Report on Analysis of 3 Coastal Countries

(New Zealand, Egypt, Bangladesh)

&

3 Landlocked Countries

(Austria, Paraguay, Chad)

Problem Statement:

To compare the developed, developing and the under-developed countries based on employment, expenditure, and trade. And analysing the impact of geographical location (Coastal/Landlocked).

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ΑT



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Introduction

Austria is a landlocked country in Europe. The Austrian Economy is one of the most stable economies in the world. The country has a low percentage of unemployment as compared to the other member countries of the EU. The labour force of the country is highly skilled and educated.

Bangladesh is a coastal country in Asia, whose economy has seen a rapid rise in recent years. Their key export sectors include textiles, fish and seafood, leather and jute goods. Bangladesh also has substantial reserves of natural gas and is Asia's seventh largest gas producer. Offshore exploration activities are increasing in its maritime territory in the Bay of Bengal. It also has large deposits of limestone.

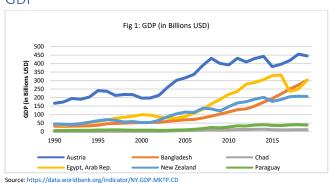
Egypt used to have a centralized economy but now under the current government, they have a diversified economy. Its economy is currently market-oriented and thus this has led to an increase in foreign investments. Agriculture in the country is mainly privately held. Also, construction and financial services are mostly private. This has led to a steady increase in the economy and GDP rate. The country also has crude oil reserves in the Gulf of Suez and the Western Desert.

New Zealand has a highly developed free-market economy. The economy depends heavily on the service industry. Main services include financial services, real estate and tourism. The agricultural sector is the largest industry in the country, with pastoral farming and horticulture being the most important categories. New Zealand also has a thriving wine industry and is rich in many natural resources, in particular gas, oil and coal.

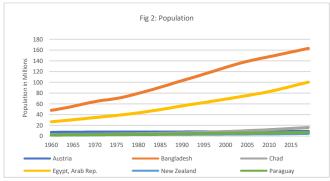
The economy of Paraguay is a market-based economy that is highly dependent on agricultural products. In recent years, Paraguay's economy has grown as a result of increased agricultural exports, especially soybeans. Paraguay has the economic advantages of a young population and vast hydroelectric power but has few mineral resources, and political instability has undercut some of the economic advantages present.

Chad's landlocked location results in high transportation costs for imported goods and dependence on neighbouring countries. Although high oil prices and strong local harvests supported the economy in the past, low oil prices now stress Chad's fiscal position and have resulted in insignificant government cutbacks.

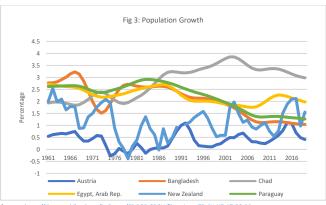
GDP



Population



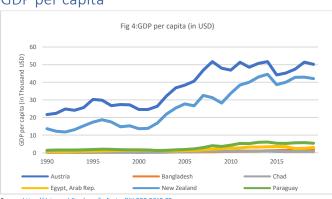
Source: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=AT-NZ-PY-TD-BD-EG



 $\textbf{Source:} \ \underline{\text{https://data.worldbank.org/indicator/SP.POP.GROW?locations=TD-PY-NZ-AT-EG-BD-$

- From figure 2, we observe that Bangladesh and Egypt are populous countries while other countries have fairly similar populations.
- Overall, all countries have similar populations.
- Population of all countries has been rising over the years
- We observe form figure 3, that the population growth of Chad has been high in the recent years where as there is a general decreasing trend in most other countries.
- Populations of Austria and New Zealand (Developed countries) is low.
- In general, we see that the population growth rate in Developed countries (Austria and New Zealand) is lesser than developing and under developed countries.
- Austria experienced a sudden increase in population in the early 1990s. This is mainly due to the increase in immigration and the higher fertility rate of foreign workers.
- Growth rate of Bangladesh is decreasing this is because, the fertility rate of Bangladesh has reduced by more than two thirds since its independence. If this continues then without migration Bangladesh's population will reach a state where it neither shrinks nor grows.
- There was a spike in the population of Paraguay in the early 1990s. The reason being that a lot of farmers especially from Brazil migrated to Paraguay. The reason being cheap land available for farming which helped them make more profits.

