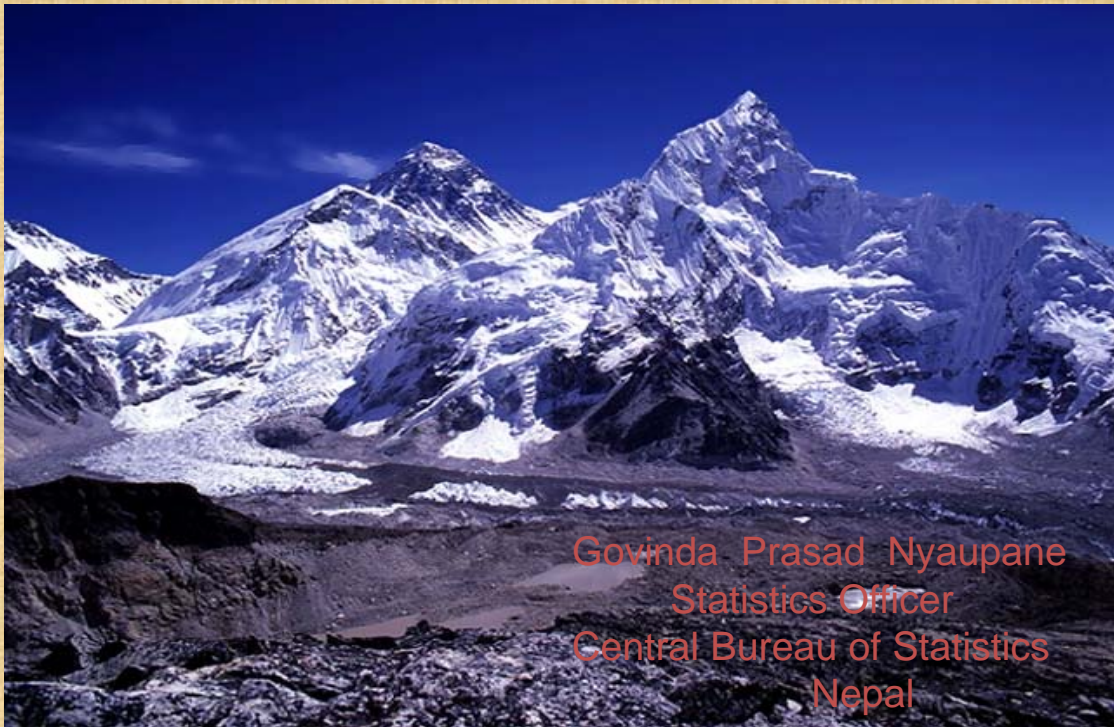




## Business cycle



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## Outline Presentation: Outline



- Nepal and its Statistical System
- Concept of business cycle.
- Nepalese practices on measuring business cycle.



## Nepal and its Statistical System



- A land-locked country situated between India and China
- Federal republic administrative system
- 147181 sq. km of land area and 28.7 million population.
- Diverse land structure from plain (Tarai) area to high mountains (including Mt. Everest of 8848 m.)
- Social diversity with 125 caste/ethnic groups, 123 linguistic groups and 10 religious groups.
- Low income country with per capita income of 862 US \$ (2017) and annual GDP of 26 billion.
- 21.6 % population under poverty line



## National Statistical System of Nepal



- De-facto decentralized- Central Bureau of Statistics (CBS) as NSO and other ministries/departments involve in statistical functions as their requirement
- Universities and research centers, central bank as other stakeholders in NSS
- National Statistical Council as a coordinating body
- Statistical Act 1959 as an umbrella act regulating the statistical activities
- CBS with its 33 branch offices has mandate to conduct censuses and surveys, produce national account statistics and indices, coordinating statistical activities.



