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The manual " the Economic growth " is based on achievement of the economic theory, world(global) practice macroeconomical of regulation. The rate represents a combination of the traditional approaches macroeconomical of the theory and concrete practice macroeconomical of a condition and macroeconomical of politics of the country.

Is intended for the students magistres, teachers of high SCHOOLS of an economic structure, scientific employees and everyone, who is interested in discipline " Economic growth ".

I :  
1.1.  
1.2.  
1.3.

2  
2.1.  
2.2  
2.3.

3.  
3.1.  
3.2.  
3.3.

4  
4.1.  
4.2.  
4.3.  
4.4.

5 :  
5.1.  
5.2 .  
5.3 .  
5.4 .

6- :  
6.1 .  
6.2 .  
6.3 .

7- .  
7.1.  
7.2.  
7.3.  
7.4  
7.5  
7.6.



( )

( )

( ) “ ”



(1500-1700 )	0,2	0,1
1800 ) (1700-	0,4	0,2
1980) (1820-	0,9	1,6

., 1996. – 599 .

1000  
0,1 %

1,6 %

1 %

XVI

XVI

1

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“ ”

10-15

25

2-3

4

“ ” ( )

“ ” ( )

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20-30

1.3

1920	70%	1941?
20%	1987	3%
30%	, 1980	1879
		8%
		72%
		, 1930
		<b>1846</b>

7% . 51% , 1947 -12,5%, 1970

100 40-50% 50%

( , .)

1 .

34,7%, 1960 - 38,1%, 1976 - 45,6% 1929 ( )

1950 51,5%, 1960 50,4%, 1975 60,2% . 1990

55% 70%

- ; ( , )

- , ;

- ( , , ); ?

- ( , );

- ( , , ) .

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1. .

2.

3.

4.

**1**

2.

XIX

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1.

2.

3.

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- 4. ?
- 5. ?
- 6. .
- 7. .
- 8. .
- 9. .
- 10. .

1. . . . - ,2003 .25 ,88- .

2. . . . “ ”: , .

2001.

3. . . . . 2001.

4. . . . “ ” ,

∴ ,2004 .

5. “ ”. ∴ .2003 .

6. . . . “ ” ,

. 2004 ,726 . “ ” , “ ”

7. . . . “ ” . “ ”

2004 .382 .

8. . . . .2004 .

9. . . . .

11-12, 2004 3- .

2- : ,

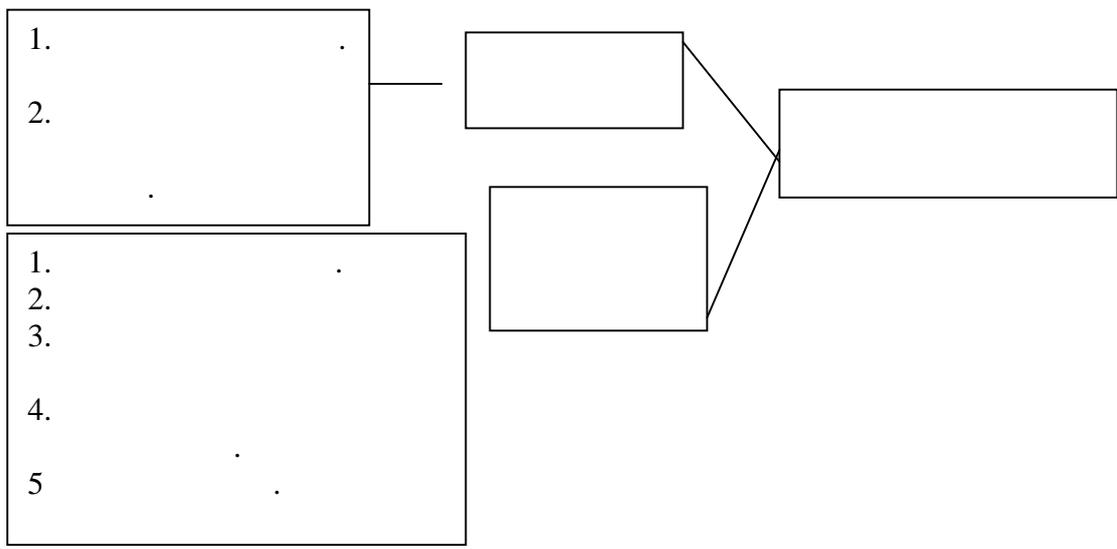
- 2.1. .
- 2.2. .
- 2.3. .

2.1. .

- 1.
- 2.
- 3.
- 4.

( - )

-1



1)

80

2.2.

( ) ,

$$= t - t^{-1} / t - 1$$

t-1                      t -                      t

$$t / N_t = NST \quad \dot{Y}_t = t,$$

$N_t$  - ( , ); t,-

$$\dot{Y}_t > t,.$$

XX

1870-1914  
(2- )

2-

	% /
	80/20
	60/40
	73/27

80%

1909 - 1949

( ),

1. ;

2. " ; "

3. ;

), :

) ;

( , )

) ;

4. 1,

(1948 1969 )

3,87%, 4,78% 8,81%

, 1970

, 2/3

, ( )

50%

1948-1969

1,97%, 8,81% 2,1% 1,94%,

0,94%

35,6% 14,6%

- , -

1970

. 1980-1990

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1960

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(10-11

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(80-90

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**80-**

**90-**

**80-**

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11 -

(1975-1980, 1981-1986 . .)

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, 1985

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, 10%

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20%

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70%

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3-4

(7

), 1

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### 2.3

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- 4.

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150-200  
10-15

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2

1- ( , )

2- ( , )

) =  $\frac{Y_i}{Y_0}$

) =  $\frac{Y_i}{Y_{i-1}}$

) =  $\frac{Y_i \cdot Y_0}{Y_0}$

) =  $\frac{Y_0 - Y_{i-1}}{Y_{i-1}}$

,  $Y_0 -$   
 $Y_i -$   
 $Y_{i-1} -$

- ( 3- 4 ) , -

- ; ( 7 - 8 ) -

- ( 15 - 20 ) ;

;

- ( 50 - 60 ) ,

;

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- 1.
- 2.

- 2.

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3) 1960

1970

4)

5)

1980

6)

1. . . . .
2. . . . . ,2003 .25 , 88- .
- 2001.
3. . . . . .2001.
4. . . . . “ ” ,
- ∴ ,2004 .
5. . “ ”. ∴ .2003 .
6. . “ ”,
7. .2004 ,726 . “ ” . “ ”
- 2004 .382 .
8. . . . .2004 .
9. 11-12, 2004 3-

**3-**

- 3.1.
- 3.2.
- 3.3.

**3.1.**

"

?" –

, 1870 . 2 244 ,

1990 18 258 .

120 1,75

1990

, 1870 1,75 1990 , 0,75  
5 519

1,75, 2,75  
60 841  
120 1 2,75

20- (1934) (1928).  
« »

(1956) 50- (1956) 19-

50- 60-

80- (1986) " "

1.

2.

( , , , )

( , ).

*L*

«*L*»

«*N*»

« ».

$$L = Ne.$$

3.

10:00

9:00

2+2

Windows 98

$$Y = F(K, L, A) \quad (1)$$

$$Y = K^\alpha L^{1-\alpha} A \quad (2)$$

, -l

, N

(2)

(3)

(3)

**3.2.**

3.3.

(4)

$$I = I + I + (I - ) I . \quad (4)$$

(  
(  
(  
)

(  
)  
)

(4)

(Robert Solow)

$$I = I - I - (I - ) I . \quad (5)$$

- "
1. . . . " . 6, 2, , 2002. : . -
  2. . . . (1999-2001). - "
  3. . . . , 2002.
  4. . . . - " , 4, , 2001.

**4-** . . . .

- 4.1. . . .
- 4.2. . . .
- 4.3. . . .
- 4.4. . . .

. 80

«

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«

»

## 4.1

( )

( ),

? ?

