

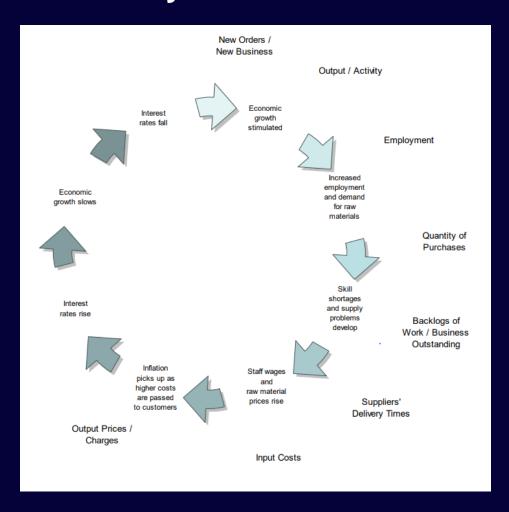
Market Comments

April 6, 2021

Custer Consulting Group www.custerconsulting.com

Purchasing Managers Indices (PMI)

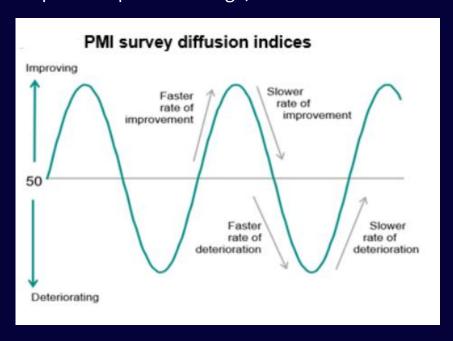
Purchasing Managers Indices (PMI) Boom-bust cycle with PMI Variables



Purchasing Managers Indices (PMI) Interpreting The Manufacturing PMI

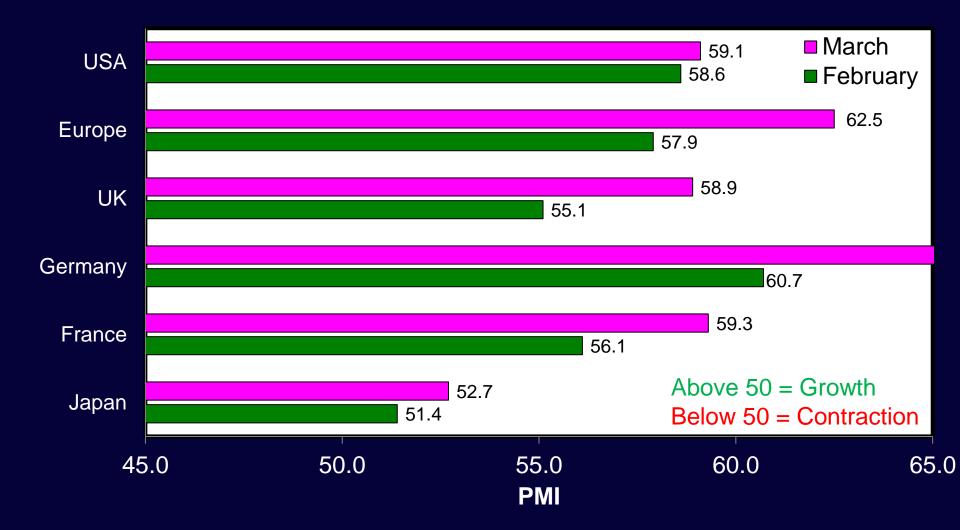
PMI surveys ask respondents to report on monthly changes in key business metrics, such as production, new orders, employment and prices.

The percentage of respondents reporting an increase are assigned a weight of 1.0 and those reporting no change are accorded a weight of 0.5. Those reporting a decline are weighted zero. Therefore, if 100% of the survey panel reports an increase, the resulting index hits 100. Similarly, if 100% of companies report no change, the index comes in at 50.0 (100% x 0.5).



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Purchasing Managers' Indices March vs. February



Source: Markit Economics

Source: Markit Economics

Global "Purchasing Managers" Index

Diffusion Index, >50 = Growth



Global Manufacturing PMI

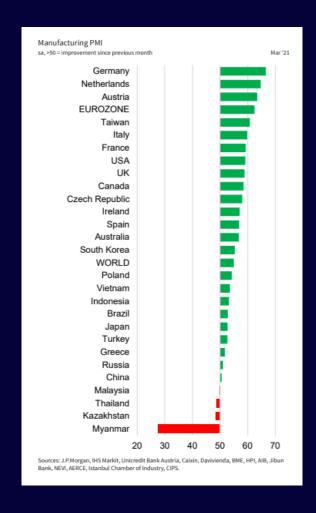
- Conditions in the global manufacturing sector continued to brighten at the end of the first quarter, despite the potential for growth to be stymied by rising cost inflationary pressures and supply-chain disruptions.
- Five of the six top-ranked nations were located in the euro area (Germany, the Netherlands, Austria, Italy and France), taking the combined PMI for the currency bloc to its highest on record, with unsurpassed readings also registered in both Germany and the Netherlands. Outside the euro area, the strongest improvements were seen in Taiwan and the US.
 Improvements were signaled for Japan and China, but both PMIs were below the global average.
- Efforts to raise production further were stymied by supply chain disruptions in March, with input delivery schedules delayed by longer vendor lead times. The increase in supplier delivery times was the second-greatest extent on record, surpassed only by April last year. The combination of increased new orders at manufacturers and supply chain delays was the main factor underlying a sharp rise in backlogs of work, the steepest since May 2010. Demand outstripping supply also contributed to a marked increase in purchasing costs during March. Input price inflation surged to a near-decade high, the pass-through of which led to the steepest rise in output charges since data on selling prices were first tracked in October 2009. JPM Global Manufacturing PMI, March

