CORONA PANDEMIC AND WORLD OF WORK: EMPLOYMENT CRISIS AND NEED OF VISIBLE GOVERNMENT HANDS

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Abstract

In a world of differences, Covid-19 is the one common thread that has impacted every nation and individual. 'Uncertainty' is an inseparable part of the new normal, and in one's daily decision-making. One direct impact of this 'new normal' is downsizing of workforces. Work has become limited and, therefore, workforce sizes too, have been trimmed. Consequently, unemployment rates have risen globally.

Many countries have retained workers because of their strict or inflexible labour protection rights while in others, they have been furloughed. This situation is leading to economic imbalance as the size of the market is shrinking due to a lower aggregate demand level. The idea, that 'market invisible hands' will bring market equilibrium, seems to be irrelevant amid the current pandemic. From a Keynesian standpoint, solutions for such unforeseen economic shocks require maintaining aggregate demand through government intervention, in the form of fiscal policies. This can enhance labour demand and push the market out of recessionary trends by keeping production processes intact.

This study focuses on policy adoption in select countries since the pandemic's onset. It attempts to trace policy making of several countries which battled pandemic challenges to recover and sustain stability. Furthermore, the study also correlates government expenditure with the incidence of Covid-19 cases and analyses its impact on eventual employment and output. It also compiles ongoing and forthcoming government policies towards bettering job prospects along with unemployment benefits and social securities. For both facets, it is important to maintain income vis-a -via aggregate market demand.

This study relies on secondary data issued at international forums such as the International Labour Organisation (ILO), the International Monetary Fund (IMF), World Bank, and national level data of the select 10 countries. It runs regression modelling to analyse unemployment and other economic indicators. The paper further predicts the recovery curves under multiple growth scenarios.

More importantly, this paper adds to existing works of literature highlighting the emphasis on government measures in combating market failures in any pandemic scenario. It also highlights the need for effective labour protection laws that have helped retain employment, and consequently maintained aggregate demand in the economy. In addition to forecasting Covid-19's possible extended effects, mitigation strategies and proposals are suggested too.

Keywords: Covid-19, EPLex, Humanitarian Recovery, Public Expenditure, Unemployment.

1.Introduction:

The pandemic's onset was an unanticipated social phenomenon, impacting almost all economic activity globally. The attempt to safeguard lives led to imposing of lockdowns and distancing measures, and these brought on major market disruptions. Market demand for goods and services plummeted and so did labour demand.

According to the IMF, it is the worst economic recession since the Great Depression of 1929. A UNIDO survey report highlighted enterprises are in huge distress facing market losses, liquidity shortage and supply difficulties. The report also said that significant workforce numbers were furloughed.

Meanwhile, a 2020 ILO[1] estimate pegged total job losses at 255 million, or 8.8 percent of global working hours were lost. This was four times the number of working hours lost during the 2008-09 Global Financial Crisis (GFC). Labour income losses were equivalent to USD3.7 trillion or 4 percent of 2019 global GDP levels. According to a 2021 OECD report[2], global GDP declined by 3.5 percent in 2020 and 4.75 percent in OECD countries.

In a further dismal finding, UNCTAD[3] revealed that global foreign direct investment (FDI) levels had crumbled to 42 percent of 2019 levels -- from USD1.5 trillion to USD859 billion in 2020. The report added that prospects of a recovery remain weak. This situation, therefore, calls for government support across multiple spheres. Government support is key, to not only controlling the virus' spread, but in also correcting market disequilibrium. Besides, this support will boost employers' confidence in their economies and contribute towards ensuring a sustainable livelihood to those displaced from work or affected by abject poverty.

The paper emphasises the government's role, particularly in terms of public expenditure. This is a key factor in controlling market failures and boosting market recovery in any recessionary condition. Section 1 is an introduction. It is followed by a literature review in Section 2. Objectives of study is stated in Section 3. The paper then builds a predictive model in Section 4 and discusses the extent of unemployment across regions. Section 5 discusses Covid-19 action plans in select countries. Section 6, meanwhile, discusses the regression result; it relates unemployment with other economic variables. Meanwhile, Section 7 discusses measures towards a humanitarian recovery path. The final section closes the paper with a conclusion on findings.

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1 ILO Monitor: Covid 19 and World of Work:7th Edition

2 OECD Economic Outlook, May 2021

3 UNCTAD, Covid News, 21 Jan 2021

2. Literature Review

The current pandemic is reminiscent of the Great Depression of 1929. Keynes' theory (1936) —on the impact of overall spending on output, employment and inflation—finds its application in the current crisis — one that is witness to negative GDP growth and high unemployment. Keynes had suggested to then US President Franklin Roosevelt to enhance public works via public borrowing. He also suggested the maintaining of long-term low interest rates (Edwards, 2018).

The overriding idea was to extend public works, employ workers who, in turn, received an income, and to increase aggregate demand in the economy to bring it "back on track". Marx's 'Theory of Crisis' emphasised the need to employ workers to solve underconsumption concerns. This theory suggested avoiding the replacement of workers with capital since capital cannot consume the goods produced. The choice of capital, in the event of recessions, exacerbates the situation of a fall in effective demand. Bhaduri (2005) also suggested the strategy of maintaining high employment, amid a crisis, since it has a built-in mechanism for maintaining high domestic demand and relatively equitable income distribution.

Covid-19, however, has deeply impacted labour markets. According to a recent ILO report, 81 million workers have quit the labour force. This has led to a reduction in the global labour force by 2.2 percent. Also, the number of people working for less than USD1.9 a day increased by 31 million. This witnessed a surge in the extreme poverty rate to 7.8 percent in 2020 — from 6.6 percent in 2019.

The current unemployment situation is severe owing to bottlenecks in the prevailing labour market structure. According to Jha (2020), the context of Covid-19 needs to be analysed in the overall neoliberal economic regime. Over the past few decades, this neoliberal economic regime has shifted the share of income from labour to capital, increased labour market flexibility, and has seen an increase in the reserve army of labour with weak social security, among others. Amid a low labour demand scenario, government intervention is imperative to reallocate workers to productive activities (Baker et al., 2020).

The current crisis highlighted the unpreparedness of the global health sector. The situation depicted the failure of health services in being able to stem the pandemic's tide. Meanwhile, austerity measures adopted in the aftermath of the 2009 GFC impacted government spending on countries' health sectors (Ruckert & Labonté, 2017). The negative impact of reduced government funding towards health facilities is widely acknowledged in the case of OECD countries (Antonakakis & Collins, 2014).

According to a 2020 WHO report, most countries allocated USD10 or less per capita to Covid-19 health responses. Thus, it is imperative for governments to redirect financial contributions towards their respective health sectors.

3. Objective of Paper

The objective of the paper is to analyse GDP and global unemployment, and predict alternate recovery paths. It also explores unemployment and unemployment policies amid Covid-19 across select countries. It further checks the relationship between unemployment levels in 2020 with employment protection laws (EPLex), public expenditure, Covid-19 cases and GDP. The paper eventually suggests reform measures for recovery over the short-term, and reforms over the long-term.

4. Covid-19 Pandemic impact and recovery paths

The pandemic has led to contraction in world activities — spanning agriculture, manufacturing, services, trade, and FDI, among others. The world economy shrank from USD87,735 billion in 2019 to USD84,538 billion in 2020. It resulted in a loss of around USD3,000 billion, a negative 3.6 percent fall in global GDP. Negative GDP trends were witnessed across most countries. Various world forums have suggested projection forecast for the years post 2020.

The World Bank, for example, expected world economy to grow by 4 percent in 2021.[4] However, it later adjusted it to around 5.6 percent[5] for the current year. Meanwhile, the IMF forecast a 6 percent increase in the same time frame.[6]

Highlighted below are alternate scenarios that examine how and when the economic slowdown can be made up and compensated for, over the long-term.

Figure 1: Forecast for Global GDP in Alternate Scenarios
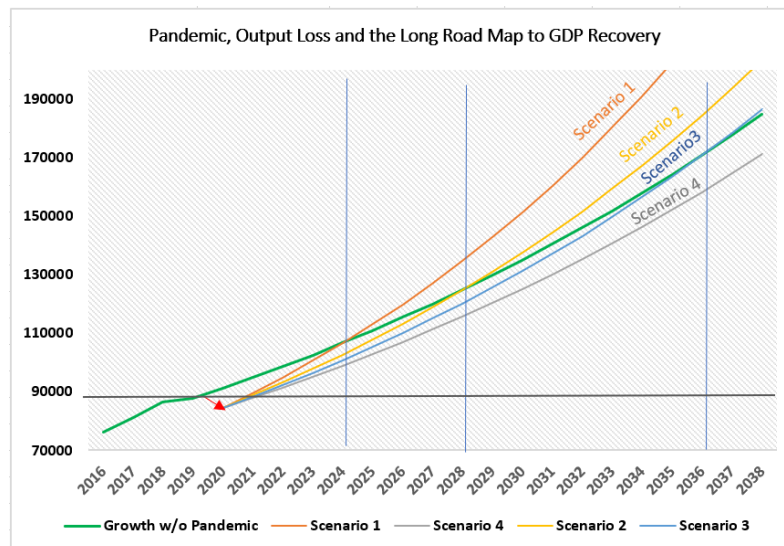
Source: Author's Calculation based on World Development Indicators annual GDP series, 2021

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4 In Jan 2021
5 In June 2021
6 In April 2021

A total of five situations are taken into account. The y-axis yields GDP value and the x-axis highlights time. The red arrow indicates GDP contraction in 2020. The first situation takes the uninterrupted GDP growth forecast, or a situation of no pandemic trend based on four yearly average global GDP.