:

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30

30

## 4.2

Microsoft Excel

(Black and Scholes)

: Microsoft Excel

Microsoft

( ),

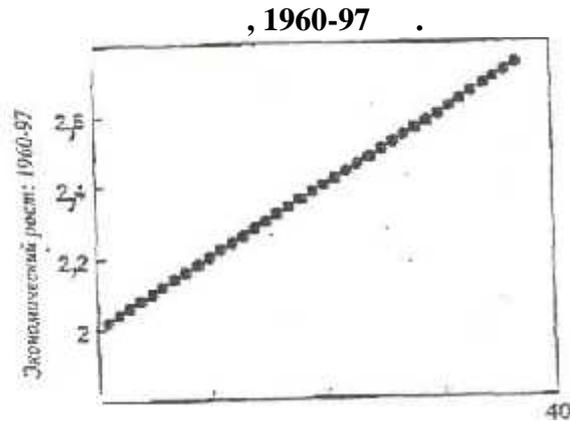
4.3

IV.

Al A6 ( (Bosworth and Collins,  
1998)) 88 : 1960-70,  
1970-80, 1980-86 1986-90 1 1,7  
1960 1970 - Ak/k (4) -  
- (1 - ) / - 0,4  
- 1,3  
(Alwyn Young, 1994)  
1960 1970 5,6  
, 0,3  
1980 1980 1986 1970  
1992 7,4 1986  
2,6 0,6  
4 -  
**4.4**

1 ( ) -  
 1960 1997 , 1 ( )  
 , 1960

1-



: - - , 1995.

0, 5 , 10

1. . . . .
2. . . . . 6, (1999-2001). - " , 2002.
3. . . . . 6, , 2002.
4. . . . . - " , 4, , 2001.



2,9%

0,2-0,3%

587

1929-33  
1929  
600

30-  
823  
1980-1982

1-

1948-1994 (%)

1948-1966	3,2	2,2
1966-1973	2,0	2,0
1973-1981	0,7	1,1
1981-1990	1,3	1,8
1990-1994	2,0	1,2

70-80 90

2

(1948-1966)  
3,2% 1 1966-73  
(1973-1981).

1.

3

1.

70

2.

+

1. , /
2. .
3. . 1970 12,1
4. , 1993 12.7 ( )

+

3% 1% ( ).

- 1.
- 2.
- 3.
- 4.
- 1980 4 1973-1975 1975-

1981  
1% 1993 3% 1973-1981 0,7% 1981-1990 1,3% 1990-1994 3% 1991  
2%  
1977

60-70

“ ”  
“ ”  
2-7%

. 80  
( )

. 1)

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“ ”

1.

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1900

3.

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1961 .

“ ”

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1. ( )

2.

3.

10%

- %

4. “ ”

( )

: 20-30

20 %

60

-1850 .

-1900 .

-1910 .

-1910 .

- 1930 .

- 1940 .

- 1950 .

- 1950 .

5.

“ ”

1-

5.3

1929-1933

1.

?



( ) @Q , (I) ¥

$$@Q = I\beta$$

¥  
 ( , - 1  
 . . . ) , ¥  
 4 . , ¥  
 1/4 , 25 % ,  $S = \frac{\Delta Q}{I}$

2.

$$\Delta Y = \Delta I \frac{1}{r}$$

$$\frac{1}{r}$$

$$Q = I$$

$$Y =$$

3.

$$\Delta I \frac{1}{r} = I s$$

$$\frac{\Delta I}{I} = r s$$

( ) ( ) ,  
 $r = 20\%$  ,  $s = 33\%$  ,  
 6,6% ,  
 $\frac{\Delta I}{I} = 0,2 \times 0,33 = 0,066$  6,6%  
 :



$$\Delta I = \Delta Y \times u$$

1.

$$Gc = s \quad (1)$$

( ),  $G = \Delta Y / Y$ ,  
 $c = I / \Delta Y$

$$G = \Delta Y / Y$$

$$s = 1/c S$$

$$s = S / Y$$

(1)

$$s = S / Y \Rightarrow I / Y = S / Y \Rightarrow I = S$$

2.

$$G_w cr = s \quad (2)$$

(narrated)

$G_w$

$cr$

*ex-ante*

*ex-post*

$s$

$cr$

$(G_w)$

(1)

(2)

$$((Gc = s; G_w cr = s)),$$

S

$$G > G_w,$$

$$s = \text{const } c < cr,$$

$$G < G_w, \quad s = \text{const } c > cr,$$

“ ”  
( )

3.

$$G_n cr = \neq s.$$

$G_n$  – (natural- )

$$: (G)^3 (G_n) (G)$$

1.  $G_w > G_n$

$$(cr < c)$$

$$( )$$

$$( )$$

2.  $G_w > G_n$  , 2

$$(G_w < G \quad cr > c)$$

“ ”

1.  $G_w \quad G_n$  :

2.  $G$  ( $G_n$ )

$G_n$

$G_n$

)“

)

( )

(

).

$$G_w cr = s - d = G_n cr$$

. 1930

(50

- 70 . .)

+

( )

XX 1-

1. ?
- 2.
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4. “ ”
- 5.
6. ? ?
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- 8.
- 9.
10. - ?

1. . . . “ ” 2003 . 10 ,
2. . . . , 2004 . “ ” , ∴
3. “ ” , 2003 .
4. . . . “ ” , ∴
5. . . . “ ” , , 2004 .
6. . . . “ ” , - 2003 .
7. “ ” . ∴ “ ” 2001

<http://www.bank.Ofengland.Co.Uk/markets/forexindex.htm>

<http://www.vqi.freenet./trudy/dratisviko.htm>

## 6 :

- 6.1 .
- 6.2 .
- 6.3 .

### 6.1 .

1950-

1960-

2

( )

”

(1956 ),

“ (1957 ). 1987

1

3

$$Y = f(L, K, N)$$

$$Y = f(L, K)$$

$$Y = (\Delta Y / \Delta L)L + (\Delta Y / \Delta K)K$$

$Y / L -$   
 $Y / K -$

MPL

$$= Y/L$$

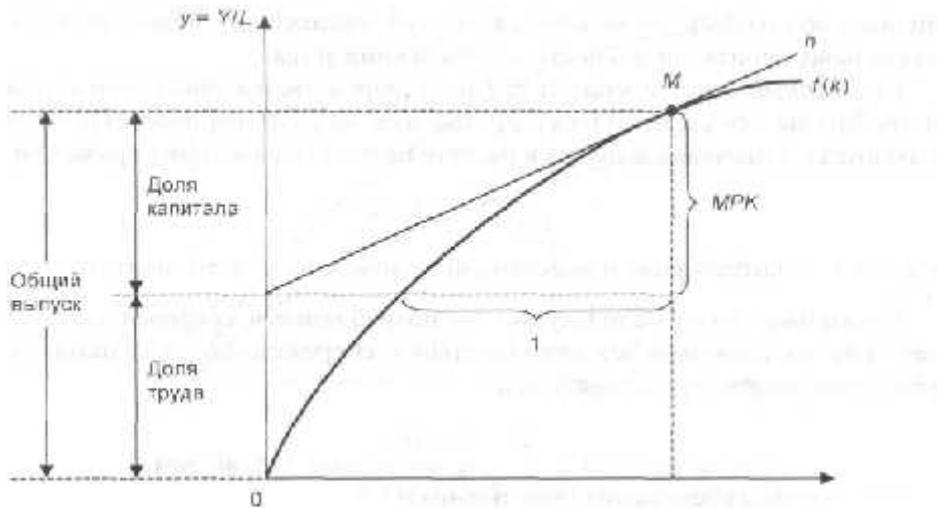
$y -$

$$k = K/L$$

$k$  -

$$y = f(k)$$

$$f(k) = F(k, l)$$



$$Y = c + i$$

$$= (1-s)y$$

$$y = c + i = (1-s)y + i,$$

$$i = sy$$

$$f(k) = c + i \quad f(k) = i / ss$$

$$(i = sy) \quad , (y)$$

$$i = sf(k)$$

(k)

$f(k)$

$i$

(k)

(s)

( )

(i)

(k)

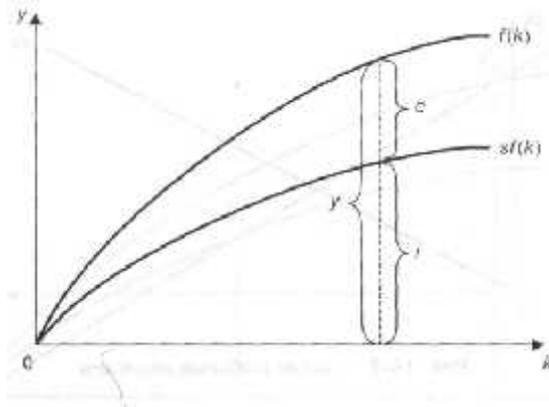
$f(k)$

$sf(k)$ ,

$f(k) - sf(k)$  ,

$(c + i)$  .

