

The Constrained Economy

Anecdotal and survey data point to a supply constrained economy. Both the ISM Manufacturing and Services Indexes for May were very telling. The headline ISM Manufacturing Index increased to a very strong 61.2 for the month. Sixteen out of eighteen industries reported growth. However, the anecdotal comments were mainly focused on shortages of raw materials, components and labor. Despite the strong headline number for the ISM MF Index, the customers' inventories sub-index was deeply negative. The list of commodities up in price was extensive, including metals, electrical and electronic components, boxes, lumber, and petrochemical products. Likewise, the list of commodities in short supply was long. The prices sub-index remained very high at 88.0 for the month.

The ISM Services Index was similar. The headline number increased to a new record high of 64.0 in May. All 18 industries reported growth. Anecdotal comments picked up where the manufacturing comments left off. The inventory sentiment sub-index was in negative territory. Many commodities were listed as being up in price. No commodities were listed as being down in price. Many products were listed as being in short supply. The prices sub-index increased to a very high 80.6.

Rapid reflation is clearly creating a lot of economic friction, meaning rising prices. The headline Producer Price Index for April was up an eye-catching 6.2 percent year-over-year. The headline Consumer Price Index was up 4.2 percent. Some of the increase is due to base effects, meaning that last year's prices were low due to the suppression of demand from COVID-related lockdowns. However, if we assumed 0.2 percent monthly growth in the PPI and CPI from February 2020 through April 2020 the PPI this April would be up by 5.9 percent year-over-year, and the CPI would be up by 4.1 percent. The base effect is only a small part of the strong year-over-year gain this spring. See page 2 for a primer on inflation.

The good news is that rising prices are motivating increased supply, so the problem is self correcting in the long term. For now, however, we face two key questions. (1) Is the current bout of inflation temporary? (2) What happens to unsatisfied demand? These two questions are obviously inter-related. If we take the Federal Reserve's current view, inflation will cool down as supply chains catch up, inventories are restocked and prices relax perhaps later this year or next year. Unsatisfied demand simply waits until we achieve a new economic equilibrium at a higher growth rate. However an alternative view is that inflation persists as companies increase prices, scarce labor requires higher wages and the squeeze on corporate profits motivates still more price gains in a supply and capacity constrained environment. Some demand does not wait, but gets shifted, spreading price pressure to other industries. Both scenarios suggest there is more adjusting for the economy to do in a post-pandemic world.

As the U.S. economy adjusts to the post-pandemic world, performance in some areas will likely exceed expectations, but performance in other areas may fall short. To reflect the new (insert multiple news here) normal, we are adjusting our rating for the U.S. economy down from A+ to A. Our economic risk assessment is now more balanced relative to the expectation of ongoing strong growth in the near term. We believe that there is some risk that U.S. economic growth could fall short of very strong expectations for any given quarter or even on a more sustained basis. The Senate parliamentarian's recent ruling that Democrats will have only one more opportunity to use automatic budget reconciliation suggests that growth in federal spending will soon face more meaningful resistance from Republicans.

Treasury Secretary Janet Yellen has announced that G-7 countries are shaping new rules to put a floor under corporate tax rates and they are exploring ways to share corporate tax revenue. This, along with more active trade tariff policy is an interesting potential demarcation in international economics.

U.S. Economic Outlook, Summary

<i>a = actual f = forecast</i>	4Q'20a	1Q'21a	2Q'21f	3Q'21f	4Q'21f	1Q'22f	2Q'22f	3Q'22f	2020a	2021f	2022f
Real GDP (Percent Change Annualized)	4.3	6.4	5.4	4.8	5.6	4.8	4.1	3.4	-3.5	5.6	4.6
CPI (Percent Change Year-over-Year)	1.2	1.9	4.4	4.5	5.1	5.2	4.3	3.7	1.2	4.0	4.1
Payroll Jobs (Average Monthly Diff., Ths.)	586.3	245.3	511.8	284.1	208.8	166.9	130.7	115.1	-759.6	312.5	128.0
Unemployment Rate (Percent)	6.8	6.2	5.8	5.5	5.2	5.0	4.9	4.8	8.1	5.7	4.8
Federal Funds Rate (Effective)	0.09	0.08	0.09	0.13	0.13	0.13	0.13	0.13	0.38	0.11	0.14
10-Yr. Treasury Rate	0.86	1.32	1.60	1.67	1.80	1.88	1.93	1.97	0.89	1.60	1.96

a = actual f = forecast

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A Primer on U.S. Inflation

At its simplest definition, inflation is a rise in prices over time. The most common ways to look at changes in prices are month-over-month and year-over-year (annual rates). The monthly growth in prices tells us the near-term momentum of inflationary pressures and the yearly change shows us the inflation trend. During periods of recession and the proceeding recovery, we also look at price levels to determine when prices have fully recovered.

