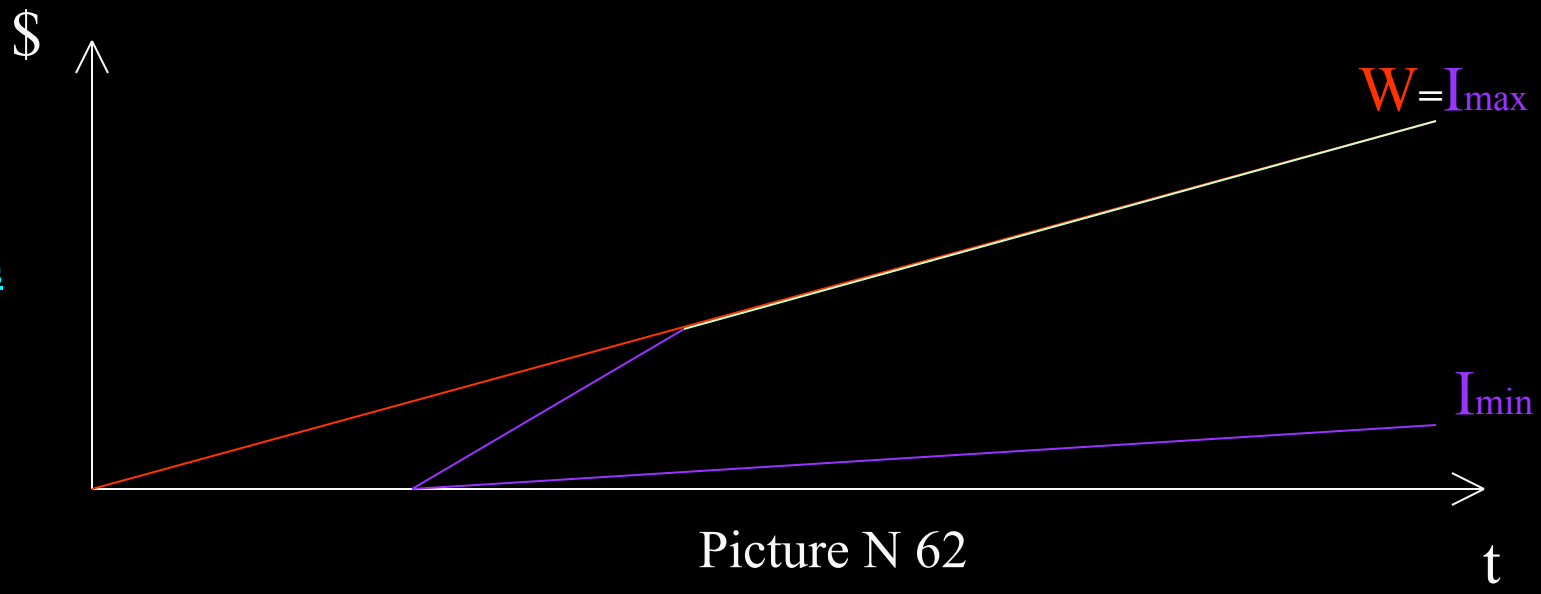


Picture N 61

All pictures

110. That's quite bad (**graph:** income is fuzzy, expenses are definite; special case N 1)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income