5-2.



$d$

$=0.1$

10% (d  
(dk)

$$\Delta k = i - dk$$

$\Delta k -$

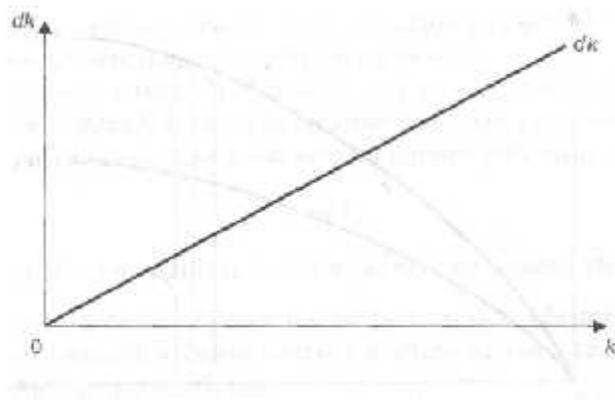
$$\Delta k = sf(k) - dk$$

$((sf(k) = dk))$

(k)

$(\Delta k > 0)$

$k^*$



5-3.

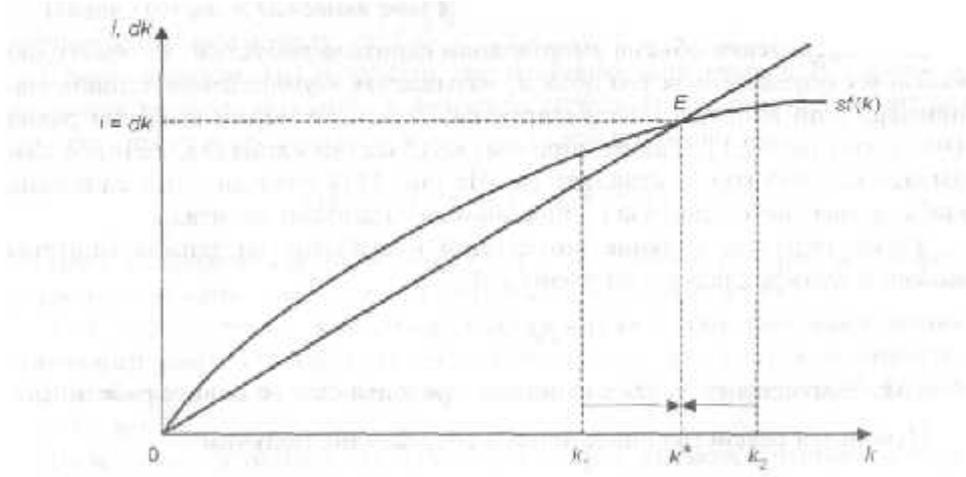
$k^*$

$(k_1)$

$(k_2)$

$(k^*)$

$(k^*)$



5.4.

$(S1)$

$(S2)$

$(S1f(R))$   
 $(R^*2)$

$(S2f(R))$

(n)

$$R = -dR - nR \Rightarrow R = -(d+n)R$$

$$R = sf(R) - (d+n)R = 0 \quad sf(R) = (d+n)R$$

(d+n)R

(R\*)  
(R const)

$$R1 < R^* \quad R2 > R^*$$

(d+n)R  
(R)

sf(R)

$$Y/Y = L/L = K/n$$

n1

(d+n)R

R\*

R1\*

(d+n1)R

n

$$Y = f(K, L, E)$$

(E)-

):

(Le)-

$d = 2\%$ ,  $( )$   $( )$   $2\%$ ,  $( ) -$

$( ) (g)$ ,  $(L) (n)$ ,  $(LE) (n-g)$

$$RI + [K/(LE)]$$

$$I = Y/(LE)$$

$$sf(RI) = (d+n+g)RI$$

$(R^*)$

$(RI^*)$

$( )$

$( )$

$( ) (n+g)$

$( / L)$

$( / L) (g)-$

3

?

“ ”

$(R^{**})$

$- ( **)$

$$c = y - c +$$

$$c^* = f(R^*) - dR^*$$

\*\_

“ ”

$R^{**}$

$- **$

“ ”

$f(R^*)$

$dR^*$

$R^{**}$

(

“ ”)  $R^{**} = d$   $MPK=d$

$$MPK=d+n+g$$

“ ”

“ ”

( )

( + )

## 5.2

” (1961 )  
( )

$$= R+ L+r$$

R-  
L-  
-  
-  
r-

5.3

( )

“

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+





6-

6.2  
6.3

6.1

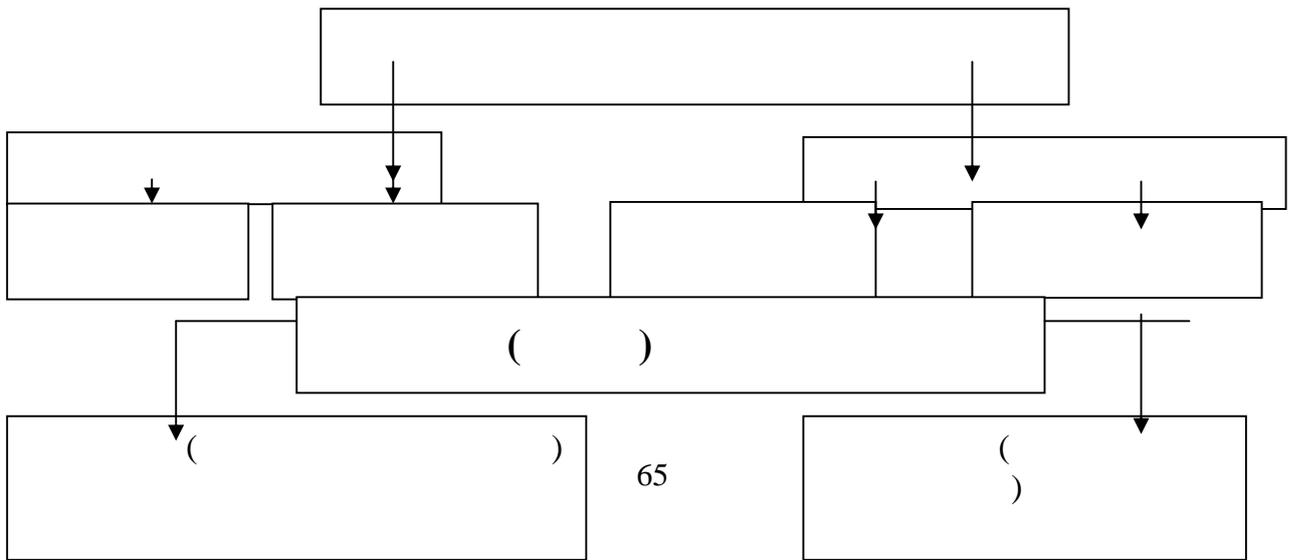
6.1.