Global PMI Index Summary - March

Diffusion Index, >50 = Growth

Index summary sa, 50 = no change over previous month. *50 = no change over next 12 months.					
Index	Feb-21	Mar-21	Interpretation		
PMI	53.9	55.0	Improvement, faster rate		
Output	54.3	55.1	Growth, faster rate		
New Orders	54.0	55.8	Growth, faster rate		
New Export Orders	51.0	53.4	Growth, faster rate		
Future Output	67.2	66.5	Growth expected, lesser sentiment		
Employment	50.7	51.5	Growth, faster rate		
Input Prices	65.1	68.2	Inflation, faster rate		
Output Prices	55.7	59.3	Inflation, faster rate		

Global Manufacturing PMI Indices - March Diffusion Index, >50 = Growth

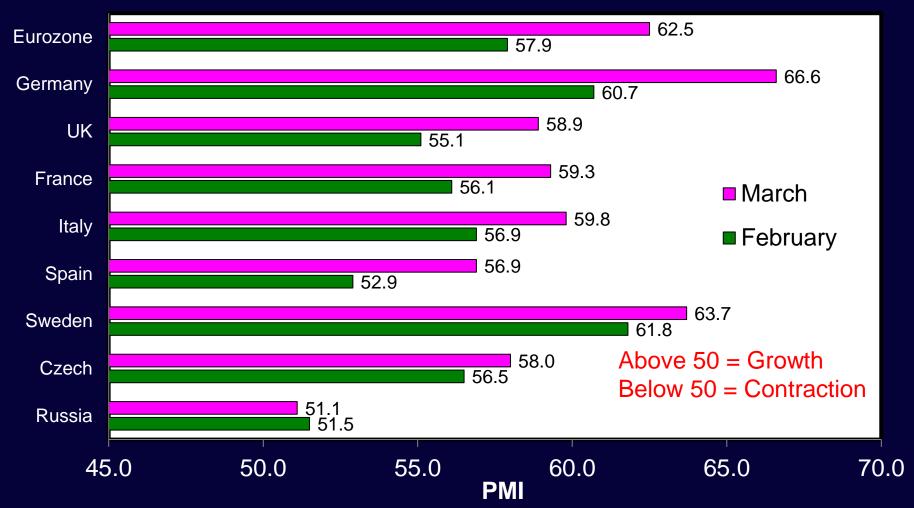


Source: Markit Economics

U.S. Manufacturing PMI (ISM)

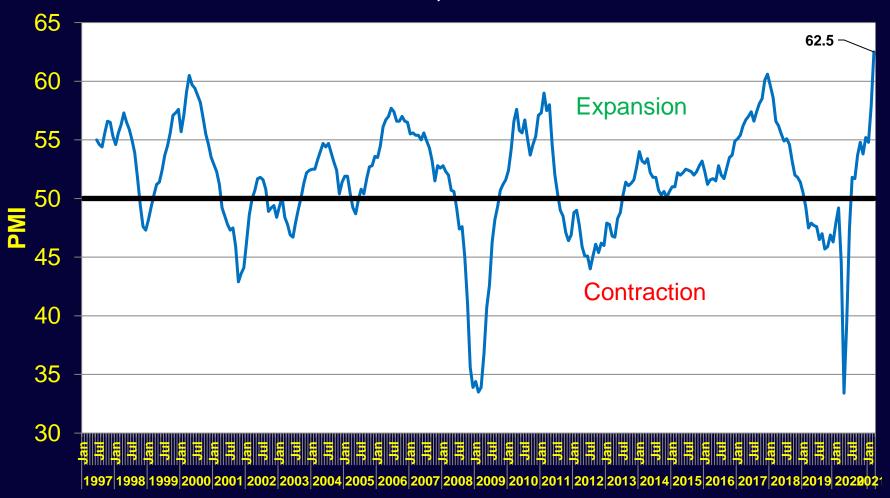
- "All of the six biggest manufacturing industries Computer & Electronic Products; Fabricated Metal Products; Food, Beverage & Tobacco Products; Transportation Equipment; Chemical Products; and Petroleum & Coal Products, in that order — registered strong growth in March.
- "Manufacturing performed well for the 10th straight month, with demand, consumption and inputs registering strong growth compared to February.
 Labor-market difficulties at panelists' companies and their suppliers persist.
 End-user lead times (for refilling customers' inventories) are extending due to very high demand and output restrictions as supply chains continue to recover from COVID-19 impacts," says Fiore.
- The delivery performance of suppliers to manufacturing organizations was slower in March, as the Supplier Deliveries Index registered 76.6 percent. This is 4.6 percentage points higher than the 72 percent reported in February. This is the highest reading since April 1974 at the end of the 1973 oil crisis when the index registered 82.1 percent. US ISM Manufacturing PMI, March

