The influence of economic cycles on employment, workforce productivity and innovation : A Study Of Manufacturing Industries

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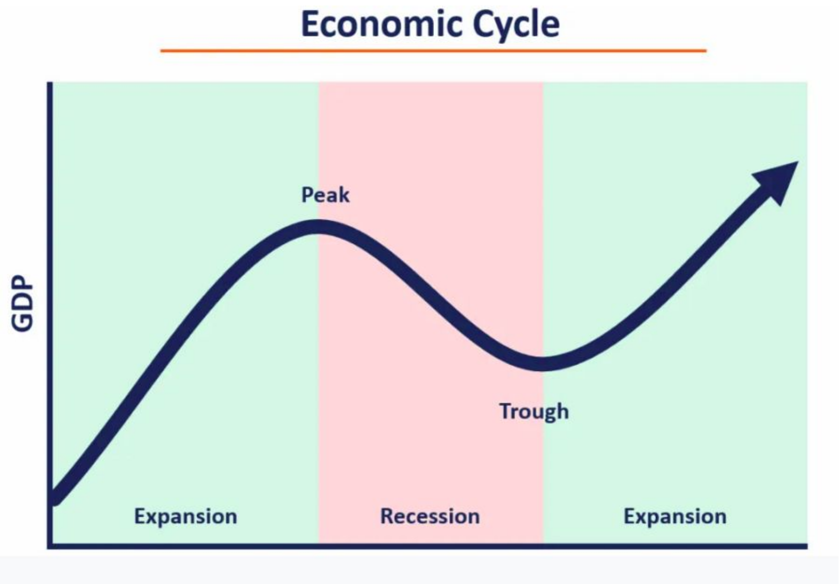
What is economy cycle?

An economy is a term that describes a set of production and consumption activities that determine how resources ought to be allocated.

The economic cycle also known as the business cycle is the fluctuation of the economy between periods of expansion (growth) and contraction (recession). Factors such as gross domestic product (GDP), interest rates, total employment, and consumer spending, can help to determine the current stage of the economic cycle.



Insight into economic cycles can be very useful for businesses and investors.