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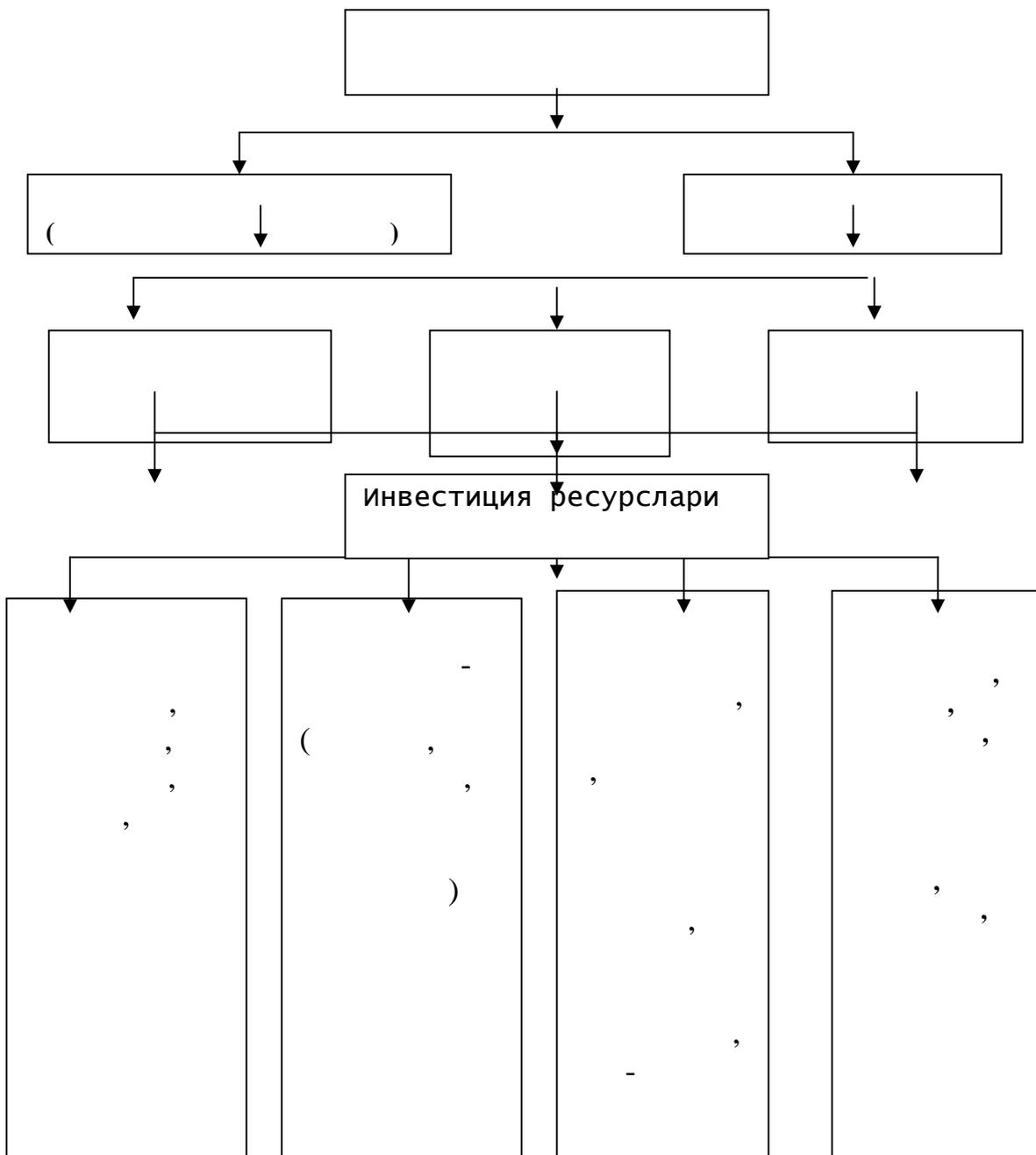
,

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-

,

2 -





2000

2004

3-

, 3539

, 1

2209

62,4%

( )

3-

(2004 1 , )

	3539	2209	62,4



2002 2001 1 0,7% 42,0%  
, 2003 , 52,9% , 10,9% .  
7,6% , 20,4% , 2002 2001  
, 5,9% . , 2003 26,3%  
0,7% , 1,5% , 2002 2001  
, 0,4% . , 2003 1,9%

4-

( )	1995	1997	1999	2000	2001	2002	2003
	100	100	100	100	100	100	100
	22,9	25,3	28,3	29,2	21,5	25,0	17,7
	43,6	40,3	26,6	27,1	31,0	40,0	41,8
	9,9	8,9	13,6	12,0	10,3	12,0	11,1
	14,0	17,5	19,0	19,8	23,2	15,7	19,2
	—	—	3,7	3,4	4,8	4,7	7
	9,6	7,8	6,0	5,2	5,9	0,1	0,0
	—	—	1,9	1,7	2,2	1,5	1,9
			0,7	1,2	0,5	0,3	0,4
	-	0,2	0,2	0,4	0,6	0,7	0,8

«

-

-

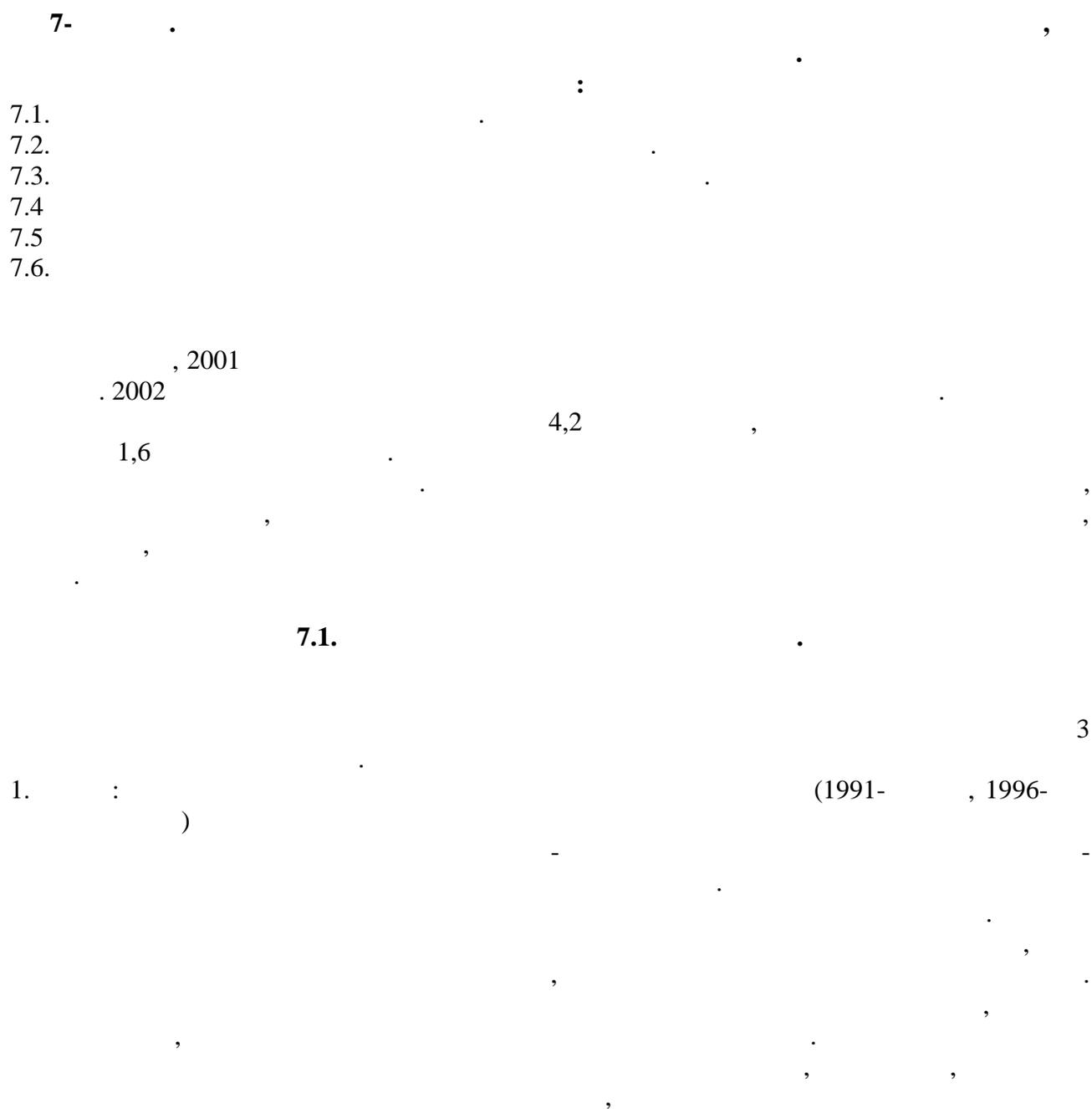
».

