

#### **GREECE**



(Pratik Sapre, Shantanu Bhatt, Veeraj Gadda)

Located in South-Eastern Europe, 6000 islands (Visit Greece, n.d.) and 10.8 million people (CIA world-factbook) make up Greece. It's land area is 50502 square miles, roughly the size of the State of Illinois (57915 square miles) (Facts and Figures, n.d.). The country came into existence in 1832 after winning its war of independence against the Ottoman Empire in 1830 (Britannica Encyclopedia, n.d.) which had ruled the nation for almost 400 years. After its independence in 1832, the currency Drachma -one of the oldest currencies, used since 500 B.C.was reintroduced by Greece. It underwent several revisions, mainly due to world wars and economic policies, until it ceased to exist in 2002. Several factors led to the end of the Drachma currency as it had devalued sharply over time due to heavy borrowing and hyper-inflation rampant in Greece (Greek Greece Reporter, 2015). Greece became a part of Eurozone and changed its currency to Euro. At the time of joining Euro, the value of 1 Euro equaled (4) 75 Drachmas. A lot of factors have since contributed to the decline of the Greece economy and this report entails a thorough look at the current state of Greece and the factors that have brought the economy almost on the verge of bankruptcy and the country into another.

Ranked at 209<sup>th</sup> position with a fertility rate of 1.42, Greece is currently facing a population decline at 0.6% p.a. as of 2015 (World Bank, n.d.). The lower birth rate has been a cause of concern for Greece (albeit not a major one) as it shrinks the working age population for Greece. Because it means lower working population as compared to retiring individuals. A lower population growth means lesser output will be generated leaving less output available for consumption and increasing capital per worker. Not only is the output productivity of the nation affected, but with a life expectancy of 81 and with most Greeks opting an early retirement (Greek Greece Reporter, 2014) the government pension funds are stressed enormously. While currently 50% of the Greek population is in the working age and almost 97.7% of it is literate (Index Mundi, n.d.), the output per capita will not be affected adversely currently. But in foresight, if the population growth rate continues to decline, this can lead to decreasing output per capita and reduced ductivity. It can also lead to a decrease in consumption in the short as well as long-run.

Adding to the declining growth rate of population is the unhealthy lifestyle of Greek population with almost 42% of its population being overweight and 17.5% of population being obese (NCBI, 2004). Obesity and overweight can give rise to increasing cardiovascular ailments and diabetes. In a way, it can have a positive contribution to the GDP by increasing medical spending. However, the health care system in Greece is almost on the verge of collapse with severe pharmaceutical drug shortages (Forbes, 2015). And with such a huge amount of unhealthy population, it is more likely the negative effects because of decreased productivity will overshadow the contributions in GDP by healthcare. Expenditure on healthcare will also deplete household savings and capital stock, thereby adding to economy voes.

While 97.7% of Greece's population can read, and write, the government is failing to provide quality education and skills to the masses. In fact, a significant reduction in education budget, increased dropouts of foreign students, not promoting youth entrepreneurship at school,

demographic problems (earthquakes, acute climate changes) (Bank of Greece, 2011) has led to Greece being one of the least regarded places for higher education (Greece Greek Reporter, 2013). And the situation has worsened with spending on education being decreased by 45% and more than 1000 schools being closed since 2011 due to financial crisis (Public Services International (PSI), n.d.). As education level can be directly correlated with the economic growth (with an analysis suggesting that the one year increase in education is equivalent to development in cognitive skills of math and science that can push GDP by 0.37% (Education Next, 2008), a current decrease in spending on education in Greece will render its future population deficient in skill and technological progress is the main reason why living standards rise over the long run. And with only a minute portion of 0.8% being spent on research and development (Education Next, 2008), Greece is unable to fund any meaningful technological development required to push economic growth. As a result, with a little scope for growth of human capital, the Greek economy continues to stagnate with reduced investment in education thus stunting its already deteriorating economy. With an unconducive climate for good and safe lifestyle, not only is Greece losing its future productive population, but its number one export is supposedly human capital with about 3% of its population emigrated abroad since 2008 (Ekathimerini, 2016). The falling dominos can pervade into other sectors of growth at estroy already grim economy.