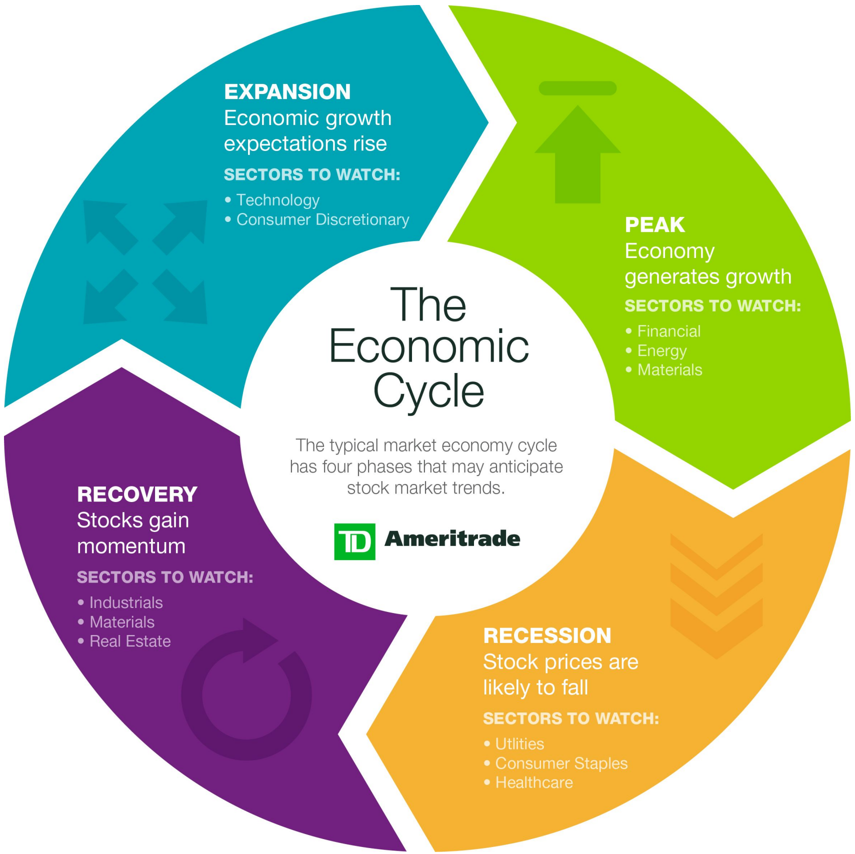
Stages of Economic Cycle

Expansion: The growth phase

Peak: The max out in the growth of the economy

Contraction: Things start to go downhill

Trough: The lowest a graph can go



Causes of Economic Cycles

- Population
- Demand
- Monetary and Government policies
- Interest Rates
- Natural Calamity/ Pandemic