Scenario 1 takes the growth rate as continuing at 6 percent annually for forthcoming years. Meanwhile, scenarios 2 and 3 follow a growth trajectory at 5 percent and 4.5 percent yoy, respectively. Scenario 4 follow a growth rate of 4 percent yoy from 2021 onwards. Scenario1 can catch up on lost growth without a pandemic situation by 2024 itself. Scenario 2 suggests catching up for lost growth in 2028. In Scenario 3, however, lost growth is only recovered in 2036. In case of Scenario 4, with a4 percent annual growth rate, the economy cannot catch up on lost GDP due to Covid-19.

Figure 2: Forecast for Global Unemployment in Alternate Scenarios
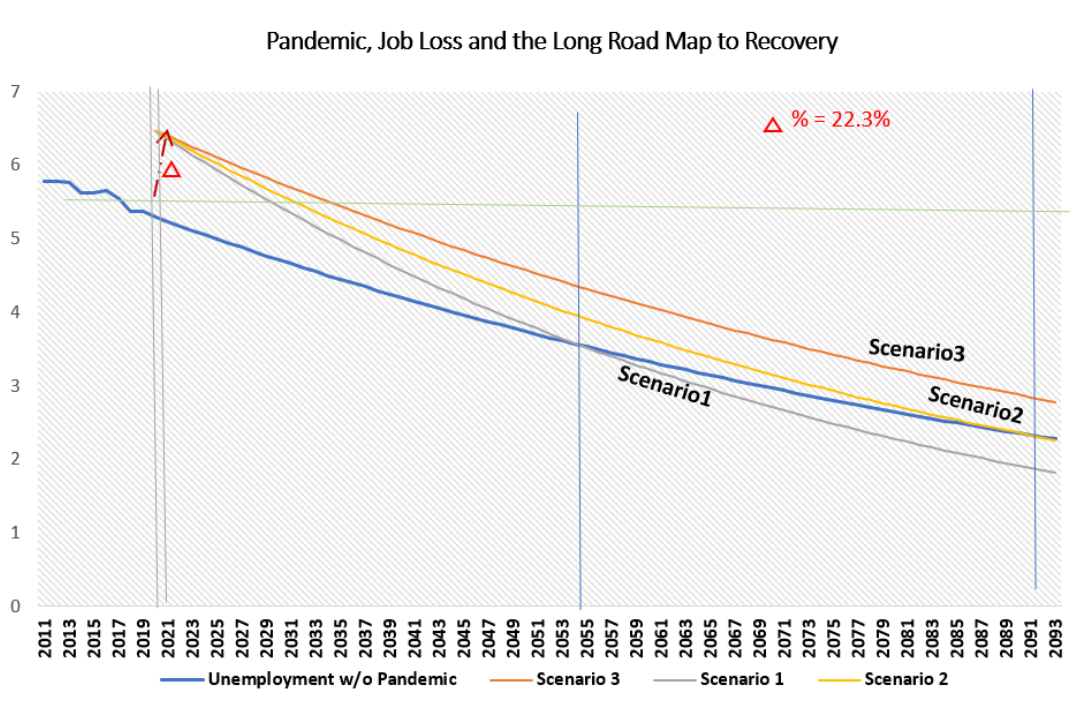
Source: Author's Calculation based on World Development Indicators, Unemployment Annual Series

The situation is bleaker for unemployment increases, on account of the global downturn. The unemployment rate, at the global level, was around 5.37 percent in 2019. Thereafter, it slid to a record high level of 6.47 percent in 2020.This 1.1 percent increase in the unemployment level was equivalent to a 22.3 percent rise in the unemployment rate, in comparison to 2019 levels. The above figure sketches alternate unemployment recovery scenarios in cases of different GDP growth rates as discussed in figure 1.

After the GFC (2015), the following four years accounted for an average GDP growth rate of 4 percent — corresponding to a 1.15 percent decline in the unemployment rate. This corelation has been used to build subsequent scenarios. The 'unemployment rate—without a pandemic line—follows a prior

trajectory, when there was no pandemic. Scenario 1, Scenario 2 and Scenario 3 follow the unemployment decline following a GDP growth rate of 6 percent, 5 percent and 4 percent, respectively. In case of Scenario 1, it can catch up to a non-pandemic unemployment situation by 2054, while for Scenario 2, the same happens only in 2091. For Scenario 3, the catch-up trail goes beyond the century.

According to UNCTAD's 2020 Trade and Development Report, "A bold and targeted fiscal expansion, led by advanced economies, is the only way to build a fair and resilient recovery from Covid-19." It further emphasises that it is time for governments to take the lead and design fiscal consolidations which can revive their economies. Also, given that developing countries have limitations on public spending, there is need for significant international support to be provided depending on the requirement of their fiscal spaces. In sum, to alleviate the current situation, governments must speed up public expenditure and investment policies. These must be initiatives that can enhance economic activities and escalate employment opportunities thereafter.

Table1: Percentage of Working Hours Lost Compared to 2019 by region

Region	2020	Q1	Q2	Q3	Q4
World	8.8	5.2	18.2	7.2	4.6
Africa	7.7	2.3	16	8	4.5
Americas	13.7	3.2	27.6	14.9	8.9
Arab States	9.1	3.3	18.8	9.4	4.7
Asia and the Pacific	7.9	6.5	16.9	5.4	2.8
Europe and Central Asia	9.2	3.9	17.3	6.8	8.9

Source: ILOSTATA, database

The table above showcases region wise details of working hours lost in 2020, both in quarterly and annual levels compared to 2019's final quarter. Globally, 8.8 percent of working hours were lost in one year, with the maximum percentage loss recorded in the Americas region. Africa registered the lowest job losses,[7] followed by Asia and the Pacific region.

The quarterly division shows that major losses in working hours took place in the second quarter. In the Americas, there was a 27.6 percent loss, 18.8 percent in Arab States, 17.3 percent in Europe and Central Asia, and a 16.9 percent loss in Asia and the Pacific. The third quarter in 2020 witnessed similar falling trends. The fourth quarter, however, shows significantly lower values for working hours for every region except Europe and Central Asia.

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[7] Based on 48 hours of working week

Table 2: Loss in Full Time Employment (FTE) in 2020 Region-wise (in millions)

Region	2020	Q1	Q2	Q3	Q4
World	253	148	523	207	131
Africa	29	9	59	30	17
Americas	51	12	104	56	34
Arab States	5	2	10	5	2
Asia and the Pacific	138	113	294	95	50
Europe and Central Asia	30	13	56	22	29

Source: ILOSTATA, database

Table 2 above illustrates full-time employment (FTE) losses region wise compared to 2019's final quarter. On average, there was 253 million job losses in 2020, with the highest losses recorded in Asia and the Pacific region, followed by the Americas, and Europe and Central Asia.

According to a recent ILO report (2020), during the first three quarters, labour income in the Asian region fell to around 10 percent — equivalent to a 3 percent GDP loss. It is estimated that over 25 million people in the region have fallen below the poverty line.8

According to Ms Chihoko Asada Miyakawa,9 low levels of social security and slim institutional strength made it difficult for entrepreneurs to rebound and employment to be generated. The situation was also magnified in the region because of the presence of a large number of workers engaged in informal enterprises. In case of the US and Europe, which contribute almost equally to world GDP (around 16 percent each), both regions were severely affected by the pandemic. Job losses were, however, more pronounced in the US than in Europe. The Pew Research Centre (2021)10 said the major reason for this difference was the presence of employment retention schemes in Europe. The US, meanwhile, focused on stimulus packages and unemployment benefits rather than on job retention.

5. Economic measures taken amidst Covid-19 Pandemic

The table below shows the country level experience and responses of select 10 countries. Advanced countries like the US, the UK and Germany faced huge employment losses and their economies contracted significantly. According to WDI, unemployment—as a percentage of workforce in the US—increased from 3.67 percent in 2019 to 8.31 percent in 2020. In the UK and Germany, the unemployment rate increased by 16 percent and 37.2 percent, respectively.

