ISSUE

2015

**NOVEMBER** 

# RATIONAL EXPECTATIONS ECONOMICS SOCIETY MONTHLY REVIEW



## A King of People's Heart ~Sanjeev Mehta, Professor

**REES** joins the rejoiced nation in wishing the Fourth Druk Gyalpo Jigme Singye Wangchuck a very happy 60<sup>th</sup> birth anniversary.

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It would not be possible for me to illustrate all the contributions of the fourth Druk Gyalpo Jigme Singye Wangchuck in a small write up like this. I will focus on three aspects of his contributions. It sounds oxymoronic, but, this is the only way to describe him- ademocratic monarch'. He represents an era of democracy which aimed at empowering the citizens of Bhutan. When he 'gifted' the democracy to an unwilling nation, he delivered invaluable capability to the ordinary citizens. It allowed many people from humble background to rise to the position of high political power which otherwise would not have been possible. What could be the greatest virtue of a king than to empower the ordinary people like this? He created and strengthened democratic institutions in a manner that ensures that future governments will operate in an accountable and transparent manner. Judicial reforms that took place during his 'golden era' established a strong, autonomous and neutral judicial system. It expanded the coverage of judicial protection to each Bhutanese citizens and provided an affordable and quick access to justice. He represents a true statesman and visionary leader.

Another event that make me think why he is great- the way he led the RBA from the front in a military action against the terror outfit ULFA, in 2003. His presence enthused the Bhutanese army so much that ULFA could not withstand the attack and was forced to leave Bhutan within a week of army action. I still vividly remember his visit at Sherubtse College just a few weeks before the military action against ULFA, he looked visibly upset but equally determined to pro-tect the sovereignty of the country. A truly Inspiring leadership!

Founder of GNH Youngest King in the WORLD



His philosophy of governance, namely the GNH, made a small country be well known and respected throughout the world its unique way to address some of the challenges faced by all the countries irrespective of the size and politico-economic power. For a small and otherwise an unknown country to become the leader of alternative development paradigm can only be a miracle. This miracle was created and realized by the fourth Druk Gyalpo.

So far, I only read about such leadership in history textbooks. In Bhutan, I watched and witnessed a history of great leadership in making.

# From the 'Land of Democracy' to the Dedicated to the 'Land of the Monarchy': An Experience of an Expatriate

#### **Sonal Mehta Senior Lecturer**

In early 1995, I had a deep sense of nostalgia and a sense of pain to leave my motherland – India, to go and spend life in an unknown land. Destiny and marriage brought me to Bhutan.

What unfolded in the mountains was a totally new experience for me. Among the numerous wonderful experiences was the experience of living in monarchy. Bhutan then was led by the Fourth King – 'King Jigme Singye Wangchuk". Let me share my experience here as an expatriate, who embraced Bhutan with heart and soul.

There was peace and things were heading in the right direction. It was an era of change and change for good. I could see innovation and development. Innovation in health and education, development of roads, infrastructure development, electrification and connectivity, the growing of media and so on. At the same time Bhutan was making itself known for the right reasons around the globe. We all were proud of our king. I never missed my democratic nation as we all were under the leadership of a magnanimous, visionary, dynamic, selfless and a loving leader. He could envision the needs of the commoners before they could even ask for it. Those were the very protected and happy years of my life. This feeling was infectious. I think I got it from its people whom I got so closely connected to.

The transition to democracy without even asked for by its people, was another defining moment in the history of Bhutan. Initially, this brought in skepticism - The king wanted to empower the people of Bhutan and make them responsible. I wondered if that was the right move as the people were so safe in his hands and how would they handle that kind of pressure. Again, I was wrong. Things turned out to be well, as he dreamt for his people.

convey my heartfelt felicitations to the Fourth King on his 60th birth anniversary. Long live

# Birth Anniversary of 4th Druk Gyalpo.

~ChenchoDorji

RTC (Eco & Evs, 2012-2015)

"On this special occasion of the 60<sup>th</sup> Birth Anniversary of His Majesty the fourth DrukjGyalpo Jigme SingyeWangchuck, I would like to thank your majesty for your dedicated effort to shape the nation, ensuring securing the country from most difficult time, empowering the people, decentralizing the power In the hands of the citizen and bringing Gross National Happiness in the country.