In macroeconomics, we try to track the cost of goods and services through the supply chain, from raw materials all the way to final demand, which could be demand from a private business, governmental organization, or a household. The three primary and longstanding aggregate measures of prices are the Producer Price Index (PPI), the Consumer Price Index (CPI) and Personal Consumption Expenditures (PCE). PPI measures goods, services and construction as it goes through different phases of production. The final demand estimate of PPI is important as it tells us the final price paid for the produced goods and services. CPI measures the out-of-pocket costs of a basket of typical goods a household would purchase including bread, milk, cars, electricity, gasoline, rent, etc. The PCE Price Index is another measure of consumer prices, but includes non-out-of-pocket costs paid out for consumers by non-profit organizations, insurance companies, etc. For all three measures, there are volatile components such as food and energy prices. For PPI, this also includes trade services which measures retail and wholesaling prices. So, to see the underlying trend in price changes, it helps to remove these volatile elements. This gives us a core price series that is more stable in the long-run.

There are two primary ways of viewing inflationary forces, cost-push and demand-pull. Cost-push inflation occurs when inputs to production rise. Examples of cost-push inflation include increases in energy and commodity prices, government imposition of tariffs on imports or increased taxes, or a rise in wages to attract workers. This additional cost is passed onto the final purchaser of the goods or services. Demand-pull inflation occurs when demand grows faster than supply, creating scarcity. For example, demand increases stronger than expected due to robust household and businesses spending. An increase in government spending can also boost overall demand and result in price pressures.

Transitory and temporary are terms used by the Federal Reserve and other central banks to characterize the persistence of price changes that may shoot above or below a target rate for inflation. When temporary shocks, base year effects and seasonality result in stronger inflation/deflation, we would expect these to be transitory. Once these shocks fade, price growth tends to return to the long-run trend. However, there is no clearly defined period of time that can be applied to price changes that would constitute transitory. Instead the inflection point between transitory and non-transitory inflation seems to be based on the tolerance of central banks as they balance legal mandates.

The U.S. is currently seeing strong gains in aggregate prices as inflationary pressures converge in 2021. Regional economies shutdown, partially reopened and demand shifted last spring resulting in aggregate price declines. Conversely, demand has been very strong recently. New rounds of stimulus and recovering wages via a strong labor market recovery boosted household incomes. The fast reflation in the U.S. and overall global economy has resulted in a near-term shortage of raw materials compared to demand. This has pushed up producer costs which are now being transferred to consumers.

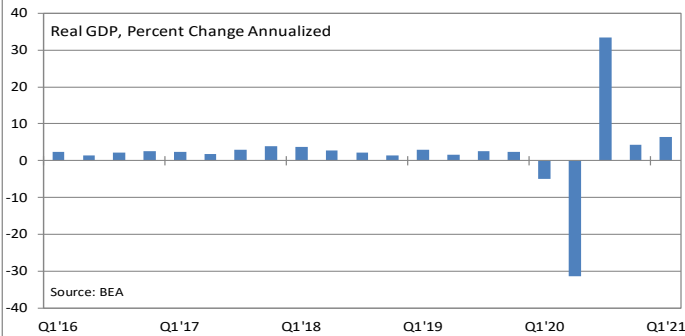
These issues could be dismissed as transitory. Base year effects would eventually fade and supply shocks tend to be self-correcting through a rise in prices and increased production. However, the U.S. economy is now in a highly unusual condition. The non-economic shock of COVID and reopening was in some ways was more like the post-World War II demilitarization and re-employment than it was to a typical business cycle recession. Added to the COVID shock is the massive amount of fiscal and monetary stimulus pushing the U.S. economy. The ramp up of stimulus was awkward, with unintended consequences, and the ramp down will be awkward as well.

We do not know how quickly labor markets will recover in this highly unusual and artificial environment. We can only guess that labor re-uptake will be less than 100 percent for some industries and perhaps more for others. Also, enhanced unemployment benefits and lingering COVID-related issues are suppressing some re-hiring. Nor do we know what underlying demand is absent federal stimulus. Unresolved trade negotiations have been passed from the Trump Administration to the Biden Administration which has implications for the U.S. dollar, production and consumption. So as some of the existing price shocks roll off, we can see new ones result in stronger inflation persisting past this year.