GDP per capita

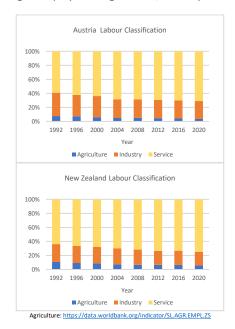


Source: https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

- As depicted in the graph, the GDP per capita is high and rising in the developed nations of Austria and New Zealand. And the former is clearly eclipsing the other.
- Rest of the countries are showing comparatively low GDP per capita but there has been significant growth in the developing nations of Paraguay and Egypt. While the underdeveloped nations are still struggling to improve their per capita GDP.

Classification of Labour

Fig 5: Employment Agriculture, Industry and Service sectors (as % of total employment)





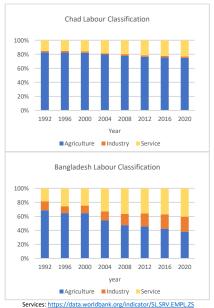
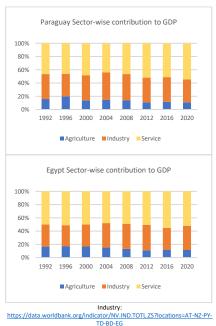
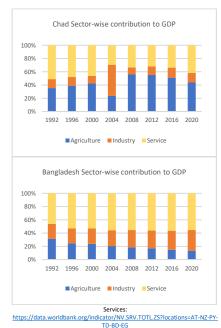


Fig 6: Contribution of Agriculture, Industry and Service sectors towards GDP



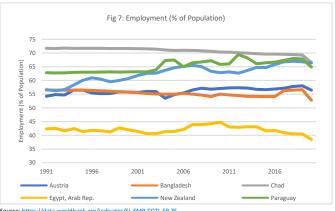




Inferences:

- There is a clear trend showing a shift from dependence of Countries from agriculture to service as the country grows.
- Developed countries like Austria and New Zealand have a large number of people (>60%) working in the service Industry.
- Underdeveloped countries like Chad and Bangladesh are still heavily dependent on Agriculture for their income. Although Bangladesh is now slowly shifting to the service sector.
- Due to the development of oil fields near Doba (a city in Chad) by Exxon Mobil, the contribution of the industry sector increased to 45% for 12% within a span of 2 years (2003-04). Unfortunately, due to the Chadian civil war in 2005. This had to stop and Chad moved back to being an Agrarian country and became even poorer.
- Comparing Figure 5 and 6 we can see that the employment in the 3 sectors is not proportionate to the GDP contribution of the 3 sectors.
- We see that the economic output of the industry and service sector per person employed is higher than that in the Agriculture sector. This is due to
 disguised unemployment or over employment happening in most countries.
- Since land is a limited resource and follows DRS, it is not a good idea for a country to be overdependent on Agriculture and should move to Industry and hence service sector.

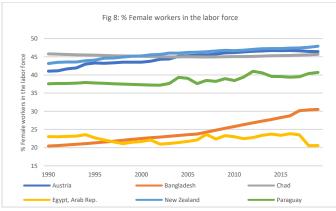
Employment Rate



Source: https://data.worldbank.org/indicator/SL.EMP.TOTL.SP.ZS

- The employment percentage is high and ever-growing for Paraguay and New Zealand which clearly signifies economic prosperity.
- While Chad is showing exceptionally high percentage of employment and the best among the countries in our observation, it's a false reflection of their economic outlook since most of its employment is in the agricultural sector. This phenomenon is called disguised unemployment, wherein more than work on a job than necessary.
- Although Austria and Bangladesh have had fairly similar percentages of employment over the last few decades, the developed country has been successful in uplifting the employment rate while the percentage of employment for the underdeveloped Bangladesh has remained stagnant over the
- Egypt has been struggling with a low employment rate which has hindered its economic progress, which is down to political instability, the education-occupation mismatch and the negative impact of neoliberal economic reforms

Female contributions to the labour force.