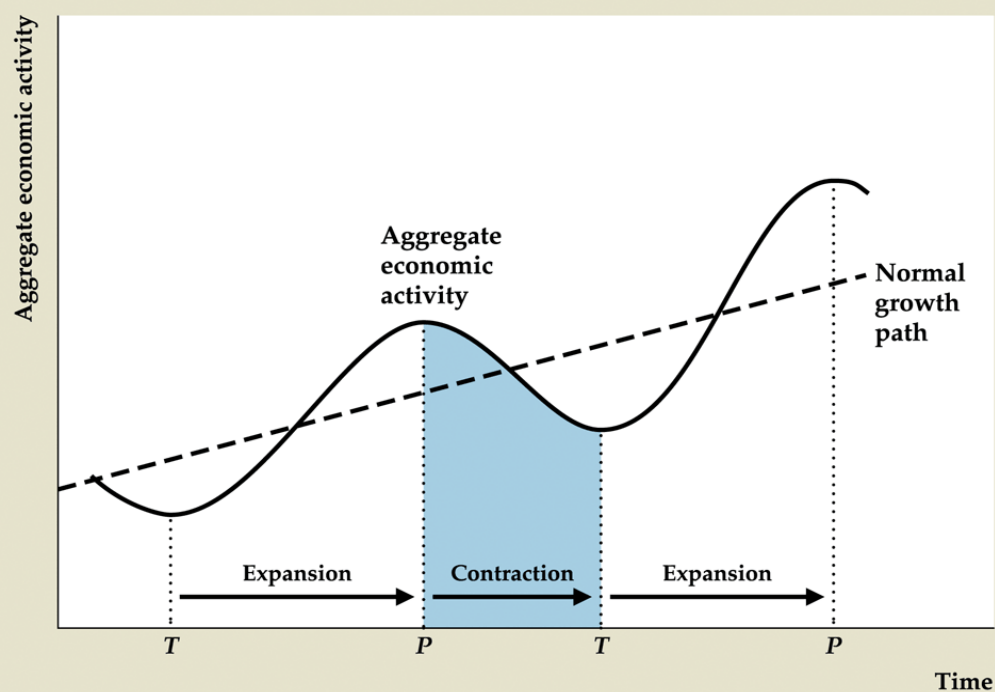
## Business Cycle: Concept



- Periodic change in economy or business
- Cycle related to business are also termed as trade cycle or economic ups and downs.
- A cycle consists of more than a year ,May be taken for several year .
- A complete cycle has four component as prosperity , recession ,depression , and recovery.
- Cycle are never regular in periodicity and amplitude



## Business Cycle: Concept





## Nepal: Business Cycle Measurement Practice



- Annual GDP figures obtained through annual national accounts (ANA) has been taken as the major tool to measure the economic ups and downs
- A long series of GDP and its growth figures has been published since 1961/62
- Recently quarterly national accounts figures have been published as short-term indicators to measure the business cycle within a year.
- International comparison program (ICP) has recently been started.



## Nepal: Business Cycle Measurement Practice



- Some indices as CPI, WPI, MPPI, PPI etc. have been prepared for assisting the measurement practice
- National censuses and major surveys as Population Census, Agriculture Census, Census of Manufacturing, NLSS, Annual Household Survey (AHS), NLFS, Household Budget Survey data assist for GDP compilation
- Various ministries and departments, universities, government-owned enterprises have been supplying data for GDP compilation.



## Nepal: Business Cycle Measurement Practice



- GDP predominantly based on Value added approach
- Separate estimates of expenditure components except change in stock is in practice
- Change in stock: residually estimated due to data gap
- No explicit statistical discrepancy is used
- Attempt to produce GDP by income approach
- Annual GDP figures published both in constant and current prices
- Preliminary, Revised and Final estimates (final of previous year of the last F.Y, preliminary of current year and revised estimate of last year)



## Nepal: Business Cycle Measurement Practice



- Base year for constant price GDP is 2004/05 and planning for base-shifting
- Macro-economic indicators
  - Real GDP (at basic price and producers price),
  - Real GDP by primary, secondary and tertiary sector
  - Per capita GDP (in constant price)
  - Gross national income (current and constant price)
  - Gross national disposable income (GNDI)
  - Gross national saving
  - Gross capital formation etc.