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8 Income less than $1.9 per day

9 ILO Assistant Director General and Regional Director for Asia and the Pacific.

10 Research results reported by Jesse Bennet

In response, all governments engaged in targeted public expenditures. They have spent generously on healthcare and in providing support to enterprises and workers affected by lockdowns. Support was extended by providing concessional loans, tax holidays and interest waivers. For workers affected by work limitations, governments adopted various retention policies, especially in Europe and China. The US government provided generous unemployment benefits.

For emerging economies like India, Malaysia and China, unemployment increases were 35 percent, 37.4 percent and 8.7 percent, respectively. Japan and Malaysia spent significant percentages of their GDP on non-health sector expenses and liquidity support measures. China extended a VAT exemption, financed local governments for employment initiatives, spearheaded investment projects, and accelerated issuance of government bonds.

In Japan's case, work subsidies—along with cash transfers to distressed firms—were a major policy initiative towards rekindling confidence in its economy. In India, a country otherwise characterised by strict labour policies, employment losses were exceedingly high. According to the Centre for Monitoring Indian Economy's (CMIE) 2020 report, India's initial months of lockdowns deprived 120 million workers (one-fourth of total workers) of employment. The highest contractions were experienced in the construction sector, followed by manufacturing and the hotel, trade and tourism sectors. The most affected were workers in the informal economy, governed by informal contracts; they were immediately affected by the onset of lockdowns. Poverty cases in India are exceedingly high, especially in rural areas. To tackle this predicament, the government has made lump sum cash transfers and is also providing concessional loans to restore small and medium enterprises (SMEs).

Table 3: Countries, Economic Indicators, Public Expenditure (as percentage of GDP) and Economic Recovery Plans

Country	Economic Indicator	Public Exp. indicators	Covid Plans
US	Unemp. Rise: 126.4	Health Exp.: 690 (3.3)	USD625 billion for Coronavirus Preparedness and Response Act, Family First Coronavirus Response Act, Coronavirus Aid Relief and Economic Security Act, Pay-Cheque Protection Programme and Healthcare Enhancement Act, Consolidated Appropriation Act, America Rescue Plan. USD65 billion in foregone revenue on medical expenses.
(Advanced Economy)	GDP Fall: 2.34%	Non-Health Exp.: 4638 (22.2)	USD437 billion in unemployment insurance, USD350 billion for emergency appropriations and USD349 billion in forgivable SS-loans. USD44 billion Disaster Relief Fund for unemployment.
	Covid-19 Cases: 6.09%	Accelerated Spending: 18 (0.1)	USD329 billion for Consolidated Appropriation Act support for households, businesses, education and childcare.

		Liquidity Support: 510 (2.1)	USD56 billion loan for businesses in distress. Deferment of student loans.
	EPLex:0.22		
United Kingdom (Advanced Economy)	Unemp. Rise: 16%	Health Exp.: 204 (7.5)	GBP156 billion on National Health Services, GBP2.2 billion waiver of VAT and customs duties on medical imports.
	GDP Fall: 4.3%	Non-Health Exp.: 236 (8.7)	GBP163 billion for furloughed employees' job retention, paid sick leaves, direct grant for most affected SS firms, rent support, charity support,
	Covid-19 Cases: 3.7%	Accelerated Spending: 14 (0.5)	boosting infrastructure investment.
	EPLex: 0.38	Liquidity Support:437 (16.1)	Boost labour market policies by subsidising jobs for youth, 50 percent discount for diner, funding of training and job coaching.
Germany (Advanced Economy)	Unemp. Rise: 37.2%	Health Exp.: 46 (1.2)	EUR40 billion on building hospital capacity, medical equipment and information campaigns.
	GDP Fall: 1.5%	Non-Health Exp.: 373 (9.8)	EUR286 billion in grants to hard-hit SMEs, self-employed individuals, childcare, social security, relief to affected tenants, income support to families and incentives for green and digital investment.
	Covid-19 Cases: 2.1%	Liquidity Support: 1057 (27.8)	EUR42 billion foregone in VAT reduction, corporate tax relief and personal income relief.
	EPLex: 0.50		Deferred tax payment without penalty.
			Expenditure on medical expense and duty exemption for essential sanitary products. EUR227 billion for unemployment benefits, New Covid-19 Social Relief of Distress Grant, grants and food distribution, sanitation expense and shelter to the homeless, Solidarity Fund, assist SMEs in distress, skill development, tax subsidy to lower income taxpayers, and deferral payments.
			Treasury guarantees loans from banks to businesses.
Australia (Advanced Economy)	Unemp. Rise: 28%	Health Exp.: 11 (0.8)	AUD16.6 billion on funding WHO's Regional Coronavirus Response Plan, on supporting the aged care sector and treatment of Covid-19 patients.
	GDP Fall: 2.3%	Non-Health Exp.: 208 (15.3)	AUD227 billion on providing tax free cash flow, wage subsidies, social security, infrastructure projects and other job creation activities.
	Covid-19 Cases: 0.11%	Liquidity Support: 24 (1.8)	AUD74 billion write-off to firms.
	EPLex: 0.41		Income tax cuts and tax incentive for research and development.
New Zealand (Advanced Economy)	Unemp. Rise: 11.8%	Health Exp.: 2.5 (1.2)	Doubling resources for public health.
	GDP Fall: 0.43%	Non-Health Exp.: 37.8 (18.1)	Wage subsidies, income relief payments, permanent increase in benefits.

	Covid-19 Cases: 0.04%	Liquidity Support: 5.8 (2.8)	Infrastructure investment, tourism recovery package, school infrastructure upgrade, transport projects, trainings.
	EPLex: 0.43		Writing-off NPAs, loans to airlines, loans for SMEs, and huge investment in R&D.
South Africa (Emerging Economy)	Unemp. Rise: 0.95 %	Health Exp.: 2 (0.7)	Expenditure on medical expense and duty exemption for essential sanitary products.
	GDP Fall: 14%	Non-Health Exp.: 15 (3.6)	ZAR227 billion for unemployment benefits, New Covid-19 Social Relief of Distress Grant, grants and food distribution, sanitation expense and shelter to the homeless.
	Covid-19 Cases: 1.8%	Accelerated Spending: 3 (0.4)	Solidarity Fund, assistance to SMEs in distress, skill development, tax subsidy to lower income taxpayers, deferral payment.
	EPLex: 0.33	Liquidity Support: 12 (1.5)	Treasury guarantees loans from banks to businesses.
India (Emerging Economy)	Unemp. Rise: 35%	Health Exp.: 10(0.4)	INR710 billion on Covid-19 infrastructure, INR350 billion on vaccination programmes, insurance coverage for health sector workers, Atma Nirbhar Package 1,2 & 3 for economic revival, PM-KISAN cash transfer, Production Linked Incentive Scheme, Equity Infusion for SMEs, viability gap funding for the private sector, collateral free lending, credit guarantee schemes for NBFCs, guarantee for farmer loans, infrastructure fund of INR3 trillion for agriculture.
	GDP Fall: 5.63%	Non-Health Exp.: 80(3.0)	
	Covid-19 Cases:0.74%	Accelerated Spending: 19 (0.7)	
	EPLex: 0.43	Liquidity Support: 138 (5.1)	
China (Emerging Economy)	Unemp. Rise: 8.7%	Health Exp.: 21 (0.1)	RMB147 bn on epidemic prevention and control, tariff exemption on import of medical supplies.
	GDP Fall: 1.52%	Non-Health Exp.: 689 (4.7)	Help local governments to finance employment initiatives, meet basic needs, incentives for companies who do not lay off workers, increased ceiling on government bonds spent on investment projects.
	Covid-19 Cases: 0.01%	Accelerated Spending: 232 (1.6)	VAT exemption, companies in distress can postpone social insurance payment.
	EPLEX: 0.46	Liquidity Support: 193 (1.3)	Accelerated issuance of government bonds. Housing loans deferred until 2021. Enhance infrastructure investment.
Japan (Emerging Economy)	Unemp. Rise : 23.7%	Health Exp.: 90(1.8)	JPY76 trillion on production, procurement and distribution of Covid-19 kits to all states.
	GDP Fall: 1.94%	Non-Health Exp.: 711(14.1)	Guarantees on bonds, university funds, loans and guarantees to affected SMEs, loans to hospital for upgrades.
	Covid-19 Cases: 0.19%	Accelerated Spending: 244(4.8)	Work subsidies, incentive to accelerate production in services and infrastructure.
	EPLex: 0.35	Liquidity Support:1429(28.3)	Cash transfers, lump sum transfer to firms in distress, subsidies for banks.

| Malaysia (Emerging Economy) | Unemp. Rise: 37.4% GDP Fall: 7.2% Covid-19 Cases: 0.35% EPLex: 0.26 | Health Exp.: 0.4(0.1) Non-Health Exp.: 14.7(4.3) Liquidity Support:12(3.5) | Wage subsidy to workers earning less than MYR4000 monthly, 25 percent reduction of foreign hiring, renegotiating work contract. Enhanced financing schemes for SMEs, concessional loans, tax waiver, hiring and training assistance, support to gig economy. Childcare subsidy, health care needs, support to low income individuals, MYR3 billion for internet connectivity to support e-learning. |

Source: Author's Compilation from IMF Fiscal policy Response Database April 2021

6. Unemployment and other economic indicators

A regression analysis is performed to check the relation between unemployment with other economic indicators. It also reconfirms the region wise unemployment rate.