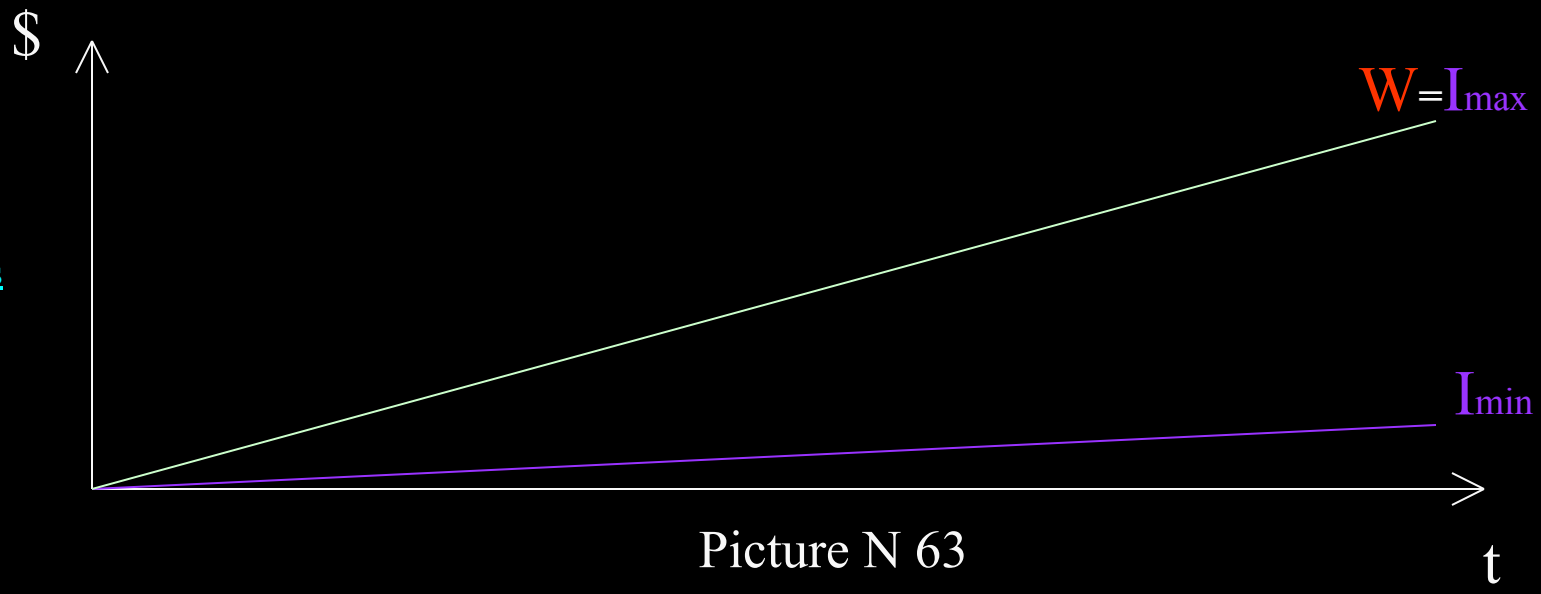


Picture N 62

All pictures

111. That's quite bad (**graph:** income is fuzzy, expenses are definite; special case N 2)

W – definite expenses (absolute value); I_{max} – maximum income, I_{min} – minimum income



Picture N 63

All pictures

112. That's quite bad (**generalization:** income is fuzzy, expenses are definite)

At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic.At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 61At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 61, 62At last, let's enumerate basic, the most important variants of graphical representation of calculating results for fuzzy income and definite expenses, basing upon description of previous situation (Pic. NN 61, 62, 63). First of all, these are:

1. ***Definite*** expenses in absolute value are greater always than maximum income (stable negative profit),– all risks are represented clearly (Pic. N 61);
2. Special cases with diminished risks: ***definite*** expenses in absolute value are greater always than minimum income (negative profit), and maximum income is equal to ***definite*** expenses in absolute value (negative profit again) – Pic. expenses in absolute value (negative profit again) – Pic. NN 62 expenses in absolute value (negative profit again) – Pic. NN 62, 63.