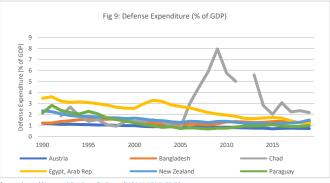


Source: https://data.worldbank.org/indicator/SL.TLF.TOTL.FE.ZS

- As can be seen in the graph, the % of female workers in the labor force is comparatively higher for Austria, New Zealand, Chad and Paraguay.
- There's a clear sign of an uptrend in the % of female workers for the developed countries, namely Austria & New Zealand, which has helped them sustain economic development.
- The under developed country of Chad has exceptionally maintained its high % of female workers, while its counterpart Bangladesh whose economic progress was hindered by the low % of female involvement has been showing massive strides in women empowerment over the last few decades.
- The percentage of female workers has increased steadily for Paraguay, while its developing peer Egypt has been struggling with a low percentage.
- As for the women in Egypt the percentage has remained persistently low and unemployment has remained high. This is

due to a disproportionate share of childcare; poor working conditions; poor law enforcements barring discrimination and sexual harassment in the workplace; and a persistently high wage gap compared with men in the private sector, which has impeded Egypt's progress of improving its economic outlook.

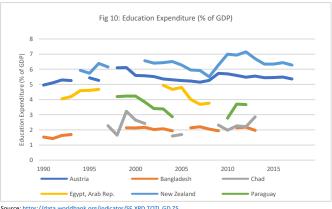
Defence Expenditure



Source: https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS

- As the world was turning the corner into the 21st century with all the educational and technological developments and globalization, it has let go its past of warfare and socioeconomic conflicts with the neighbouring nations in most parts of the world. And hence the general trend among the countries is a lowered spending in the military.
- Military Expenditure of landlocked countries is lesser than Coastal countries.
- As is the case for the countries in our observation, apart from the African nation of Chad which had seen an increase in its military outlay from 2005-2010.
- This was due to the Chadian Civil War between the Arab-Muslims of the north and the Sub-Saharan-Christians of the south.

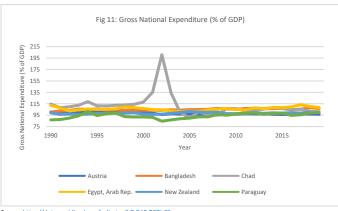
Education Expenditure



Source: https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS

- The percentage of GDP spent on education has a positive and significant impact on the economic growth of a country.
- This can be seen clearly in the above graph as the developed nations of Austria and New Zealand have consistently spent more money in the educational field as compared to the other countries.
- Followed by the developing countries of Egypt and Paraguay. And the lowest expenditure on education can be seen in the underdeveloped countries of Bangladesh and Chad which has hindered its economic prosperity.

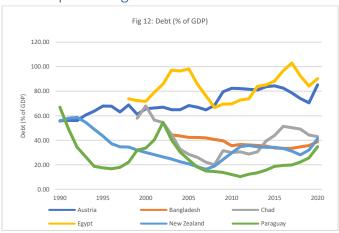
Gross National Expenditure



Source: https://data.worldbank.org/indicator/NE.DAB.TOTL.ZS

- As seen in the graph, the general trend among nations is to spend 95-100 % of their GDP in different aspects of developments and needs of their respective countries.
- However, Chad has seen an abrupt amount of expenditure in the years 2001-2003 as they were developing oil fields near Doba which was backed by Exxon Mobil Corporation.