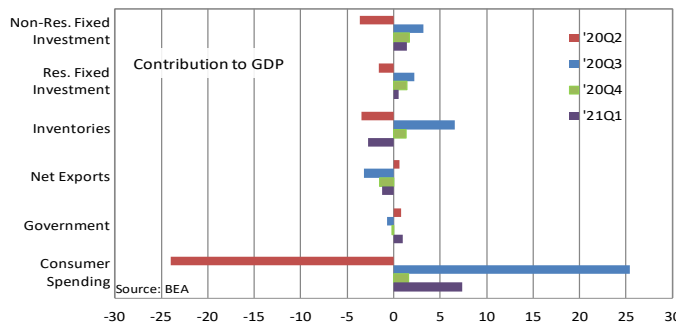
On the other hand there are still deflationary forces at work. Among them are demographic shifts, technological advances and globalization. But these forces are expected to remain in the background into next year as the risk for price changes remains to the upside in 2021.

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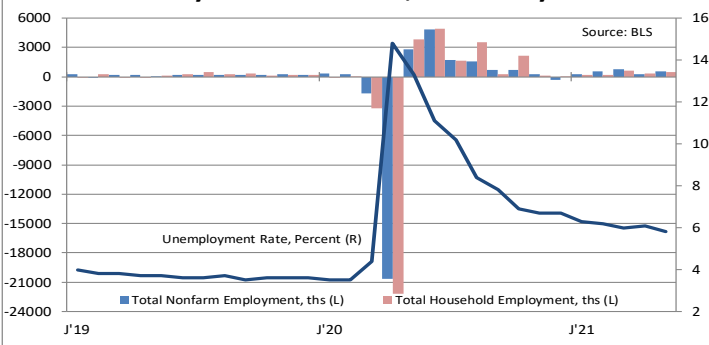
Q1 Real GDP Increased at a 6.4% Rate



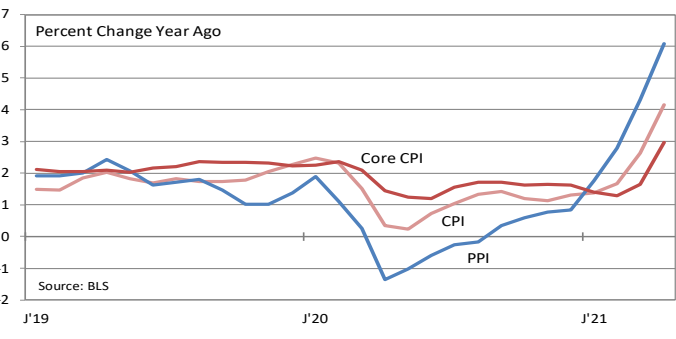
Consumers Drove Q1 GDP



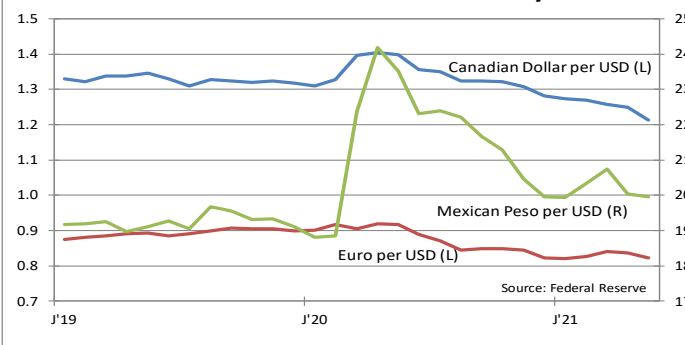
Payrolls Gained 559,000 in May



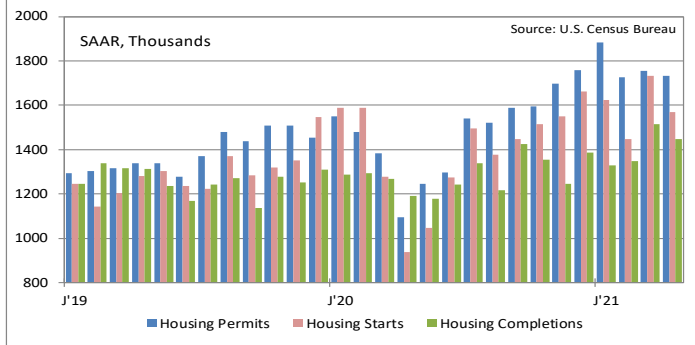
Prices Rose Rapidly in April



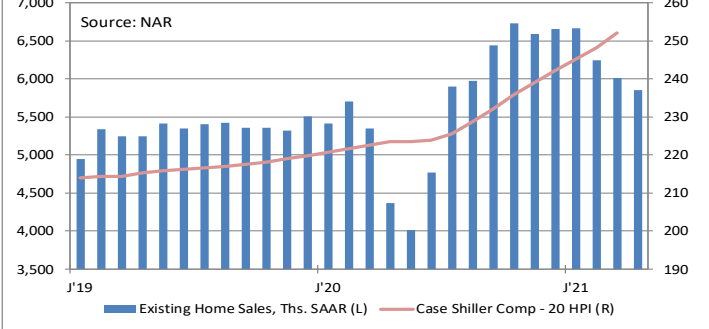
U.S. Dollar Weakened in May



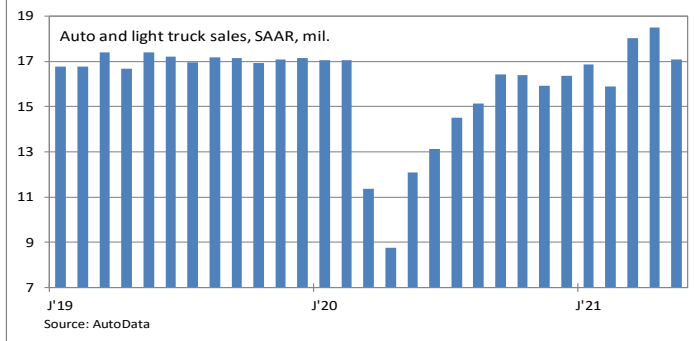
Housing Starts Dipped in April



Home Prices Driven Higher by Tight Supply of Existing Homes on the Market



U.S. Auto Sales Eased in May



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	4Q'20a	1Q'21a	2Q'21f	3Q'21f	4Q'21f	1Q'22f	2Q'22f	3Q'22f	2020a	2021f	2022f
Output											
Nominal GDP (Billions \$)	21495	22061	22582	23046	23530	23956	24338	24676	20937	22805	24492
Percent Change Annualized	6.3	11.0	9.8	8.5	8.7	7.4	6.5	5.7	-2.3	8.9	7.4
Real GDP (Chained 2012 Billions \$)	18794	19088	19340	19570	19837	20071	20272	20444	18426	19459	20349
Percent Change Annualized	4.3	6.4	5.4	4.8	5.6	4.8	4.1	3.4	-3.5	5.6	4.6
Pers. Consumption Expenditures	12999	13352	13537	13661	13804	13932	14042	14137	12726	13588	14085
Percent Change Annualized	2.3	11.3	5.6	3.7	4.3	3.8	3.2	2.7	-3.9	6.8	3.7
Nonresidential Fixed Investment	2742	2813	2881	2940	3005	3071	3134	3194	2665	2910	3163
Percent Change Annualized	13.1	10.8	10.0	8.5	9.2	9.0	8.6	7.8	-4.0	9.2	8.7
Residential Investment	698	719	726	733	743	754	763	772	638	730	767
Percent Change Annualized	36.6	12.7	3.9	3.9	5.4	6.0	5.2	4.6	6.1	14.4	5.0
Change in Private Inventories	62	-93	-37	0	38	56	65	65	-77	-23	63
Net Exports	-1122	-1194	-1271	-1291	-1304	-1316	-1327	-1340	-926	-1265	-1333
Government Expenditures	3320	3367	3379	3399	3420	3440	3460	3479	3341	3391	3469
Percent Change Annualized	-0.8	5.8	1.4	2.5	2.4	2.4	2.3	2.2	1.1	1.5	2.3
Industrial Prod. Index (2007=100)	104.9	105.2	106.7	108.4	109.6	110.4	111.2	111.8	102.2	107.5	111.4
Percent Change Annualized	9.5	1.2	6.0	6.2	4.6	3.2	2.7	2.1	-6.7	5.1	3.7
Capacity Utilization (Percent)	73.9	74.1	75.2	76.3	76.9	77.2	77.3	77.5	72.0	75.6	77.4
Prices											
CPI (1982-84=100)	261.0	263.4	267.7	271.2	274.4	277.0	279.2	281.3	258.8	269.2	280.1
Percent Change Annualized	2.4	3.7	6.7	5.3	4.8	3.8	3.3	2.9	1.2	4.0	4.1
PCE Price Index (2012=100)	111.8	112.9	114.5	116.0	117.3	118.4	119.3	120.2	111.1	115.2	119.7
Percent Change Annualized	1.5	3.7	6.1	5.1	4.5	3.8	3.3	2.9	1.2	3.6	3.9
GDP Price Index (2012=100)	114.4	115.6	116.9	117.9	118.8	119.6	120.3	121.0	113.6	117.3	120.6
Percent Change Annualized	2.0	4.3	4.4	3.6	3.1	2.6	2.5	2.2	1.2	3.2	2.8
PPI, Final Demand (Nov. 2009=100)	119.5	122.1	124.4	126.4	127.9	129.1	130.1	131.0	118.4	125.2	130.5
Percent Change Annualized	3.8	8.9	7.7	6.5	5.0	3.9	3.1	2.6	1.2	3.3	4.1
Crude Oil, WTI (\$/barrel)	42.2	57.2	65.0	65.0	68.0	68.0	68.0	68.0	39.4	63.8	68.0
Labor Markets											
Payroll Jobs (Average Monthly Diff., Ths.)	586.3	245.3	511.8	284.1	208.8	166.9	130.7	115.1	-759.6	312.5	128.0
Unemployment Rate (Percent)	6.8	6.2	5.8	5.5	5.2	5.0	4.9	4.8	8.1	5.7	4.8
Average Weekly Hours	34.8	34.8	34.9	34.9	34.9	34.8	34.8	34.8	34.6	34.9	34.8
Population (Millions)	331.8	332.4	332.9	333.5	334.1	334.7	335.3	335.8	330.9	333.2	335.6
Percent Change Annualized	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Personal Income											
Average Hourly Earnings (\$)	29.68	29.96	30.28	30.55	30.86	31.14	31.40	31.63	29.35	30.41	31.51
Percent Change Annualized	3.2	3.9	4.2	3.7	4.1	3.7	3.3	3.0	4.8	3.6	3.6
Real Disp. Income (2012 Billions \$)	15541	17521	16493	16039	15514	15406	15387	15412	15771	16392	15411
Percent Change Annualized	-7.6	61.5	-21.5	-10.6	-12.5	-2.8	-0.5	0.7	6.0	3.9	-6.0
Personal Saving Rate (Percent)	13.6	21.0	14.0	12.0	11.0	10.0	9.0	9.0	16.2	14.5	9.3
Housing											
Housing Starts (Ths., Ann. Rate)	1575	1602	1579	1599	1613	1624	1628	1624	1397	1598	1625
Exst. SF Home Sales (Ths., Ann Rate)	5937	5583	5187	5218	5254	5264	5275	5271	5076	5311	5271
New SF Home Sales (Ths., Ann Rate)	926	921	896	908	907	909	910	906	828	908	908
Case/Shiller HPI (Jan. 2000=100)	232.5	241.6	249.8	257.2	264.3	271.2	277.4	283.3	222.2	253.2	280.2
Year/Year Percent Change	9.4	12.1	14.6	15.4	13.7	12.3	11.0	10.1	6.0	14.0	10.7
Consumer											
Household Economic Stress Index	-1.4	-4.1	-4.4	-5.4	-3.3	-2.1	-1.9	-1.7	3.3	-4.3	-1.8
Auto Sales (Millions)	16.2	16.9	17.5	18.0	17.8	17.7	17.6	17.5	14.5	17.6	17.6
Interest Rates (Percent)											
Federal Funds Rate (Effective)	0.09	0.08	0.09	0.13	0.13	0.13	0.13	0.13	0.38	0.11	0.14
Prime Rate	3.25	3.25	3.24	3.23	3.23	3.23	3.23	3.23	3.54	3.24	3.24
1-Month LIBOR	0.15	0.12	0.10	0.11	0.18	0.21	0.22	0.22	0.52	0.12	0.23
3-Month LIBOR	0.22	0.20	0.16	0.18	0.22	0.24	0.26	0.27	0.65	0.19	0.27
1-Yr. Treasury Rate	0.12	0.08	0.05	0.11	0.23	0.31	0.35	0.36	0.38	0.12	0.35
5-Yr. Treasury Rate	0.37	0.60	0.82	0.88	1.02	1.11	1.18	1.21	0.54	0.83	1.19
10-Yr. Treasury Rate	0.86	1.32	1.60	1.67	1.80	1.88	1.93	1.97	0.89	1.60	1.96
30-Yr. Fixed Rate Mortgage	2.76	2.88	2.99	3.06	3.18	3.30	3.53	3.79	3.11	3.03	3.66

a = actual f = forecast

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