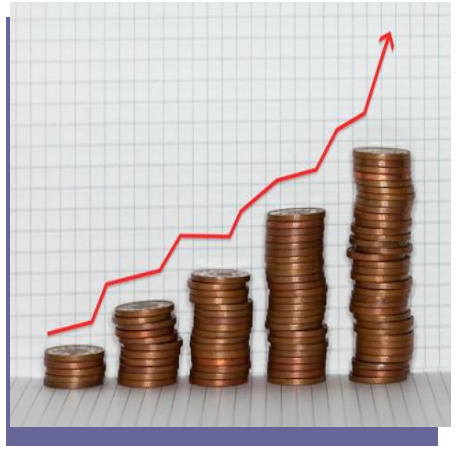
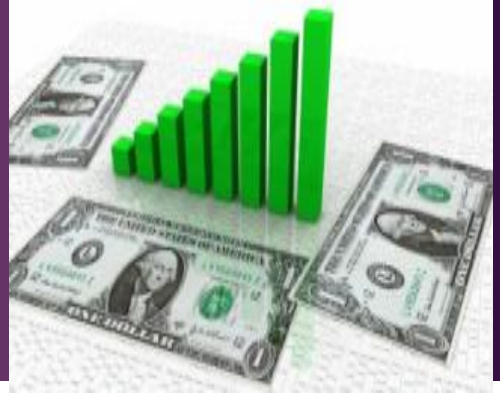
Influence of Inflation on Kazakhstani market





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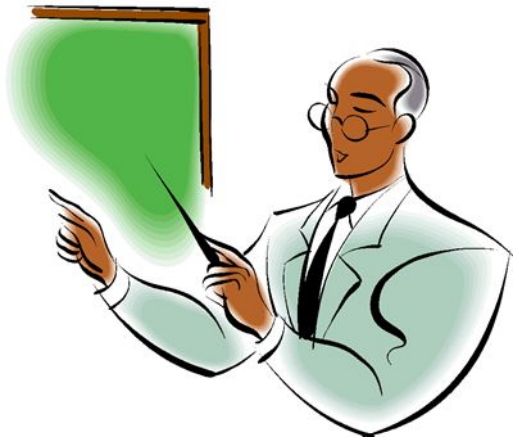

Background

- **Policies to reduce inflation :**

Monetary policy – Higher interest rates. This increases cost of borrowing and discourages spending. This leads to lower economic growth and lower inflation.

Tight fiscal policy – Higher income tax and / or lower government spending, will reduce aggregate demand, leading to lower growth and less demand pull inflation

Supply side policies – These aim to increase long-term competitiveness, e.g. privatisation and deregulation may help reduce costs of business, leading to lower inflation.

Changes in prices for consumer goods and services in %, an increment.

	December,2012	December, 2011	December, 2010	January-December 2012 – January-December 2011
All goods and services	0,6	6,0	13,8	5,1
Food goods	0,8	5,3	15,0	4,5
Non-food goods	0,3	3,5	8,9	4,3
Paid services	0,6	9,3	17,3	6,8

Comparison of overall Inflation to the Healthcare Inflation in 2016

2016	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Inflation	1.3	2.5	3	3.6	4.2	4.6	5.2	5.4	5.6	6.2	7.5	8.5
Healthcare	2.8	5.5	7.0	8.7	9.5	10.2	10.5	11.1	11.3	11.8	13.2	14.0

Taylors Rule Hypothesis

General form of the Taylor rule:

$$i_t = 2 + \pi_t + a(\pi_t - \pi^*) + b(y_t - y_t^*)$$

where

- i_t is the prescribed value of the policy interest rate in a given period t;
- $\pi_t - \pi^*$ is the deviation of the actual inflation rate π_t from its target π^* in period t;
- $y_t - y_t^*$, the "output gap," is the deviation of actual real output y_t from potential output y_t^* in period t; and
- a and b are positive numbers.

Taylors Model on Kazakhstan Inflation

Kazakhstan Prices	Last	Previous	Highest	Lowest	Unit
Inflation Rate	25750	29403	2960.80	32874	percent
Consumer Price Index CPI	678.40	671.90	678.40	145.30	Index Points
Health care Inflation Rate	24289	42583	198000	40000	percent
Producer Prices	916.01	913.14	916.78	122.10	Index Points
Producer Prices Change	26.70	31.20	71.70	-33.60	percent
GDP Deflator	99.10	105.60	260.90	99.10	Index Points

Assumption of Phillips Curve to Healthcare Industry

$g_w = -\epsilon(U - U^*)$

Modem Version of Phillips Curve or Expectations-Augmented Phillips Curve

Modern Phillips curve incorporates expected inflation (π^e)

$$\therefore \quad \boxed{\pi = \pi^e - \epsilon(U - U^*)}$$

Derivation of equation 2.