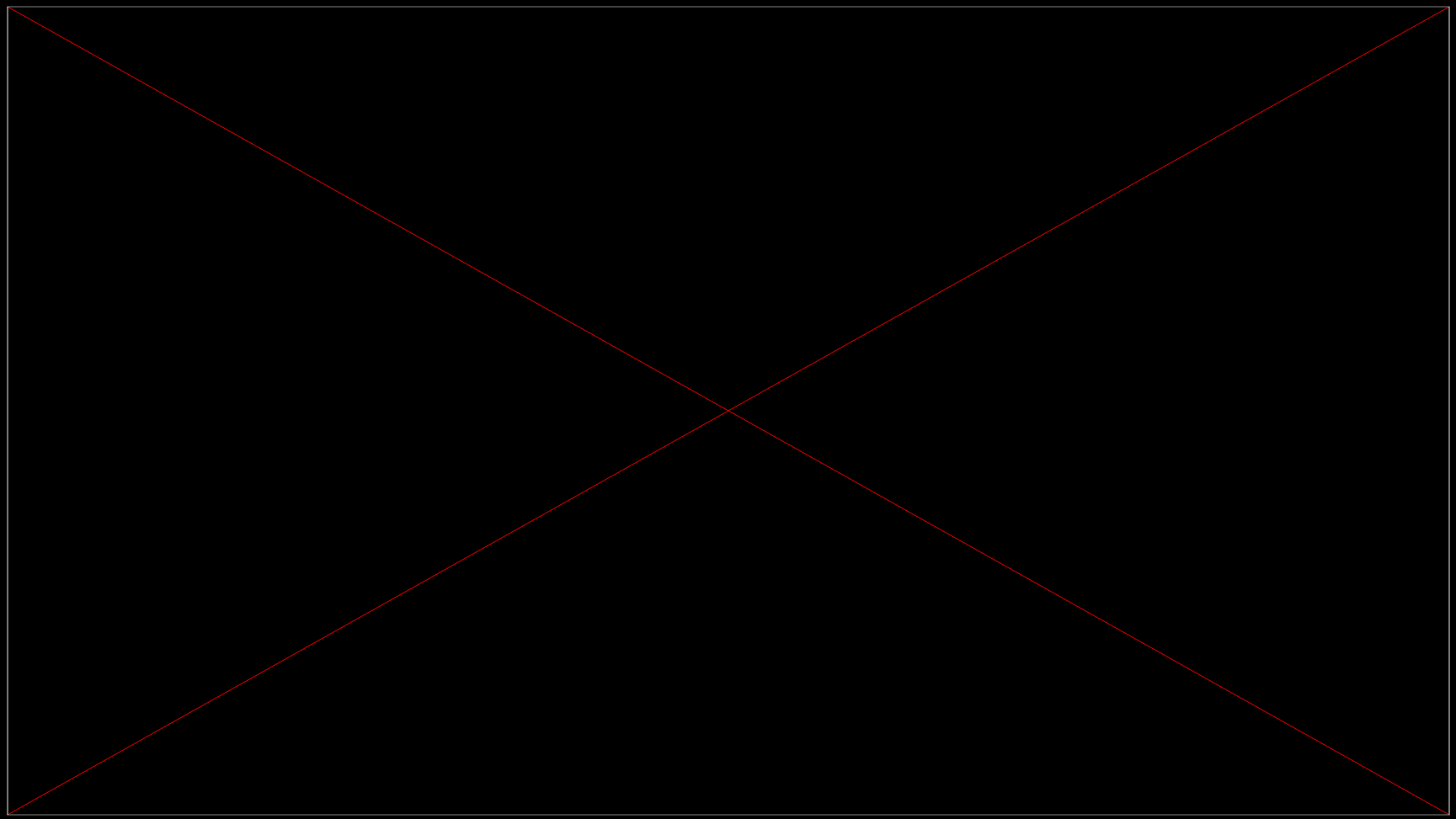
Moreover, a single variant of a graph on the basis of averaged values is possible only:

- Averaged income is ALWAYS smaller than ***definite*** expenses in absolute value (Pic. expenses in absolute value (Pic. NN 61 expenses in absolute value (Pic. NN 61, 62

113. Basic difference

Let's generalize all aforesaid. As You can see from graphs, the most important difference in graphical representation of calculating results for fuzzy data, in comparison with exact, traditional data,- this one is using of four (curves) lines (2 for representation of possible fuzzy income and 2 for representation of possible fuzzy expenses) instead of two (curves) lines (1 for representation of definite income and 1 for representation of definite expenses). As the result, the unique feature to work with real data at real-time mode is appearing, besides it is possible to take into consideration existing indefiniteness. Basic, the most important variants of graphical representation of calculating results for fuzzy data are enumerated already at several previous slides. A great many of these variants, as the rule, are not taking into consideration during work with real data. And till now only skill, experience and intuition of experts give possibility to process and take into consideration described above situations.

114. Combination of graphs



115. Incomplete data

At second, we can consider without any saying that ***incomplete*** data are belonging also to **outstandard** data types. For example, it can be the situation when a cell in a table is empty. But the contents of this cell is very important for subsequent calculations.

In this case Partnership System ZORAN, according to situation, in different ways, but correctly, will process such ***incomplete*** data.

116. Indefinite data

At third, data may be ***indefinite***. Sometimes a user can write for his unknown sums only something about "*don't know*" or "*it will be clear in a few days afterwards*" and so on. But Partnership System ZORAN can process correctly such data also.