Therefore I on behalf of all the citizens of the kingdom of Bhutan would like to pray for your long life. Thank you, your Majesty for all your good deeds."

## The King of Destiny

King Jigme Singye Wangchuk was born in Thimphu at Dechencholing Palace on 11<sup>th</sup> November, 1955, as per the prophecy of Guru Rinpoche revealed by Terton Drugdra Dorji. He studied in Darjeeling and England besides studying at Ugyen Wangchuk Academy in Paro. He received unique form of upbringing and education from his father as he toured the country with his father. This led him to clearly understand the people, their socio-economic status and developmental needs.

There are several unprecedented contributions made to the nation such as: revision of Indo-Bhutan Treaty 1949; preserving and strengthening national identity; introduction of GNH; decentralization and devolution of power; flushing out insurgents; conservation of environment and; rapid economic development. Therefore, his 34 years of reign (1972-2006) is called as Golden Era in the Bhutanese history.

On this 60<sup>th</sup> Birth Anniversary, I would join the nation in wishing His Majesty a very peaceful and long life ahead. May all your aspirations of the nation be fulfilled and the sun of peace and happiness continue to shine in the Druk Yul.

Wangchuk

**RTC (Eco & Evs, 2012-2015)** 

# The King for the people

#### Kuenzang Dorji BA Economics and EVS class'15 Email: kunnzang.bt@gmail.com

If there is one thing that has defined Bhutan, it was His Majesty the Fourth Druk Gyalpo Jigme Singye Wangchuk's reign. Despite being the youngest crowned monarch, his Majesty has steered the nation towards the path of progress that can best describe Bhutan. Notwithstanding the loss of his father, His Majesty has promised his people that he will serve them with complete dedication and to the best of his ability at the age of 16. The 34 years of his reign was extraordinary. It was His Majesty's legacy that the country is proud of today, be it the peace and prosperity, the nature, the Developmental goal, culture and traditions, the free services are all the legacies of His Majesty.

The Bhutanese enjoy unprecedented peace and prosperity today and it was His majesty's efforts in achieving them. During any struggles, it was His Majesty who personally tried to solve them. A notable example was His Majesty personally



leading the armed men to flush out the militants from the Southern border in 2003. His majesty has visited the camp sites 33 times, slept on benches in the classroom and ate noodles along with armed men to ensure that the country remains sovereign and its people remain peaceful. His Majesty may be the only king who did so at this era.

His Majesty has always expressed his concerns that any developmental programs cannot be done at the cost of environment. He viewed living in harmony with the nature as an integral part of Bhutanese life. It was this vision that has led to the constitution mandating 60% of land to be covered with forest forever. His Majesty is preferably known as the "*Champion of the Earth*" when it comes to environmental conservation. What His Majesty has seen a few decades ago is now being realized by the rest of the world at the face of Climate Change, Global warming and other environmental issues.

When the world is looking for a developmental goal at the face of increasing inequality, resource degradation and low economic growth, Bhutan is already ahead with its Developmental goal of Gross National happiness. This too was His Majesty's legacy. His Majesty was extraordinarily farsighted. He probably had seen the all the problems the world faces today. It was his vision that the country should have its people live in harmony with nature and equal economic growth. It was his revelation that the ultimate goal of development is the maximum happiness to all the people. His Majesty's developmental programs were very careful and people based. The establishment of District Development Committee and the Block Development Committee in 1981 and 1991 respectively are the efforts in bringing the benefits of development towards the people.

What makes Bhutan unique from the rest of the world is the unique values, culture and its tradition. Bhutan might be the only country to hold strong values and tradition at this modern era. Most countries has lost their values in the process of modernization. This was also the efforts of His Majesty the Fourth King. He has always expressed that the future of the country lies in the hands of the people and that it is very important for Bhutan to maintain its unique values and traditions if it was to remain sovereign. He stated that given the strategic location and the small size of the country, it is the unique way of life Bhutanese live that keeps the country sovereign. He has put tremendous efforts in achieving them. A notable one is the building of preserving and promoting culture as one of the pillars of Gross National happiness.