Being one of the most seismically active country in the world (Parliamentary Assembly, 1999), Greece has been a victim to many earthquakes recently with a lot of them having epicenters under the sea. These terrible events have led to a major loss in human resources, human capital as well as physical capital stressing already suffering Greece's economy. These incidents have lead to loss in production, especially short and mid-term production, which indirectly gets portrayed on the stock markets. With assistances coming from other European Banks in forms of loans, adding to the debt crisis, they have been engulfed with leading to exacerbated economic miscon.

Greece has high levels of physical capital with a developed infrastructure facilitating an uninterrupted implementation of investment activities. While a large amount of development of infrastructure started in 1950s during the economic boom, recent development can be largely attributed to hosting the Athens Olympics in 2004 (Enterprise Greece, n.d.). It led to a strong framework with a strict deadline that enabled the Greek population to make productive investments of debt they undertook. With the modern infrastructure consisting of 1583 miles of railways, 72703 miles of highways, 15 international airports and 12 ports (Enterprise Greece, n.d.), the physical capital of Greece can facilitate efficient transportation and can reduce travel time of people considerably. Due to liberalization of the telecommunications market, the cellular phone penetration in Greece is one of the highest in the EU. Also, the broadband connection has increased from 28.5% to 31.3% 2015.

With 18 million international tourists in 2013, Greece was the 7th most visited country in the European Union and 16th in the world. (World Tourism Organization - UNWTO, 2013). However, the increasing pollution can be a major threat to the Greece tourism with their capital city, Athens reporting air pollution 15 times above normal EU levels. Pollution is a major deterrent to the tourism which can be noted by the fact that tourism revenue in Greece dropped by 4.8% as reported in September 2016 (Greek Greece Reporter, 2016). While pollution in itself

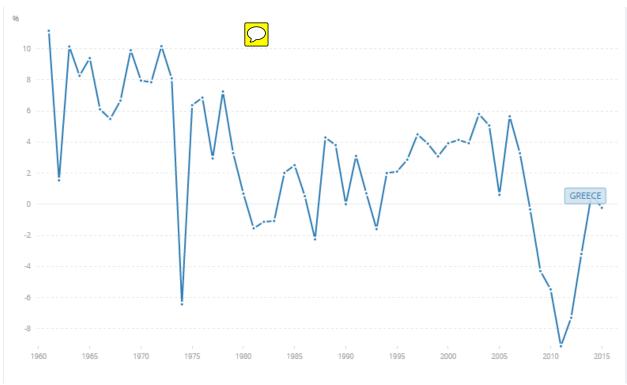
is never included in the GDP, it has a negative correlation with GDP and life expectancy. For an economy that is already struggling for revival and is increasingly dependent on tourism for its revenue this can be another concern.

Greece is not very rich in terms of natural resources with only 30% of its land cultivable (CBE Projects, n.d.). This is because most of its land consists of silty, sandy soil which is not very fertile. Yet, the agriculture contributes about 3.9% to the GDP of Greece (CIA Factbook, 2016). However, Greece enjoys a vast stretch of the Mediterranean Sea available for fishing. The Common Agriculture Policy of the European Union has improved Greece's output dramatically. Greece had an upgrade in its agriculture and fisheries infrastructure as a result of CAP. Which just proves how important the technology factor in a GDP is in increasing productivity.

For a country lacking in terms of natural resources, a good infrastructure can surely give its economy an impetus it direly needs. No country other than Greece can support this theory better. The Greek Economic Miracle began with a boom in their Maritime services. Tourism and Shipping are key parts of Greece's economy (IOBE, 2014) and without a strong infrastructure backbone, neither can flourish. The two are strongly interconnected and tourism can be strongly boosted by well-functioning maritime services especially for countries like Greece which have a thriving marine ecosystem (AIIC, 2013). While both these sectors perform well in good times, they both crash together during a downturn. One of the most important factors of the Greece crisis after the recession of 2008. If Greece can come out of its economic rut, the expansionary policies will be aided by an efficient transportation system whi