;





- 10. <http://www.bank.ofengland.co.uk/markets/forexindex.htm>
- 11. <http://www.vqi.freenet.trudy/dратиisviko.htm>



21%

20%

10%

1992-1993

19-

1994-

(

)

6,3%

1995-

, 1996-

1994-

7,5

1995-

4,4%

1,1

1995-

0,2%

1994-

4,2%

, 1995-

0,9%

, 1996-

, 1,7%

. 1995-

1996-

(

38,5%,

-30%, 32,7%

16,5%

29%

).

45%

)

(20%

)

(

35

1-



2.

)

(1996-  
1996-

200-

1996- IV-

1997-

28%

2-



3.

:

)

(2001-

2002-

1,5

.1-

2002-

6-7-

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( )

1975-2000-

(1975-1990- )

(1991-2000- )

( )

.(

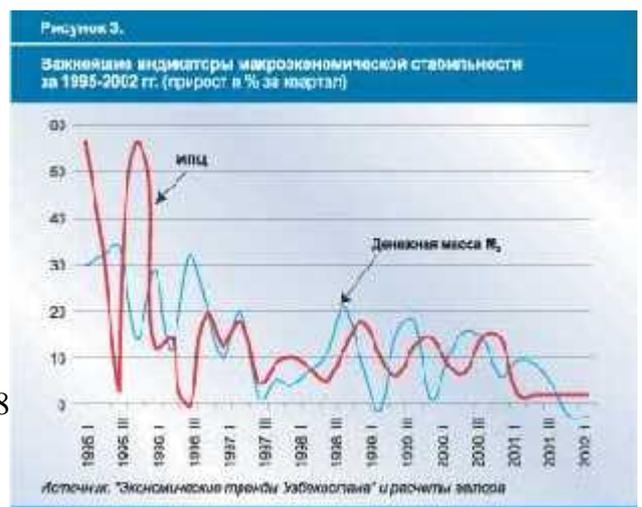
2-

(1992-2002 )

0,39 0,34 0,3

7.2.

3-



1999-2000 3,4% 2001-2002 2,6%

2

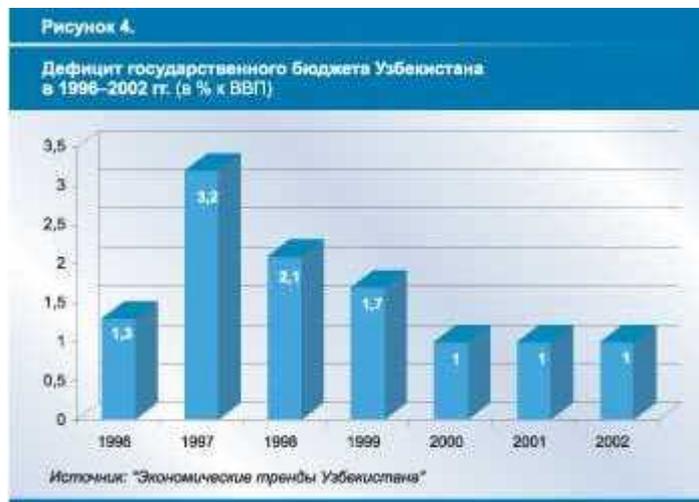
(3-

(4-

1-

1996- 35% 1998- -25%, 1999-

4- 2-3% 2001- 1-05% 4-



(1996- 4,6 (1996- 4,6 -2000- , 2000- 1995- 27%

3,3 19-20% 2000-2001-

19,7% 5,1% , 12,6

15 15 10% 1980-1995- 10-15

1-

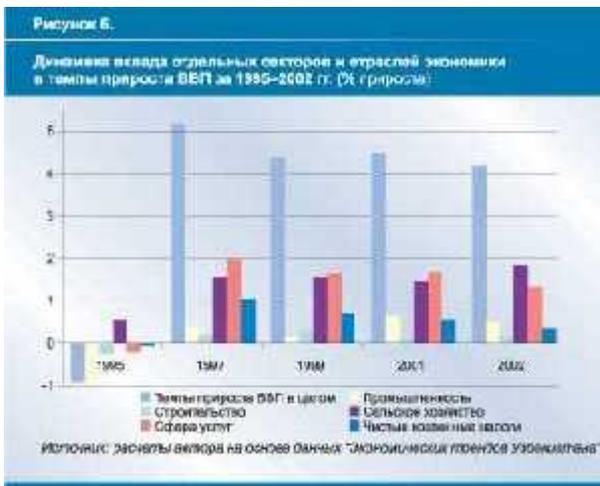
### 7.3.

1996-

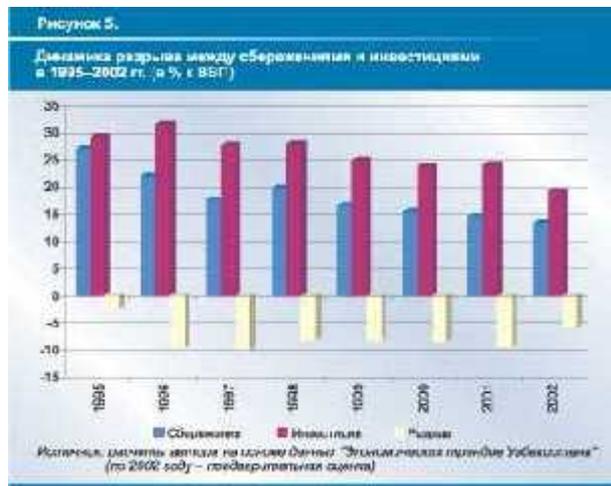
(6- )

6-

5-



1997-



4/5

### 7.4

(26,3% 14,1% (26,3% 1990- 2001- 38%)  
 (1990- 13% 2001-2002- 8%) (37%  
 45% )  
 (40% 50% )  
 (2001- 46% , 34% ).  
 7-



1991-1992-

22%

20%

10%

(50% )

11-

2-3- )

1993-1994-

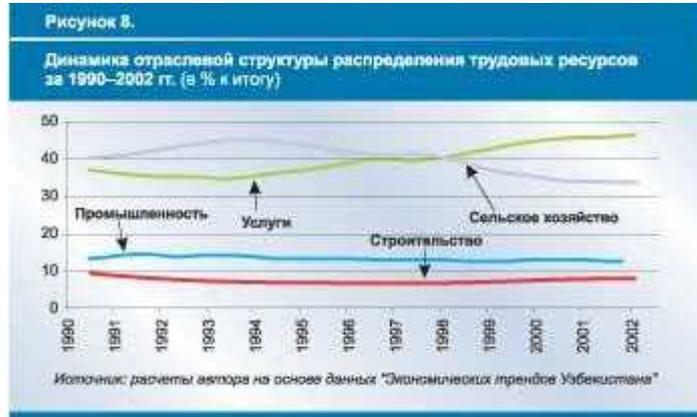
« »

(1996-2001-

3,3% )  
 1,5-2

15-20 ( ICOR )  
 1998- 6,4 2001- 6,2  
 3,4 4 )

8-



( )

(2- ) 1980- (TFP-total factor productivity) 2001-

-TFP

-

-

2,1%

3

TFP

9

82



7.5

1.

1— . 2000 1991 — 45%,  
117% ,  
— 44%, 41% .  
, ,  
6—10 2 — ,  
eFH 1 — .

. 1990 — 2000

2.

20%

65%

. 2002

3. 1990 — 2004

160

30,1%

90%

,

— 3

1,4

1,4

1990

(72%

3

), 1995

28%

4.