European Purchasing Managers' Indices March vs February 2021



Eurozone Manufacturing"Purchasing Managers" Index

Diffusion Index, >50 = Growth



Source: Markit Economics

Eurozone Manufacturing PMI

- The eurozone's manufacturing economy performed extremely strongly during March, with operating conditions improving to the greatest degree in nearly 24 years of data collection.
- Growth was broad-based across the region, with Germany and the Netherlands leading the way. Both nations recorded their highest ever PMI levels in March. Austria also performed exceptionally strongly, whilst Italy and France both recorded levels amongst the highest in their respective survey histories. Ireland saw growth hit an eightmonth high, whilst Spain registered its best performance since late 2006.
- Faced with a considerable rise in operating expenses, and with stronger market demand bolstering pricing power, average prices charged by eurozone manufacturers also increased sharply in March. The rate of inflation was historically strong, reaching its highest since April 2011. – Euro Manufacturing PMI, March

Eurozone Manufacturing PMICountry Rank - February

Germany	66.6 (flash: 66.6)	record high
Netherlands	64.7	record high
Austria	63.4	39-month high
Italy	59.8	252-month high
France	59.3 (flash: 58.8)	246-month high
Ireland	57.1	8-month high
Spain	56.9	171-month high
Greece	51.8	13-month high

Germany Manufacturing "Purchasing Managers" Index

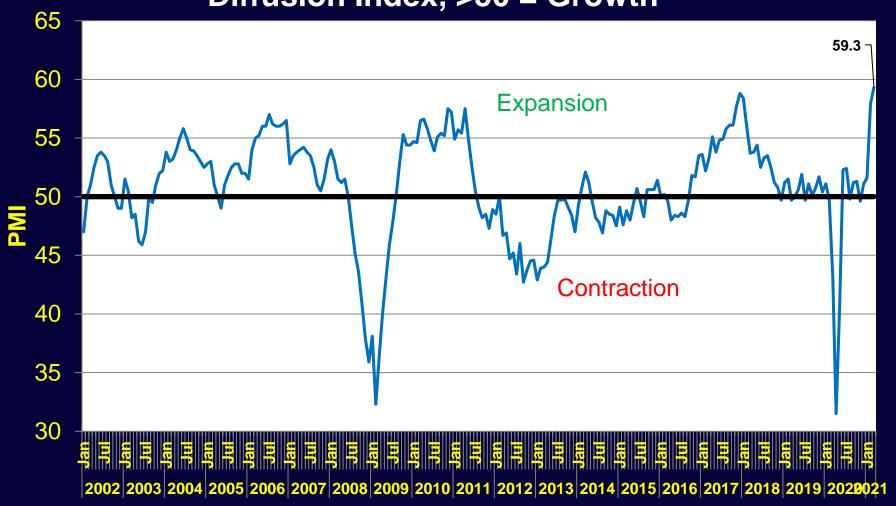
Diffusion Index, >50 = Growth



Source: Markit Economics

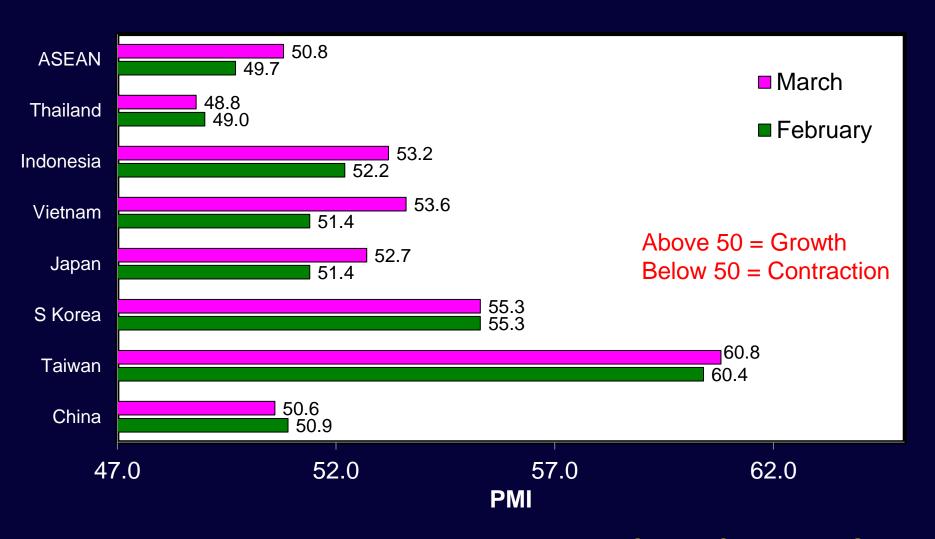
France Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