## Nepal: Business Cycle Measurement Practice



- Compiles national accounts only of 15 economic sectors among 17 of SNA 1993.
- Supply and use tables (SUT) have been prepared two times (2004 and 2017)
- Adopted SNA 1993 and attempts to adopt SNA 2008
- For migration to SNA 2008, efforts like Economic census, bench-mark surveys are planned to be conducted
- Strengthening secondary data sources (administrative sources) by implementing NSDS



## Nepal: GDP and its Growth scenario



**Table 1**  
**Gross Domestic Product**  
(at current prices)

Industrial Classification	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16R	2016/17P
Agriculture and Forestry	305477	391519	473270	500465	527869	585951	616572	645084	691169
Fishing	4076	4236	4879	5819	6646	8659	9328	10487	11588
Mining and Quarrying	5084	5926	6956	8166	9569	11003	11875	12256	15031
Manufacturing	65447	70924	80531	91164	100312	112995	118980	118615	135584
Electricity Gas and Water	14629	15244	16002	17518	20553	21362	22051	21221	27868
Construction	63741	77289	89356	98539	109488	126364	139289	141318	171842
Wholesale and Retail Trade	124121	161067	179306	198164	229872	271573	289566	292204	323502
Hotels and Restaurants	13943	17347	21057	25307	29886	35309	40479	41459	47390
Transport, Storage and Communications	92618	95304	105834	122354	140735	155765	164976	167405	193974
Financial Intermediation	39100	46083	50111	58529	62183	79363	91406	107758	129232
Real Estate, Renting and Business Activities	81625	93747	106236	123213	139157	152984	166947	191325	236986
Public Administration and Defence	18556	21695	24830	30547	32236	44324	51422	52720	71796
Education	62642	61384	67739	81797	91566	115254	129363	141613	173084
Health and Social work	13744	15382	17087	20431	22327	27725	32929	33708	41681
Other Community, Social and Personal Service Activities	34089	41423	46947	55461	58026	73541	86521	94745	121895
<b>Total GVA including FISIM</b>	<b>938,890</b>	<b>1,118,571</b>	<b>1,290,142</b>	<b>1,437,474</b>	<b>1,580,426</b>	<b>1,822,173</b>	<b>1,971,706</b>	<b>2,071,917</b>	<b>2,392,621</b>
Financial Intermediation Services Indirectly Measured (FISIM)	29362	35156	41660	49992	55205	63435	72616	84093	98633
<b>Gross Domestic Product (GDP) at basic prices</b>	<b>909,528</b>	<b>1,083,415</b>	<b>1,248,482</b>	<b>1,387,482</b>	<b>1,525,221</b>	<b>1,758,738</b>	<b>1,899,089</b>	<b>1,987,824</b>	<b>2,293,989</b>
Taxes less Subsidies on Products	78744	109358	118472	139862	169790	205802	231060	259603	305245
<b>Gross Domestic Product (GDP)</b>	<b>988,272</b>	<b>1,192,774</b>	<b>1,366,954</b>	<b>1,527,344</b>	<b>1,695,011</b>	<b>1,964,540</b>	<b>2,130,150</b>	<b>2,247,427</b>	<b>2,599,234</b>

R = Revised/P = Preliminary



# Nepal: GDP and its Growth scenario



**Table 2**  
**Gross Domestic Product**  
**(at constant 2000/01 prices)**

(Rs. in millions)