$\because \boxed{g_w = -\epsilon(U - U^*) + \pi^e}$ Expected Augmented Phillips Curve

Assuming constant real wage

$$\pi^e = g_w$$

Substituting value of (4) in (3)

$$\pi = \pi^e - \epsilon(U - U^*)$$

Equation (2) shows that:

(1) Output is at full employment level $U = U^*$ when

$$\pi = \pi^e$$

(2) If output is at less than full employment $U < U^*$ level

$\pi > \pi^e$

	1995 year=100				2000 year=100			
	Goods and services	maintenance		Paid services	Goods and services	maintenance		Paid services
		Healthcare services	Manufactured goods			Healthcare services	Manufactured goods	
2000	188,5	166,8	140,1	426,9	-	-	-	-
2001	200,6	181,5	146,4	441,8	106,4	108,8	104,5	103,5
2002	213,8	194,4	155,6	467,5	113,4	116,6	111,1	109,5
2003	228,2	208,3	166,4	494,9	121,1	124,9	118,8	115,9
2004	243,6	223,6	176,7	524,3	129,2	134,1	126,1	122,8
2005	262,0	241,8	187,1	566,3	139,0	145,0	133,6	132,7
2006	283,9	259,4	200,4	632,0	150,6	155,5	143,1	148,0
2007	337,2	328,3	221,5	729,4	178,8	196,8	158,1	170,9
2008	369,1	363,9	234,1	812,6	195,8	218,2	167,1	190,3
2009	392,0	374,8	254,3	880,6	207,9	224,7	181,5	206,3
2010	422,4	412,6	268,4	940,2	224,0	247,3	191,6	220,2
2011	453,5	450,2	282,5	1008,7	240,5	269,9	201,7	236,3
2012	480,5	474,3	292,4	1102,8	254,9	284,3	208,7	258,3
2013	503,5	490,0	302,1	1191,4	267,0	293,7	215,6	279,1
2014	540,9	529,2	325,6	1267,5	286,8	317,2	232,5	296,9
2015	614,5	586,9	399,1	1370,5	325,9	351,8	284,9	321,0
2016	666,6	643,8	436,9	1454,7	353,5	385,9	311,9	340,8

Consumer Price Indexes

	By December this year				Previous year			
		Maintenance				Maintenance		
	Goods and services	Healthcare services	Manufactured goods	Paid services	Goods and services	Healthcare services	Manufactured goods	Paid services
2000	109,8	112,8	106,1	107,1	113,2	116,0	111,5	108,5
2001	106,4	108,8	104,5	103,5	108,4	111,5	105,6	104,8
2002	106,6	107,1	106,3	105,8	105,9	106,8	105,0	104,8
2003	106,8	107,1	106,9	105,9	106,4	107,0	106,8	105,1
2004	106,7	107,4	106,2	105,9	106,9	107,7	106,5	105,6
2005	107,5	108,1	105,9	108,0	107,6	108,1	106,3	107,8
2006	108,4	107,3	107,1	111,6	108,6	108,7	106,8	110,3
2007	118,8	126,6	110,5	115,4	110,8	112,2	107,8	111,7
2008	109,5	110,8	105,7	111,4	117,0	123,4	110,4	114,3
2009	106,2	103,0	108,6	108,4	107,3	106,0	106,7	109,8
2010	107,8	110,1	105,5	106,8	107,1	106,2	106,4	109,0
2011	107,4	109,1	105,3	107,3	108,3	111,9	105,4	106,8
2012	106,0	105,3	103,5	109,3	105,1	104,5	104,3	106,8
2013	104,8	103,3	103,3	108,0	105,8	104,3	103,1	110,6
2014	107,4	108,0	107,8	106,4	106,7	106,6	106,9	106,7
2015	113,6	110,9	122,6	108,1	106,6	106,4	108,1	105,5
2016	108,5	109,7	109,5	106,1	114,6	112,7	122,4	109,0

MAIN RESULTS OF OUR ANALYSIS

CONCLUSION

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