While the current economic situation may be grim, Greece had set a precedent in 1950 by achieving what is now called as the 'Greek Economic Miracle'. The Greek economy had deteriorated to a great extent by 1950 as a consequence of World Wars and Civil unrest. It was the "catch-up" phase for the economy and, aided by economic reforms and loans from Marshall Plan, the Greek economy was the second fastest growing economy in the period between 1950 to 1973 (ABC - CLIO, 2011). The first economic reform which involved the devaluation of the drachma led to the increase in exports which propelled the GDP. The loans from the Marshall Plan also allowed Greece to make increased investments in building the infrastructure and investing heavily in the chemical industry and tourism. With the underlying principles of Keynesian economics, the government undertook expansionary policies that also decreased the interest rates. This led to an increase in the demand for loanable funds causing an increased borrowing which led to many small businesses to flourish. Also, the technological advancements aided the Greek manufacturing industry further spurring economic growth which continued till 1973 before the oil crisis halted its progress. In the period between 1973 to 1980, there was a marginal contraction in the economy and the inflation reached double digits between 10% to 20%. This led to an abnormal increase in the nominal GDP when in effect, there was a relatively smaller increase in the real GDP of Greece. Even then, it continued to be amongst the best performing economies in Europe. It was during this stage that Greece adopted a stricter monetary policy to join the Eurozone. This was even without considering the shadow economy existing in Greece during that e

With democracy finally established in Greece by 1974 (Macrohistory and World Timeline, n.d.), Greece applied for EU membership in 1975 with the intentions of decreasing trade barriers to increase social benefit and gaining from comparative production advantages. By 2000s, with the Drachma devaluing quickly and the interest rates for loans being higher, Greece joined the Eurozone with multiple reasons of free trade, less interest rate on debts and political reconciliation (Future of working, 2015). The free trade led to tax-free trading amongst the nations thus keeping the prices of goods and food down. As the economic growth during the period slowed down, joining the Eurozone helped Greece create more jobs and education opportunities. Also, a common currency of Euro made international business simpler and cheaper. Greece was also benefited by the shared technological advances of its peer EU nations. However, while the common currency is good for trade, 19 countries sharing the currency has its problems.



Source: The World Bank

The main issue which led to the economic crisis was the fact that with Greece joining the Eurozone, was the noncoherent monetary and fiscal policy, with the former decided by the European Central Bank and the later by the Greek government. While Greece had to adhere to the fiscal rules set by European Union (for example: no more than 3% annual budget deficit (European Commission -Economic and Financial Affairs, n.d.) and public debt not exceeding 60% of the GDP) the Greek government had broken those rules. Due to widespread corruption and tax evasion policies in place, Greece had been in violations of its fiscal policies. The black market in Greece in 2009 accounted for 65 billion euros (25% of GDP) which led to a tax evasion of 20 billion euros (The Guardian, 2012) (Econstor, 1993). In 2009, the self-employed professionals alone evaded taxes worth 28 billion euros or 31% of the trade budget deficit

(Econstor, 1993). With rampant tax evasion, bribery, and corruption in bureaucracy, since mid-1990's the Greek governments had been reporting deficits that were much lower than actual deficits and debts. "Tax evasion - a national sport", this phrase has been used to describe the situation in Greece (The Economist, 2012). The institutions were failing Greece, a country which has probably tried all forms of government (World Books, Inc, 2009).

The chain of cooked up figures continued till 2009 when in the face of US economic crisis, the newly elected government announced budget deficit of 13.9% which was more than 4 times the limit set by the European Union ("The Challenge of trade adjustment in Greece", 2014). It also reported that the numbers had been fudged for the previous years. While it is permissible to have trade deficits to fund investment activities that generate future income and make economy productive, the situation with Greece is different. As other countries thought of Greece as a safe bet, it was granted debts with low interest rates. However, revelations in 2009 that Greece had huge debts made investors nervous. This resulted in investors charging higher interest rates for loans. As Greece had no other option, it had to accept the high interest rates which led to the even higher deficits making the situation even worse.