117. Dependent data

At fourth, data may be ***dependent***, when one part of information depends on another parts of data. Suppose, You are going to buy milk tank from “Great Vasyuki” farm, and then resell it with some profit.

So, You will be able to resell this tank only after its buying. Well, of course, there are some beautiful situations when You are searching for a buyer firstly, taking his money (this is equal to selling goods which You have no yet), and only afterwards it is necessary to find out a seller. In this case ***dependent*** events are changing by time moments simply: at first You are selling goods and only then You are buying it.

It goes without any saying that in real life You can meet more complex situations.

But there is one rule which is actual for events dependence always: if one event from it will be unsuccessful - such dependence will be destroyed independently from other events.

In real life You can meet many hundreds and thousands of the most various dependencies. Therefore, additionally You must remember always that events amount increasing in a dependence will be main reason for risk increasing simultaneously.

Partnership System ZORAN can help to evaluate correctly the reality for events dependence profit and also for all mentioned dependencies profit.

118. Illustration of dependence

Here is more complex dependence for illustration:

Bank credit => goods buying => goods selling => credit repayment => profit

119. Multivariant data

At fifth, data may turn out to be ***multivariant***. Simple example. You are buying a potatoes lot for **200000$** from “Small Vasyuki” farm and in one week (after delivering), You are going to resell this lot to a single buyer from three potential buyers. According to Your expert conclusion, You will be able to resell Your potatoes lot:

- To **“Potatoes Plus” Limited** for **250000$<>280000$** approximately, at **20%** probability;
- To **“VegetablesB” Joint-Stock** for **240000$<>270000$** at **30%** probability;
- And to **“Agriculture Trade” Joint-Venture** for **235000$<>260000$** at **50%** probability.

But right now You don’t know exactly, what buyer will become the most profitable. Perhaps, in one week afterwards:

- **“Potatoes Plus” Limited** will be ready to buy Your lot for **250000$** only;
- **“VegetablesB” Joint-Stock** will refuse;
- **“Agriculture Trade” Joint-Venture** for **259000$** - the most profitable buyer.

There is great amount of such ***multivariant*** events versions in a real life. And it is not easy for a human being to calculate all these events in his mind. Here it is necessary to say also that mentioned example is only the simple event with **3** ways of possible ending. And probability sum for a simple event can not be moreover than **100%**. If Partnership System ZORAN is using for calculations – there are no reasons for trouble: this system will calculate correctly any ***multivariant*** data and even all combinations of ***multivariant*** data totalities.

120. Paradoxical data

At sixth, data may be ***paradoxical***. So, if in previous example probability of each variant will be equal **90%** exactly, the probability sum of such complex event will be equal **270%** ***- that is absolutely impossible according to probability theory.*** But even in this case Partnership System ZORAN can process correctly all ***paradoxical*** events. It is important to notice, besides all, that, of course, it is not necessary for a user to put into Partnership System ZORAN probability data. If this condition is taking place, real wastes for data input will be lower to some extent.

Besides, real calculating results can be turned out of common sense also, that is to be ***paradoxical***, when, for example, while income is decreasing - real possibility to increase common profit is arising. In our case all ***paradoxicality*** is under strict control. Paradoxes are described in second part of this presentation in detail.

121. Distributed data

At seventh, data may be ***distributed*** - to be stored in different documents at various PC (united into a network and/or at single workstations). Here is the simple example: information, concerning **"Potatoes Plus" Limited**, is storing at **PC № 1**; **"VegetablesB" Joint-Stock** data are at **PC № 2**; and **"Agriculture Trade" Joint-Venture** information can be received from **PC № 3**. If there is a network, it is quite enough for a user to indicate to Partnership System ZORAN all necessary documents for calculations and wait for results afterwards.

122. Nonevident data

And at eighth, at last, data may be ***nonevident*** also (when some information can not be received without preliminary processing) - at any moment any user can take out some (but not all) ***nonevident*** data into PC display.

They are attributing to ***nonevident*** data, for example:

1. **Calculating results;**
2. **Various critical points;**
3. **Different variants of business projects analysis for stability;**
4. **Sorted out sequences of values;**
5. **Calculating formulas, which are creating by Partnership System ZORAN independently;**

Etc.

123. Data classification

Thus, let's unite now all described data classes into the single registry; there are following already mentioned data:

1. *Definite* or *concrete* or *exact*;
2. *Fuzzy*;
3. *Incomplete*;
4. *Indefinite*;
5. *Dependent*;
6. *Multivariant*;
7. *Paradoxical*;
8. *Distributed*;
9. *Nonevident*.