His Majesty has astonishing care towards his subjects. He always believed that it was his duty to give people what was theirs. It was always about improving the lives of the people and maximizing their welfare. He was one of those who keeps none for oneself for betterment of others. He did not have any material desires for himself. It was always the people in his mind. This must be one of the reasons Bhutan enjoys free services be it education, healthcare or any public services. His Majesty believes that education and healthcare are the birth rights of the Bhutanese People and that it was his duty to provide them.

His Majesty can best be described as *"the King for the people"*. His Majesty was always there for the people. If anyone is to observe his 34 years of reign, it was always His majesty trying to give people what he believes is theirs. After assuming the throne at the age of 16, His Majesty gave people more than they can remember. There are no kings that has served his people like His Majesty the Fourth King did. What he gave to his people can never be measured. The progress the country has seen during his reign was extraordinary.

As the country celebrates the Sixtieth Birth Anniversary of His Majesty, it is time that we remind ourselves of how blessed we are to have such a treasure. It is time to pay our deepest respect for what His majesty gave to us. It is time we thank His Majesty.

# A tribute to our fourth king, Jigme Singye Wangchuk on his 60<sup>th</sup> birth anniversary



The independent and sovereign status of the nation was cemented further by joining many regional and internal cooperative bodies. Our fourth king had fathered GNH, (Gross National Happiness) the parameter that guides the developmental policy of Bhutan in 21<sup>st</sup> century to ensure sustainable development. His idea of GNH was appreciated throughout the world by many leaders, economist, scholars and people. The UNO has declared 20<sup>th</sup> of March to be observed as "International Day of Happiness" during United Nations General Assembly held on 28<sup>th</sup> of June 2012.Today, our country has become one of the most touristdestinations owing to your compassionate design, rule, considerate ideas and unique identity that you have shown always. *Thank You Your Majesty'*. To pay our deep and modest tribute, respect and honor to our beloved fourth King for his dedicated service and for architecting this nation in a self-motivated ways, we wish you a healthy and harmonious life.

~ Kaka choden

3rd semster, BA Eco Evs

On this momentous occasion of the 60<sup>st</sup> birth anniversary of His Majesty, The Fourth DrukGyalpo Jigme Singye Wangchuck, We would like to offer our humble prayers on our lips And wishes from core of our heart For your good health and continuation of peaceful life With our guidance, we pray for everlasting peace, prosperity and happiness In this country for all times to come Let the divinity witness your birthday ceremony and Bless you with all the blessings you deserve. Happy Birthday Your Majesty!!!

RinchenZangmo Eco/EVS- 3<sup>rd</sup> Year This day is no ordinary, A day when his birth marked the history of the nation. A day when father like None other came to this world, Just to bless the nation. This man holds the wisdom To uphold the nation. And he is my king, My fourth Druk Gyalpo. Happy Birthday to His Majesty Jigme Singye Wangchuck. May you live long.

~Tshering Buthri B.A Eco Evs (2<sup>nd</sup> year)



## And the economy walks till the sunset

#### -Purna B.Subba 1st Year BA ECO EVS

The time I argue the decision under uncertainty,

Motivates firm to avoid bankruptcy,

In the long run business of fullest compatibility,

Thou good friend of mine, utilize opportunity cost of scare courtesy.

The behaviour of a monopolist that pre-commit to price

When thee have only probabilistic knowledge about demand,

Pre-commits to price substitutes inflation in market; and rupee crises,

Pricing in order to maximize livelihood has inelastic life; is thy Command.

Net-surplus thou gain is inelastic deadweight loss that grav'st,

Which by and by, thine marginal cost of leaving business increases,

Economic boom thee promise, fear hearts with distress, yet indebt thou aw'st,

And thy Marginal Product of business there by decreases.