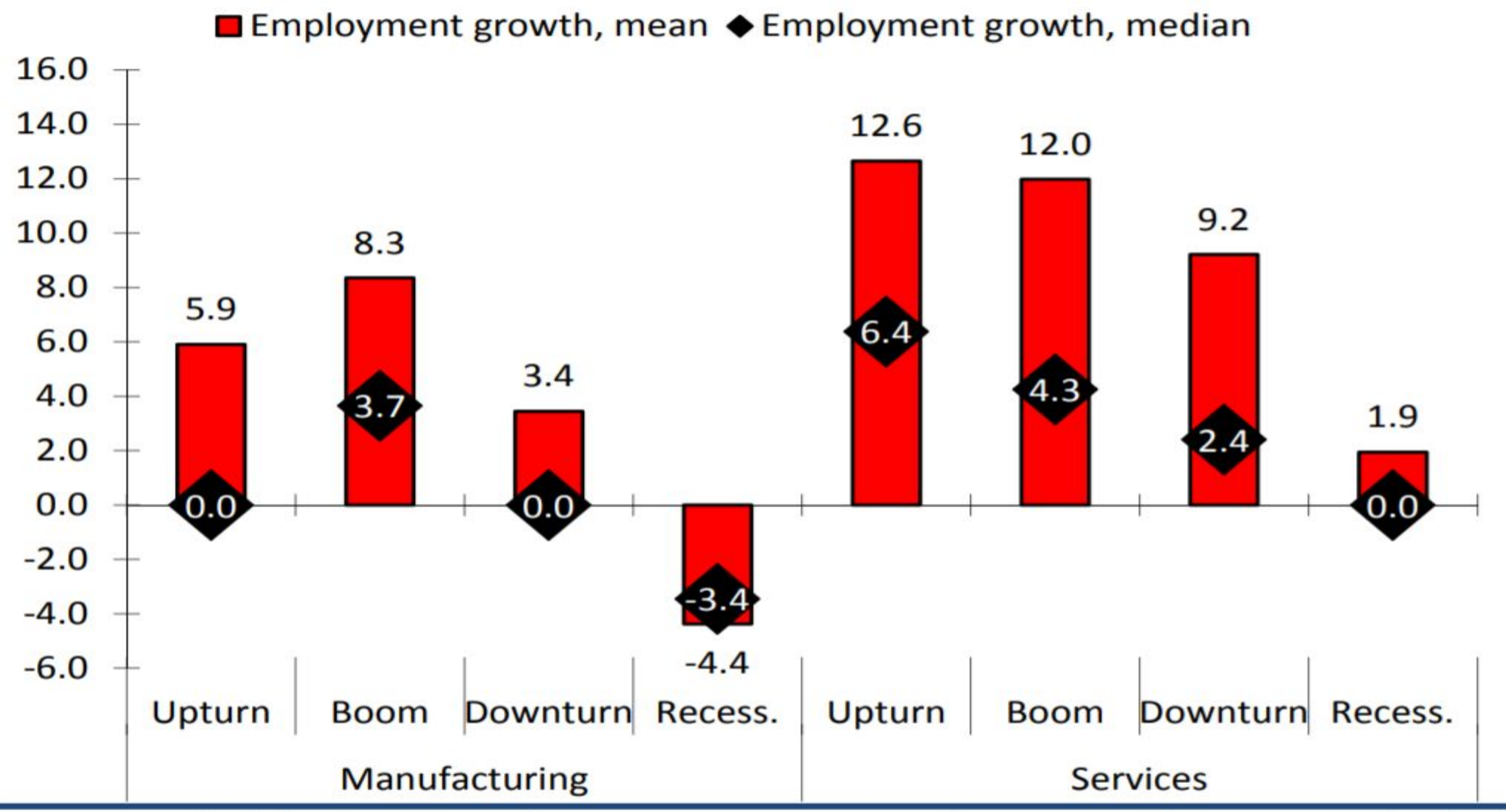
How they affect the economy in general

- When the economy is in expansion, businesses generate profits, which leads to hiring more employees, and more disposable income and spending. It, in turn, leads to more profits for businesses, and it continues in a virtuous cycle.
- When the economy is in contraction, businesses lose profits, which leads to downsizing and laying off of employees. When employees lose their jobs off, there is less disposable income and less consumer spending, which leads to even lower business profits. It continues in a vicious cycle.
- An economy should be in continuous expansion; however, contractions are needed to keep inflation in check and to make sure the economy does not overheat.

Influence of economic cycles on employment

- When economies are expanding, businesses can grow, so they are more willing to hire workers.
- When economies are contracting, businesses must deal with reduced revenues and may actually have to lay off their workers.
- Even if a particular business has not seen any recent decreases in revenue, if its analysts project that revenue will decrease in the future as a result of a general economic slump, it may start laying off workers pre-emptively or at least halt all hiring processes.
- An economy with a higher average unemployment level but lower levels of volatility may be in better shape than an economy with a lower average unemployment level and higher levels of unemployment volatility. This volatility in unemployment comes as a direct result of volatility in the business cycle.

Figure 5.1: Employment growth in European firms in different phases of the business cycle, 1998-2010