1991—2000

20%

56 — 68%

, 15%

1

I\$OFO3

5. , . 1995 , 1998 , 1,5 .

6. , , . 1991 , 27% 60% , 1999 , 2000

72% , 28% , ) 76% 24% , - 2 , 15 47% , ,

7. , 100 36 , 4 2 10 13 , — 1997 , —

8. , , 1999 25 ,

	19 4	1995	1 96	1997	1998	1999	2000	2001.	2002	2003	04.	5— , %
--	------	------	------	------	------	------	------	-------	------	------	-----	--------

	17,0	17,1	17,8	15,6	14,9	14,3	13,8	14,1	14,1	15,0	16,3
	34,5	28,1	22,4	28,3	26,8	29,0	30,4	30,0	30,6	28,8	24,9
	7,2	7-1	8,2	7,3	7,5	6,7	6,1	5,8	4,9	4,5	4,6
	33,1	34,6	37,1	36,5	36,4	36,5	37,0	38,2	38,7	38,3	39,3
	8,2	13,1	14,4	12,4	14,4	13,4	12,7	11,9	11,7	13,4	14,8
	100	100	100	100	100	100	100	100	100	100	100

:  
 ,  
 -  
 .  
 (0,3%)  
 ( 1.5%),  
 .  
 — 2004  
 5,8%,  
 -14,2%, -2,6%, —9,0%, ) —3,5%  
 -12,2%,  
 8,9% — 1,0%, —3,45%,  
 —2,85% ( — 0,9%, —1,15%,  
 —0,8%) (1,6%).  
 15  
 16,3%  
 — 11,3%, ~ 32,2%,  
 — 8,2%, 6,4%  
 10,2%  
 72,5 67,3%  
 ,  
 . 2004  
 2001 3,2% 7,7%  
 65%  
 38,0%

25%  
 34,5%  
 17%  
 1994  
 30,6%  
 1\$  
 14,1%  
 60FAH1\$  
 2004  
 (2004 8,5%, 2001 6,4%, 2000 6,1%).  
 2001 0,9% 2004 7,3%  
 2001 7,1% 2004 7,3%  
 2003 7,0%  
 2004 8,3%  
 2004 3,9%  
 2002  
 4,1% 2,9%  
 1,4%  
 2004 1,2%  
 2004 9,4% 2001 3,7%  
 17,7%

24,1 24,2%  
 (-2,3 0,1% )  
 (21,8 24,3% ).  
 \$ 34,6% .  
 \*; 103,1% , 102,9%  
 , ,  
 , \$  
 476 — — 2003 30  
 8 . 2003 , 2005 ,  
 ,  
 2003 , 15 « » 2005 15  
 « » —  
 , — ,  
 9 — , 2004  
 .  
 2004 — 0,5%

(20,5% 15,5% )

(6,3% 3,6% )

6

, 1995 — 2004 . ( , %)

		, —	—	
2000	24,9	18,9	36,6	47,1
2001	27,4	27,9	21,1	36,9
2002	27,6	28,0	19,3	41,3
2003	10,3	5,4	13,9	30,9

2004 (2,1% )  
 — (4,5% )  
 . 2004  
 :  
 , 1,8% , , 0,03% .  
 , 2004  
 (43,3%), (20,3%) (14,0%)  
 .  
 17% .

- : —
- ; —
- ;

7.6.

2002-

300  
500

2010-

,54  
1,5

2

( ) [ ]  
Y=F(L,K) [ ] :

( )

➤ : ( / )

➤  $Y=A \cdot L^\alpha K^\beta$ ,  $\alpha > 0; \beta > 0;$

➤  $Y = A \cdot L^{1-\alpha} K^\alpha$ ,  $\alpha > a, \beta > 1-a$

( ) ( )

2 ; ( ) (L)

— ( )

1.

$$\frac{Y_1}{L} = A \cdot L^{r-1} \cdot K^s$$

2.

$$\frac{\partial Y_1}{\partial L} = A \cdot r \cdot L^{r-2} \cdot K^s$$

3.

$$\frac{Y_1}{K} = A \cdot L^r \cdot K^{s-1}$$

4.

$$\frac{\partial Y_1}{\partial K} = A \cdot s \cdot L^r \cdot K^{s-2}$$

5.

)

$$\frac{\partial K}{\partial L} = -\frac{r \cdot K}{s \cdot L}$$

)

$$\frac{\partial L}{\partial K} = -\frac{s \cdot L}{r \cdot K}$$

6. )

$$L = \sqrt[r]{\frac{y}{A \cdot K^s}} = \left( \frac{y}{A \cdot K^s} \right)^{\frac{1}{r}}$$

)

$$K = \sqrt[s]{\frac{y}{A \cdot L^r}} = \left( \frac{y}{A \cdot L^r} \right)^{\frac{1}{s}} \quad (1.11)$$

)

$$a = \frac{r}{r+s}; \quad 1-a = \frac{s}{r+s} \quad (1.12)$$

)

:  $\tilde{Y}_1, \tilde{L}, \tilde{K}$  -

(1995-2004 ).

$$E_L = \frac{\tilde{Y}_1}{L}; \quad E_K = \frac{\tilde{Y}_1}{\tilde{K}} \quad (1.13)$$

)

$$E = E_L^{1-a} \cdot E_K^a, \quad (1.14)$$

( ,1-á)  
)

:

( )-

:

$$M = \tilde{L}^a \cdot \tilde{K}^{1-a} \quad (1.15)$$

1995-2004

. ( 3,3,1 3,3,2)

Excel

:

:

$$Y = A \cdot L^r \cdot K^s \quad (1.16)$$

: , , -

L-

-

(Y)-

1-

Y1=f(X2,X3),

Y1=X1..... (?) ( -3,3,1).

3-3

$y_1 = x_1$	
$r_{yx_2} = 0,796$	$t_{yx_2} = 3,71$
$r_{yx_3} = 0,986$	$t_{yx_3} = 16,56$

3-

, Y1-

(ryx2=0,796)

2-

3-

(ryx3=0,986).

2-

t-

t8; 0,05 2,3.

2-

3-  
t-  
t7;0,05=1,895).

t 2 3=0,58

ry 2 3=-0,215 (

2-

Y1=F(L,K)

«

»

$$\ln Y_1 = F(\ln L, \ln K) \quad (1.17)$$

$$\ln Y_1 = \ln A + a_1 \ln L + a_2 \ln K \quad (1.18)$$

$$\ln Y_1 = 2,06 + 0,27 \ln L + 0,82 \ln K \quad (1.19)$$

$$Y_1 = 7,8 \cdot L^{0,27} \cdot K^{0,82} \quad (1.20)$$

1995 – 2004

( )

							LnX 1	LnX 2	LnX 3	LnX 4
		-	.	-	-	.				
				,						
			X1	X2	X3	X4				
1995	1	4.70 9	23.91	23.53	1.34	1.06	3.17	3.16	0.29	0.06
1996	2	1.81 5	68.21	61.27	4.08	3.2	4.22	4.12	1.41	1.16
1997	3	1.66 1	85.55	76.4	5.24	3.91	4.45	4.34	1.66	1.36
1998	4	1.39 1	119	107	7.4	5.1	4.78	4.67	2.00	1.63
1999	5	1.44 1	150	113	8.4	5.76	5.01	4.73	2.13	1.75
2000	6	1.47 3	234	105	11.88	10.79	5.46	4.65	2.47	2.38
2001	7	1.45 25	397	110	56.39	11.15	5.98	4.70	4.03	2.41

2002	8	1.45 5	602	105	49.48	11.55	6.40	4.65	3.90	2.45
2003	9	1.26 7	967	112	88	15.15	6.87	4.72	4.48	2.72
2004	10	1.15 1	1363	128	104.4	17.98	7.22	4.85	4.65	2.89

3.3.2.