Source: Markit Economics

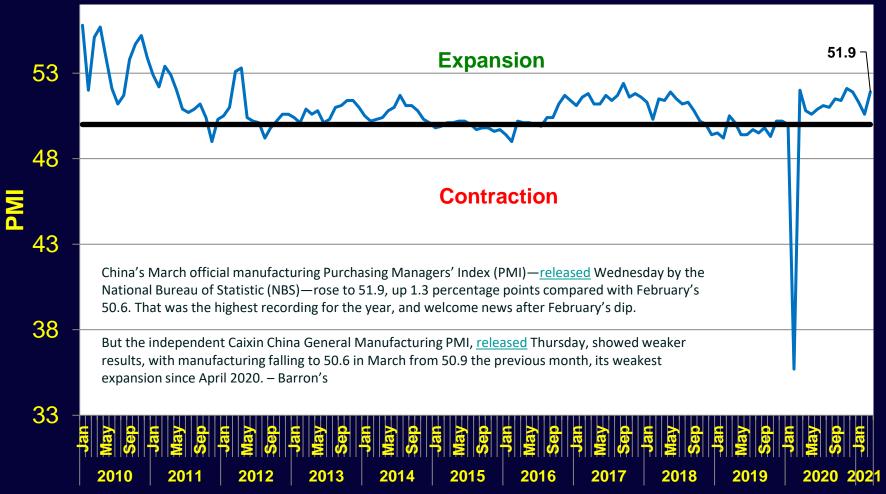
Asian Purchasing Managers Indices March vs. February



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China Official Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



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China "Purchasing Managers" Indices Diffusion Index, >50 = Growth



China Manufacturing PMI

Chinese manufacturing companies signaled a further improvement in operating conditions in March. Production and new orders continued to expand, albeit at mild rates, while employment moved closer to stabilisation. New export business meanwhile returned to growth, as global economic conditions continued to recover from the coronavirus disease 2019 (COVID-19) outbreak. At the same time, inflationary pressures intensified, with both input costs and output charges rising at steeper rates. - Caxin China Man PMI, March

Taiwan "Purchasing Managers" Index Diffusion Index, >50 = Growth



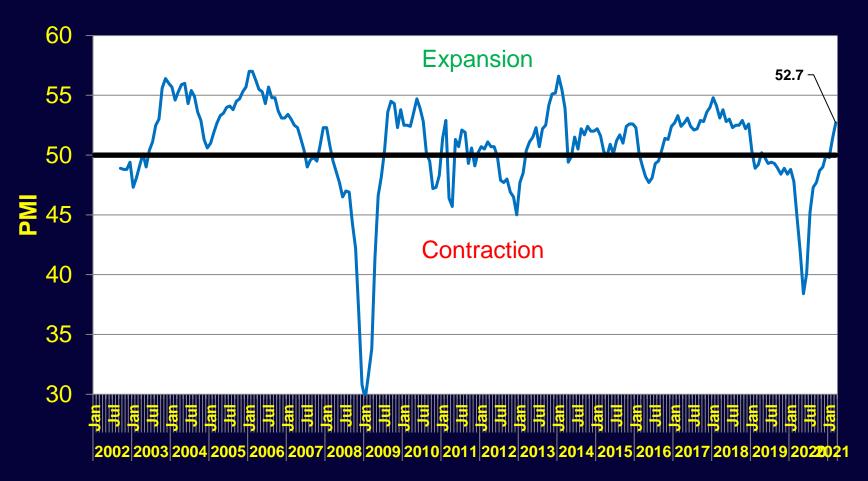
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Taiwan Manufacturing PMI

- Manufacturers in Taiwan signalled a further expansion of output at the end of the first quarter. Notably, the rate of growth was the joint-quickest since the start of 2011 and substantial. Firms indicated that greater customer demand and the ongoing recovery from the pandemic had led firms to expand production. Overall new business increased to the greatest extent since January 2011 amid reports of rising sales both at home and abroad. Notably, the expansion in new export orders was the joint-second steepest seen for over a decade.
- Increased supply-side pressure was also reflected in a further rapid increase in input costs, with the rate of inflation the secondsharpest for a decade. The sustained and marked rise in cost burdens led firms to raise their prices charged, and at the fastest pace on record. – Taiwan PMI, March