Industrial Classification	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16R	2016/17P
Agriculture and Forestry	198257	202196	211271	220950	223310	233448	235775	235330	247691
Fishing	3207	3321	3516	3781	3883	4074	4362	4875	5210
Mining and Quarrying	2531	2585	2637	2770	2825	3159	3233	3143	3401
Manufacturing	39132	40291	41923	43445	45059	47888	48068	44223	48510
Electricity Gas and Water	12750	12989	13564	14690	14731	15213	15331	14196	16037
Construction	33371	35430	37126	37207	38119	41580	42766	40904	45672
Wholesale and Retail Trade	70481	75237	76298	78967	84693	93918	96191	93749	102898
Hotels and Restaurants	9056	9646	10244	11000	11605	12391	12804	11564	12383
Transport, Storage and Communications	51585	54657	57504	62160	66915	70420	74807	76314	81273
Financial Intermediation	24632	25327	26163	27071	26825	27818	28626	31075	33162
Real Estate, Renting and Business Activities	46421	47818	48894	50346	52961	54889	55313	57373	60399
Public Administration and Defence	10012	10405	10806	11203	11822	12418	13516	13857	15193
Education	36233	38638	39799	42019	44505	46646	49021	52473	54682
Health and Social Work	8191	8581	9012	9591	10021	10472	11662	12041	12833
Other Community, Social and Personal Service Activities	20520	22966	24599	26163	27416	28722	32317	33503	35473
<b>Agriculture, Forestry and Fishing</b>	<b>201464</b>	<b>205517</b>	<b>214786</b>	<b>224730</b>	<b>227193</b>	<b>237522</b>	<b>240138</b>	<b>240206</b>	<b>252901</b>
<b>Non-agriculture</b>	<b>364914</b>	<b>384570</b>	<b>398569</b>	<b>416631</b>	<b>437496</b>	<b>465535</b>	<b>483655</b>	<b>484415</b>	<b>521917</b>
<i>Total GVA including FISIM</i>	<i>566,377</i>	<i>590,086</i>	<i>613,355</i>	<i>641,362</i>	<i>664,690</i>	<i>703,057</i>	<i>723,793</i>	<i>724,621</i>	<i>774,818</i>
Financial Intermediation Services Indirectly Measured (FISIM)	23725	24327	25821	26725	26919	28830	29524	30277	32280
<b>Gross Domestic Product (GDP) at basic prices</b>	<b>542,652</b>	<b>565,759</b>	<b>587,534</b>	<b>614,637</b>	<b>637,771</b>	<b>674,227</b>	<b>694,269</b>	<b>694,344</b>	<b>742,539</b>
Taxes less Subsidies on Products	47455	52770	52160	55643	60183	65528	70066	73147	82510
<b>Gross Domestic Product (GDP)</b>	<b>590,107</b>	<b>618,529</b>	<b>639,694</b>	<b>670,279</b>	<b>697,954</b>	<b>739,754</b>	<b>764,336</b>	<b>767,492</b>	<b>825,049</b>



# Nepal: GDP and its Growth scenario



**Table 3**  
**Gross Domestic Product by Expenditure Category**  
**(at current prices)**

(Rs. in millions)