1995 – 2004

( )

						Ln <sub>x</sub> 1	Ln <sub>x</sub> 2	Ln <sub>x</sub> 3	Ln <sub>x</sub> 4
		X1	X2	X3	X4				
1995	1	112.6	110.8	6.3	5	4.72	4.71	1.84	1.61
1996	2	123.8	111.2	7.4	5.8	4.82	4.71	2.00	1.76
1997	3	142.1	126.9	8.7	6.5	4.96	4.84	2.16	1.87
1998	4	165.7	149.3	10.3	7.1	5.11	5.01	2.33	1.96
1999	5	216.7	162.5	12.1	8.3	5.38	5.09	2.49	2.12
2000	6	344.5	154.9	17.5	15.9	5.84	5.04	2.86	2.77
2001	7	577.2	159.5	81.9	16.2	6.36	5.07	4.41	2.79
2002	8	876.2	152.9	72	16.8	6.78	5.03	4.28	2.82
2003	9	1225	141.7	111.5	19.2	7.11	4.95	4.71	2.95
2004	10	1568.8	146.9	120.2	20.7	7.36	4.99	4.79	3.03

2- . :  
 $Y_2 = f(x_2, x_3)$   
 $Y_2 = x_4$  (3.3.2-; ).  
 )  
 . Y2-  
 $(x_2, x_3)$  3,3,4-

$y_2 = x_4$	
$r_{yx_2} = 0,896$	$t_{yx_2} = 5,72$
$r_{yx_3} = 0,943$	$t_{yx_3} = 7,93$

, Y2-  
 $(ryx_2 = 0,896)$  2-  
 $(ryx_3 = 0,943)$  3-  
 t8;0,5=2,3.  
 )  
 $ryx_2 = 0,350$  t-  
 $t_{7;0,05} = 1,895$  2 3 [r 2 3]  
 Y2- . Y2 .....(?)  
 ( )

$$\begin{aligned} \ln Y_2 &= F(\ln L, \ln K) & (1,21) \\ \ln Y_2 &= F(\ln L, \ln K) & (1,22) \\ \ln Y_2 &= F(\ln L, \ln K) & (1,23) \\ Y_2 &= -10,51 \cdot L^{0,73} \cdot K^{0,36} & (1,24) \end{aligned}$$

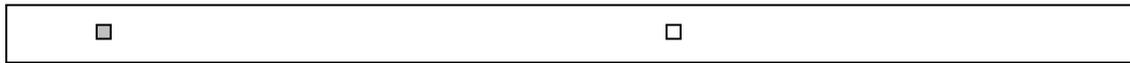
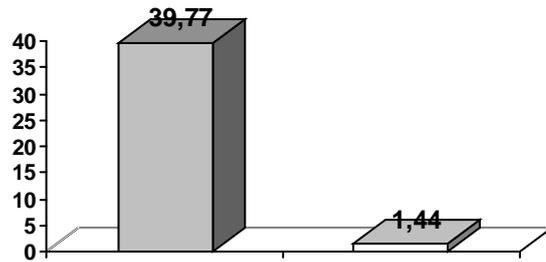
3,3,5- :

					R <sup>2</sup>	
		F- ( $F_{2,7,0,05} = 4,74$ )	DW- $(d_l = 0,83; d_u = 1,4)$	t- ( $t_{7,0,05} = 1,895$ )		
1.	$Y_1 = 7,8 \cdot L^{0,27} \cdot K^{0,82}$	144,25	2,44	$a_1 : 2,17$ $a_2 : 10,07$	0,98	0,27 0,82
2.	$Y_2 = -10,51 \cdot L^{0,73} \cdot K^{0,36}$	91,13	2,54	$t_1 : 3,79$	0,96	0,73



$$L = \left( \frac{y}{7,8 \cdot K^{0,82}} \right)^{3,7} \quad (1.31)$$

3,3,1-



3-  
:L=F(t)

K=F(t).

(2- )

-R

(X1,..., n)

(% ).

(3,3,2- -L F(t) 4-  
. R2-

(X t-

):

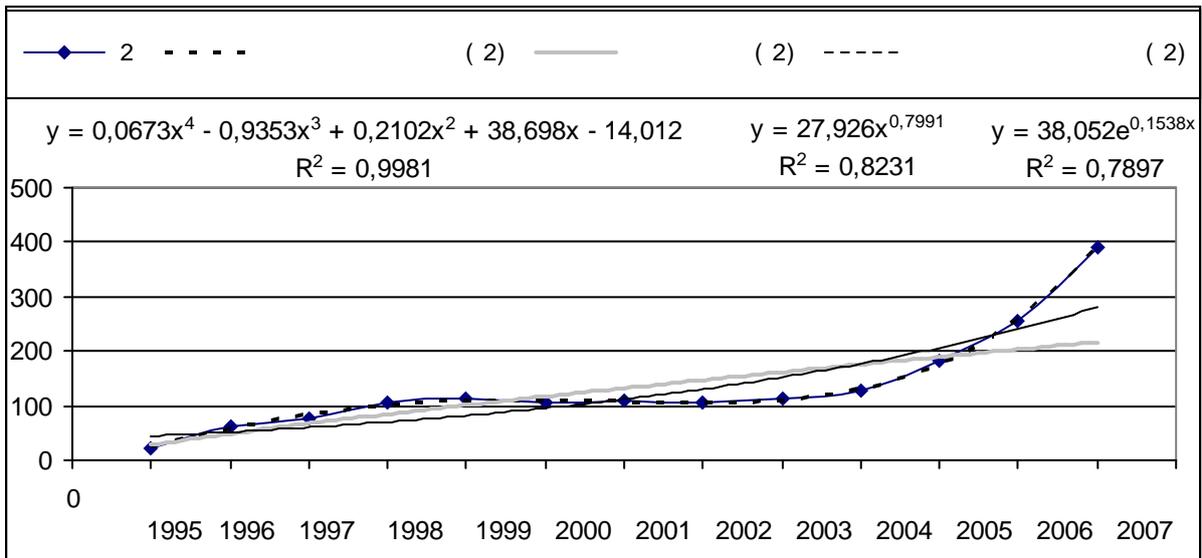
**L 0,0673x<sup>4</sup>-0,9353x<sup>3</sup>+0,2102x<sup>2</sup>+38,698x-14,012**

**R2 0,9981**

$$L = 0,0673x^4 - 0,9353x^3 + 0,2102x^2 + 38,698x - 14,012$$

$$R^2 = 0,9981$$

3,3,2-



$K=F(t)$

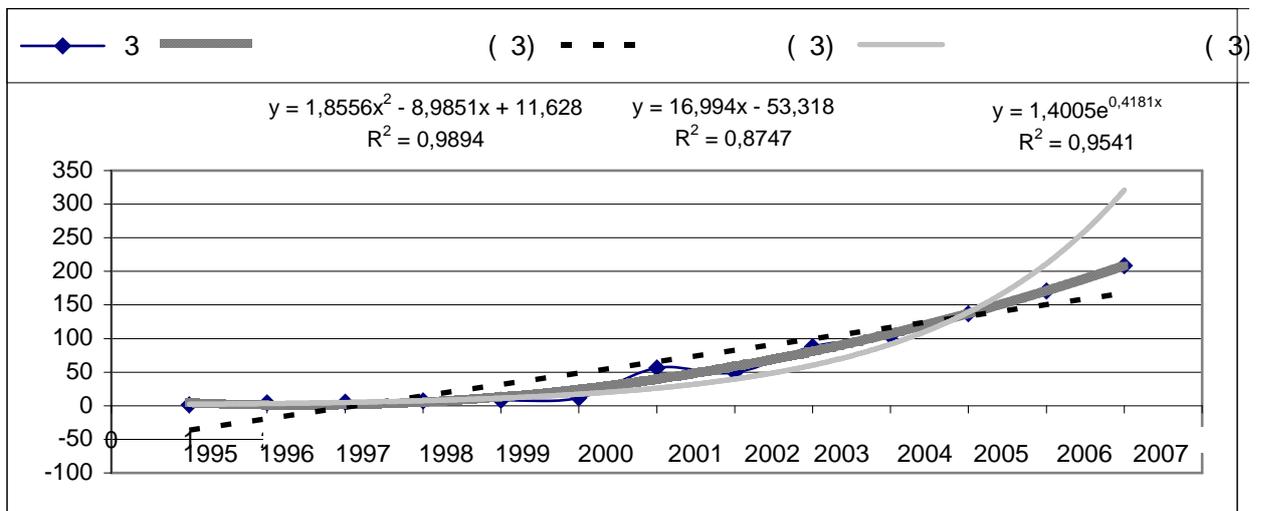
3-

, 2-

, R2-

$$K=1,8556x^2-8,9851x+11,628$$

R2=0,9894



3,3,3-

(3,3,6- )