As You can see, for successful resolving of real economic tasks it is quite necessary to use, together with traditional, definite data, many outstandard data. Otherwise it is impossible to speak about neither reliability nor adequateness nor accuracy of received calculating results.

124. Complex data processing

After finish of data input, it is enough for any user to allow a processing action to proceed and wait some moments while Partnership System ZORAN will find out **independently** all ***concrete***, ***fuzzy***, ***incomplete***, ***indefinite***, ***dependent***, ***multivariant***, ***paradoxical***, ***distributed*** and ***nonevident*** data at existing problem, ***sort these data***, ***verify information for mistakes presence***, ***independently create united calculation formula***, ***make all necessary calculations***, ***and take out generalized information into PC display or into graphical devices***. Besides, the same computer program will help any user to find out ***critical*** points at his business plans and work to remove these ones.

125. And what is user to do?

Thus, any user ought to do only, in general, creative tasks: to set his goals clearly and determine input data correctly. Partnership System ZORAN, from its side, will do all other routine operations independently.

At any changes in initial data any user can do without problems reengineering of his business processes at real-time mode.

126. There is scale-ability also!

At last, it is necessary to mention the fact, that Partnership System ZORAN has the feature of ***scale-ability***. That is, this system can be installed at any quantity of computers both isolated from each other and united into a net. Accordingly, each user can work almost independently from all other users, that is very convenient for large corporations.

127. Exclusive services

Besides all, if You need for some single time calculations, it will be easily and cheaply for You to address to me, sole analyst, who is using Partnership System ZORAN for calculations and analysis during rendering of consulting services. I'll help You to minimize Your indefiniteness and calculate all necessary data by means of intellectual computer system of new generation.

128. So, I offer

You to become my strategic partner at spheres of using and distribution into internal and external markets of up-to-date Russian elaboration – computer program “Partnership System ZORAN”, which is basing upon fundamental investigations at the sphere of artificial intelligence; these ones have no direct analogous in the world practice.

129. My advantages

I. My «visiting card» - Partnership System ZORAN - exclusive product of elite class for limited circle of customers;

II. I'm rendering a wide spectrum of exclusive consulting services on the basis of Partnership System ZORAN;

III. I'm single author and owner of Partnership System ZORAN;

IV. I have had large practical experience from 1994 year till now.

130. Know-how and results

I. Fundamental scientific theory;
II. New conception of artificial intelligence;
III. Know-How for outstandard data types processing;
IV. Practical realization on the base of modern program technologies.

131. Marketing focus

Marketing focus for Partnership System ZORAN is directed to education, any investment activity, planning, management, decision making etc.; all mentioned above is demonstrating in educational examples for common type tasks, described in manuals and in educational Partnership System ZORAN data base.

132. Ways to cooperation

Possible schemes of cooperation: any, excluding transference of rights to intellectual property into property of other outsider persons. Common projects are also possible, for example, for data converting into other programs (book-keeping, analytic, financial etc) from Partnership System ZORAN and vice versa etc. At present time there are a few ways of the elaboration development and for improving of manual and examples also.

133. Patent

All rights to Partnership System ZORAN belong to author of program: Gennady N. Kon.

Reference to system: Partnership System ZORAN was officially registered in Russia at RosAPO (Federal Institute of Industrial Property). Registration patent N 980435 from 17.07.1998. The beginning of the system creation is 1993 year.

134. State of the elaboration at present

1. Up-to-date version of Partnership System ZORAN (Russian-based)
2. 44 variants of simplified version – so named peripheral modules (Russian-based)
3. Limited version of Partnership System ZORAN (Russian-based)
4. Limited internet-version of Partnership System ZORAN (English-based)
5. Manual for practical using of Partnership System ZORAN (Russian-based) author – Dr. Ivan A. Khakhaev, holder of the chair of informatics at Saint-Petersburg state Institute of Commerce and Economics
6. Educational examples with decisions of original economic tasks (Russian-based and English-based)
7. Internet site (Russian-based and English-based)

135. Short message to You

I SHALL BE GLAD TO SEE YOU BEING MY SPONSOR, INVESTOR, PARTNER, PROMOTER OR CUSTOMER

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