So as long as manage basic economic problems to see,

So long, this circular flow thy business and thee.



# Know an Economist: The Radical- Paul Marlor Sweezy (1910-2004)

"It is capitalism itself, with its inbuilt attitude toward human beings and nature alike as means to an alien end, that must be rooted out and replaced"- Sweezy

The quote clearly communicates radical thinking of Sweezy, to whom John Kenneth Galbraith referred to as "*most noted American Marxist scholar*". Sweezy was the son of a vice president of the First National Bank of New York. He was educated at Philips Exeter Academy and Harvard University, where he edited the journal, *Crimson*. In 1932 he went to the London School of Economics where he came under the influence of Harold Laski.

Sweezy was intellectually attracted to Marxism mainly because of the great depression and its aftermath. He was initially influenced by the work of Harold Lasky and Leon Trotsky but it was his great friend Joseph Schumpeter with whom Sweezy had thefamous debate on capitalism. Role of innovation was the core of debate between them-Schumpeter argued that innovation should be seen as the stimulus to profits and accumulation, resting on the sociological role of the entrepreneur. While, Sweezy insisted that innovation is subordinate to the accumulation process. He was principal proponent of North American brand of socialism. Two of his seminal work "The Theory of Capitalist Development: Principles of Marxian Political *Economy*' and 'Monopoly Capitalism' (co-authored by Paul Baran) provided a critique of capitalistic process of economic development. Sweezy believed that capitalism leads to long term stagnation of investment due to inherent tendency to overinvest and create excess capacity. His key theoretical contribution was creation of kinked demand curve to explain the behaviour of the oligopolistic firms reflecting higher degree of inter dependence.

Sweezy's intellectual influence, which was global in its reach, lay chiefly in two areas: as a leading radical economist (and sociologist), and as the principal originator of a distinct North American brand of socialist thought in his role as cofounder and co-editor of 'Monthly Review'.'Monthly Review' has been characterized as the leading independent Marxist periodical in the world. At this point, let me confess that the name of our newsletter is my tribute to Paul M. Sweezy.

In 1970s Sweezy became more concerned with environment challenges and underdeveloped countries.

Paul M Samuelson, wrote-"Sweezy was the best that Exeter and Harvard can produce... [and] had early established himself as among the most promising economists of his generation....Unfairly, the gods had given Paul Sweezy, along with a brilliant mind, a beautiful face and wit....If lightning had struck him that night, people would truly have said that he had incurred the envy of the gods."

-Sanjeev Mehta

**Professor of Economics** 



# **Angus Deaton**

# Winner of the Nobel Prize in Economic Sciences 2015

- Sanjeev Mehta Professor of Economics

Although, the study of consumption has been contributed by many scholars but the contribution of Deaton is of foremost importance. He has made several fundamental and interconnected contributions related to the *measurement, theory and empirical analysis of consumption*. He emphasised the link between individual consumption decision and outcome for the whole economy. His work has transformed the study of microeconomics, macroeconomics and development economics.

The Nobel Committee noted three major contributions of Deaton that made him the most deserving candidate for the most coveted prize.

First, Deaton's research provided greater sophistication and generality to the study of consumption choices across different commodities. In 1980 Deaton and John Muellbauer introduced an Ideal demand system- set of demand equation for various goods and services using standard demand concept. The ideal demand system helps the policy makers to analyse the impact of various fiscal measures on the demand for various goods and thereby its welfare effect on various groups. This system provides simple and more reliable estimation of the pattern of demand in the economy.

Second, Deaton's work on aggregate consumption provided micro-econometric framework to the study of consumption and saving over time. He revolutionised the analysis of individual level consumption behaviour under the condition of uncertainty and liquidity constraint. Deaton found that consumption vary more than income. This finding was in contradiction with the implication major theories of consumption that consumption varies less than income. This apparent contradiction is termed as Deaton Paradox. Deaton resolved the paradox by stating that major variations of consumption at individual levels (both, positive and negative) get averaged out and the pattern of theory than come to close to observed data. He emphasised the need to use individual level data rather than aggregate level (macro) data to discern the patterns which otherwise will be left unobserved.