3,3,6-

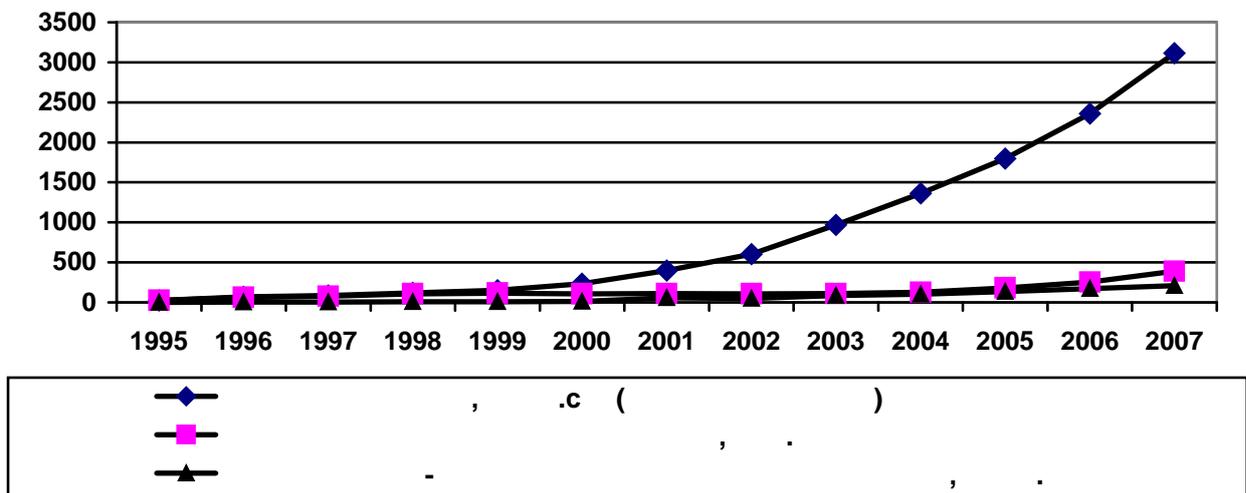
N+I		L	K	Y F(K,L)
2005	11	181,89	137,2	1798,78
2006	12	255,43	171	2360,76

2007	13	391,43	208,4	3116,32
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3,3,6-

3,3,4-

3,3,4-



3,3,4-

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 30%  
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4

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3

4/5

1997-

1. . . . : , , - «  
» .6. 2. .  
2. . . . (1999-2002).  
« » 6. .2002.

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1. . . . . “ ” 2005 29 .
2. . . . . “2003 1-
- ” “ ” ,
- 19 , 2003 .
3. “ ” 2003 . 9 , “
- ” 2004 . 9 . “
4. ” 22 2003 , “
- ” 2004 , 9 . “
5. “ ” 3367- , 2003
- 23 .
6. “ ” 2
- 1993 . “ ” , 1993 . 2 .
7. “ - ” 14
- 1994 . ( ) , “ ” 1999 . 11 .
8. . . . . , ,
- 2003 .
9. . . . . 11-12, 2004
- , 3- .
9. . . . . ∴ , 2002
10. . . . .
- 6, 2004 , 55 – .
11. . . . .
- 55 2003 .
12. : . . . . , 2003 . 320 .
13. . “ ∴ . 2003 .
14. . . . . “ ” . ∴
- . 2004 .
15. : - . , 2002 .
- [htt //www.bearingpoint.uz](http://www.bearingpoint.uz)
16. . . . . 11-12,
- 2004 .
17. . . . . “ ” , - 2003 .
18. “ ” . ∴ 2001 .
19. “
- 2000-2004
- ” . . . . . 2004 .
20. : - . , 2002 .
- [htt //www.bearingpoint.uz](http://www.bearingpoint.uz)
21. .C. .
- . 2004 .
22. . . . .
01. . . . . 2005 .

1. <http://www.bank.ofengland.co.uk/markets/forexindex.htm>
2. <http://www.bank.Ofengland.Co.Uk/markets/forexindex.Htm>
3. <http://www.vqi.freenet.trudy/dratiisviko.htm>
2. <http://www.boj.or.jp/en/siryo/stat/tumi0106.htm>
3. <http://www.biblio.rk/encazta/humanitarian/cicle.htm>

(accelerator) - =

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(assets) - =

(depreciation) - =

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(Commercial bank) - =

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,

(Central bank) -

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(balance of payment) -

=

.

(unemployment) - =

(unemployment rate) -

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(natural rate of unemployment) -

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=

=

\

NARU (natural rate of unemployment)-  
 ( )  
 (frictionfl unemployment) - (hidden , latetnt, olisguised) -  
 (structural unemployment) -  
 (state budget, local budget)-  
 (budget difficit) -  
 (gross national product - GNP) -  
 (novinal GNP) -  
 (real GNP) -  
 (potential GNP) -  
 (GNP gap) -  
 (tradeoff) -  
 (devaluation) -  
 (monetary base) - cc  
 (currency) -  
 , = \ ):



(GNP deflators) -

(GNP implicit price deflator) -

(indexation) -

(inflation) -

(rate of inflation) - ( )

(expected rate of inflation) -

(hyper-inflation) -

(chronic inflation) -

(price adjustment) -

(crediting) -

(commercial credit) - (1 )

(banking credit) - (%)

(consumer credit) - ( )

(lequidity) -

(macroeconomics) -

= (taxes) -  
 + (depreciation) -  
 (nominal exchange rate) -  
 (real exchange rate) -  
 (flexible exchange rate) -  
 (fixed exchange rate) -  
 (capital stock) -  
 (fiscal policy) -

3

(parity) -  
 (consumption) -  
 (intermediate consumption) -  
 (excess supply) -  
 (aggregate supply) -  
 (profit) -

(privatization) - , =  
 , = \ = ,  
 (labour productivity) - ,  
 = = (production function) - =  
 =  
 (interest) - , = = =  
 (interest rate) - = = \  
 , = - \  
 (nominal interest rate) - ( , ) =  
 = = \  
 = (real interest rate) - :  
 = \ = \ :  
 (labour force) - = ,  
 =  
 (labour force rate) - = ,  
 =  
 = (hours of work) - = =  
 = (total hours of work) -  
 =  
 (market clearing) - = = ,  
 = =  
 - (spending balance) - =  
 =  
 = (rational expectations) - =  
 - =  
 = (reservers) - = = ,  
 =  
 (revaluation) -  
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 ( ) = (propensity to import) - =  
 = (propensity to invest) -  
 = (propensity to consume) -  
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(property) - = , = .  
 (recession) - =  
 (demand for money) - \ = =  
 = , - = , = =  
 = .  
 = (excess demand) - =  
 .  
 (aggregate demand) - =  
 , . , -  
 .  
 (comparative advantages) - =  
 = = =  
 =  
 = (subsidy) - \ . = ,  
 = = (1 ) . = = = (durable goods) - =  
 , = = (nontraded goods) - =  
 ( , . )  
 (merchandise trade balance) - ,  
 .  
 (trade deficit) - .  
 =  
 = (trade surplus) -  
 (transfer payment) - = ,  
 \ (phillips curve)- \ \  
 , (price) - = = .  
 = (base price) - =  
 , = (producers price) -  
 , = = (market price) - = =  
 .  
 + = \ (securities) - = -  
 = = = =

= (business cycle) - =  
 =  
 C (net product) - = ,  
 = = (closed economy) - = =  
 = = (open economy) - = = - =  
 = = (export) - = ,  
 = = = - = =  
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