As the economy of Greece went further in debt, its abysmal situation led to a bailout plan being sanctioned by European Central Bank(ECB) worth 110 billion euros which came with a set of austerity measures (CNN Money, 2010). Under these austerity measures, Greece had to cut its spending, increase taxes, reduce pensions, and implement stringent measures to avoid tax evasion. While this helped reduce budget deficit by 5 billion euros, it also led the Greek economy to contract. As people had less money to spend and with tax rising, it led to increase in unemployment and poverty. This in turn led to civil unrest within Greece. With the first bailout plan, not able to revive the economy, the second bailout plan of 130 billion euros was decided to be approved with even stricter austerity measures (New York Times, 2015). The people of Greece rejected such severe austerity measures and a cash crisis emerged in Greece with banks allowing only 45 euros worth of ATM withdrawal.

With the cash crunch, Greece could've just printed more money to sort the situation. However, since the currency used in Greece is not autonomous they're at the mercy of the ECB to decide their future. Given how interlinked the modern economy is, a fall of a Eurozone economy can have catastrophic ramifications. Considering that, there is a third bailout package in place, the catastrophe seems to have been stopped (or is the inevitable just delayed?).

None of the long-term solutions proposed so far have worked so far. What may work is a unified monetary and fiscal policy, or an authority to keep a strict check on a country's fiscal policy. But then no country wants to lose their sovereignty nor would any politician give up power just for the betterment of society. While Greece enjoys the economic strength by being tied to the Euro, it needs to have a monetary policy the Greek government can control. With a control on its monetary policy, Greece may be able to apply monetary measures apt to their conditions to bail themselves out, such as (issuing own currency to avoid cash crunch, devaluing its currency to hasten economic recovery etc.). Getting out of Eurozone may help them. But with other dominoes such as Portugal, Spain, and Italy on the brink of a turmoil, a failed Grexit may begin the contraption which takes the work.



World is still recuperating from the effects of 2008 crisis. The fall of an Eurozone economy could lead to an economic situation no country is prepared for. Given how fragile and interconnected the world economic system, no country wants to risk another recession and there would be measures taken by all countries (bailing out Greece) to shield the world economy from catastrophes.

#### **REFERENCES:**

Central Intelligence Agency (CIA) World Factbook 2016. "Greece". <a href="https://www.cia.gov/library/publications/the-world-factbook/geos/gr.html">https://www.cia.gov/library/publications/the-world-factbook/geos/gr.html</a>

Facts and Figures. "Greece".

http://www.infoplease.com/country/greece.html

Britannica Encyclopedia. "War of Greek Independence". https://www.britannica.com/event/War-of-Greek-Independence

Greek Greece Reporter (2015). "The History of Drachma". http://greece.greekreporter.com/2015/01/23/the-history-of-the-drachma/

Index Mundi. "Greece Literacy - Demographics". http://www.indexmundi.com/greece/literacy.html

NCBI (2004). "Epidemiology of overweight and obesity in Greek adult population: the ATTICA study".

https://www.ncbi.nlm.nih.gov/pubmed/15687390

Forbes (2015). "Greece medical collapse".

http://www.forbes.com/sites/stephenbrozak/2015/07/15/greece-medical-collapse/#29ee9afc12b1

Greece Greek Reporter (2013). "Greece: EU's third worst in education spending". http://greece.greekreporter.com/2013/10/31/greece-eus-third-worst-in-education-spending/

Public Services International (PSI). "The Impact of Greece's Economic Crisis on Education is Real".

 $\underline{\text{http://www.psi-can-greece.org/news/impact-greece\%E2\%80\%99s-economic-crisis-education-real}}$ 

Education Next (2008). "Education and Economic Growth". http://educationnext.org/education-and-economic-growth/



Enterprise Greece. "Infrastructure"

http://www.enterprisegreece.gov.gr/en/greece-today/why-greece/infrastructure

CBE Projects. "Agriculture".

http://projects.cbe.ab.ca/senatorpatrickburns/agriculture.html

World Tourism Organization - UNWTO (2013). "Tourism Highlights" <a href="https://web.archive.org/web/20131030101107/http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto\_highlights13\_en\_hr.pdf">https://web.archive.org/web/20131030101107/http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto\_highlights13\_en\_hr.pdf</a>

Greek Greece Reporter (2016). "Bank of Greece Figures Show Decline in July's Tourism Revenue".

http://greece.greekreporter.com/2016/09/21/bank-of-greece-figures-show-decline-in-julys-tourism-revenue/

ABC - CLIO (2011) - p. 152 - Elaine Thomopoulos. "The History of Greece".