Description	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16R	2016/17P
<b>Gross Domestic Product (GDP)</b>	<b>988,272</b>	<b>1,192,774</b>	<b>1,366,954</b>	<b>1,527,344</b>	<b>1,695,011</b>	<b>1,964,540</b>	<b>2,130,150</b>	<b>2,247,427</b>	<b>2,599,234</b>
<b>Final Consumption Expenditure</b>	<b>895,042</b>	<b>1,056,185</b>	<b>1,176,030</b>	<b>1,359,539</b>	<b>1,516,129</b>	<b>1,730,312</b>	<b>1,934,046</b>	<b>2,161,519</b>	<b>2,332,741</b>
<i>Government Consumption</i>	<i>106,527</i>	<i>119,189</i>	<i>130,917</i>	<i>164,370</i>	<i>168,407</i>	<i>201,915</i>	<i>232,532</i>	<i>259,704</i>	<i>304,738</i>
Collective Consumption	69,838	77,473	86,072	109,570	112,987	142,052	176,324	192,478	216,283
Individual Consumption	36,689	41,716	44,845	54,800	55,420	59,863	56,208	67,225	88,455
<i>Private Consumption</i>	<i>772,762</i>	<i>916,993</i>	<i>1,022,126</i>	<i>1,167,861</i>	<i>1,318,561</i>	<i>1,493,375</i>	<i>1,662,962</i>	<i>1,861,157</i>	<i>1,981,514</i>
Food	484,552	574,991	650,786	754,156	850,553	976,132	1,100,694	1,228,426	1,287,139
Non-food	203,232	241,164	256,722	285,288	322,633	356,845	389,869	449,781	498,442
Services	84,978	100,839	114,618	128,418	145,376	160,399	172,399	182,950	195,934
<i>Nonprofit Institutions Serving Households</i>	<i>15,753</i>	<i>20,002</i>	<i>22,987</i>	<i>27,307</i>	<i>29,161</i>	<i>35,022</i>	<i>38,552</i>	<i>40,659</i>	<i>46,489</i>
<i>Actual Final Consumption Expenditure of Household</i>	<i>825,204</i>	<i>978,712</i>	<i>1,089,958</i>	<i>1,249,969</i>	<i>1,403,142</i>	<i>1,588,260</i>	<i>1,757,722</i>	<i>1,969,041</i>	<i>2,116,458</i>
<b>Gross capital formation</b>	<b>313,029</b>	<b>456,489</b>	<b>519,268</b>	<b>526,889</b>	<b>632,601</b>	<b>808,758</b>	<b>831,983</b>	<b>757,680</b>	<b>1,104,962</b>
<b>Gross Fixed Capital Formation(GFCF)</b>	<b>211,039</b>	<b>264,888</b>	<b>292,730</b>	<b>317,185</b>	<b>382,972</b>	<b>462,013</b>	<b>595,823</b>	<b>647,294</b>	<b>878,605</b>
Government	44,278	53,665	63,806	71,555	75,386	94,979	110,254	160,502	189,293
Private	166,761	211,223	228,924	245,629	307,586	367,034	485,568	486,792	689,312
<b>Change in Stock</b>	<b>101,990</b>	<b>191,602</b>	<b>226,538</b>	<b>209,704</b>	<b>249,629</b>	<b>346,744</b>	<b>236,160</b>	<b>110,386</b>	<b>226,357</b>
<b>Net exports of goods and services</b>	<b>-219,799</b>	<b>-319,900</b>	<b>-328,345</b>	<b>-359,084</b>	<b>-453,719</b>	<b>-574,531</b>	<b>-635,879</b>	<b>-671,772</b>	<b>-838,469</b>
<b>Imports</b>	<b>342,536</b>	<b>434,198</b>	<b>450,059</b>	<b>512,948</b>	<b>634,899</b>	<b>800,552</b>	<b>883,444</b>	<b>885,110</b>	<b>1,092,108</b>
Goods	279,228	366,693	388,371	454,653	547,294	696,373	761,773	756,488	938,574
Services	63,308	67,505.8	61,687.1	58,295	87,605	104,179	121,671	128,623	153,533
<b>Exports</b>	<b>122,737</b>	<b>114,298</b>	<b>121,714</b>	<b>153,863</b>	<b>181,180</b>	<b>226,022</b>	<b>247,565</b>	<b>213,338</b>	<b>253,638</b>
Goods	69,907	63,178	68,702	81,512	85,990	100,961	98,276	74,866	90,400
Services	52,830	51,121	53,013	72,352	95,191	125,061	149,288	138,472	163,238

R = Revised/P = Preliminary  
Source: Central Bureau of Statistics



# Nepal: GDP and its Growth scenario



Table 4  
Gross National Disposable Income and Saving  
(at current prices)

(Rs. in millions)