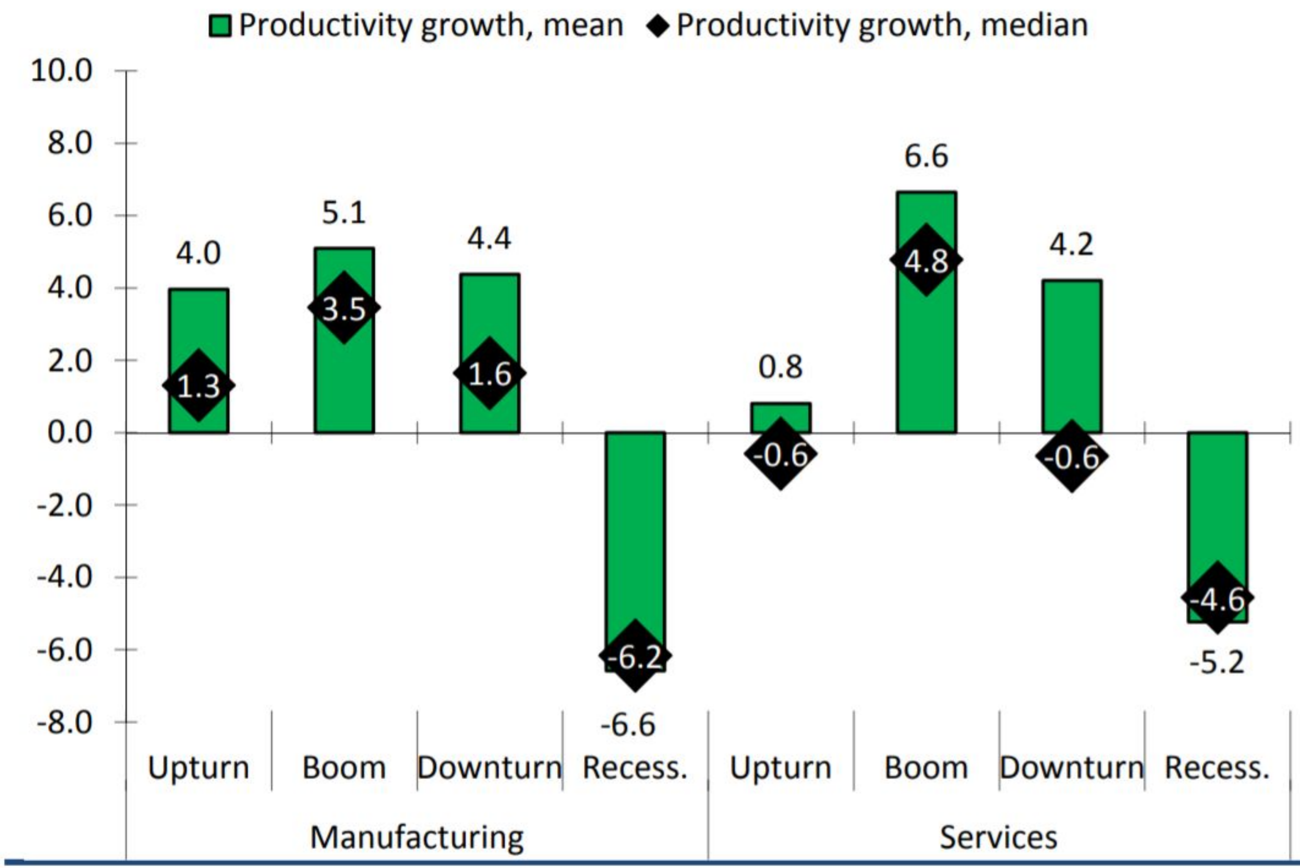


Influence of economic cycles on productivity

- Currently, most countries focus on industrial processing, with the production industry accounting for a significant part of it.
- It is a sector that greatly contributes to the economic growth of the country.
- At the same time, however, it is also very sensitive to internal and external factors that result in fluctuations in the economic cycle.

Country	Production in manufacturing		Country	Production in manufacturing	
	Cross correlation coefficient	Time		Cross correlation coefficient	Time
Austria	0.9508	t	Italy	0.9559	t
Belgium	0.8482	t	Latvia	0.7838	t-2
Czech Republic	0.8495	t-1	Luxemburg	0.5425	t
Denmark	0.8373	t+1	Netherlands	0.8079	t-1
Estonia	0.8741	t-1	Poland	0.7449	t
Finland	0.9431	t	Portugal	0.5032	t

Figure 5.5: Real productivity growth in European firms in different phases of the business cycle