Data Methodology: Unemployment is taken as the dependent variable and is expressed as an annual rate of change from 2019 to 2020. Six independent variables are taken. The first three are public expenditure as a percentage of GDP, and the fourth is Covid-19 cases as a percentage of total population. GDP changes as percentage change for year 2019, are taken. Meanwhile, the EPLex value is another variable whose value ranges between 0 to 1. All values, however, are confined to year 2020 only. Region and income groups are used as dummy variables here. In total, 112 countries are taken into account. They were divided into five sections by region — namely, Europe and Central Asia, Africa, Americas, Arab States, and Asia and the Pacific. The four income groups are High Income, Low Income, Lower-Middle Income and Upper Middle-Income groups.

Figure 3: Selection of Countries Regionwise and Income Wise
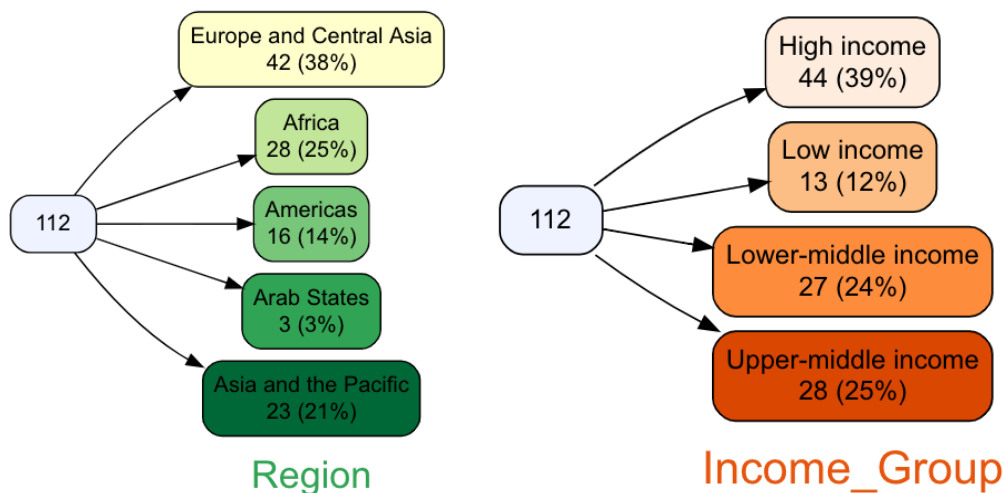
Source: Author's selection based on ILO country codes for region and income

Table 4: Data Source and Labels

Indicator	Source	Methodology	Labels
Unemployment	World Bank	Percentage Change from 2019 to 2020	Chg_Unemployment
Health Sector Expenditure	IMF	Expenditure as Percentage of GDP	Health.sector
Non-Health Sector Expenditure	IMF	Expenditure as Percentage of GDP of country	Non.health.sector
Liquidity Support	IMF	Expenditure as Percentage of GDP	Liquidity.Support
EPLEX	ILO	Total value of EPLex Indicator	EPLex, ILO
Incidence of Covid Cases	John Hopkins University	Total Covid cases as percentage of population in 2020	Covid_Case_Prop.popl
GDP	IMF, World GDP	Percentage Change in GDP from 2019 to 2020	Chg_GDP
Region	ILO	5 Divisions by Region	Dummy Variable 1
Income Group	World Bank Income Group	4 Division by Income	Dummy Variable 2

Source: Author's Compilation

Table5: Descriptive Statistics

|	n	mean	sd	in	max
Chg_Unemployment	112	28.19	37.69	-18.46	258.00
Health.sector	112	0.92	0.94	0.00	7.52
Non.health.sector	112	4.37	4.14	0.18	22.15
liquidity. Support	99	4.72	6.77	0.00	36.54
EPLEX	85	0.42	0.10	0.15	0.64
Covid_Case_Prop.Popl.	112	1.76	1.90	0.00	7.31
Chg_GDP	112	-4.02	7.50	-23.60	19.68

Figure 4: Correlation Plot
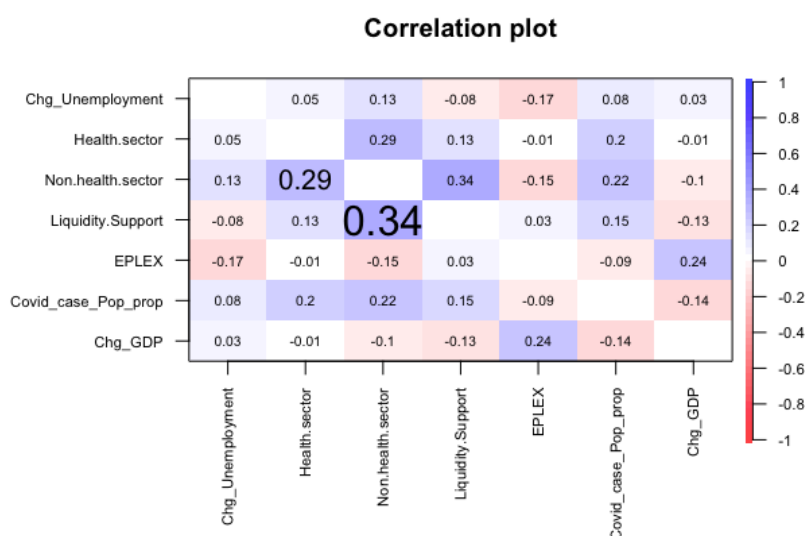
Statistical results: To find out the relation between outcome and predictors in the present model, multiple linear regression is used. The **descriptive analysis** table shows the mean value of change in unemployment to be 28.19 percent while GDP, on average, has contracted by 4.02 percent. Health sector expenditure, on average, was 0.92 percent of GDP while non-health sector and liquidity support averages were 4.37 percent and 4.72 percent, respectively. Covid-19 cases averaged 1.76 percent of total populations, with a maximum of 7.31 percent. The EPLex values ranged from 0.15 to 0.64. The **correlation analysis** shows unemployment to be positively related to a GDP decline and Covid-19 cases. However, there was a negative corelation to liquidity support — meaning, the higher the liquidity support, lower was the unemployment.

There was negative relation between unemployment and EPLex as well. This meant countries—that had strong labour protection laws—were able to reduce the incidence of unemployment during the pandemic phase. The **regression analysis** showed the R square value is .425 or 42.5 percent and F = 3.63 and P <.05. These showed that the model is statistically significant at the 5 percent level.

Liquidity support and EPLex established a negative relation with change in unemployment with beta of -18.79 and -.153. The remaining predictors are positively related with the outcome variable. However, none of them are statistically significant. With dummy variables, keeping the European region as a reference group, this region established significant differences with regions such as the Americas, Asia and the Pacific, and Arab States. An assessment of quality of model can be determined by AIC, where lower the figure, better the model. Adjusted R square is .308 or 30.8 percent; this is moderately good.

Figure 5: Distribution Curve for Selected Indicators Region Wise:
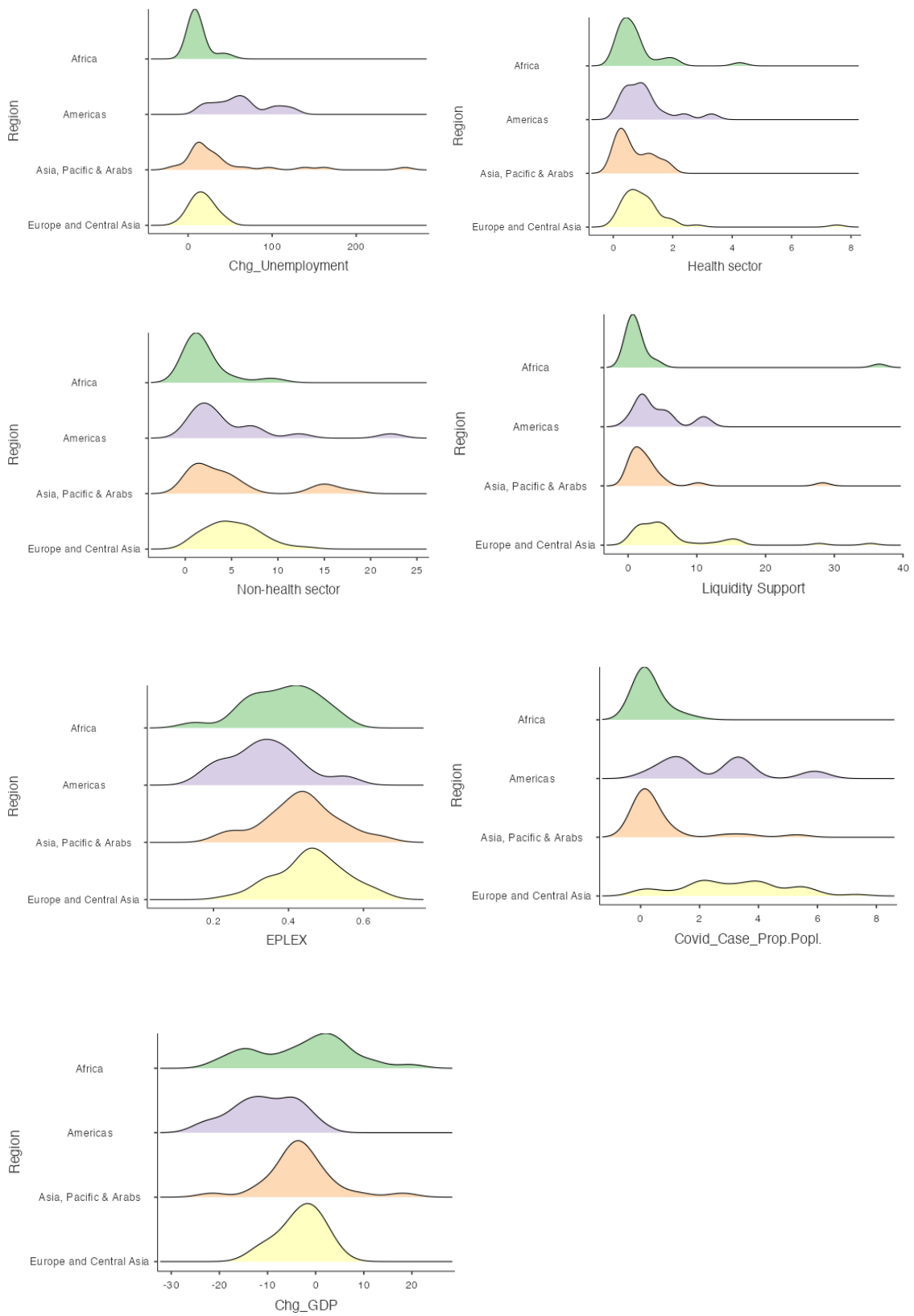
Figure 6: Distribution Curve for Selected Indicators IncomeWise:
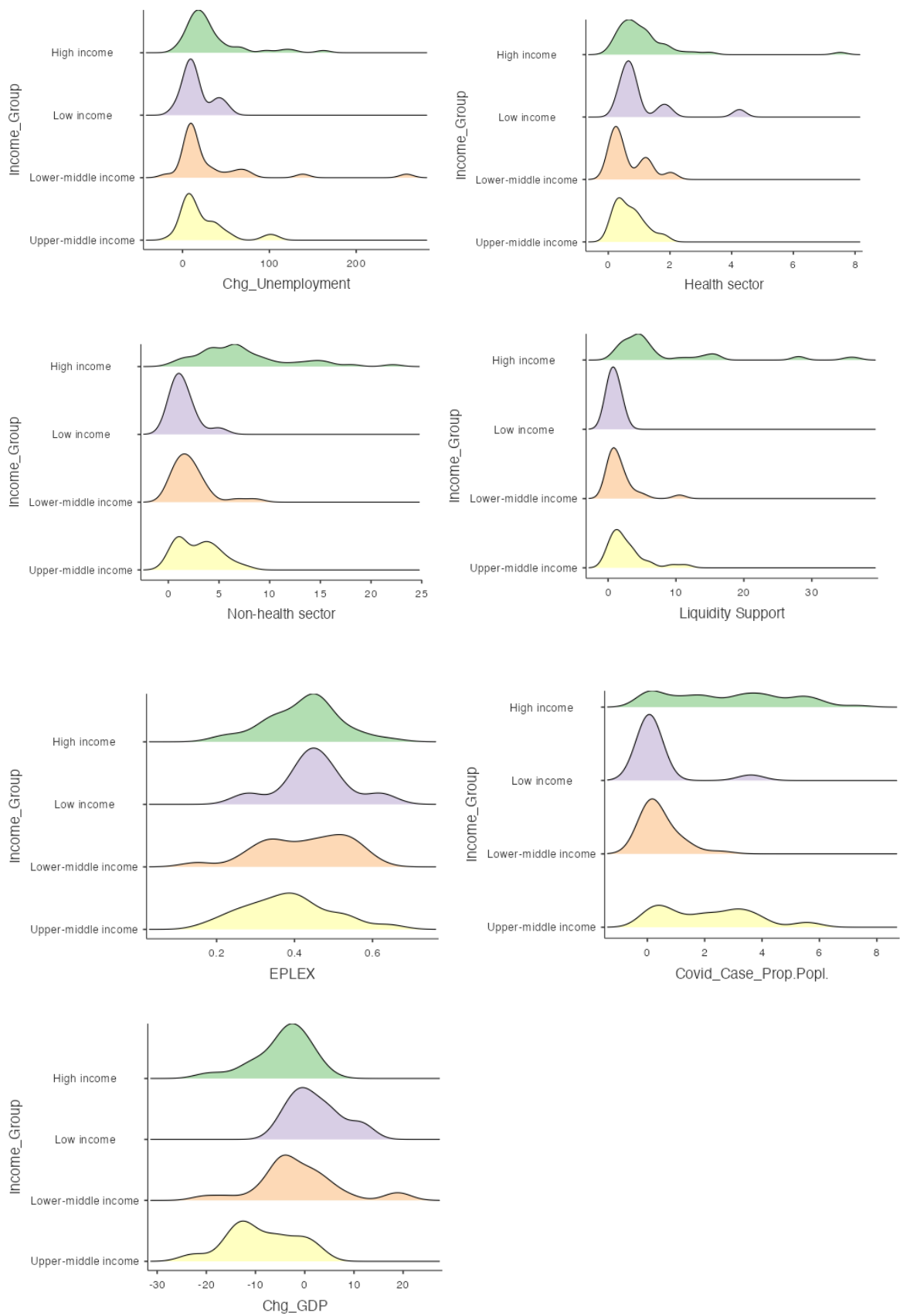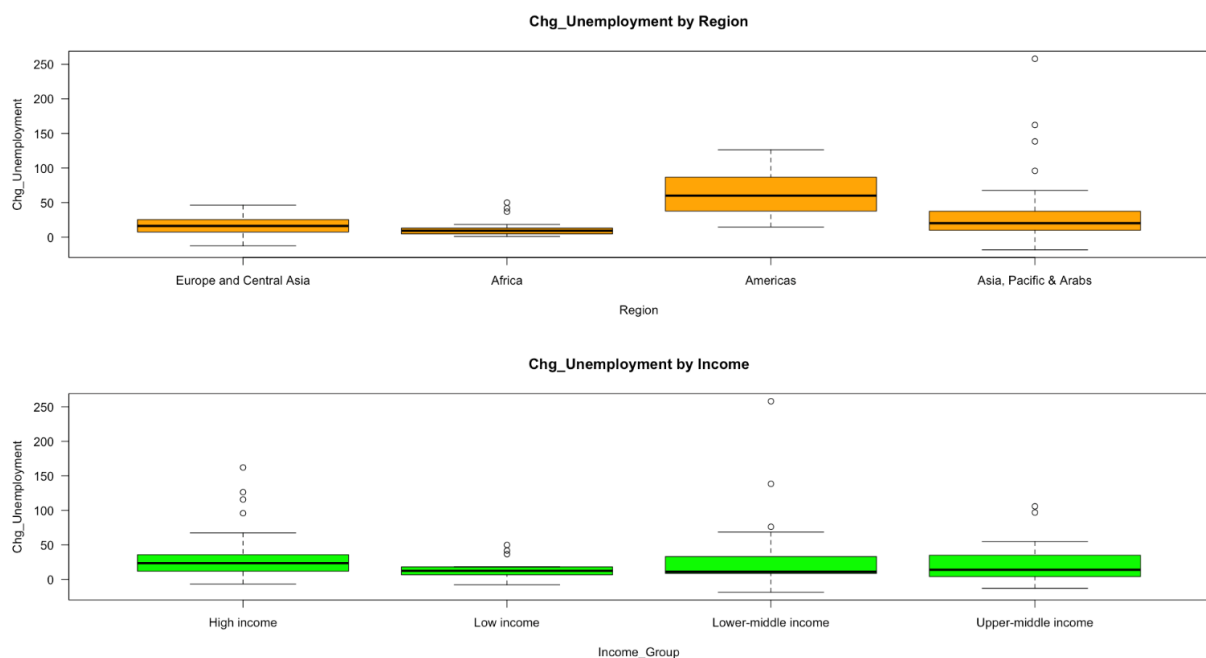

Source: Author's calculation

The figures below show distribution of regression indicators, according to both region and income. Unemployment spread is higher in the Americas as depicted. For other regions, the spread is comparatively lower and the peak value is on the lower side. Health sector expenditure and non-health expenditure varies more on higher ends in case of both Asia and the Pacific, and the Americas.