Third, Deaton propagated the need for extensive use of household survey data, especially data on consumption, to measure living standards and poverty. In this way, Deaton helped transform empirical research in development economics from a largely theoretical based on data drawn from national accounts to the one based on high-quality micro data. This gave him liberty to apply weight to different groups in the study of intra-household allocation of income and its welfare effect. Use of micro-level data has deciphered many patterns that have profound implication on development policies and practices.

# Comparison of economic growth between two countries

~ Mira Stella Lüthe Final Year

Task 1: Use the following data and prepare growth account for each country (A and B). Marks: 23.5/25

## Growth account for each country

Country	Year	К	L	α	Y	A(TFP)	ΔΥ	A*L	K/(A*L)	Y/(A*L)
Α	1990	8000	120	0,5	1782	1,82		218	36,66	8,16
Α	2000	22500	143	0,55	4201		8,95%	260	86,51	16,15
Α	2010	43750	161	0,55	6388		4,28%	293	149,41	21,82
В	1990	1500	275	0,65	927	1,12		308	4,87	3,01
В	2000	7500	352	0,62	2625		10,97%	394	19,04	6,66
В	2010	15000	433	0,6	4065		4,47%	485	30,96	8,39

**GDP** growth rate

$$\Delta Y = \frac{Y(t_k)}{Y(t_{k-1})} \frac{\frac{1}{t_k - t_{k-1}}}{-1}$$

with

$$Y(t_k) = A \cdot K(t_k)^{\alpha} \cdot L(t_k)^{1-\alpha}$$

To calculate the GDP growth rate, one has to calculate the GDP for the periods of 2000 and 2010 of both countries first. In order to calculate it, the Hicks neutral formula of Solow Model is going to be used. (Note: All calculations can be found in the table above)

#### **Total factor productivity**

$$A = \frac{Y(t_0)}{K(t_k)^{\alpha} \cdot L(t_k)^{1-\alpha}}$$

For the calculation of the different GDPs the total factor productivity A has to be calculated first. For country A it is 1.82, for country B it is 1.12. New GDP in 2000 of country A was at 4201, in 2010 at 6388. GDP in 2000 of country B was 2625, GDP in 2010 was at 4065. From that point the compound GDP growth rate between the different periods of time can be calculated (see formula in a).

#### C) Capital stock per unit of effective labour:

$$\frac{K(t_k)}{A \cdot L(t_k)}$$

Effective labour in the Solow's Model of Economic growth is defined as the total factor productivity of a country multiplied by the labour stock. The capital stock per unit of effective labour is therefore defined as capital stock divided labour stock multiplied by total factor productivity.

#### d) Output per unit of effective labour

$$\frac{Y(t_k)}{A \cdot L(t_k)}$$

The output per unit of effective is defined by GDP divided by the effective labour A multiplied L.

#### Task 2: Provide Analytical summary of growth issues faced by the two countries

Looking at the growth issues faced by the two countries it can first of all be stated that the GDP of country A as well as the one of country B have grown significantly over the 20 years of data provided. In period 1990 to 2000 the GDP of country A grew at a rate of 8.95%, whereas the country B was growing at a rate of 10.97%. In the following period, between 2000 and 2010, GDP growth rate of country A declined significantly compared to the period before and GDP was growing at 4.28%. GDP growth rate of country B also declined in the period between 2000 and 2010 to 4.47%, and growth decreased therefore in country B in the second period even more than in country A. Both growth rates were approximately cut in half compared to the first period. The decline in growth can be seen in the light of the Solow's Growth model, which states that growth will slow down in the process of capital accumulation, as it assumes a production function with diminishing returns to capital. This means that as capital (machinery, equipment, tools) is added to the production, it will at first increase the productivity immensely but will diminish when more and more capital is added. According to the model, economical growth can only be achieved by a growing population (more labour, but only if there is new investment too) or improvements in technology in the long run.