Source: Markit Economics

Japan "Purchasing Managers" Index Diffusion Index, >50 = Growth



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Japan Manufacturing PMI

- Japanese manufacturers signalled a second successive improvement in operating conditions in March. Survey respondents registered quicker expansions in production and new order volumes, with the fastest growth rates in 27 and 35 months respectively. At the same time, businesses reported that employment had stabilised for the first time in three months as manufacturers required additional capacity in order to meet rising order volumes. As a result, firms in the Japanese manufacturing sector remained optimistic of a rise in output over the coming 12 months.
- Input cost inflation strengthened further in March. The pace of inflation was
 robust overall and the strongest since November 2018. Manufacturers widely
 linked a rise in average input prices with higher raw material costs. Concurrently,
 average prices charged for Japanese manufactured goods rose at the quickest
 pace since April 2019, as firms sought to partially pass through increased input
 costs to customers.
- Supply chain disruption continued to build during March with average lead times lengthening to the most marked extent since May 2020. Delays in receiving shipments led Japanese manufacturers to increase purchasing activity for the first time since December 2018. At the same time firms continued to draw down existing stocks of preand post-production inventories to fulfil orders. - Japan PMI, February

Source: Markit Economics

S Korea "Purchasing Managers" Index Diffusion Index, >50 = Growth

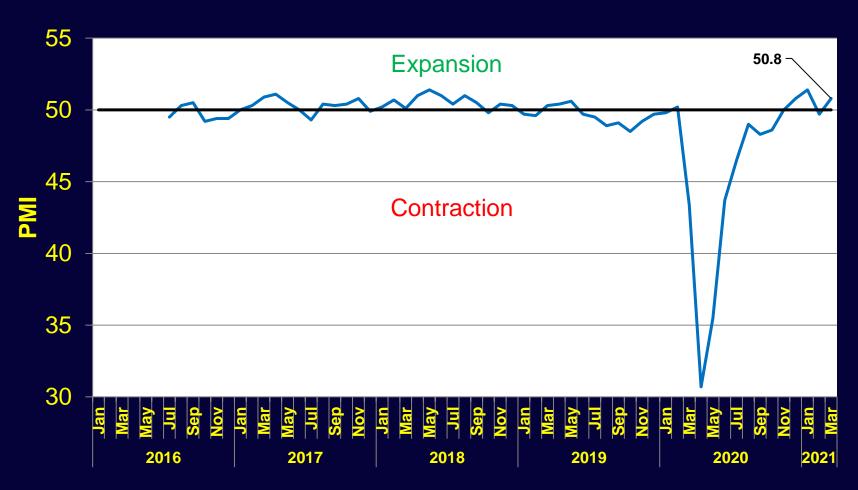


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South Korea Manufacturing PMI

• Firms operating in the South Korean manufacturing sector indicated a sustained improvement in operating conditions in March. Both output and new order volumes continued to expand at a strong pace, despite softening slightly from the previous survey period. The additional pressure on capacity meant that firms increased employment levels at the quickest pace in close to eight years. That said, supply-chain disruption persisted throughout the first quarter of 2021, leading to a survey-record rise in output prices as firms partially passed increased costs on to clients— South Korea PMI, March

ASEAN "Purchasing Managers" Index Diffusion Index, >50 = Growth



ASEAN Member Countries

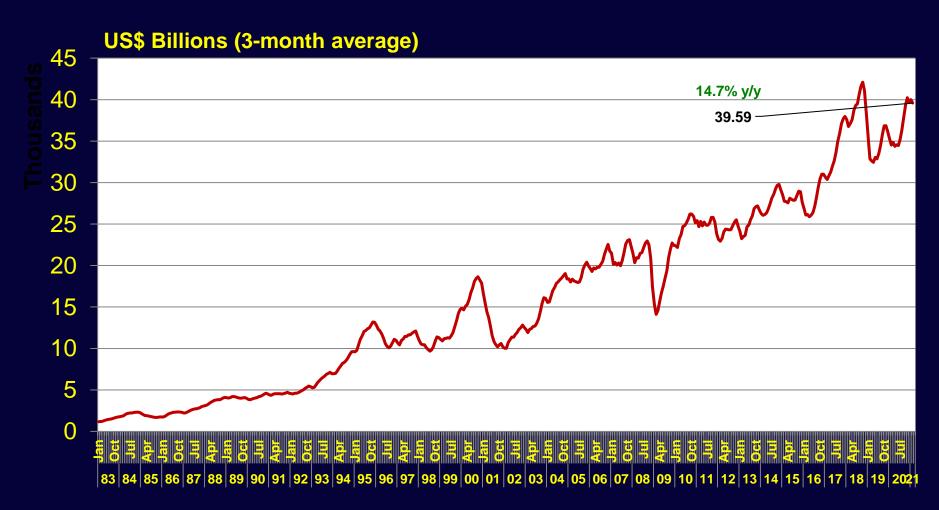


The Association of Southeast Asian Nations, or ASEAN, was **established on 8 August 1967 in Bangkok, Thailand**. There are 10 permanent members of this association. The basic objective behind the establishment of this organisation is to promote economic co-operation in South-East Asia and ensure the economic stability in this region. Its **headquarters is in Jakarta (Indonesia)**.

ASEAN Manufacturing PMI

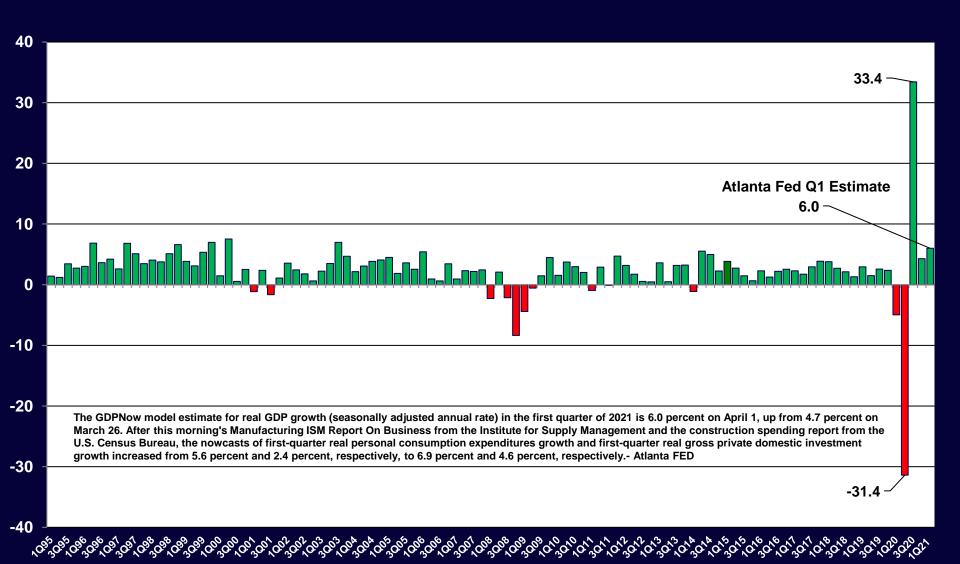
• The ASEAN manufacturing sector saw a return to growth in the closing month of the first quarter, according to latest IHS Markit Purchasing Managers' Index (PMI™) data. Following marginal declines in February, both output and new orders increased during March, although the upturns were only mild. Supply chain delays added further upwards pressure on prices, however, with the rate of cost inflation the steepest since January 2014. Nonetheless, business confidence ticked up to a three-month high, although the level of sentiment remained slightly below the series long-run average. - ASEAN PMI, March

World Semiconductor Shipments Monthly US\$



U.S. GDP Growth

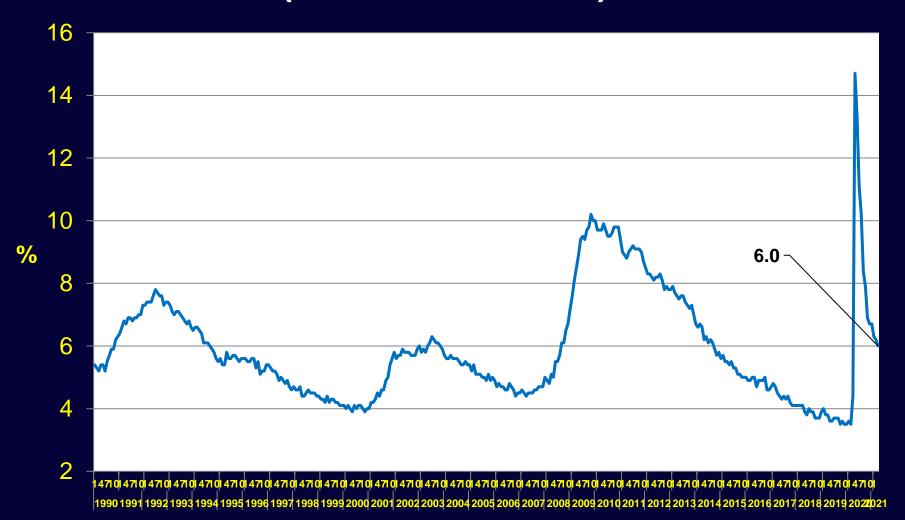
% Annualized Change vs. Prior Quarter (2012 \$)



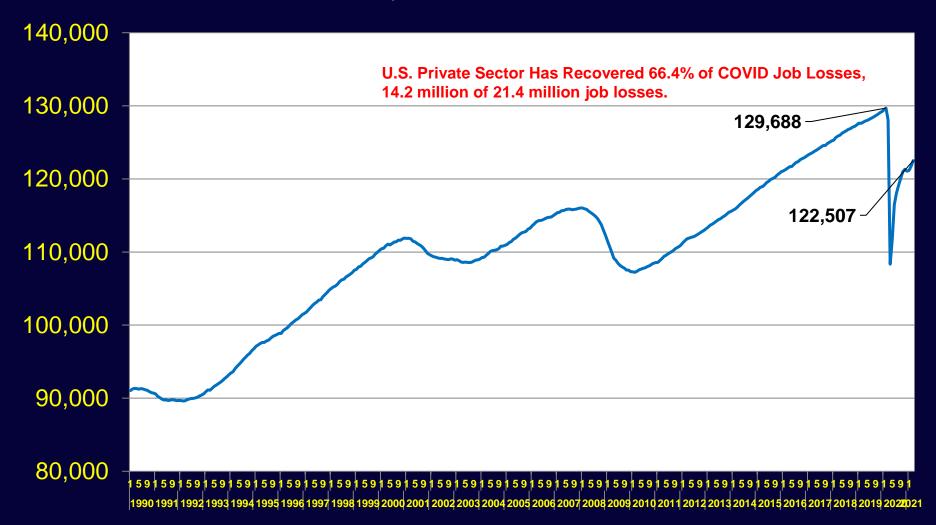
Source: St. Louis Fed, FRED

U.S. Civilian Unemployment Rate

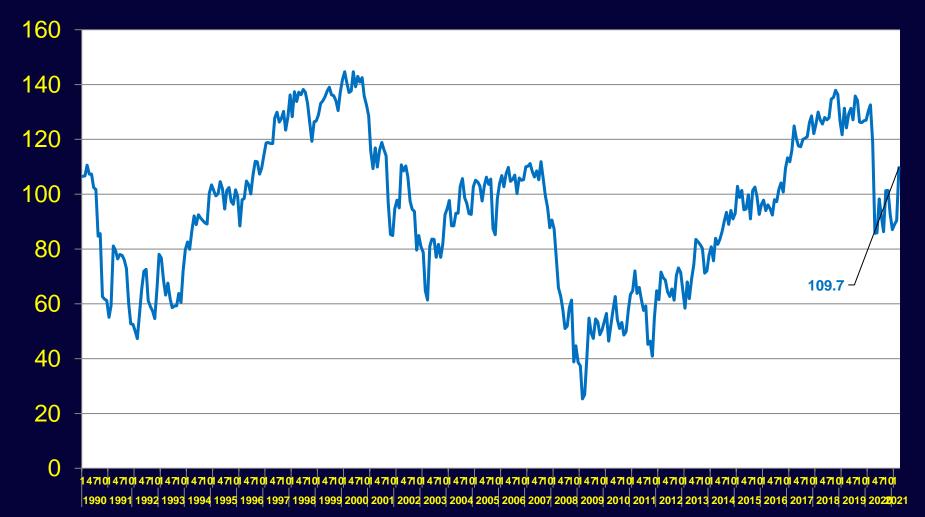
(% of Labor Force)



U.S. Private Nonfarm Employment SA, thousands



U.S. Consumer Confidence

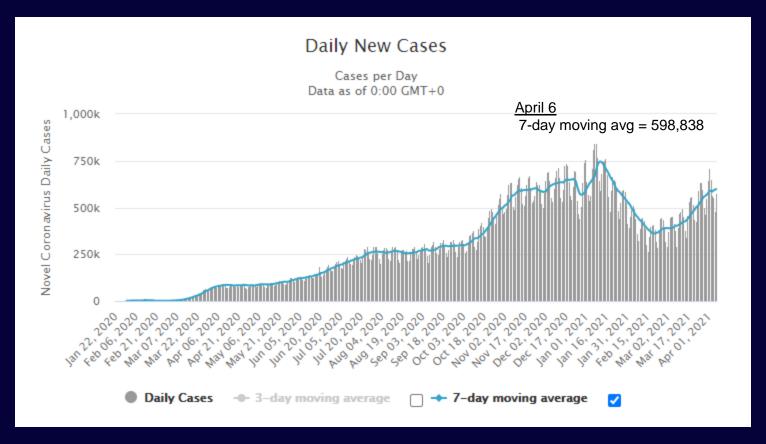


U.S. Jobs Recovery: COVID Nonfam Employment Losses & Recovered

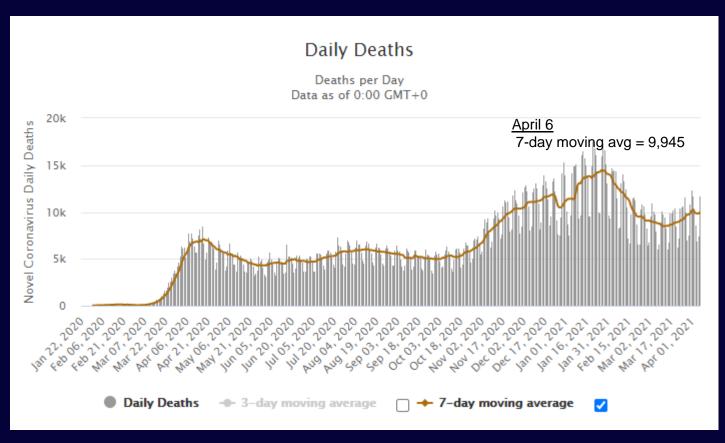
Three Sectors Account For More Than 70% Of Unrecovered COVID Job Losses						
	NFPs Lost	% of Total				
1) Leisure & Hospitality	3,134	37.3%				
2) Government	1,734	20.6%				
3) Education & Health	1,172	13.9%				
			< % of			
Total	6,040	71.9%	unrecovered			
Total COVID NFP Losses Unrecovered	8,403					

COVID Tracker

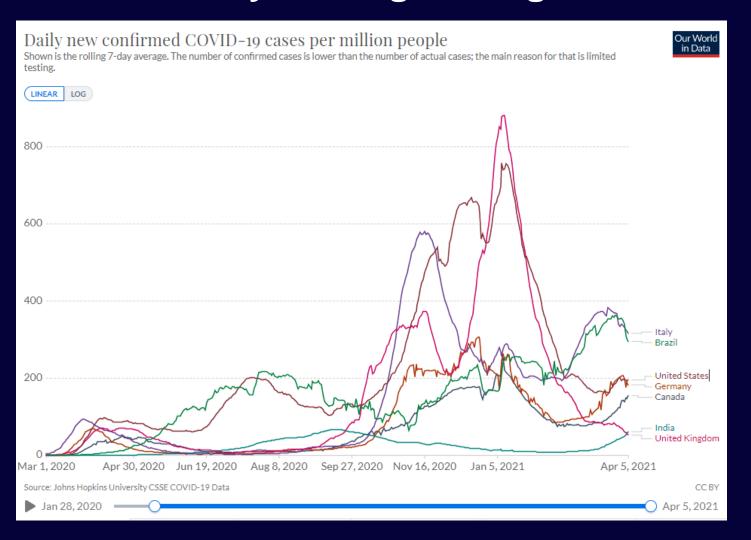
Daily New Case (Worldwide) Cases per Day



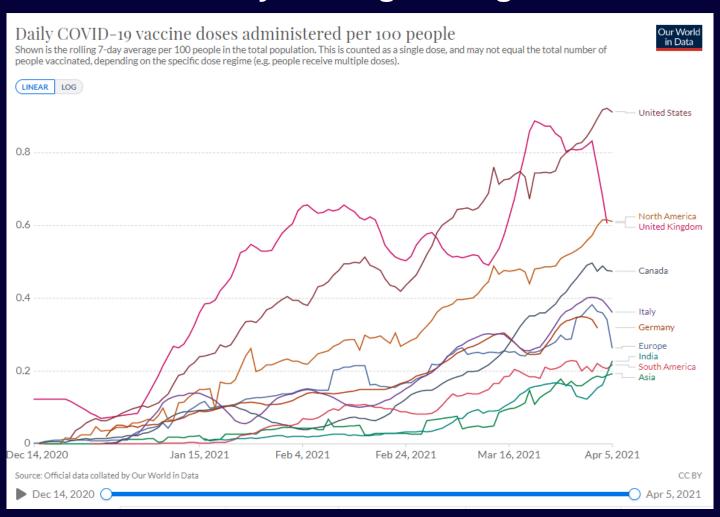
Daily New Deaths (Worldwide) Deaths per Day



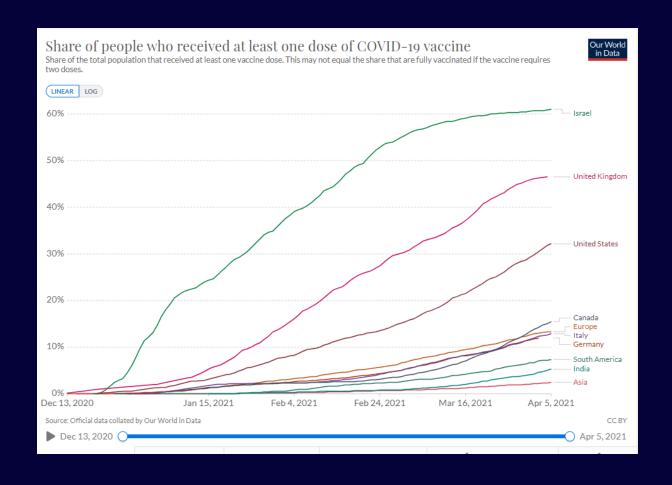
Daily New Cases Per Million People 7-Day Moving Average



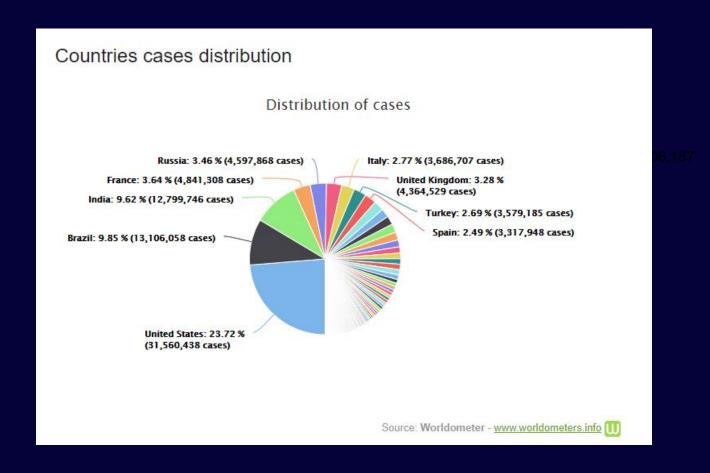
Daily New COVID Vaccinations Per 100 People 7-Day Moving Average



Share Of Population Vaccinated With At Least One Dose



Distribution Of Cases



Source: Worldometers.info