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16R	2016/17P
<b>Gross Domestic Product (GDP)</b>	988,272	1,192,774	1,366,954	1,527,344	1,695,011	1,964,540	2,130,150	2,247,427	2,599,234
<b>Compensation of Employees</b>	365,839	428,763	505,940	644,522	704,060	800,586	867,724	917,950	974,863
<b>Taxes less Subsidies on Production and Imports</b>	79,456	110,220	119,145	140,703	170,900	207,095	232,507	261,012	306,698
Taxes less Subsidies on Production	712	862	673	841	1,110	1,294	1,447	1,409	1,453
Taxes less Subsidies on Products	78,744	109,358	118,472	139,862	169,790	205,802	231,060	259,603	305,245
<b>Operating surplus/Mixed income, Gross</b>	542,977	653,791	741,869	742,118	820,051	956,858	1,029,918	1,068,464	1,317,672
Factor Income, Net	11,750	9,117	7,549	12,291	13,079	32,752	34,243	34,004	27,785
<b>Gross National Income (GNI)</b>	1,000,021	1,201,891	1,374,503	1,539,635	1,708,090	1,997,291	2,164,392	2,281,431	2,627,019
Current Transfers, Net	249,487	282,648	307,859	422,772	497,701	631,500	709,957	778,187	843,658
<b>Gross National Disposable Income (GNDI)</b>	1,249,508	1,484,539	1,682,362	1,962,407	2,205,791	2,628,792	2,874,349	3,059,618	3,470,677
Final Consumption Expenditure	895,042	1,056,185	1,176,030	1,359,539	1,516,129	1,730,312	1,934,046	2,161,519	2,332,741
<b>Gross Domestic Saving</b>	93,230	136,589	190,924	167,805	178,882	234,227	196,103	85,907	266,493
<b>Gross National Saving</b>	354,466	428,354	506,332	602,868	689,662	898,479	940,302	898,098	1,137,936
Gross Capital Formation	313,029	456,489	519,268	526,889	632,601	808,758	831,983	757,680	1,104,962
<b>Lending/Borrowing (Resource gap) (+/-)</b>	41,437	-28,135	-12,936	75,979	57,060	89,722	108,320	140,419	32,974

R = Revised/P = Preliminary

Source: Central Bureau of Statistics



# Nepal: GDP and its Growth scenario



Table 5  
Summary of Macro Economic Indicators

Description	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16R	2016/17P
<b>Per capita GDP (NRs.)</b>	38172	45435	51594	56880	62283	71225	76201	79325	90521
Annual Change in Nominal Per Capita GDP (%)	19.5	19.0	13.6	10.2	9.5	14.4	7.0	4.1	14.1
<b>Per capita GNI (NRs.)</b>	38626	45782	51879	57337	62764	72413	77426	80525	91488
Annual Change in Nominal Per capita GNI (%)	19.7	18.5	13.3	10.5	9.5	15.4	6.9	4.0	13.6
<b>Per capita GNDI (NRs.)</b>	48262	56549	63499	73082	81051	95308	102823	107992	120869
Annual Change in Nominal Per capita GNDI (%)	22.4	17.2	12.3	15.1	10.9	17.6	7.9	5.0	11.9
<b>Per capita GDP at constant price (NRs.)</b>	22793	23561	24144	24962	25646	26820	27342	27089	28733
Annual Change in Real Per capita GDP (%)	3.1	3.4	2.5	3.4	2.7	4.6	1.9	-0.9	6.1
<b>Per capita GNI at constant price (NRs.)</b>	23301	24152	24664	25582	26397	27939	28422	28163	29627
Annual Change in Real Per capita GNI (%)	3.2	3.7	2.1	3.7	3.2	5.8	1.7	-0.9	5.2
<b>Per capita GNDI at constant price (NRs.)</b>	29114	29831	30188	32607	34088	36773	37745	37769	39142
Annual Change in Real Per capita GNDI (%)	5.6	2.5	1.2	8.0	4.5	7.9	2.6	0.1	3.6
<b>Per capita Incomes in US\$</b>									
Nominal Per capita GDP (US\$)	497	610	714	702	708	725	766	746	853
Nominal Per capita GNI (US\$)	502	614	718	708	714	737	778	757	862
Nominal Per capita GNDI (US\$)	628	759	879	902	921	970	1033	1015	1139
<b>Final Consumption Expenditure as Percentage of GDP</b>	90.6	88.5	86.0	89.0	89.4	88.1	90.8	96.2	89.7
<b>Gross Domestic saving as Percentage of GDP</b>	9.4	11.5	14.0	11.0	10.6	11.9	9.2	3.8	10.3
<b>Gross National Saving as Percentage of GDP</b>	35.9	35.9	37.0	39.5	40.7	45.7	44.1	40.0	43.8
<b>Exports of Goods and Services as Percentage of GDP</b>	12.4	9.6	8.9	10.1	10.7	11.5	11.6	9.5	9.8
<b>Imports of Goods and Services as Percentage of GDP</b>	34.7	36.4	32.9	33.6	37.5	40.8	41.5	39.4	42.0
<b>Gross Fixed Capital Formation as Percentage of GDP</b>	21.4	22.2	21.4	20.8	22.6	23.5	28.0	28.8	33.8
<b>Resource Gap as Percentage of GDP( +/-)</b>	4.2	-2.4	-0.9	5.0	3.4	4.6	5.1	6.2	1.3
<b>Workers' Remittances as Percentage of GDP</b>	21.2	19.4	18.5	23.5	25.6	27.7	29.0	29.6	26.9
Exchange Rate (US\$: NRs)	76.9	74.5	72.3	81.0	88.0	98.2	99.5	106.4	106.1
Population (millions)	25.9	26.3	26.5	26.9	27.2	27.6	28.0	28.3	28.7