Influence of economic cycles on innovation

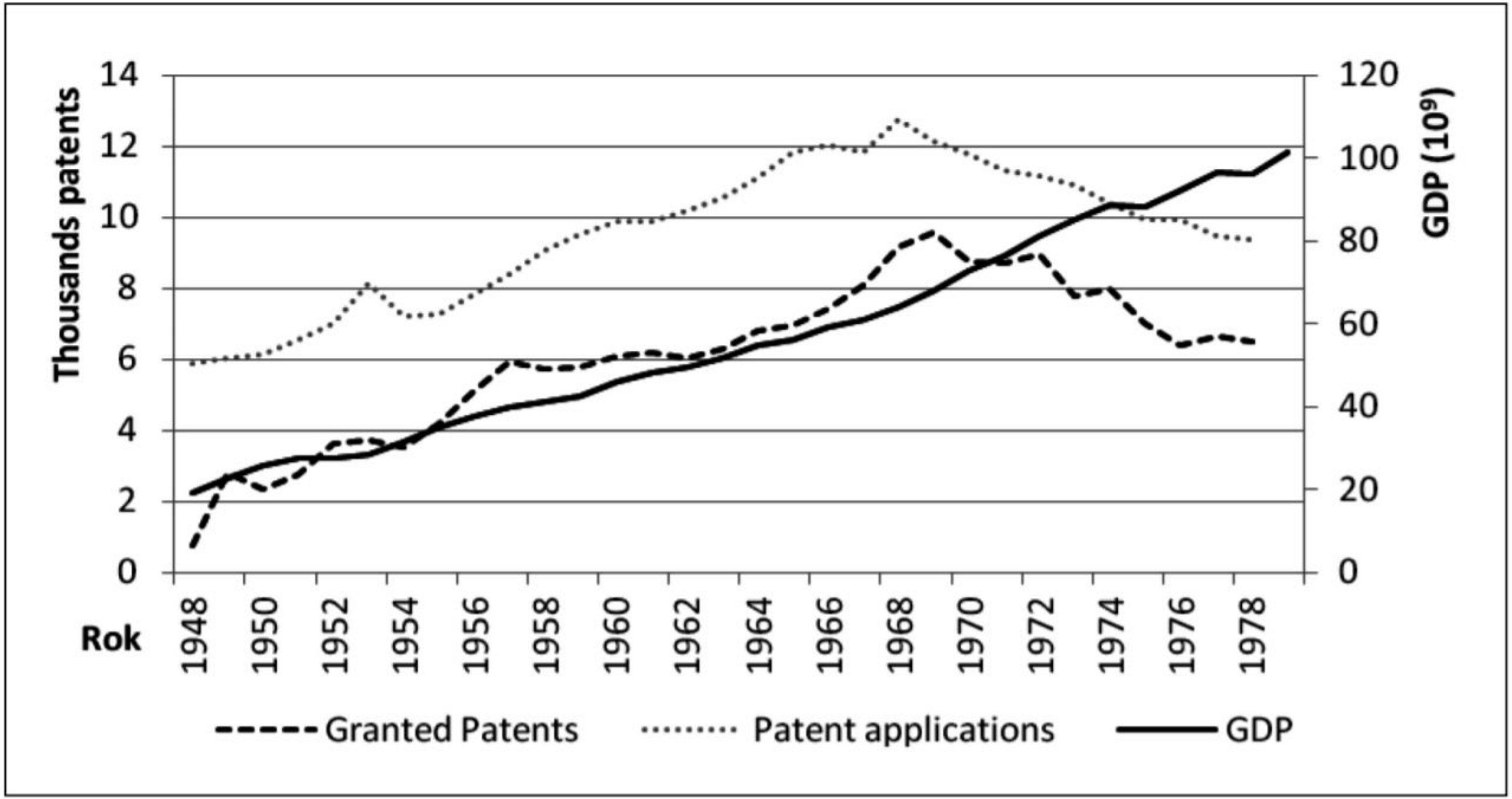
- According to the theory of real innovation activity, the innovations can be a positive supply shock that starts economic growth.

- Supporting innovation activity can therefore be an appropriate policy in times of crisis. If we accept Schumpeter's interpretation, then restructuring economics during crisis leads to establishing a new equilibrium on a higher productivity level.

- The goal of the crisis is eliminating ineffective enterprises and releasing sources for the effective enterprises

- Empirical research proves that there exists a long-term relation between economic development and innovation outputs. It also proves that this is a complex relation, which cannot be easily grasped by econometrics

Fig. 3: **Austria in 1948-1979, time series of outputs and patent applications**



Source: Bolt and Luiten van Zanden (2013), WIPO (2012)

What Is a Cyclical Industry?