Future of working (2015). "11 Advantages and Disadvantages of the European Union". <a href="http://futureofworking.com/11-advantages-and-disadvantages-of-the-european-union/">http://futureofworking.com/11-advantages-and-disadvantages-of-the-european-union/</a>

European Commission - Economic and Financial Affairs. "Stability and Growth Pact". <a href="http://ec.europa.eu/economy\_finance/economic\_governance/sgp/index\_en.htm">http://ec.europa.eu/economy\_finance/economic\_governance/sgp/index\_en.htm</a>

The Guardian (2012). "Primary Greek tax evaders are the professional classes". <a href="https://www.theguardian.com/world/2012/sep/09/greece-tax-evasion-professional-classes?CMP=twt\_gu">https://www.theguardian.com/world/2012/sep/09/greece-tax-evasion-professional-classes?CMP=twt\_gu</a>

Econstor (1993). "On Income tax avoidance: the case of Germany". https://www.econstor.eu/bitstream/10419/29359/1/256896925.pdf

"The Challenge of trade adjustment in Greece" (2014) - Costas Arkolakis, Aristos Doxiadis and Manolis Galenianos.

CNN Money (2010). "Greece accepts bailout package". http://money.cnn.com/2010/05/02/news/international/greece\_bailout/

The World Bank. "Population growth (annual %)". <a href="http://data.worldbank.org/indicator/SP.POP.GROW">http://data.worldbank.org/indicator/SP.POP.GROW</a>

Greek Greece Reporter (2014). "75% of Greek Pensioners Enjoy Early Retirement". http://greece.greekreporter.com/2014/12/04/75-of-greek-pensioners-enjoy-early-retirement/

Bank of Greece (2011). "The Environmental, Economic and Social Impacts of Climate Change in Greece".

http://www.bankofgreece.gr/BoGEkdoseis/ClimateChange\_FullReport\_bm.pdf



Ekathimerini (2016). "Human Capital is Greece's No 1 export". <a href="http://www.ekathimerini.com/210585/article/ekathimerini/news/human-capital-is-greeces-no-1-export">http://www.ekathimerini.com/210585/article/ekathimerini/news/human-capital-is-greeces-no-1-export</a>

IOBE (2014). "The contribution of coastal shipping to the Greek Economy: Performance and outlook".

http://iobe.gr/docs/research/en/RES\_05\_F\_04112014\_REP\_EN.pdf

AIIC (2013) - Elson Thana. "Maritime Transport and Tourism Sustainable Development".

Visit Greece. "Greek islands".

http://www.visitgreece.gr/en/greek\_islands

Parliamentary Assembly (1999). "Economic Consequences of the recent earthquakes in Turkey and Greece".

http://www.assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID=8805&lang=en

Macrohistory and World Timeline. "Democracy and Dictatorship in Greece". <a href="http://www.fsmitha.com/h2/ch26gr.htm">http://www.fsmitha.com/h2/ch26gr.htm</a>

World Books, Inc (2009) - Kilzer, Nicholas. "Ancient Greece".

The Economist (2012). "Greek Taxation - A national sport no more". <a href="http://www.economist.com/news/europe/21565657-greek-tax-dodgers-are-being-outed-national-sport-no-more">http://www.economist.com/news/europe/21565657-greek-tax-dodgers-are-being-outed-national-sport-no-more</a>

New York Times, "Bailout money goes to Greece, only to flow out again" <a href="http://www.nytimes.com/2015/07/31/business/bailout-money-goes-to-greece-only-to-flow-out-again.html?\_r=0">http://www.nytimes.com/2015/07/31/business/bailout-money-goes-to-greece-only-to-flow-out-again.html?\_r=0</a>