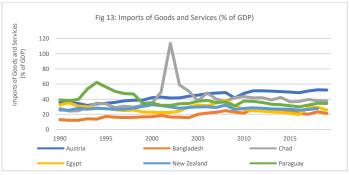
Debt as percentage of GDP



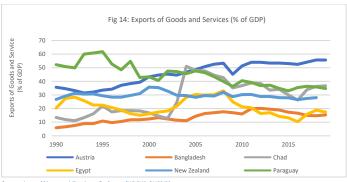
Source:https://www.imf.org/external/datamapper/G_XWDG_G01_GDP_PT@FM/ADVEC/FM_EMG/FM_LIDC/CUB/CHN

- Egypt and Austria have a pretty high percentage of the debt and have remained pretty stable with Austria's debt being managed better with lesser fluctuations except for the 2009 crisis in Austria.
- New Zealand is a developed country which shows in its stable and low debt percentage.
- Bangladesh has also maintained a stable debt percentage for its GDP.
- Paraguay and Chad have low debt percentages but are very unstable and prone to high fluctuations. This makes these countries prone to economic crises.

Imports & Exports of Goods and Services



Source: https://data.worldbank.org/indicator/NE.IMP.GNFS.ZS



Source: https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS

- For countries such as Austria and New Zealand, we can see from the figures that the percentage of import and export with respect to the GDP is nearly equal. This indicates that these countries encourage free trade and in return get reciprocation from their trading partners in terms of reduced tariffs. This is true as the economy of both countries is highly globalized and open.
- These findings go against Raul Prebisch's theory of import substitution which advocates that a developing country should impose heavy tariffs on imports and only import machinery required for industrialization while at the same time focusing on developing internationally competitive companies and becoming export powers.
- A decline in exports and imports can be seen for all countries in the period of 2008 to 2010. This was mainly due to the 2008 financial crisis that plunged almost all the economies of the world. Bhutan being an exception. The percentage of imports with respect to the GDP increased from 2008 to 2010. This is mainly because a lot of investment was being made by various countries such as India to set up hydropower projects.
- For Chad in the imports graph, a spike can be seen in the early 2000s. The reason being that oil fields had been discovered in the region of Doba and thus a lot of raw materials was imported to build huge oil plants. The development of these oil plants finished in the year 2003. Since then Exxon has started to export oil from Chad and thus a spike in exports can be seen around the year 2003 to 2005.
- A V shape recovery pattern can be seen in the export graph for Egypt around the year 2015. This is due to the various new amendments that have been introduced by the incumbent President Abdel Fattah Al-Sisi. He was elected President in the year 2014 replacing the long-time President Hosni Mubarak. Under him, Egypt has become the 2nd largest economy in Africa.

Conclusion

- We have carried out an extensive study on 10 key economic indicators of three landlocked countries which are Chad, Paraguay, and Austria and three coastal countries which are Egypt, New Zealand and Bangladesh. Certain key findings have emerged from our analysis.
- We have found out that as a country's economy develops a transition can be seen from agriculture to service and industry sectors as the main contributors to the GDP of the country.
- Employment rate is directly proportional to the development of the country. But this factor alone may not be sufficient to understand the country's Economic outlook. We need to combine this knowledge with the distribution of labour in different sectors to get a better picture of the country's economic development.
- Moreover, we have found that developed countries i.e., New Zealand and Austria have more than 50 % of the working-age population working in the services sector. This is not the case for developing countries. Developed countries can create new jobs, restrict the growth of the population, and pay a minimum high wage which contributes to their economic prosperity.
- We see that there is a strong corelation between the percentage of GDP spent on Education and the development of the country.
- We see that there is a positive corelation between the female participation and development of the country.
- Furthermore, we find significant differences in shipping behaviours across landlocked and coastal countries, with shippers in landlocked countries avoiding long land transportation, crossing borders readily, and placing more value on transportation infrastructure. These findings have implications in designing port competitiveness strategies and economic development policies in landlocked countries.
- Landlocked countries have to pay higher transportation costs as they don't have access to seas or oceans. This leaves them vulnerable and overdependent on the neighbouring countries.
- We have found that although landlocked countries are hampered by the fact that they don't have access to oceans for import and export they can transform into a developed country. This can be seen in Austria. It is a landlocked country and has minimal natural resources such as crude oil, iron ore etc.
- On the other hand, Chad which is another landlocked country has been subject to years of political instability and civil wars. Its leaders have been reluctant to move away from an agrarian economy, due to which it is today among the poorest countries in the world. Conditions have improved since the discovery of oil in the country.
- New Zealand, which is a coastal country, has used its seaports quite optimally and even though a large percent of its population is in the agriculture industry they are a developed country. Their main exporting products are milk, wine and meat.
- Paraguay is a developing country having an agrarian-based economy. The economy of the country has risen over the past few years due to increased
 agriculture exports. The country has an advantage of a young population which can help the country to transform into a developed country.
- Egypt is a developing country, and its economy has been doing quite well since it recovered from the internal political crisis and revolutionary uprising of 2011. The country has natural resources such as crude oil and has a well-developed coastal line. The Suez Canal helps its trade with Europe.
- Bangladesh is an underdeveloped country that has been doing well in the past few years. It has an agrarian based economy but over the past few
 years, it has seen rapid growth in its IT and Telecom Industry. The country has a vast coastline and countries such as Nepal and Bhutan are highly
 dependent on it.