A cyclical industry is a type of industry that is sensitive to the business cycle, such that revenues generally are higher in periods of economic prosperity and expansion and are lower in periods of economic downturn and contraction.

Companies in cyclical industries can deal with this type of volatility by implementing employee layoffs and cuts to compensate during bad times and paying bonuses and hiring en masse in good times.

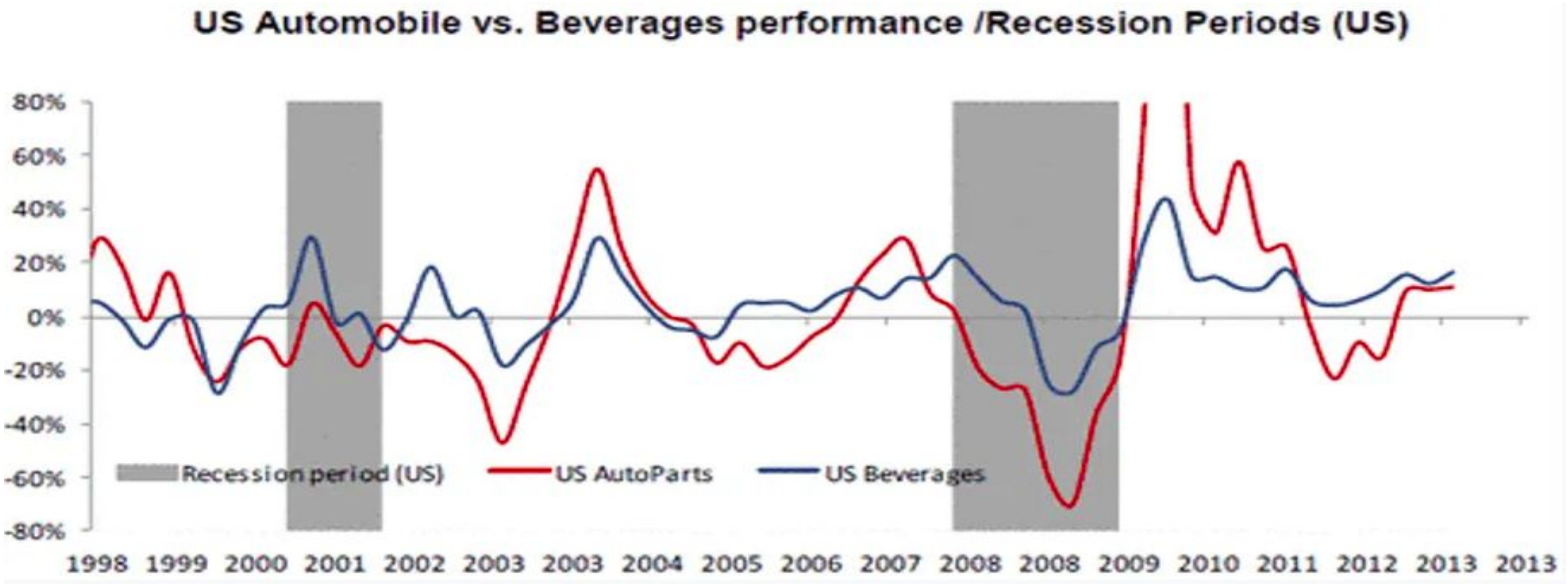
Examples of Cyclical Industries

Industries involved in the production of durable goods, such as raw materials and heavy equipment and consumer discretionary goods

- Auto components
- Textile, apparel, and luxury goods
- Steel
- Airline.

The below graph compares the performance of the automobile sector (cyclical) and beverages sector (non-cyclical) over a 15-year period (1998-2013).

The automobile sector performed significantly weaker than the beverage sector during the financial crisis.




Manufacturing

Manufacturing Sector [continued.]

ADVANTAGE INDIA

Robust Demand

- Huge domestic market with a rapidly increasing middle class population.