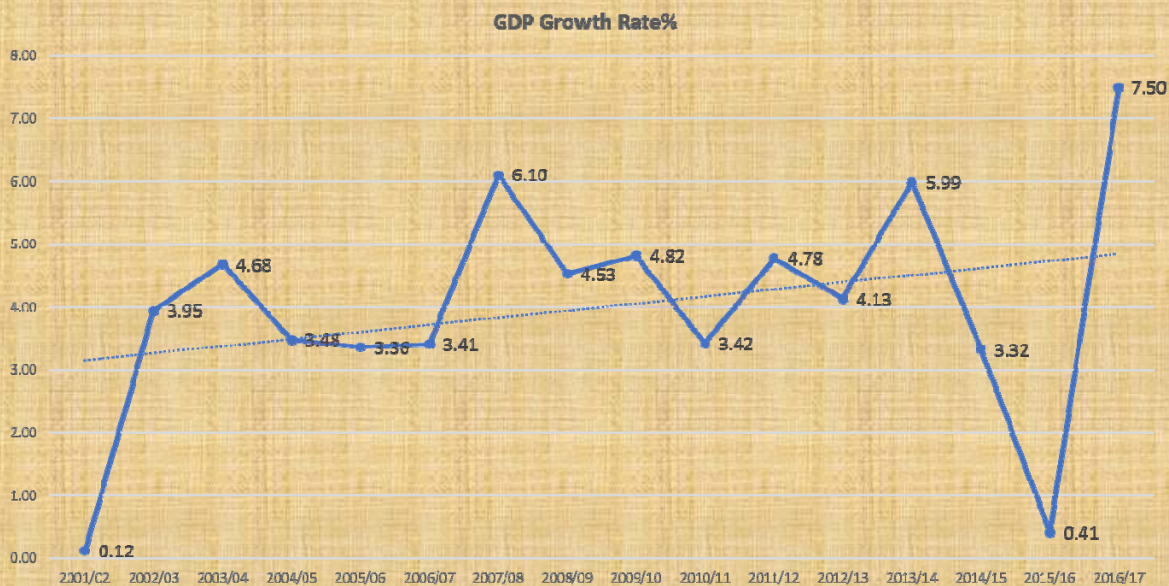
R = Revised/P = Preliminary

Source: Central Bureau of Statistics





# GDP growth trend



Thank You