Looking at the capital stock per unit of effective labour, it has increased in both countries over period of time. In country A, it was at 36.66 in 1990 and then nearly tripled in 2000 to 86.51 and then nearly doubled again to 149,41 in 2010. Country B's capital stock per unit of effective labour started at 4,87, so around 8 times lower than country A in 1990, but increased by nearly four times to 19.04 in 2000. In the period to 2010 it increased by half of its value to 30.96. In 1990, the output per unit of effective labour was 8.16 for country A and nearly doubled in ten years to 16.15 in 2000. In the following period it increased again, but at a slower rate to 21.82 in 2010. Country B started at a far lower output per unit of effective labour, which was 3.01 in 1990. In the following ten years it doubled to 6.66 and then nearly doubled again to 8.39 in 2010.

In general, country A started with less labour than country B, but total factor productivity was higher than in B, so more GDP than in country B was created. This implies that country A used a more capital intensive technology than B. Country A also started off with a higher amount of capital (8000) than B (1500), which proves this assumption further.

Considering all these facts, country A seems more likely to be a developed, advanced country, as its production is rather capital intensive and it also started with more capital in the beginning. Country B is more likely to be a developing country, as its started with more than double the labour from country A and labour (population) increased even more over period of time and at a higher rate than in A. Both countries face growth issues, which have to be solved in the future. First of all, growth rates are falling down for both countries and according to Solow's model will be expected to fall even more until a "steady state" is reached in the future; the point where GDP cannot be increased by increasing the capital anymore, as new savings are equal to the capital needed to compensate growth in labour force and depreciation. Therefore, both countries should invest in technological development, as by this GDP growth can be enhanced according to Solow, even when countries have reached the "steady state".

Country B is especially faced with a low productivity (growth has even more declined than in A) and should try to increase its total factor productivity and enhance capital accumulation, eventually by shifting its production to a more capital intensive one, rather than using a labour intensive one, so that it can catch up to country A in the long run. Country A should invest its capital more wisely and especially focus on the development of new technologies, as its capital per unit of effective labour is fairly high, but output per unit of effective labour is low in a relative sense when comparing it to country B's fairly small capital stock per unit of effective labour but comparatively high output per unit of effective labour- a fact which clearly underlines the production function with diminishing returns to capital.

#### Sources:

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# Sovereign debt crisis of Greece

~Pema Lhamo

3rd semester, BA Eco Evs

#### Introduction

Greece became the 12<sup>th</sup> and last country to join the euro zone before the launch of euro at the beginning of 2002. Since early 2010, the European is facing a serious sovereign debt crisis. Several euro zone member countries have high potentially unsustainable levels of public debt. Greece, Ireland and Portugal have borrowed money from other European countries and the International Monetary Fund (IMF) in order to avoid default. With the largest public debt and one of the largest budget deficits in the euro zone, Greece is at the center of the crisis. The crisis is a continuing interest to congress due to the strong economic and political ties between the United States and Europe. The Greek sovereign debt crisis also known as Greek depression started in late 2009. It was the first sovereign debt crisis in the euro zone and later referred to as European debt crisis. Prior to the introduction of the euro, currency devaluation helped to finance Greek government borrowing. After the Euros introduction in January 2001, the devaluation tool disappeared. Throughout the next 8 years, Greece was able to continue its high level of borrowing because of the lower interest rate that government bonds in the Euros could command, in combination with a long series of strong GDP growth rates. Problems started to occur when the global financial crisis peaked, with negative repercussions hitting all national economies in September 2008. The global financial crisis had a particularly large negative impact on GDP growth rates in Greece. Country's largest earner, tourism and shipping were badly affected by the decline with revenues falling 15% in 2009.

On June, 30, 2015, Greece became the first developed country to fail to make an International Monetary Fund (IMF) loan repayment.

One of the fastest growing economies in the euro zone is Greece; Greece economy grew at annual rate of 4.2% from the year 2000 to 2007. This is mainly because of the arrival of foreign capital in the country. But the Greek economy has shrunk by about a quarter since 2008 and the country's debt represents almost double Greece's annual GDP (Gross National Product). This capital inflow corresponds with a higher budget deficit. The government had budget deficit above 3% of GDP in 2013 (Featherstone, 2011). Greece entered the recession with a gross public debt of over 100 per cent GDP. This is due to relatively limited exposure of Greece to the world market and considerable increase in public expenditure. Greece has been the notable example of an industrialized country that has faced difficulties in the markets because of rising debt levels (n.a European sovereign debt crisis, 2011).

Over the past six years, Greece has experience an economic depression on the scale of that experienced by the United States in the 1930s. Its economy has contracted by around 25%, its unemployment rate has exceeded 25% and its youth unemployment has risen to over 50%. The debt crisis destroyed Greece's economy, which in turn destroyed Greece's ability to pay back its creditors or employ its people, which in turn faced Greece to beg the Euro zone and IMF for help which have destroyed Greece's economy even more.



The causes of sovereign debt crisis in Greece are the followings:

GDP Growth rates: Greek depression has started in 2009. After 2008 Gross Domestic Products growth rate where lower than Greek national statically agency had anticipated on a report, the Greek ministry of finance reported the need improve competitiveness to by

reducing salary and bureaucracy and needed to redirect much of it current governmental spending from unimportant sectors such as military in to growth stimulating sectors.

**Government deficit**: huge physical imbalance during the five years from 2004 to 2009 the output increases in nominal terms by 40%, while government expenditure increases by 87%. Greek ministry of finance started their aim to restore the physical budget. They intended to implement real expenditure cuts. Which means expenditure is allow growing 3.8% which was below the inflation rate 6.9% (Grahl, 2011).

**Greek debt level:** The Greek government assessed that it was not enough to implement structural economic reforms. As debt would still increase to an unsustainable before the positive result of such reform could be achieved.

Budget compliance: budget compliance was acknowledge to be in strong need of improvement and for 2009 it was even found to be a worse than normal, due to economic control being more lax in a year with political election.

**Statistical credibility**: problems with unreliable data had existed ever since Greeks applied for membership of the euro. In the five years from2005 to 2001 9, each year noted reservation about the fiscal statistics for the Greece and too often previously reported figure got revised to a sum what worse figure after a couple years .the flawed statics made impossible to predicted accurate numbers for GDP growth, budget deficits and public debt. Problem with statistical credibility was also found in other countries but in case of Greece, the magnitude of the 2009 revisions and it connection to the crisis added pressure to the need for immediate improvement.

Fiscal sustainability, or public finance sustainability, is the ability of a government to sustain its current spending, tax and other policies in the long run without threatening government, solvency or defaulting on some of its liabilities or promised expenditures. Fiscal sustainability requires a government to be solvent (i.e. it has to repay its debt at some point in the future).

Solvency refers to an enterprises capacity to meet its long term financial commitments. Solvency can also be described as the ability of a corporation to meet its long term fixed expenses and to accomplish long- term expansion growth.

According to George Alogoskoufis, there are four factors that affect fiscal sustainability and solvency and they are as follows:

The predetermined debt to GDP ratio

The primary surplus as a share of GDP,

#### The real interest rate on government bond

The growth rate of real GDP

In the open economy, in the short run, the growth rate of GDP depends on the state of the economic cycle, on the determinants of domestic investment, and in particular the expectations of domestic firms and households about the future profitability of investment in physical and human capital, as well as on the determinants of domestic savings and the real interest rate. In the long run the growth rate of GDP may be determined by population growth and technological progress.

The solutions implemented for Greece sovereign debt crisis are Euro area leaders agreed to extend Greek loan repayment periods from 7 years to a minimum of 15 years and to cut interest rates to 3.5%. Euro zone leaders and the IMF also came to an agreement with banks to accept a 50% write-off of Greek debt.