References

- 1. The economic context of Austria Economic and Political Overview Nordea Trade Portal
- 2. Egypt's Economic Transition: Challenges and Prospects (openedition.org)
- 3. The economic context of New Zealand Economic and Political Overview Nordea Trade Portal
- 4. % of Female workers in Labour Force in Egypt: https://www.rand.org/pubs/research_reports/RR2868.html
- 5. Employment Rate in Egypt: https://www.brookings.edu/wp-content/uploads/2016/07/en_youth_in_egypt-2.pdf
- 6. Chadian Civil War: https://en.wikipedia.org/wiki/Chadian Civil War (2005%E2%80%932010)
- 7. Economy and background of Chad: https://www.worldbank.org/en/country/chad/overview
- 8. <u>Paraguay Economy | Britannica</u>
- 9. GDP: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD
- $\textbf{10.} \quad \textbf{Population:} \\ \underline{\textbf{https://data.worldbank.org/indicator/SP.POP.TOTL?} \\ locations = \textbf{AT-NZ-PY-TD-BD-EG} \\ \underline{\textbf{NS-PY-TD-BD-EG}} \\ \underline{\textbf{NS-PY-TD-BD-E$
- 11. Population Growth: https://data.worldbank.org/indicator/SP.POP.GROW?locations=TD-PY-NZ-AT-EG-BD
- 12. GDP per Capita: https://data.worldbank.org/indicator/NY.GDP.PCAP.CD
- 13. Employment
 - a. Agriculture: https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS
 - b. Industry: https://data.worldbank.org/indicator/SL.IND.EMPL.ZS
 - c. Service: https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS
 - d. Employment rate: https://data.worldbank.org/indicator/SL.EMP.TOTL.SP.ZS
- 14. Contribution to GDP
 - $\textbf{a.} \qquad \textbf{Agriculture:} \ \underline{\textbf{https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=AT-NZ-PY-TD-BD-EG} \\$
 - b. Industry: https://data.worldbank.org/indicator/NV.IND.TOTL.ZS?locations=AT-NZ-PY-TD-BD-EG
 - c. Service: https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=AT-NZ-PY-TD-BD-EG
- $\textbf{15.} \quad \textbf{Female contribution to labour:} \ \underline{\textbf{https://data.worldbank.org/indicator/SL.TLF.TOTL.FE.ZS}}$
- $\textbf{16.} \quad \textbf{Military Expenditure:} \ \underline{\textbf{https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS}}$
- 17. Education Expenditure: https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS
- 18. Gross National Expenditure: https://data.worldbank.org/indicator/NE.DAB.TOTL.ZS
- 19. Debt as % of GDP: https://www.imf.org/external/datamapper/G XWDG G01 GDP PT@FM/ADVEC/FM EMG/FM LIDC/CUB/CHN
- 20. Import: https://data.worldbank.org/indicator/NE.IMP.GNFS.ZS
- 21. Export: https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS