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MEASURING AND ANALYZING THE IMPACT OF THE ECONOMIC COSTS OF TRAFFIC ACCIDENTS ON ECONOMIC GROWTH IN IRAQ FOR THE PERIOD 2004-2021

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Abstract:

Traffic accidents constitute a negative and serious challenge to society, and are considered a factor that has an impact on the loss of material and human energies by increasing death rates or increasing the number of injured as a result of them. It is up to the individual to determine his different abilities and the accompanying economic, social and psychological crises and problems that are extremely complex.

This research aims to analyze and measure the impact of the economic costs of traffic accidents on economic growth in Iraq and the goals of economic development using the Eviews 12 program. With its counterpart in other countries. The research also found that there is an adverse and significant effect in the short and long term of the costs of deaths and injuries on the gross domestic product according to the US costs as a result of traffic accidents, that is, when an increase (the cost of deaths X1, the cost of injuries X2) leads to a decrease in GDP Y And the presence of an adverse and significant effect in the short and long term for the costs of deaths and injuries according to the German costs as a result of traffic accidents, that is, when increasing (the cost of deaths x1 and the cost of injuries X2) leads to a decrease in the gross domestic product Y. The research also found that there is a long-term equilibrium relationship between the economic costs of traffic accidents and the gross domestic product, according to the results of joint integration. As well as the absence of the problem of autocorrelation, and the absence of the problem of homogeneity of variance at the level of significance 5%. The research recommended some proposals, the most important of which is the application of the traffic system and the penalties stipulated in the system for traffic violations with full firmness and responsibility by the designated authorities. And the use of traffic awareness throughout the year in all media and in schools and the introduction of the traffic system within the school curricula, with a focus on explaining the economic and social impacts and losses of traffic accidents.

Keywords:

THE INTRODUCTION:

Traffic accidents are among the most prominent problems suffered by developed and underdeveloped societies alike, because of their economic and social effects on society. Injury or disability estimated at (50) million people per year. The report also indicated that half of the victims of traffic accidents are road users. Traffic accidents cost most countries in the world at least

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estimated at about (518) billion dollars annually (www.98antiacc.com).

In the light of the foregoing, traffic accidents constitute an important and major factor of waste and loss for countries and states. Perhaps Iraq after 2003, and as a result of its openness to the world, the increase in the number of cars entering it, the failure to open new streets or the failure to expand the current streets, and other factors, perhaps all of this made Iraq lose. Every year, many members of his productive community are involved in traffic accidents, whether the deceased or the disabled.

In this study, the researchers are trying to shed light on an important cause of waste and loss in Iraq and its impact on economic and social development. The phenomenon and then analyze it and put a treatment for it as soon as possible.

RESEARCH IMPORTANCE:

The study of the problem of traffic accidents is one of the topics that should receive wide attention because of its impact on the state's economy and its social entity, especially as it targets the human element, which is the most important element in the lives of peoples and in the process of economic and social development through the material and human damage it causes.

RESEARCH HYPOTHESIS:

The research is based on the hypothesis that traffic accidents have significant economic costs affecting the Gross domestic product (economic growth) in Iraq.

Search goal:

The research aims to:

1- Identifying the most prominent economic and social impacts resulting from traffic accidents.

2- Diagnosing the factors affecting traffic accidents in order to develop appropriate plans and strategies to reduce these accidents.

3 - Measuring and analyzing the impact of the economic costs of traffic accidents on economic growth in Iraq for the period 2004-2021

Research style and structure:

The research relied on the analytical method of traffic accidents in Iraq and estimating the parameters of the model using the Eviews 12 program. For the purposes of organizing the research, the research was divided into four main axes. It dealt with the impact of traffic accidents on the gross domestic product and the objectives of economic development and reviewed some of the risk indicators in them. The fourth axis was devoted to measuring and analyzing the impact of traffic accident costs on economic growth in Iraq. The research concluded with a number of conclusions that were reached and also included some proposals.

The first axis: traffic accidents (components, causes, types)

1- The economic concept of a traffic accident:

Traffic accidents are all accidents that result in material or bodily damage as a result of the use of the vehicle, or they are all accidents that result in loss of life, injuries to the bodies, or loss of money, or all of that as a result of the use of the vehicle (Jamjoom, 2005, 212). So the accident is Abnormal use of the vehicle results in a loss, and from this we conclude the economic concept of the traffic accident as follows:

A- The loss of life and injury to bodies are related to the human being, who is the most important human resource.

B- Losses in funds related to other economic resources, which include natural and financial resources, whether in kind or cash. Human, financial and natural resources are basic ingredients for economic development, without which there can be no development.

2- The economic components of a traffic accident:

A traffic accident consists of three basic elements:

A- The human element, which is the main axis around which most of the factors that cause traffic accidents revolve, as statistics show that it represents 85% of the causes of accidents (www.dralsaif.com/articls)

This component includes the driver, passenger and pedestrian and these are important human resources.

B - The road: It is the place prepared for the movement of vehicles and other means of transport, and pedestrians and animals may walk in it. The road has natural components, has its own geometry and signs, and is affected by natural factors, as it is a cause of the occurrence of the accident, and it is affected by the accident in which it occurs, and it is a social capital.

C - The vehicle: It is the third component of the components of the traffic accident, and the traffic system defined it as a means of transport or towing machinery or animals. Cars, tractors, trailers, bicycles, trucks, and these are capital, whether public or private.

3. Causes of traffic accidents

The causes of traffic accidents vary into several groups, mostly due to the economic components of the accident:

A- A group of errors committed by drivers, passengers or pedestrians, as follows: (swideg.jeeran.com/geograph)

Excessive speed resulting from the vehicle driver enjoying it.

- Non-compliance with the traffic system.

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- Ignorance of traffic regulations and poor level of education and driving skills for drivers.
- Health conditions and mental disorders of some drivers due to drug and intoxicant abuse, which cause many accidents and are among the direct causes of accidents.

All of the aforementioned reasons are related to the driver of the vehicle, except that there are human errors committed by pedestrians when crossing the road, walking in the roads designated for cars, or playing children and young people on or near the roads designated for cars.