Increasing Investments

- Investment in the Indian manufacturing sector have been on a rise, both domestic and foreign. Gross Fixed Capital Formation, which represents net investment in fixed assets, stood at Rs 43,34,091 crore (US$ 614.85 billion) in FY20.

Policy Support

- Initiatives like 'Make in India' and sector specific incentives to various manufacturing companies is aiming to make India a global manufacturing hub.
- Government of India introduced Production Incentive Scheme (PLI) for large scale electronics manufacturing.

Competitive Advantage

- Increasing share of young working population.
- India can achieve its full manufacturing potential as it looks to benefit from its demographic dividend and a large workforce over the next two to three decade.

Note: *PE – Provisional Estimate*

Why is Manufacturing essential for economic growth?

- Manufacturing drives productivity growth and innovation.
- Manufacturing helps services
- Throughout the history of capitalism, practically all countries that have transformed their economies from low to high income have done so through a process of industrialization.
- The fourth industrial revolution is not stealing manufacturing jobs

Indian Auto Sector Crisis 2019

Worst Downturn Ever For Indian Auto Industry, 350,000 Lay-Offs: Report

தமிழில் படிக்க

Maruti Suzuki, country's biggest carmaker, cut its temporary workforce by 6 per centover the past six months, Reuters reported.

Auto | Thomson Reuters | Updated: August 07, 2019 11:44 IST

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livemint

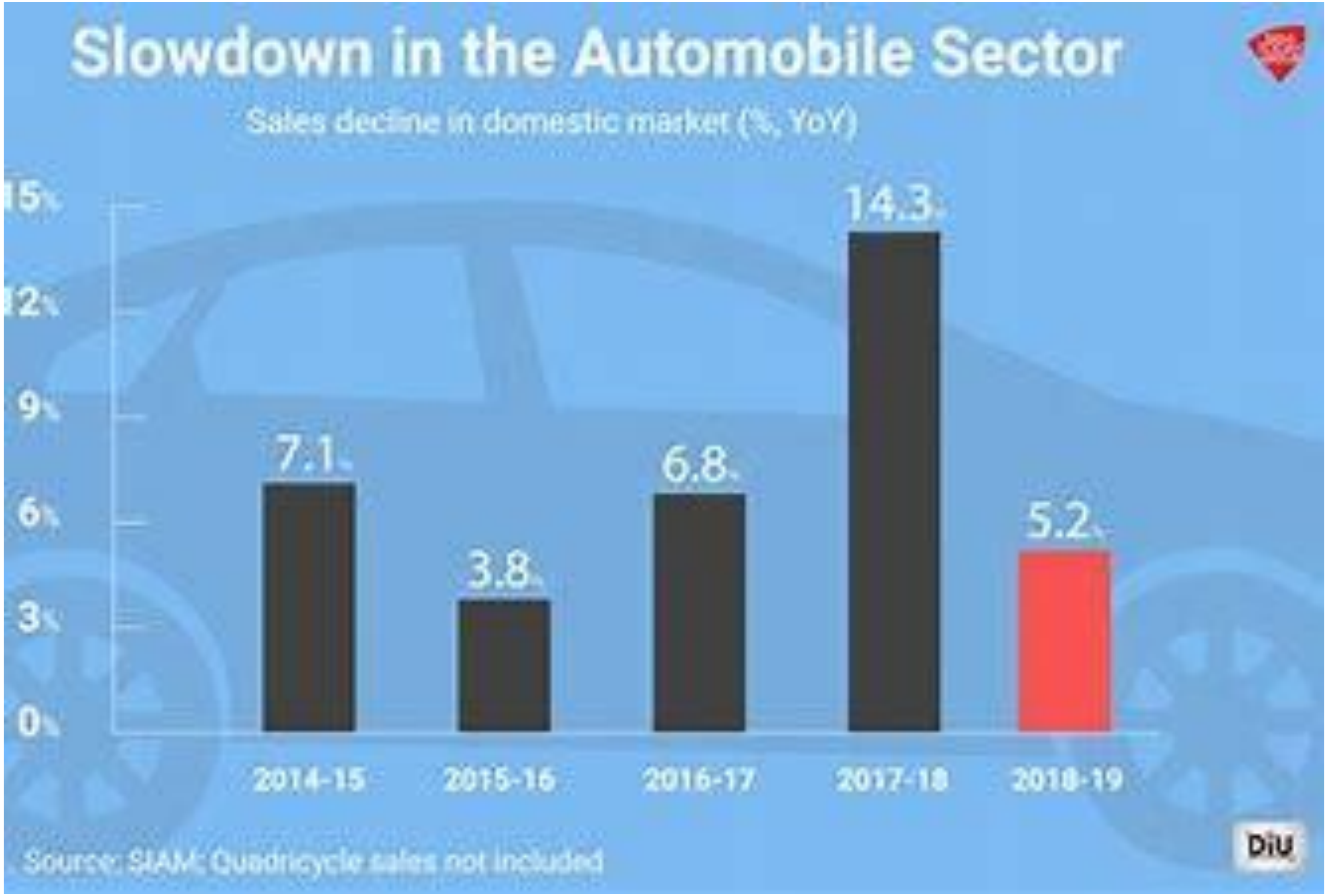
Initial reports for July suggest passenger car sales slipped over 29%, making it the worst month in 2 decades.

Slowdown in auto sector turns up the heat on component makers

3 min read . Updated: 05 Aug 2019, 01:01 PM IST

Amit Panday

- Vendors are either temporarily shutting plants or adjusting output by reducing daily shifts in factories
- The current 15-20% cut in production has led to a crisis-like situation



Slowdown in the Automobile Sector
Sales decline in domestic market (%, YoY)
15%
12%
9%
6%
3%
0%
7.1%
3.8%
6.8%
14.3%
5.2%
2014-15
2015-16
2016-17
2017-18
2018-19
Source: SIAM; Quadricycle sales not included
DIU

Probable reasons

- Saturation of Demand

- Difficulty in Availability of Loans from banks for general people

- Possible emergence of Electric Vehicles So reluctance to buy diesel-petrol vehicles

- More importance given to experiences rather than material things

Current Scenario

Covid-19 Pandemic has had a multiplier effect on the sector already in slowdown

Some Recovery has begun though levels are still below compared to last year

	2019 (Sales in relative percentage scales)	2020 (Sales in relative percentage scale)
April	100	Almost 0
May	100	Around 10 to 20
June	100	Around 50

Probable solutions to reduce drastic effects in case of recessions

- Don't crash the company.
    - Don’t run out of money. Because a recession usually brings lower sales and therefore less cash to fund operations, surviving a downturn requires deft financial management
    - Companies with high levels of debt are especially vulnerable during a recession.
- Deleverage before a downturn.
    - The more debt you have, the more cash you need to make your interest and principal payment
    - When a recession hits and less cash is coming in the door, it puts you at risk of defaulting.

Solutions Continued...

- Focus on decision making
    - Follow Decentralization
        - Because decentralized firms delegated decision making further down the hierarchy, they were better able to adapt to changing conditions
        - Decentralization was associated with relatively better performance for firms or establishments facing the toughest environment during the crisis
    - Why Decentralization ?
        - Because decentralized firms delegated decision making further down the hierarchy, they were better able to adapt to changing conditions
    - Recessions offer opportunities for change

Solutions Continued...

- Look Beyond Layoffs
    - Layoffs are inevitable during recession.
    - More innovative options to introduce layoffs :
        - Hour Reductions
        - Performance Pay
        - Furloughs
    - Invest in Technology, encouraging the adoption of new technologies is always a fair move during recession.
    - Technology can make your business more transparent, more flexible, and more efficient.
    - Digital Technology helps in cutting costs.

Thank You!