**Default officially**: A default could bankrupt Greek banks, which together are reckoned to hold about a quarter of the Greek sovereign debt. Greek bonds have been trading at huge discount for months now and negotiation to reduce the Greek government debts have been running non-stop behind the scenes. However, the government has continued to pay all the interest owed to select groups of creditors. The Greek government is racing against time to fulfill the demand of

international lenders and qualify for a new lifeline to avoid default. European leaders have staked their credibility on the Euro succeeding as a political project, so they are reluctantly preparing the new rescue package as a last resort to prevent the Euro zones first sovereign default.

- **Drop the Euro**: The Greek governments do not issue more Euros, nor can the Greek government depress the value of its currency to help its export, a common strategy for speeding up an economic recovery.
- The economist Paul Krugman suggests that the Greek economy can recover from the severe rescission by existing the Euro zone and launch a new national currency because being in the Euro zone; Greece is unable to restore its economic competitiveness by devaluing its currency. The devaluation of their currency may help Greece boost its exports and pay down its debts with cheaper currency.
- **Raise taxes:** At the moment, the Greek government revenue is about 42% of GDP. Raising tax rates and improving tax collection could bring the government revenue more in line with its spending and eventually balance the budget. In fact, a recent study suggests that Greece could increase its revenue by up to 5.6% points of GDP before the curve started to slope downward.

**Cut spending**: spending less also hamper the Greek economy's recovery by doing away with government jobs and spending in other areas. It would end the fiscal crisis, but not the boarder economic one: stagnation in Greece could drag on for several more years as a result. Spending less and raise taxes, an equal amount, each will reduce the deficit equally, although they have different impact on economic growth and job creation.

Delay any changes for at least a year, to allow the economy to recover enough to grow to create jobs and reduce unemployment. An increase in GDP, combined with the raise in tax and reduce spending will eventually reduce the debt to GDP ratio enough to eliminate the debt crisis. (Amadeo, 2014)

Selling of national assets: though Greek is a small country, Greece gas lot of valuable stuff such as monuments, museums are filled with the riches of early western civilization and some of the east as well. All of these assets can be sold to avoid such crisis.

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# ANNOUNCEMENT

## **1.Mrs. Sonal Mehta Resigns**

Our Statistics teacher and one the mentors of REES has resigned from her job at RTC and will be leaving Bhutan shortly. We thanks Ma'am Mehta for her invaluable contribution to the growth of REES. We wish her all the best in her future endeavours. We will always cherish our association with you.

## 2.BA in Development Economics gets validated

A new undergraduate programme - BA in Development Economics was validated by the Royal University of Bhutan on October 14, 2015. In 2016, the new programme will replace the BA Economics and EVS programme that is currently offered at RTC. With rapid globalisation, development challenges are becoming more complex and uncertain and there is a growing need for trained professionals who understand the dynamics of development process, especially in a complex and rapidly changing world. This programme aims to prepare undergraduate students with necessary knowledge and skills (subject specific skills, cognitive skills, practical skills, and transferable skills) to contribute effectively to the process of development. As economics is a more quantitative discipline than the other social sciences. As a result, this programme would rely relatively heavily on mathematical tools. The programme would provide effective training in an appropriate theoretical framework, analytical skills and research orientation that are necessary to be successful development practitioners. The programme adds a new dimension to the study of economics by incorporating modules such as behavioural economics, rural development and health economics. This programme will expand the scope of lucrative professional career opportunities, such as, development practitioners, researchers, consultants, bankers, fund managers and social activists.

# **FUN FACTS**

#### ~ Complied by Pema Choden

# RIDDLE

- 1. What kind of bag did the vegetable take to school?
- 2. What is there more of the less you see?
- 3. What is the saddest fruit?
- 4. What is the Saturn's favourite day of the week?
- 5. What is the centre of the gravity?
- 6. What is as big as an elephant but weigh nothing at all?



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### **ANSWER FOR LAST ISSUED RIDDLE**

- 1. Pants
- 2. A Garbage truck
- 3. A cool Cat
- 4. Fsh
- 5. BOO berries
- 6. The school bus
- 7. Your mind

\*\*\* Anyone can mail the answer and get a treat from us for right answer or wait until the next issue\*\*\*