B - reasons related to safety in the vehicle.

Vehicles are mostly intended for running and are consumable as a result of use. Thus, maintenance must be done for their engines and tires, and their general condition must be inspected before driving them, and this will be done on an ongoing basis.

C- Causes related to the road and its surrounding environment

Such as the presence of excavations, refraction, unsafe turns, or the presence of livestock and loose animals

Especially on roads that pass pastoral or agricultural areas.

D - There are climatic causes, such as high temperatures that affect car tires, heavy fog in the highlands, or rain or rainstorms with no visibility.

4 . The economic costs of traffic accidents: traffic accidents and the resulting damages and injuries

Deaths are one of the most important obstacles to the development process in developing countries and Arab countries, including Iraq

The seriousness of traffic accidents and their effects on the individual and society, including economic, social and psychological. The economic costs of traffic accidents are the material losses due to traffic accidents

Individual property (vehicle damage and repair) or damage to public property and facilities

The damages that people are exposed to may lead to death or disability, and what the state spends as treatment expenses

The injured (Al-Mutair, 2006, 15).

5. Types of traffic violations

There are several types of traffic accidents, including collisions between two or more cars, or with a fixed or moving object on the road, including accidents running over pedestrians or animals, overturning, or leaving the road and losing control. Table (1) shows the most important types of traffic accidents that occurred during the period (2004-2022) in Iraq, where traffic statistics indicate that run-over accidents represent (62%) of the total accidents that occurred in (2004), followed by collisions between two cars, which represent (34%), then rollover accidents (4%). In 2005, these accidents accounted for (61%) of run-over accidents, (34%) of collisions, and (5%) of rollovers. As an average for the period (2004-2022), run-over accidents reached 41%, collision accidents 47%, and rollover accidents 12%.

Table (1) Types of traffic accidents in Iraq for the period (2004-2022)

%	the total	accident type						the years
		%	coup	%	collision	%	run over	
100	8191	4	450	34	2757	62	4984	2004
100	9010	5	485	34	3033	61	5482	2005
100	3389	13	352	40	1370	47	1595	2006
100	3135	14	381	43	1348	43	1345	2007
100	5502	13	552	41	2247	46	2503	2008
100	7452	12	826	43	3177	45	3360	2009
100	8861	13	1011	46	4102	41	3661	2010
100	10082	13	1161	47	4771	40	4025	2011
100	10709	13	1320	48	5131	39	4174	2012
100	9725	23	1288	47	4568	30	3793	2013
100	8814	12	993	49	4288	39	3442	2014
100	8836	13	1000	48	4213	39	3405	2015
100	8763	13	946	48	4242	39	3431	2016
100	8824	13	918	50	4446	37	3267	2017
100	9852	13	967	51	5071	36	3548	2018
100	10753	12	999	53	5666	35	3770	2010
100	8186	11	773	55	4524	34	2793	2020
100	10659	10	1123	57	6061	33	3475	2021

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100	**11523**	**10**	**1168**	**57**	**6562**	**33**	**3793**	**2022**

Source / for the period 4200-2011 Source:Central Agency for Statistics and Information Technology, Annual Statistical Group 2012-2013, Table 6/12.

As for the period 2012-2022, its source is:
Central Statistical Organization, Directorate of Transportation and Communications Statistics, Recorded Traffic Accidents Statistics, Annual Statistical Reports for the years 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, table (1), page (4).

The second axis: the impact of traffic accidents on the elements of economic development:

There is no doubt that the economic resources on which economic development is based in any society are considered one of the pillars of comprehensive development, and if they are exposed to damage, waste or waste in their spending and exploitation, this causes a deficit in them, which makes them not meet the requirements of development and the elements of development of all kinds, whether human or natural. Or financial, and traffic accidents affect it clearly and work to reduce or destroy it. And traffic safety or traffic cultural awareness aims to preserve these resources in order to benefit from them. In this axis, we will discuss the impact of traffic accidents on economic resources as follows:

1. Traffic accidents and human resources.

Studies have shown that traffic accidents are due to humans in the first place, at a rate ranging between 85-90%, and many of them arise from the relationship between the increase in population and income on the one hand, and the increase in the number of cars and their accidents on the other hand. From the traffic statistics, we note that the number of government and private cars increased from (1,940,898) cars in 2004 to (7,657,793) cars in 2022, with an increase of 295%, i.e., an increase of about four times. See Table (2), and this increase is due to the entry of huge numbers of competitors' cars. (Bales) shortly after 2003 to tow without prior planning and taking into account the wideness of the roads and the validity of these cars or not, so that the preparation of these cars, within a period of two years, exceeds the number of cars duly registered throughout Iraq over the previous years, and this is due to a number of reasons, the most important of which are:

(Al-bagooa.elaphblog.com):

- The prices of these cars are appropriate with the income of the average Iraqi individual and employees in particular.
- The relative improvement in the salaries of employees and workers in official and semi-official departments.

The decline and stability of the US dollar exchange rate.

- The attractiveness of these cars and the multiplicity of their types and shapes.
- The easy flow of these cars to Iraq, especially in the first months of the occupation, as a result of the lack of proper control of the borders and the incompleteness and effectiveness of the concerned departments in those days.

Table (2)
The number of cars (government and private) in Iraq for the period 2004-2022

the total	number of private cars	Number of government cars	the years
1940898	**1907235**	**33663**	**2004**
2699215	**2664765**	**34450**	**2005**
2262503	**2225849**	**36654**	**2006**
2318941	**2274099**	**44842**	**2007**
2339935	**2288516**	**51419**	**2008**
2355201	**2299101**	**56100**	**2009**
2382086	**2322092**	**59994**	**2010**
2412115	**2345313**	**66802**	**2011**
3929614	**3830187**	**99427**	**2012**
4621432	**4515045**	**106387**	**2013**
5495796	**5388968**	**106828**	**2014**
5772769	**5660885**	**111884**	**2015**
4997713	**4884522**	**113191**	**2016**
6564480	**6439332**	**125048**	**2017**
6837310	**6709724**	**127595**	**2018**

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7018348	**6888201**	**130147**	**2019**
7158856	**7026106**	**132750**	**2020**
7593332	**7457927**	**135405**	**2021**
7896513	**7758400**	**138113**	**2022**

Source /

1 . For government cars and for the period (2004-2015), its source is:

Central Agency for Statistics and Information Technology, Annual Statistical Abstract 2018-2019, Table 4/6, page 6

2. As for the period 2017-2018, its source is:

Central Agency for Statistics and Information Technology, Annual Statistical Group 2020-2021, Table 4/6, Page 6

3. The rest of the years were calculated based on the annual rate of increase for the previous years.

4 . For private cars and for the period 2004-2006 Source: Annual Statistical Group for the year 2007, July 200

5 . As for the period 2012-2021, its source is: the Central Statistical Organization, the sector's car statistics reports.

As an inevitable result of the unexpected increase in the number of cars in Iraq, this must result in a noticeable increase in the number of traffic accidents, as the number increased from (8191) accidents in 2004 to (11523) accidents in 2022, with an increase rate of about 42%, and it occupied the years (2011). , 2012, 2019, 2021, 2022) had the highest number of traffic accidents in Iraq, reaching (1082, 10709, 10753, 10659, 11523), respectively (see Table 3). The number of injured people increased from (6,788) in 2004 to (8,383) in 2022, with an increase of 23%. As for the number of dead, it reached (1,662) in 2004, rising to (2,828) in 2022, with an increase of 70%. %, and the year 2012 occupied the highest number of traffic accident deaths, as the number reached (3132).

Table (3) the number of traffic accidents and the number of dead and injured in Iraq for the period (2004-2022)

Number of accidents per 100,000 population	The number of wounded per 100,000 population	The number of wounded per 100 accidents	The death toll per 100,000 population	number of wounded	death toll	The number of accidents	Population in thousands	the years
29.4	**24.3**	**82.9**	**6.0_**	**6788**	**1662**	**8191**	**27859**	**2004**
31.4	**26.0**	**82.9**	**6.3**	**7467**	**1789**	**9010**	**28699**	**2005**
11.7	**11.4**	**97.5**	**4.0**	**3303**	**1151**	**3389**	**28906**	**2006**
10.9	**11.3**	**103.7**	**4.2**	**3252**	**1210**	**3135**	**28661**	**2007**
18.8	**18.8**	**99.9**	**6.4**	**5499**	**1863**	**5502**	**29218**	**2008**
24.6	**26.3**	**106.7**	**7.1**	**7955**	**2151**	**7452**	**30289**	**2009**
28.3	**28.8**	**101.5**	**8.0**	**8996**	**2508**	**8861**	**31265**	**2010**
31.1	**31.5**	**101.2**	**8.3**	**10198**	**2703**	**10082**	**32378**	**2011**
31.6	**32.5**	**102.8**	**9.2**	**11009**	**3132**	**10709**	**33864**	**2012**
27.4	**30.1**	**109.7**	**8.3**	**10694**	**2951**	**9725**	**35482**	**2013**
24.0	**25.1**	**104.5**	**7.5**	**9210**	**2769**	**8814**	**36764**	**2014**
23.4	**25.0**	**106.7**	**6.7**	**9429**	**2514**	**8836**	**37758**	**2015**
22.6	**23.3**	**102.9**	**6.5**	**9016**	**2531**	**8763**	**38698**	**2016**
22.2	**23.7**	**106.4**	**6.6**	**9388**	**2621**	**8824**	**39621**	**2017**
24.3	**25.7**	**106.0**	**6.8**	**10439**	**2767**	**9852**	**40591**	**2018**
25.9	**28.0**	**108.4**	**6.3**	**11651**	**2636**	**10753**	**41564**	**2019**
19.2	**19.7**	**102.4**	**5.1**	**8383**	**2152**	**8186**	**42557**	**2020**
24.5	**25.8**	**105.4**	**6.5**	**11230**	**2828**	**10659**	**43533**	**2021**

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26.0	**28.5**	**110.0**	**6.8**	**12677**	**3021**	**11523**	**44403**	**2022**

Source / 1 . As for the population, its source is: World Bank data. 2 . As for the number of accidents, its source is: Table (1).

3. As for the number of dead and wounded for the period 4200-2011, its source is: Central Agency for Statistics and Information Technology, Annual Statistical Series 2012-2013. As for the period 2012-2022, its source is: the Central Statistical Organization, the Directorate of Transportation and Communications Statistics, the recorded traffic accidents statistics, the annual statistical reports for the years 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022.

And if we compare the number of accidents in Iraq with their counterparts in the Arab countries, we note that the number of traffic accidents in Iraq is less than the rest of the countries, and through available statistics for the year 2022 and by comparing the death rate per one hundred thousand population with the rest of the Arab countries, we note that Iraq ranked eighth among these Countries where the average was (20.7), and in terms of the number of deaths, Iraq ranked third after Egypt and Saudi Arabia, where the number reached (4143) dead, which is relatively high compared to these countries (Table 4).

Table (4) The number of deaths due to traffic accidents in a number of Arab countries for the year 2022

Death rate per 100,000 population	death toll	Countries	arrangement
28.8	**9031**	**Saudi Arabia**	**1**
27.1	**165**	**Somalia**	**2**
26.5	**714**	**Syria**	**3**
26.1	**2414**	**Libya**	**4**
25.7	**2311**	**Sudan**	**5**
24.4	**750**	**Jordan**	**6**
22.8	**1443**	**Tunisia**	**7**
20.7	**4143**	**Iraq**	**8**
19.6	**3785**	**Morocco**	**9**
18.1	**576**	**Lebanon**	**10**
18.1_	**725**	**Arab Emirates**	**11**
17.6	**424**	**Kuwait**	**12**
16.1	**692**	**Oman**	**13**
9.7	**8211**	**Egypt**	**14**
9.3	**178**	**Qatar**	**15**

/ Sourcehttps: www.google.com / search ? q = 2022 accident rate in Saudi Arabia

This means that traffic accidents in Iraq, despite being the least number of other countries, are the most dangerous and the fatality rate is high. This is due to our belief that the medical supplies are not available to save the injured at the scene of the accident or when transferring him to the hospital.

The death rate in traffic accidents in Iraq is about (7) per hundred thousand of the population for the year 2022, while the percentage of injured people is estimated at about (26) per one hundred thousand of the population, and since the population of Iraq for the aforementioned year is (44,403,000) people, and accidents represent Traffic is the second leading cause of death after infectious diseases in Iraq. If we assume that the deceased in a traffic accident supported a family of five, then there would be (15105) people without a breadwinner in one year, or about (151050) people in ten years.

Statistics indicate that from 2004 until the end of 2022, the victims of traffic accidents in Iraq amounted to (211,543) victims (death + injury), which constitutes (0.005) of the population of Iraq for the year 2022, and that the death rate of them is 21%, and this means that the severity index equal to 0.18 as an average (Table 5).

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Table (5)
Indicators of traffic accidents in Iraq for the period 2004-2022

The death/injured ratio	Accident severity	Severity rate	The number of deaths and injured	The number of injured	The number of deaths	The number of accidents	the years
0.24	0.20	1.03_	8450	6788	1662	8191	2004
0.24	0.19	1.03	9256	7467	1789	9010	2005
0.35	0.23	1.31	4454	3303	1151	3389	2006
0.37	0.27	1.42	4462	3252	1210	3135	2007
0.34	0.25	1.33	7362	5499	1863	5502	2008
0.27	0.21	1.36	10106	7955	2151	7452	2009
0.28	0.23	1.30	11504	8996	2508	8861	2010
0.27	0.21	1.28	12901	10198	2703	10082	2011
0.28	0.22	1.32	14141	11009	3132	10709	2012
0.28	0.22	1.40	13645	10694	2951	9725	2013
0.30	0.23	1.36	11979	9210	2769	8814	2014
0.27	0.21	1.35	11943	9429	2514	8836	2015
0.28	0.22	1.32	11547	9016	2531	8763	2016
0.28	0.23	1.36	12009	9388	2621	8824	2017
0.27	0.21	1.34	13206	10439	2767	9852	2018
0.23	0.18	1.33	14287	11651	2636	10753	2019
0.26	0.20	1.29	10535	8383	2152	8186	2020
0.25	0.20	1.32	14058	11230	2828	10659	2021
0.24	0.19	1.36	15698	12677	3021	11523	2022

Source: For the number of deaths and injuries, the source is Table (3). As for the indicators of the severity rate, the unit of accidents, and the percentage of deaths / injuries, they were calculated by the researchers based on the source: Dr. Awad Ghaleb Al-Rifai, Dr. Eid Ahmed Abu Bakr, Quantitative analysis of indicators of traffic accidents in Jordan, Al-Zaytoonah Private University of Jordan,
2005, p. 18.
Risk rate = (number of deaths + number of severe injuries) ÷ total accidents
Accident severity = number of fatalities ÷ (number of deaths + number of severe injuries)
Death/infected ratio = number of deaths ÷ number of injured.

The economic effects resulting from traffic accidents do not stop at the loss of human energy, but rather increase with the increase in the number of injured people, as the injury in traffic accidents often leaves permanent disabilities that hinder the individual from performing work and contributing to production, and then raises the dependency ratio, and the loss of energy increases.
productivity, and with it the cost of treatment.

2. Traffic accidents and capital resources:

Before the occupation, Iraq witnessed a comprehensive economic and social renaissance that led to the development of facilities and infrastructure, which led to an increase in roads linking the city and villages of all kinds, all of which required large financial expenditures by the state represented by various civil, military and service apparatuses representing a social capitalist. And if we look at the direct effects of traffic accidents on the financial resources of the state (public money), then it represents a loss and a great loss in what is destroyed and incurred from expenses after the accident occurred as follows (Al-Ghamdi, 2003, 7).

A- Expenses of damages to broken sidewalks, barriers, lighting poles, traffic lights, and water pipes, whether the damage is wholly or partially. Repairing them requires time and direct financial costs at the scene of the accident, and this causes a loss on public money if the culprit is not assigned to repair them.

b- Expenses of ambulances, transportation of the injured and the deceased, and expenses of treatment in government hospitals.

C - Expenses of sick leave for employees of state departments injured in traffic accidents.

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d - An increase in poverty cases due to accidents, and thus an increase in social security members.
E- An increase in cash transfers abroad due to the increase in the import trade of cars and spare parts, which causes the economy to have an imbalance in the balance of payments, as it works to increase the value of imports over the value of exports, and this is an indication of a deficit in the payments budget.
F - Spending on the purchase of devices and vehicles for security patrols equipped with the latest means of communication to monitor the roads and combat violations and traffic violations in order to mitigate the severity of the occurrence of traffic accidents and their direct occurrence.
As for the effects on private financial resources, they are represented in the following:
A- The car is completely damaged, which means losing the value of the car, and this requires a replacement car at a higher price.
B - The occurrence of cracks or damage to the car until it can be repaired, and this requires financial spending and varies from one accident to another. You may need spare parts and repair together.
C- Expenses of treatment for injuries in private hospitals.
D- Financial expenses incurred by the person responsible for the accident, including blood money for wrongful death, expenses for repairing a third party's car, and expenses for repairing damages to other private and public properties.

3. Traffic accidents and natural and environmental resources:

A traffic accident, when it occurs, wastes economic resources that may include natural resources, for example, an accident that runs over animals such as livestock, crops, or water sources and irrigation channels close to roads in agricultural areas.
Destroying such resources destroys the environment and makes it lose its basic role, in addition to the damage that the accident leaves on the road.
The combustion of cars or parts thereof, or the scattering and spilling of petroleum materials from the cars carrying them at the scene of the accident and the surrounding areas pollutes the environment and the natural air.
The third axis: the impact of traffic accidents on the gross domestic product and the objectives of economic development.

1. The Impact of Traffic Accidents on the Gross Domestic Product:

Estimating the cost of traffic accidents and economic losses from them is an important step towards determining the economic effects of the traffic accident problem in any country, and the extent of its impact on the gross domestic product. It is also a necessary requirement in prioritizing traffic safety improvements, measuring the effectiveness of the proposed solutions for these improvements, and measuring their economic feasibility. .
Most countries have taken care. Especially the industrial one - by estimating the annual cost of traffic accidents, to find out the extent of the material losses caused by traffic accidents on the gross domestic product, as well as to evaluate the effectiveness of the traffic safety strategies in force.
The economic losses of traffic accidents in the United States of America during the end of the eighties were estimated at (70) billion dollars, and in the mid-nineties they exceeded (165) billion dollars (Al-Rumani Dr. Zaid bin Muhammad).
It competed with the losses resulting from cancer and heart diseases, which called on the US Secretary of Transportation to change the policy directions of his ministry, which among its tasks is road safety, provided that traffic safety on roads be the first concern of the ministry.
Unfortunately, estimating the exact cost of traffic accidents in Iraq is very difficult due to the lack of required data.
The researchers looked at several studies to estimate the economic cost of traffic accidents, including a study to estimate the economic cost of traffic accidents in the United States for the year 2007, where the total cost of one injury was estimated as in Table (6).

Table (6)
The estimated economic cost in the United States of America for the year 2007

The total cost per injury in the United States for 2007 dollars	degree of injury
1,862,000	death
2,090,000	gross
665,000	eloquent

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361,000	**Medium**
133,000	**Simple**
5111000	**Total cost**

Source / Abdullah Al-Kathiri, Dr. Yasser Hawass, (determining the national and regional goals for reducing of road traffic losses in the ESCWA region), Abu Dhabi, 16-17 June, 2009, p. 8.

Given the lack of statistical data on the types of injuries referred to in Table No. (6) in Iraq, the researchers assumed a rate of 10% for severe injury, 20% for severe injury, 30% for moderate injury, and 40% for minor injury, and the cost was estimated in Iraq On the basis of these default ratios and as shown in Table (7).

Where the data of the table indicate that the cost of annual traffic accidents in Iraq is very large, and it gives an indication of the negative impact of traffic accidents on the national economy in general and economic development significantly, and this indicates that the loss of GDP due to traffic accidents in Iraq is greater than the global averages, as The financial losses resulting from traffic accidents amount to (8262) million dollars on average, and the economic loss of GDP is 5.3%, on average, during the period (2004-2021).

The researchers also looked at another study according to which the cost of traffic accidents was estimated in the Kingdom of Saudi Arabia, where the costs of death and serious injury were used based on the German costs, and they do not include the costs of damage and damage to vehicles and property. These costs were estimated at (369083) dollars for the case of death, and ((25338) dollars for serious injury, and (1133) dollars for light injury (Arab Organization for Administrative Development, 51,2009).

When applying this to Iraq, assuming that 50% of the injuries are serious, and 50% are minor, see Table (8).

We note that financial losses amounted to (977) million dollars on average, and the economic loss of GDP amounted to 0.63%.

And if we take the average of the two estimates, we get a rate of 3%. When comparing this loss with its counterpart for a number of other countries, we notice that the economic loss in Iraq far exceeds the percentage of losses in America, England and Australia, where the economic loss is (1% in America, and 1, 7% in England, and 1.6% in Australia) (Abdel-Al, 2003, 14).

2- The impact of traffic accidents on the objectives of economic development:

It is well known that economic development aims to achieve multiple goals by exploiting all human and financial energies, and among those goals is achieving economic stability, optimal utilization of economic resources, providing for the needs of society, providing job opportunities for those who are able to do so, and providing cash resources to finance development projects that society needs, as well as The social goals it seeks, including the provision of public services to society (Al-Hamid, Abdel Aziz Saleh, 2003, 13).

Traffic accidents have very significant negative effects on the goals of economic development that hinder the achievement of those desired goals, as traffic accidents do not make optimal use of economic resources and deprive society of some needs and job opportunities, and also deprive society of financing development projects because the funds that can be directed to development projects are It deals with the damages of traffic accidents, such as damages and losses, for example. (www.rasid.com/arts.)

- The costs of medical treatment for the injured, which increase with the increase in the treatment period.

The value of working hours lost due to injury.

Disabilities and injuries that occur to the injured and lead to work stoppage.

- The costs of government procedures services that deal with the accident, represented in the services of security patrols, prisons, hospitals, and the judiciary.

There are other costs that cannot be estimated with money, and they are represented by the loss of a person, whether he is a driver, passenger or pedestrian as a result of the accident, in addition to the psychological and social aspects of those who suffer from the accident.

Accidents also affect the working human resources, and reference is made to the number of injuries and deaths from car accidents. With death, the work is completely disrupted and requires a replacement worker. With injury, the unemployment is partial. But if the injury represents a severe disability that renders the worker incapable of work, this means that accidents Traffic is a waste of human energy

3 . Analysis of the relationship between the effects of traffic accidents and economic development:

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There is no doubt that traffic accidents leave behind clear effects on human resources, especially those of productive working age (the labor force, who are between the ages of (18-49) years, as well as the society incurring large financial losses, whether in public money or private money, It reaches an annual average of (4870) million dollars, in addition to the effects on natural resources from the depletion, destruction or pollution of the environment, and the more traffic accidents this leads to an increase in the number of deaths and injuries from human resources, which causes a decrease in the work force directly because the dead They stop working permanently, and the injured, some of them stop for a period of time, and some of them become unable to return to work due to a handicap or disability that he sustained as a result of that traffic accident.

And human development agencies and institutions are required to find an alternative to fill the deficit and shortage in the labor force, and this requires time for preparation, training, effort and money, and the increase in the number of traffic accidents increases financial losses and damages, and repairing these damages has a financial cost, and this works to compete with development projects in The financing process, because the shortage or mitigation of traffic accidents works to provide an opportunity for development projects to obtain the necessary financing, and the increase in traffic accidents works to deprive development projects of large sums of money, and cash transfers outside the country in return for increasing the import of spare parts and cars deprive the community of Spending these transfers on development projects.

The fourth axis: the impact of traffic accidents on economic growth in Iraq for the period 2004-2022

First: Characterization of variables and static test.

To prove the validity of the research hypotheses or not and to reach the main objective of the research, we will describe the basic variables, as the dependent variables represent the GDP index (Y). As for the independent variables in the indicators of the estimated economic costs of traffic accidents in Iraq, with two indicators (the cost of deaths X1), (the cost of injuries X2), the data has been converted to a quarterly format in order to increase the observations of the time series in order to test the ARDL model through the program Reviews. 12.

Second: Estimating the impact of traffic accidents on economic growth in Iraq, according to US costs.

Before entering the model tests, we will display a table that shows the static test for the research variables according to the results of the Phelps-Perron (P.P) test. Only the P.P. test was taken for all models, being more accurate and showing that all variables settled at the level and at the first difference .

Table (9): Results of the Phillips-Perron test statistic

	Level			**1 st Difference _**		
variants	**PP**	**Sig.**	**Result**	**PP**	**Sig.**	**Result**
X1	**-0.3283**	**0.0005**	**stationery**	**-2.680912**	**0.0038**	**stationery**
X2	**-0.7123**	**0.0000**	**stationery**	**-2.060984**	**0.0387**	**stationery**
Y	**-0.1845**	**0.0003**	**stationery**	**-3.061626**	**0.0028**	**stationery**

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

1- Testing the autoregressive ARDL model.

After the static test that was conducted on the variables showed the GDP index (Y). And indicators of the estimated economic costs of traffic accidents in Iraq, with two indicators (the cost of deaths X1), (the cost of injuries X2), and it was found that they were stable at the level and at the first difference (1)1. for this model.

Table (10): Results of the ARDL model test.

Dependent Variable: LOGY				
Method: ARDL				
R-squared	**0.955243**	**Mean dependent var**		**11.95515**
Adjusted R-squared	**0.953269**	**SD dependent var**		**0.435325**
F-statistic	**483.7729**	**Durbin-Watson stat**		**0.126345**
Prob(F-statistic)	**0.000000**			

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Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

Table (10) shows us the results of (Adjusted-squared) news that the estimated economic costs of traffic accidents (X1,X2) as independent variables have explained (95%) of the changes in the dependent variable GDP (Y), and that (5%) It is due to other factors not included in the model. As for the (F-statistic) test, it indicates the overall significance of the model from a statistical point of view, at a probability level of about (0.000000Prob=), less than 5%.

2- Results of the Bound Test.

To test the extent of a long-term equilibrium relationship (existence of cointegration) between the estimated economic costs of traffic accidents (X1,X2) as independent variables and GDP (Y) as a dependent variable, the Bound Test must be conducted, as in the following table:

Table (11): Results of the Bound Test.

Test Statistic	Value	K
F-statistic	19.72782	2
القيمة الجدولية(Critical Value Bound)		
مستوى المعنوية	I0 Bound	I1 Bound
5%	3.1	3.87

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

It is noted from table (11) above that the calculated (F-statistic) value amounted to (19.72782), which is greater than the tabular value at a significant level (5%), which means that we reject the null hypothesis and accept the alternative hypothesis, and this means that there is a co-integration relationship between Between the estimated economic costs of traffic accidents (X1,X2) as independent variables and GDP (Y) as a dependent variable, i.e. there is a long-term equilibrium relationship.

3- Impact in the short term.

Table (12): Results of impact and error correction in the short term

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.816432	0.433673	-4.188486	0.0001
LOGY(-1)*	-0.197907	0.043680	-4.530851	0.0000
LOGX1**	-1.246628	0.148495	8.395077	0.0000
LOGX2**	-0.759202	0.106246	-7.145724	0.0000

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

A- There is an adverse effect of the death costs due to traffic accidents X1 on the gross domestic product, that is, when increasing (the death cost X1) by one unit leads to a decrease in the GDP Y by (-1.2) units, at a probability level of (0.0000).

B- There is an adverse effect of the X2 cost of injuries due to traffic accidents on the gross domestic product, that is, when the (X2 injury cost) is increased by one unit, it leads to a decrease in the GDP Y by (-0.75) units, at a probability level of (0.0000).

C - The estimated relationship also showed that the error correction coefficient amounted to a value of (-0.197907), negative and significant, with a probability of (0.0000 = Prob).

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4- Impact in the long term.

This test demonstrates the estimation of the parameters in the long run in order to reveal the degree of influence of the independent variable on the dependent variable, as well as to determine the type of long-term relationship, as in the following table:

Table (13): Results of the impact in the long term

Case 2: Restricted Constant and No Trend				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LOGX1	**- 6.299064**	**1.373303**	**4.586798**	**0.0000**
LOGX2	**-3.836159**	**1.043980**	**-3.674550**	**0.0005**
C	**-9.178217**	**3.240957**	**-2.831947**	**0.0061**
EC = LOGY - (-6.2991*LOGX1 -3.8362*LOGX2 - 9.1782)				

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

The table shows the results of the impact in the long term, as follows:

A- There is an adverse effect of the death costs due to traffic accidents X1 on the gross domestic product, that is, when (the death cost X1) increases by one unit, it leads to a decrease in the gross domestic product Y by (6.299064) units, at a probability level of (0.0000).

B- There is an adverse effect of the costs of the costs of injuries due to traffic accidents X2 on the gross domestic product, that is, when increasing (the cost of injuries X2) by one unit, it leads to a decrease in the GDP Y by (-3.836159) units, at a probability level of (0.0000).

Third: Estimating the impact of traffic accidents on economic growth in Iraq, according to German costs:

Before entering the model tests, we will display a table showing the sleep test for the research variables according to the results of the Phelps-Perron (P.P) test. Only the P.P. test was taken for all models, as it is more accurate.

Table (14): Results of the Phillips-Perron test statistic

Stability test						
	Level			**1 st Difference _**		
variants	**PP**	**Sig.**	**Result**	**PP**	**Sig.**	**Result**
X1	**-2.9876**	**0.0123**	**stationery**	**-4.66543**	**0.0000**	**stationery**
X2	**-4.1983**	**0.0345**	**stationery**	**-2.77657**	**0.0000**	**stationery**
Y	**-2.1876**	**0.0773**	**stationery**	**-3.98327**	**0.0000**	**stationery**

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

1- Testing the autoregressive ARDL model.

After the static test that was conducted on the variables showed the GDP index (Y). And indicators of the estimated economic costs of traffic accidents in Iraq, with two indicators (the cost of deaths X1), (the cost of injuries X2), and it was found that they were stable at the level and at the first difference (1)1. for this model.

Table 15: Results of the ARDL model test.

Dependent Variable: LOGY				
Method: ARDL				
R-squared	**0.935858**	**Mean dependent var**		**11.96047**
Adjusted R-squared	**0.933028**	**SD dependent var**		**0.466491**
F-statistic	**330.7172**	**Durbin-Watson stat**		**0.487234**
Prob(F-statistic)	**0.000000**			

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

Table (15) shows us the results of (Adjusted-squared) news that the estimated economic costs of traffic accidents (X1,X2) as independent variables have explained (93%) of the changes in the dependent variable GDP (Y), and that (7%) It is

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due to other factors not included in the model. As for the (F-statistic) test, it indicates the overall significance of the model from a statistical point of view, at a probability level of about (0.000000Prob=), less than 5%.

2- Results of the Bound Test.

To test the extent of a long-term equilibrium relationship (existence of Cointegration) between the estimated economic costs of traffic accidents (X1,X2) as independent variables and GDP (Y) as a dependent variable, the Bound Test must be conducted, as in the following table:

Table (16): Results of the Bound Test

Test Statistic	**Value**	**K**
F-statistic	**13.01754**	**2**
(Critical Value Bound) The tabular value		
Moral level	**I0 Bound**	**I1 Bound**
5%	**3.1**	**3.87**

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

It is noted from table (16) above that the calculated (F-statistic) value amounted to (13.01754), which is greater than the tabular value at a significant level (5%), which means that we reject the null hypothesis and accept the alternative hypothesis, and this means that there is a co-integration relationship between the estimated economic costs of traffic accidents (X1,X2) as independent variables and GDP (Y) as a dependent variable, i.e. there is a long-term equilibrium relationship.

3- Impact in the short term.

Table (17): Results of impact and error correction in the short term

Conditional Error Correction Regression				
Variable	**Coefficient**	**std. Error**	**t-statistic**	**Prob.**
C	**-3.016018**	**0.697153**	**-4.326190**	**0.0001**
LOGY(-1)*	**-0.135250**	**0.047510**	**-2.846782**	**0.0058**
LOGX1**	**-1.279963**	**0.189291**	**6,761,883**	**0.0000**
LOGX2**	**-0.852929**	**0.140438**	**-6.073336**	**0.0000**

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

The table shows the results of the impact in the short term, as follows:

A- There is an inverse effect of X1 death costs due to traffic accidents on the gross domestic product, that is, when (X1 death cost) is increased by one unit, it leads to a decrease in GDP Y by (-1.279963) units, at a probability level of (0.0000).

B- The presence of an adverse effect of the costs of the costs of injuries due to traffic accidents X2 on the gross domestic product, that is, when increasing (the cost of injuries X2) by one unit leads to a decrease in the gross domestic product Y by (-0.852929) units and at a probability level of (0.0000).

C - The estimated relationship also showed that the error correction coefficient amounted to a value of (-0.135250), negative and significant, with a probability of (0.0058 = Prob).

4- Impact in the long term.

This test demonstrates the estimation of the parameters in the long run in order to reveal the degree of influence of the independent variable on the dependent variable, as well as to determine the type of long-term relationship, as in the following table:

Table (18): Results of the impact in the long term

Case 2: Restricted Constant and No Trend				

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Variable	Coefficient	std. Error	t-statistic	Prob.
LOGX1	-9.463670	3.368677	2.809314	0.0065
LOGX2	-6.306307	2.591290	-2.433655	0.0176
C	-22.29955	10.73604	-2.077074	0.0416
EC = LOGY - (9.4637*LOGX1 -6.3063*LOGX2 - 22.2995)				

Source: The table prepared by the researcher based on the outputs of the Eviews program.12.

The table shows the results of the impact in the long term, as follows:

A- There is an adverse effect of the death costs due to traffic accidents X1 on the gross domestic product, that is, when (the death cost X1) increases by one unit, it leads to a decrease in the gross domestic product Y by (9.463670) units, at a probability level of (0.0176).

B- There is an adverse effect of the X2 cost of injuries due to traffic accidents on the gross domestic product, that is, when the (X2 injury cost) is increased by one unit, it leads to a decrease in the GDP Y by (-6.306307) units, at a probability level of (0.0416).

FIRST: CONCLUSIONS

From the foregoing, the following conclusions can be drawn:

1- The most frequent accidents are collisions between two cars, which constitute an average of 47%, followed by run-over accidents, which constitute an average of 41%.

2- The indicator of the death toll per 100,000 population in Iraq is relatively high compared to other countries, as it reached (20.7) dead. This means that the accidents in Iraq are the most dangerous and the percentage of deaths in them is large, as the number reached (4143) in 2022.

3- The number of victims of traffic accidents in Iraq for the period (2004-2022) reached (211543) victims (deaths + injuries), which is approximately (0.005) of the population of Iraq for the year 2022, and that the death rate of them is 21%, and the severity index is 0.18 as an average.

4- The economic loss of the gross domestic product in Iraq due to traffic accidents is greater than the global averages, as it constituted 3% of the gross domestic product as an average.

5- Traffic accidents represent an obstacle to achieving the goals of economic development because of their harmful effects on the elements of direct economic development. It was possible to transfer that loss of human and financial resources to increasing national production and developing the economic and social sectors.

6- The existence of an adverse and significant effect in the short and long term for the costs of deaths and injuries according to the American costs as a result of traffic accidents, that is, when an increase (the cost of deaths X1, the cost of injuries X2) leads to a decrease in the GDP Y.

7- The existence of an adverse and significant effect in the short and long term for the costs of deaths and injuries according to the German costs as a result of traffic accidents, that is, when an increase (the cost of deaths X1 and the cost of injuries X2 leads to a decrease in the gross domestic product Y.

SECOND: PROPOSALS:

Based on what was reported, the researchers recommend the following:

1- Implementing the traffic law and the penalties stipulated in the law on traffic violations with full firmness and responsibility by the designated authorities.

2- The use of traffic awareness throughout the year in all media and in schools, and the introduction of the traffic system within the school curricula, with a focus on explaining the economic and social effects and losses of traffic accidents.

3- Striving to develop and improve the ambulance service for the injured on the roads, as the large number of traffic accidents means there is a clear shortcoming in this service, because most of the injuries are treated by passing cars due to the delay in the arrival of ambulances. The scene of the accident and during his transfer to the hospital, which leads to aggravation of his health condition and he may die during it.

4- The situation mentioned in Paragraph (3) above requires the preparation of an accurate and field study and an indication of the actual need for first aid supplies for the injured on the roads, including cars, medical materials and technical staff, and distributing these capabilities correctly and in proportion to the size of the accidents on each road.

5- Traffic regulations must be in line with economic developments, demographic changes, and the increasing

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number of vehicles of different sizes and shapes that use the road, which impose new circumstances and data that require a review of the current traffic regulations and the need to amend the traffic law in order to address these changes and address violations of some of its articles by tightening penalties and legal procedures. Strict to deter those who do not rule the logic of reason in dealing with the vehicle and do not respect the pedestrians using the roads.

6- Striving to carry out accurate statistics and research on traffic accidents, as these accidents constitute one of the important problems in the scale of accidents in general, and result in human and material losses and social effects, in addition to their effects on the economy, including direct or indirect material losses. Hence, the statistical study And conducting scientific research on the size of the problem, its dimensions, and its health, economic and social effects is very important because the systematic and objective study of this problem puts us on the right track towards finding the right solutions and developing a preventive plan to reduce the number of deaths and injuries due to traffic accidents.

Therefore, the researchers appeal to the Ministry of Interior and all relevant departments to give the issue of traffic accidents and injuries resulting from them the utmost importance because of their impact on the national economy and material and human resources.

SOURCES:

First: Arabic:

1- Al-Moati, Radi Abed, (2008), "The Economic Effects of Traffic Accidents", Naif Arab University for Security Sciences, Riyadh.
2- Jamjoom, Omar and Salah El-Din, 2005), "Traffic Awareness and its Impact on Reducing Accidents", Naif Arab University for Security Sciences, Riyadh.
3- Al-Ati, Al-Sayed Abd, (1978), "Urban Sociology", University Knowledge House, Alexandria.
4- Al-Ghamdi, Ali Saeed, (2003), "Traffic Accidents - Causes and Effects", First National Traffic Safety Conference, Riyadh.
5- Al-Kathiri, Abdullah, d. Yasser Hawass (2009), Setting National and Regional Targets for Reducing Road Traffic Losses in the ESCWA Region, Abu Dhabi.
6- Abdul-Aal Jamal Abdul-Mohsen (2003), "Towards a National Strategy to Reduce Traffic Accidents", The First Traffic Safety Conference, Riyadh.
7- Al-Hamid, Abdulaziz Saleh (2003) "The Social and Economic Effects of Traffic Accidents. The First Traffic Safety Conference, Riyadh.
8- Al-Mutair, Amer bin Nasser (2006), Traffic Accidents in the Arab World, Center for Studies and Research, Naif Arab University for Security Sciences, Saudi Arabia, Riyadh.
9- Al-Rifai, Awad Ghaleb, Eid Ahmed Abu Bakr (2005) quantitative analysis of traffic accident indicators in Jordan, Al-Zaytoonah Private University of Jordan.
10- The Central Agency for Statistics and Information Technology, Annual Statistical Compilation for the year 2007, July, 2008.
11- Central Agency for Statistics and Information Technology, Annual Statistical Abstract 2012-2013, Table 6/4.
12- Central Agency for Statistics and Information Technology, Annual Statistical Abstract 2018-2019, Table 6/4.
13- The Central Agency for Statistics and Information Technology, Annual Statistical Abstract 2020-2021, Table 6/4.
14- Central Statistical Organization, Directorate of Transportation and Communications Statistics, Recorded Traffic Accidents Statistics, Annual Statistical Reports for the Years 2015-2022, Table (1)
15- The Central Agency for Statistics and Information Technology, National Income and Gross Domestic Product for the years (1997-2004), August, 2005.
16- The Central Agency for Statistics and Information Technology, Preliminary Estimates of Gross Domestic Product and National Income for the year 2006, May, 2008.
17- The Arab Organization for Administrative Development (2009) Traffic accidents and their legal disputes, a symposium on traffic accidents and their legal disputes held in Amman.
18- General Traffic Directorate, Statistics Department, Baghdad.
19- World Bank data

Second: websites

20- http://www.98antiacc.com/accdencarfol/caracc99.html.
21- http://www.dralsaif.com/articls/86.htm.

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Volume-22, May -2023
ISSN: 2749-3601

22- http://swideg.jeeram.com/geography/archive/../1/10087.htm..
23- Fares Al-Bakoa, "Competition Cars in Iraq," a legal view, http://albagooaelaphblog.com.com/posts.dspx?u=299landA=29545.
24- http://www.coderoute-dz.com/sujettero.3.htm.
25- Dr. Zaid bin Muhammad al-Rumani, "The Economic Effects of Traffic Accidents," File:///c:Documents20% and 20%settings.
26- Hussein Abdel Jalil, Traffic Accidents between Costs and Measurement", website: http://www.rasid.com/arte.php?id=36861.