Liquidity support measures are more pronounced in case of Europe and the Americas, compared to Africa, and Asia and the Pacific. EPLex can show higher values in Asia and the Pacific, and Europe as compared to the Americas, while showing a relatively uniform distribution in Africa. Covid-19 case spread is highly pronounced in case of Europe and the Americas. The change in GDP is most spread, and on lower range, was recorded in case of the Americas, followed by Asia and the Pacific region and Europe.

The income wise distribution graph shows not much variation across groups, unemployment and public expenditure indicators. However, Covid-19 cases seem to be significantly spread widely in high income and upper middle-income groups. GDP loss is also found to be more pronounced in case of upper middle-income countries.

Figure7: Boxplot of Unemployment by Region and Income Groups

Source: Author's Calculation based on regression analysis

The boxplot further shows the unemployment variation across regions where American and Asia Pacific countries have significant values for unemployment as compared to the European region. But in case of a country analysis on income levels, there seems to be no significant difference.

7. Recovery and Reform Measures

The incidence of Covid-19 was an unexpected natural phenomenon, casting a multi-faceted impact. However, the severity of the ensuing health emergency could have been lower, had governments aptly allocated funding to healthcare, and related research and development areas.

In addition, the phenomenon of rising inequality and higher incidence of poverty could have been limited if institutions had allocated resources from the top wealth accumulators to those in the bottom rungs, who struggle for their daily basic needs. The soaring unemployment levels could have been mitigated if institutions had superior employment protection legislation and the willingness to provide necessary support to enterprises to stay afloat in times of distress. Had there been strong social security provisions, the number of people falling into extreme poverty would have been lower. Thus, the resulting bottlenecks due to institutions' and governments' negligence towards social infrastructure, from long-term perspectives, destabilised economies severely amid the pandemic.

There are five broad majors under which the author wants to discuss recovery and reform measures that can be implemented to alleviate the pandemic's impacts. It attempts to highlight the way ahead for humanitarian recovery over the long-term. The suggested routes comprise the following:

A. **Generous public expenditure:** The extent of unemployment and slowdown of economic activities induced by the current crisis is far greater than in a typical slowdown or recession. Keynes' suggestions of recovery followed by recovery measures that are backed by government through public works, financial reform and regulation, are relevant today (Edward, 2018).

Figure 8: Debt to GDP Ratio
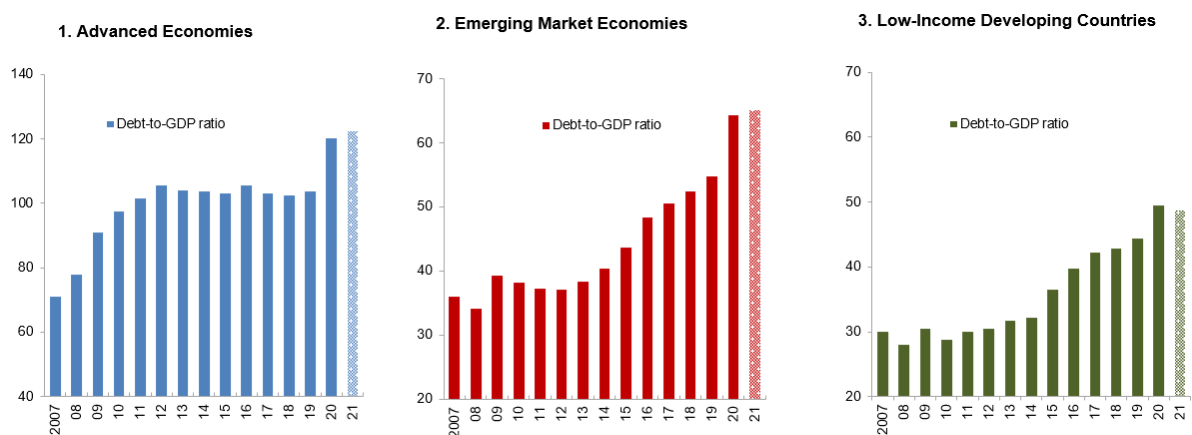
Source: IMF, Fiscal Monitor Database, Apr 2021

The table above shows the debt-to-GDP ratio of advanced, emerging and low income developing countries. The difference in ratio is significant in advanced countries that were spending. In such countries, the ratio was as high as 120 in 2020. But in emerging economies, it was only 64.4 percent

and in low developing countries, it was just 49.5 percent. It is evident that any austerity measure, at this stage, will push countries lower on the rungs of the recovery ladder (Ghosh, 2021). Countries need to enhance expenditures irrespective of their developmental stage.

i)   From the table above, a key takeaway is the fact that the US and Germany have provided generous loans to enterprises in distress. Germany initiated the Solidarity Fund, the UK introduced VAT exemptions and there were also deferred tax payment options, and concessional loans offered to enterprises. Such policy measures can retain investors' confidence to invest in such markets.

ii)   The UK, China, Australia and New Zealand are spending immensely on infrastructure and transport. School infrastructure spending is particularly high in terms of labour absorbing activities. A similar strategy can be adopted by emerging and developing nations for employment revival in their countries.

iii)   Populous countries like India are witness to the majority of their workers being employed in the informal sector and a high incidence of SMEs. According to Adian et al. (2020), SMEs are struggling more with reduced demand and are facing cash crunches more than larger firms. They need grants, and not loans, to sail through the pandemic.

iv)   According to an OECD report, despite the severity of the 2014-16 Ebola crisis, inadequate action was taken to ramp up medical facilities. As per WHO (2019) estimates, an additional USD370 billion was required annually for providing primary healthcare in lower- and middle-income countries to meet the sustainable development goals of Universal Health Care. Despite increased mobilisation of healthcare investment in the wake of Covid-19, there is more room for enhancement. WHO (2020) recommends providing public funds timely to frontline workers and developing sound tracking systems to monitor health responses.

B. **Narrowing inequality:** The graph below displays the income distribution at a global level. In 2019, 52.1 percent of income was retained by the top 10 percent of the working class. Meanwhile, the bottom 50 percent had only 8.6 percent of the share, leaving 39.3 percent income to the middle 40 percent.
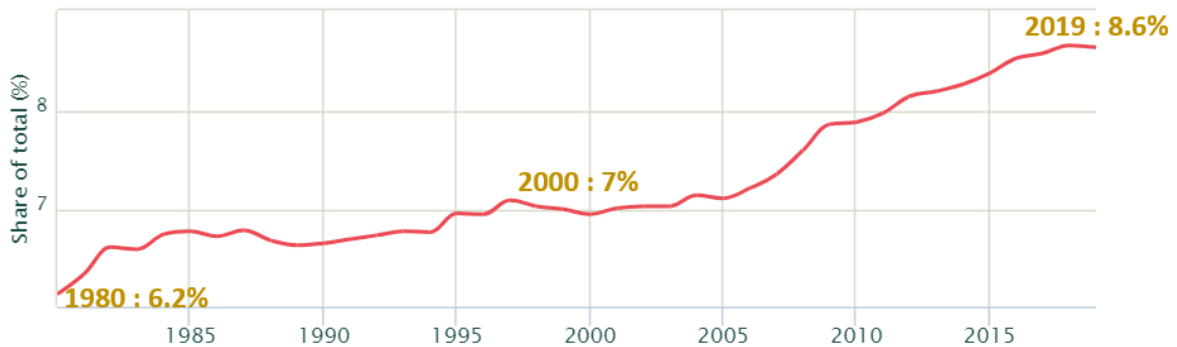
Graph 9.a: Income Share of Top 10 percent, World
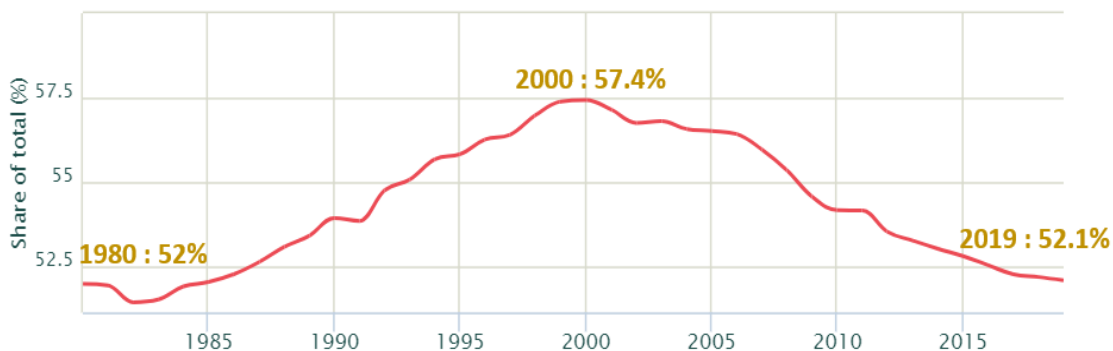
Graph 9.b: Income Share of Middle 40 percent, World
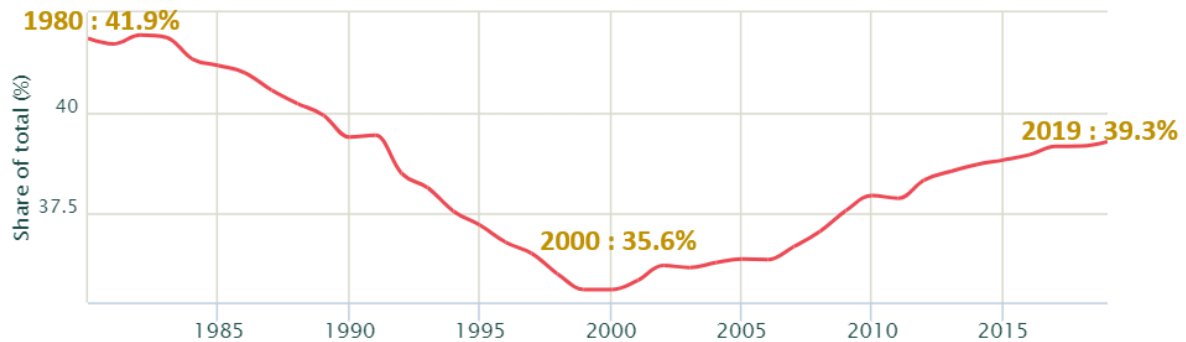
Graph 9.c: Income Share of Bottom 50 percent, World

Source: World Inequality Database

The pandemic has further moved the income share in favour of those already on the higher end of the income spectrum. With a K-shaped recovery evident presently, it is time governments take account of industries and multinationals who evade taxes on super normal profits. Such organisations must be taxed according to their income earned in their countries of operation. The following are possible ways.

i. It is time to implement the global corporate tax. The President Biden administration has sent the proposal to 135 countries for negotiating international taxation at OECD in Paris for its ambitious global minimum tax. This framework suggests taxing the world's biggest multinational companies to pay taxes to national governments based on revenues earned, irrespective of their physical presence in that country. The Biden administration suggested a 21 percent global corporate tax rate and ICRICT proposed a minimum 25 percent effective corporate tax rate to avoid profit shifting. However, at the G7 meeting in June 2021, a 15 percent global tax rate was agreed upon. This will enhance revenue receipts for governments.

ii. According to a World Bank report, the digital economy accounts for an estimated 15.5 percent of world GDP. Meanwhile, it is growing two and a half times faster than world GDP over the past 15 years. The pandemic was only a further catalyst to the digital ecosystem's growth. There have been

concerns over drafting an international tax system to leverage the digital economy's growth. An approximate 50 percent of European countries have either implemented or announced a digital service tax, ranging between 1.5 percent to 7.5 percent on the gross income of large digital firms. Still, many countries are yet to implement digital taxes in their jurisdictions that can otherwise enhance tax revenues for them (Bloomberg, 2021).

iii. With an evident rise in wealth inequality, there is voice to raise the wealth tax. US Senator Elizabeth Warren proposed a wealth tax of 2 percent on net wealth above USD50 million, and 6 percent on net wealth above USD1 billion. According to Sage and Zuchman (2021), the wealth of the 400 richest Americans reached the equivalent of 18 percent of the US' GDP in April 2021 ― double the levels observed in 2010.

iv. Limiting tax evasion is another way to enhance the tax base. This, in turn, can finance public investments, especially in developing countries.

C. **Social protection and provisions for the vulnerable:** Governments across nations need to do what it takes to reassure people that society does care, and that their minimum well-being is a key priority. Allocation of resources is one of the fundamental priorities of any government. The figure below shows the income distribution or poverty level at multiple income ranges region-wise. There is a significant number of workers who earn less than USD10 daily even in high income countries. The current pandemic has shaken the prevailing income frame. It has pushed significant numbers of workers in low- and no-income ranges globally, but more so in case of South Asia and Africa. In these regions, workers have little employment protection or provision in case of unemployment. Governments must, therefore, ensure an inclusive recovery plan which maintains dignity and support to people who subsist on low incomes.

Figure10: Global Income Distribution by World Region
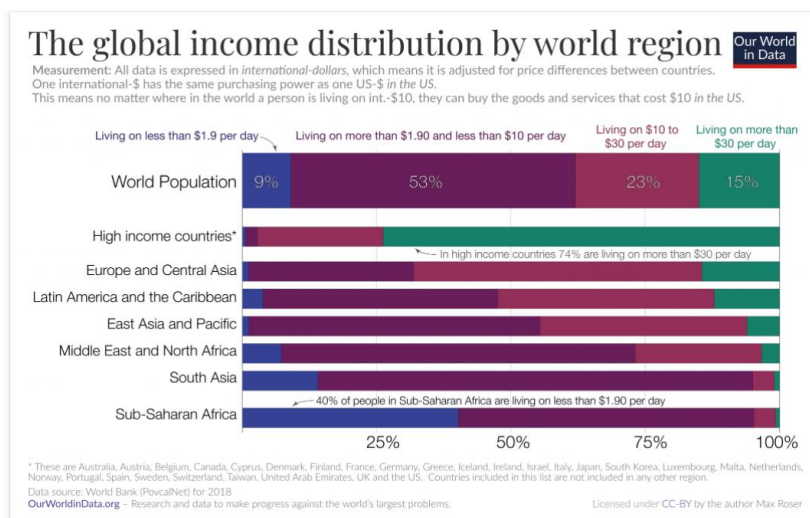
Source: Our World in Data, 2021

i)   Jha and Golder (2008)aptly detailed the weaknesses of labour markets and suggested the inclusion of unemployment / employment insurance as a key priority for labour market reform. To balance the labour market flexibility and security, governments must ensure minimal income and social security for all its citizens.

ii)   Mehrotra (2020) defines social security into two categories. First, social assistance must be extended to those who are unable to work or who earn a low income; it will ensure basic income and consumption. Second, provision of social insurance to those who work, but do not have safety nets like insurance and benefits that are available to workers employed in the organised sector. Although the study focuses on informal workers in India, its scope is valid for all countries with a high ratio of informal workers in their respective workforces.

iii)   ILO (2020) describes Covid-19 as a wake-up call to fix the bottlenecks of social security and it advocates the need to apprehend them for the long run. It suggests extension of social security to include self-employed workers, platform workers and independent workers. Ad-hoc payments to financially vulnerable groups like poor and young people, extension of paid leave, and workplace flexibility, are also recommended.

iv)   Amid the pandemic, the call for a Universal Basic Income—as proposed by the World Economic Forum—has gained more support. The work of Nobel Laureate Abhijit Banerjee's (2019) paper describes pilot survey results of such income support in select regions. The before-and-after analysis of income transfer in the Otjivero-Omitara area of Namibia in 2008-09 suggested a fall in poverty and child malnutrition levels. It was also accompanied by high enrolment rates in schools. The other pilot programme was carried out in 2010-11 in Madhya Pradesh, India. This programme showed significant improvements in social indicators like diet, health, education, income and assets.

D. **Job Protection and Promotion:** An Active Labour Market Policy (ALMP) is a way forward to reduce unemployment and limit its rise over the long-term (Martin, 2015). According to a recent OECD Report (2021), many countries are adjusting government budgets to accommodate for ramping up ALMPs. Hungary, Poland and Switzerland increased their spend by 21 percent, 30 percent and 20 percent, respectively, in 2020 compared to the 2018-19 period. Plans are afoot to further enhance ALMPs in 2021.

i)   An ALMP is a key sphere to ensure workers' retention in firms and for rehiring of displaced or unproductive workers into alternate jobs (Dias et al, 2020). Along the lines of the UK's Coronavirus Job Retention Scheme, short run subsidies to correct labour market fluctuations have been implemented in Germany, France and Spain. Other governments too can provide wage subsidies, hiring subsidies, incentive to retain workers and provide job search assistance (Roshlom et al, 2014). Job searching tools are especially important for youth who are highly

susceptible to unemployment during crises (Crossley et al, 2019).

ii)   Over the past decade, there has been a clear diversion of work towards artificial intelligence or AI, robotics, big data and machine learning, among others. Therefore, jobs of the future will demand skill sets that are aligned to such industries. ALMPs, meanwhile, offer training as a central part to help youth find quality jobs that can ensure a decent standard of living. According to Smith et al (2021), delaying training and upskilling apprentices for students can seriously impact this objective. It is necessary to ensure training processes become resilient to disruptions going forward.

iii)   Education needs to be aligned the way the labour market is evolving. According to Nobel Laureate Brian P Schmidst, the current pandemic has accelerated the change in learning models, especially as online education models become a mainstay. It is time, therefore, to reskill and upskill educational models as education truly is an economic equaliser.

iv)   According to Autor (2018), the labour share is falling continuously and moving to capital. The share of AI workers, for example, has considerably increased since 2015; this poses threats to workers' wage shares. A part of ALMPs must create jobs in sectors that have low possibility of capital substitution, even in the long run. These include sectors such as childcare, the health sector and elderly-care (Banerjee, 2021[11]). Governments should encourage start-ups through incentives like Africa's Youth Entrepreneurship Investment Bank proposal.

E. **Employment protection and regulation of informal work:** The ILO Eplex maintains data on legal regulations governing temporary work contracts and their termination. It shares data regarding employment protection provisions of 116 countries. The EPLex indicator value ranges between 0 to 1, where a higher value indicates higher provisions for employment protection in the country. The figure below indicates the employment protection across five regions.

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[11] Abhijit Banerjee emphasised this discussion in 10 day Online Conference at Paris School of Economics, May-June 2021

Figure11: Eplex Indicators distribution by World Region
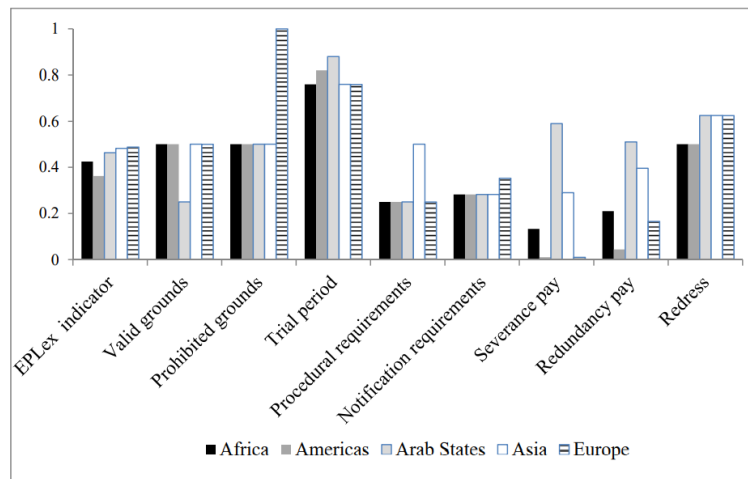
i) **Valid and prohibited grounds for termination:** Convention 158 states that terminations should be made on valid grounds or on account of reasons connected to the worker's capacity or conduct, and operational requirements of enterprises. It also suggests prohibited grounds of dismissal; these include termination on discriminatory grounds like race, gender, and union membership, among others.

ii) **Trial period and procedural requirements:** The trial is an employment period where workers are excluded from all provisions of employment protection. Governments, therefore, need to check on the limit of this trial time period. In fact, they could replace them with short fixed-term employment contracts. Procedural requirement is the mandated legal process to terminate a worker, failing which, the dismissal stays nullified. Strict procedures often restrict employers from engaging in unnecessary and biased terminations.

iii) **Notification requirements:** Termination of jobs should adhere to the practice of giving prior notice. This can offer ample time to an affected worker to mentally prepare and find another job. A sudden termination has repercussions for not only the employed worker but also for his or her dependents.

iv) **Severance and redundancy pay:** Workers should be provided fair separation benefits by an employer. It is usually based on the reason of termination, the worker's salary, and the individual's tenure at that particular workplace. It is, therefore, a type of unemployment insurance to cushion the impact to the person being terminated. The termination of employment may have stemmed from his or her conduct, the firm's capacity or because of an economic downturn.

v) **Redress**: It is within the rights of a worker to apply against any unfair dismissal. It is also a worker's right to seek legal recourse where employers may have possibly resorted to an unfair dismissal.

8. Conclusion

The measures to combat Covid-19's spread have stalled economic activities and led to enormous job losses. This paper tries to trace Covid-19's impact on GDP and employment losses. It attempts to gauge different growth scenarios that highlight timeframes needed to catch up for income and employment losses. The spotlight is cast on the fact that a high growth rate is indeed desirable to compensate for losses on account of the slowdown.

The findings also indicate that the pandemic's impact on unemployment is dismal, and that the recovery path will take a longer time period. The paper further tries to capture the extent of unemployment across regions. The unemployment rate, it was inferred, varies significantly across geographical regions. However, unemployment variation for countries—based on income divisions—was insignificant. It also shows that unemployment is positively related with GDP contraction but it bears a strong negative relation to countries' EPLex frameworks. Results show that public expenditures—such as liquidity support measures—have a significant inverse relation to unemployment increases.

The paper also illustrates the most progressive measures, adopted by the select 10 countries, across their healthcare sectors and towards economic recovery. These measures can be followed by countries that are still obsessed with austerity measures. In addition, the paper also advocates that the extent of economic losses could have been curtailed if governments focused more on building stronger healthcare and better social security infrastructure. It is these bottlenecks, in public policies and in institutional resilience, that exacerbated the situation. In sum, the paper proposes several institutional reforms for economic sustainability under five broad categories.

Without doubt, the current situation cannot be resolved through free market policies. Rather, it requires substantial government interventions to retain, generate and maintain employment through generous expenditures in healthcare, social infrastructure, and education, among others. The paper emphasises the imminent need for governments to focus on labour policies, strengthen employment protection laws, and enhance their social security provisions. Prioritising on these key areas will cushion workers in the event of future economic downturns and unforeseen calamities.

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APPENDIX

Study Indicators by region and Income level: One way ANOVA

	Region N		Mean	SD	SE	F value
Chg_Unemployment	Africa	28	11.95	11.85	2.24	
	Americas	16	63.52	33.93	8.48	
	Asia, Pacific & Arabs	26	41.74	60.56	11.88	12.75
	Europe and Central Asia	42	17.18	13.73	2.12	
Health sector	Africa	28	0.8	0.86	0.16	
	Americas	16	1.06	0.82	0.2	1.55
	Asia, Pacific & Arabs	26	0.69	0.59	0.11	
	Europe and Central Asia	42	1.08	1.17	0.18	
Non-health sector	Africa	28	2.09	2.38	0.45	
	Americas	16	4.94	5.57	1.39	
	Asia, Pacific & Arabs	26	5.18	5.5	1.08	8.5
	Europe and Central Asia	42	5.16	2.87	0.44	
Liquidity Support	Africa	21	2.75	7.82	1.71	
	Americas	13	4.19	3.5	0.97	
	Asia, Pacific & Arabs	23	3.44	5.85	1.22	1.74
	Europe and Central Asia	42	6.56	7.16	1.11	
EPLEX	Africa	21	0.38	0.1	0.02	
	Americas	13	0.34	0.1	0.03	
	Asia, Pacific & Arabs	19	0.43	0.1	0.02	5.86
	Europe and Central Asia	32	0.46	0.09	0.02	
Covid_Case_Prop.Popl.	Africa	28	0.3	0.45	0.08	
	Americas	16	2.51	1.75	0.44	
	Asia, Pacific & Arabs	26	0.65	1.29	0.25	38.02
	Europe and Central Asia	42	3.14	1.78	0.27	
Chg_GDP	Africa	28	-2.46	9.95	1.88	
	Americas	16	-10.43	6.81	1.7	
	Asia, Pacific & Arabs	26	-3.17	7.16	1.4	5.43
	Europe and Central Asia	42	-3.14	4.45	0.69	

Regression Results:

	Model
	Chg_Unemployment
Intercept	25.429
	(22.197)
Chg_Unemployment	
Health. Sector	0.066
	(3.086)
Non.health.sector	0.415
	(0.895)
Liquidity. Support	-0.153
	(0.495)
EPLEX	-18.797
	(36.743)
Covid_case_Pop_prop	0.334
	(2.244)
Region Africa	-5.817
	(12.014)
Region Americas	48.902***
	(11.215)
Region Asia, Pacific & Arabs	14.349**
	(10.568)
Income_GroupLow income	22.252
	(16.704)
Income_GroupLower-middle income	0.98
	(10.609)
Income_GroupUpper-middle income	-11.898
	(9.357)
Chg_GDP	0.308
	(0.522)
Num.Obs.	72
R2	0.425
R2 Adj.	0.308
AIC	675
BIC	706.8
Log.Lik.	-323.478
F	3.63***

*p<0.1; **p<0.05; ***p<0.01

$Y = a + b_1 * X_1 + b_2 * X_2 + b_3 * X_3 + b_4 * X_4 + b_5 * X_5 + b_6 * X_6 + b_7 * X_7 + b_8 * X_8 + e$

DV: Y = **Chg_Unemployment**

IV:X1=Healthsector,X2=Nonhealthsector,X3=LiquiditySupport,X4=EPLEX,

X5=Covid_Case_Prop.Popl., X6=Chg_GDP, X7=Region and X8=Income level and e = error

term

Regression Results **: Unemployment Vs Loss in GDP, EPLEX , Liquidity Support , Covid Cases**