

SESSION 3

Economic Impacts to Cash Flow





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Fundamentals of Public Funds Investing | Day Two | February 29, 2024

High School Economics





Supply and Demand According to Dwight



With No Further Ado



GDP

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes

- Broadest measure of economic activity
- Virtually all other indicators provide information about this one
- GDP = C + I + G + X M
- GDP = Consumption + Investment + Government + Exports - Imports
- How bond market typically reacts
 - If GDP Bond Prices
 If GDP Bond Prices

Gross Domestic Product (GDP)

Published by the Bureau of Economic Analysis, U.S. Department of Commerce



Durable Goods Orders

Source: https://www.census.gov/manufacturing/m3/ about the surveys/index.html Bloomberg

- The Manufacturers' Shipments, Inventories and Orders (M3) survey provides broad-based, monthly statistical data on economic conditions in the domestic manufacturing sector
- Measures current industrial activity and provides an indication of future business trends
- How bond market typically reacts

Durable Goods Orders

Bureau of the Census of the U.S. Department of Commerce



New Home Sales

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes and

- A leading indicator of economic activity
- Provides monthly data on new home sales nationally
- There is also information regarding the average and median sales prices, the number of houses for sale, and the supply of unsold homes (expressed as the number of months it would take at the current selling rate to eliminate all of the unsold homes
- How bond market typically reacts
 - If Home Sales 👚
 - If Home Sales 🦊

Bond Prices Bond Prices

New Home Sales

Bureau of the Census of the U.S. Department of Commerce



New Home Sales – South Rules

Bureau of the Census of the U.S. Department of Commerce



Existing Home Sales

- Measures sales and prices of existing single-family homes for the nation overall
- Include single-family homes, townhomes, condominiums and coops.
- How bond market typically reacts
 - If Existing Homes
 Bond Prices

 Bond Prices
 - If Existing Homes Bond Prices

Source:

https://www.nar.realtor/research-andstatistics/housing-statistics/existing-homesales/existing-home-sales-explained

Existing Home Sales

National Association of Realtors



Initial Unemployment Claims

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes

- First hint of information we receive about the economy for any given month
- Leading indicator of economic activity
- Help to forecast the change in payroll employment
- How bond market typically reacts
 - If Claims
 - If Claims

Bond Prices 1 Bond Prices 4

Initial Unemployment Claims

Bureau of Labor Statistics of the U.S. Department of Labor



Initial Unemployment Claims

Bureau of Labor Statistics of the U.S. Department of Labor



Initial Unemployment Claims

Bureau of Labor Statistics of the U.S. Department of Labor



Employment

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes

- First complete look at the economy for any given month
- Helps to forecast many other economic indicators
- Payroll Employment, Unemployment Rate (UE Rate), Labor Force Participation Rate
- How bond market typically reacts
 - If UE Rate 1 Bond Prices 1
 - If UE Rate 📕 🛛 Bond Prices 🖡

Unemployment Rate

Bureau of Labor Statistics of the U.S. Department of Labor



Labor Force Participation Rate

- Defined by the Current Population Survey as "the number of people in the labor force as a percentage of the civilian noninstitutional population
- It is the percentage of the population that is either working or actively looking for work
- Long run changes in labor force participation may reflect secular trends that are unrelated to the overall health of the economy, i.e. demographic changes such as the aging of population can lead to a secular increase of exits from the labor force

Labor Force Participation Rate

Bureau of Labor Statistics of the U.S. Department of Labor



Average Hourly Earnings

- A measure of the average hourly earnings of all private employees on a "gross" basis including premium pay for overtime and late-shift work
- Excludes benefits, irregular bonuses, retroactive pay, and payroll taxes paid by the employer
- Progressions in earnings specifically help policy makers understand some of the pressures driving inflation
- Changes in average hourly earnings can be due to either changes in the set of workers observed in a given period, or due to changes in earnings

Average Hourly Earnings

Bureau of Labor Statistics of the U.S. Department of Labor



Average Hourly Earnings

Bureau of Labor Statistics of the U.S. Department of Labor



Retail Sales

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes and Bloomberg

- Tracks the resale of new and used goods to the general public, for personal or household consumption
- Provides the first solid indication of consumer spending for a given month
- Only provides information about what the consumer spends on purchases of goods
- Consumption spending which is what goes into GDP – includes purchases of both goods and services
- How bond market typically reacts
 - If Retail Sales 📋
 - If Retail Sales 👢
- Bond Prices Bond Prices

Retail Sales

Bureau of the Census of the U.S. Department of Commerce







Producer Price Index (PPI)

- Measures the average change over time in the selling prices received by domestic producers for their output
- Prices included in the PPI are from the first commercial transaction for many products
- How bond market typically reacts
 - If PPI 🕇
- Bond Prices
- If PPI
- Bond Prices 1

Source:

https://www.bls.gov/ppi/home.htm#:~:text=The%20Prod ucer%20Price%20Index%20(PPI,many%20products%20an d%20some%20services.

Producer Price Index

Bureau of the Labor Statistics of the U.S. Department of Labor



Producer Price Index

Bureau of the Labor Statistics of the U.S. Department of Labor



Consumer Price Index (CPI)

Source: By the Numbers, A Survival Guide to Economic Numbers Authors: Slifer & Carnes and Bloomberg

- Represents changes in prices of all goods and services purchased for consumption by urban households
- Measure of prices at the consumer level for a fixed basket of goods and services
- To determine what items should go into the CPI, the BLS conducts a survey of consumer expenditures
- Used to provide cost-of-living adjustments to millions of American workers and retirees
- How bond market typically reacts

If CPI
If CPI

Bond Prices Bond Prices

Consumer Price Index (CPI)

Bureau of Labor Statistics of the U.S. Department of Labor



Personal Consumption Expenditures (PCE)

Source: https://www.bea.gov/data/personalconsumption-expenditures-price-index

- Measure of the prices that people living in the U.S., or those buying on their behalf, pay for goods and services
- PCE price index is known for capturing inflation (or deflation) across a wide range of consumer expenses and reflecting changes in consumer behavior
- How bond market typically reacts
 If PCE
 Bond Prices
 - If PCE Bond Prices
 If PCE Bond Prices

Personal Consumption Expenditures (PCE)

Bureau of Economic Analysis of the U.S. Department of Commerce



Personal Consumption Expenditures (PCE)

Bureau of Economic Analysis of the U.S. Department of Commerce



Fed Funds Target Rate – Upper Bound




pds (T-Bonds, or

Purchase of securities in the open market adds reserves to the banking system

FOMC DOT PLOT



FOMC DOT PLOT



Economic Stats in the Data

Sales Tax Revenue

Historical Measure A Gross Sales Tax Revenues Since Inception



Source: San Mateo Transportation Authority Ratings Presentation to S&P, May 11, 2020





New York City!

			Taxable sales ((\$b)		
Fiscal Year*	Retail trade	Utilities and Information	Leisure and Hospitality	Professional and Business Services	Other	Total
2014	\$46.5	\$23.3	\$29.6	\$11.9	\$29.7	\$141.0
2015	\$47.5	\$22.8	\$31.7	\$13.4	\$31.3	\$146.7
2016	\$47.7	\$21.9	\$33.7	\$14.4	\$33.2	\$150.9
2017	\$48.6	\$23.0	\$34.9	\$14.5	\$36.0	\$156.9
2018	\$50.6	\$23.5	\$36.0	\$15.9	\$39.4	\$165.5
2019	\$52.6	\$24.0	\$37.6	\$17.1	\$42.7	\$174.1
2020	\$51.1	\$25.8	\$31.5	\$17.8	\$40.4	\$166.5
2021	\$54.4	\$27.3	\$15.7	\$15.7	\$39.8	\$152.9
2022	\$64.2	\$30.3	\$32.7	\$19.8	\$47.5	\$194.6
2023	\$66.3	\$32.7	\$42.6	\$22.7	\$52.2	\$216.6

NYC taxable sales FY 2014 - FY 2023

 Taxable sales by NYC Fiscal Year are June through May. Sectors are based on North American Industrial Classification System (NAICS). Data are subject to revision.

NYC taxable sales grew by 11.3 percent in FY 2023 (preliminary), driven by economic growth and inflation. In nominal terms, taxable sales in FY 2023 were 24.4 percent higher than in FY 2019.

Source:

https://comptroller.nyc.gov/wpcontent/uploads/documents/ACFR-2023.pdf

New York City!

Economic and Fiscal Outlook

The Office of the Comptroller forecasts that the U.S. Gross Domestic Product (GDP) will grow in real terms by 1.7 percent in both calendar year 2023 and 2024. Real GPD growth rates in 2025 through 2027 are expected to average 2.6 percent per year. While GDP growth rates have slowed in the first and second quarter of 2023 to 2.0 percent and 2.1 percent, respectively, recent data show few signs of an imminent recession. As of September, the consensus among economic forecasters calls for GDP growth to fall near zero percent in the first quarter of 2024, and to return to moderate levels afterwards. However, a recession continues to be a risk to the economic outlook as the Federal Reserve continues to signal that interest rates may remain elevated for longer than previously expected.(13)



CITY OF LOS ANGELES
Summary of Revenues, Expenditures and Other
Financing Sources and Uses - General Fund
(amounts expressed in thousands)

Revenues and (Other Financing	Sources		Expenditures and Other Financing Uses					
	FY 2023	FY 2022	% Change			FY 2023	FY 2022	% Change	
Revenues				Expenditures					
Property Taxes	\$ 2,658,390 \$	2,492,320	6.7 %	General Government	\$	1,585,693	\$ 1,573,832	0.8 %	
Sales Taxes	704,915	694,218	1.5	Protection of Persons and Property		3,419,259	3,414,251	0.1	
Utility Users Taxes	705,538	632,433	11.6	Public Works		259,554	201,042	29.1	
Business Taxes	817,325	756,960	8.0	Health and Sanitation		210,706	164,898	27.8	
Other Taxes	820,981	778,563	5.4	Transportation		125,186	139,871	(10.5)	
Licenses and Permits	33,344	31,493	5.9	Cultural and Recreational Services		92,120	79,454	15.9	
Intergovernmental	53,143	43,171	23.1	Community Development		163,922	108,209	51.5	
Charges for Services	367,473	341,191	7.7	Capital Outlay		67,738	53,975	25.5	
Services to Enterprise Funds	377,220	327,326	15.2	Debt Service - Principal		35,589	20,682	72.1	
Fines	120,670	116,805	3.3	Debt Service - Interest		38,970	3,752	938.6	
Special Assessments	2,592	2,691	(3.7)	Debt Service - Cost of Issuance	_	806	867	(7.0)	
Investment Earnings	77,448	35,770	116.5	Total Expenditures		5,999,543	5,760,833	4.1	
Change in Fair Value of									
Investments	(40,425)	(145,900)	72.3	Other Financing Uses					

Another factor is the higher mortgage interest rates, which continue to put downward pressure on real estate sales volume and prices. This has continued to negatively impact documentary tax receipt, a key revenue source for the City. According to the California Association of Realtors' November 2023 Sales Report, year-to-date statewide home sales were down 25.9 percent in November 2023, as home sales dropped to the lowest level since the Great Recession. In Los Angeles, although median price was up by 7.2 percent, sales volume declined by 5.1 percent compared to November 2022. Declining sales have already resulted in \$16.4 million in documentary transfer tax receipts shortfall during the first four months of fiscal year 2024, and if it continues, could further lower year-end receipts. Federal Reserve has hinted it plans to cut rates in 2024 which should allow more prospective homebuyers to reenter the market. However, the rate cuts are likely to come well after fiscal year 2024 has ended.

The fiscal year 2024 Budget assumes the City will continue to see strong revenues and projected a robust 6.1 percent growth in General Fund revenue over fiscal year 2023. However, after the first four months of fiscal year 2024, revenue was \$92.8 million below projections. There are several economic factors that could impact revenues and the overall City's fiscal position in the upcoming year.

Although the economic activities were largely stable during the first half of fiscal year 2024, there are indicators of some slowdown leading up to the second half of the fiscal year. According to the University of California (UCLA) Anderson Forecast, the employment picture in California looks different now than it did pre-pandemic. Jobs were lost in some sectors and created in others, while other jobs simply moved out of state as a result of remote work. Many of the new jobs are in different sectors than those where job loss was the most pronounced. In the logistics, technology (professional, technical and scientific services and information), construction, durable goods manufacturing and health care sectors, rapid job creation made up for more job losses in other sectors. While the California economy is growing faster than the U.S. economy, there is a risk that the high interest rates might still disrupt the current expansion on the downside. Even though recession worries have subsided, increased military conflict abroad and a sense of greater geopolitical risk has kept uncertainty about the future high. UCLA Forecast concluded that the uncertainty factor, combined with a slower-growing U.S. economy in 2024, suggests a slower-growing California economy in 2024.

Property Tax revenue increased by \$190.6 million or 7.3% due to growth in the taxable assessed value of properties mirroring the growth of the real estate market. The decrease of \$392.6 million in Business Tax was mainly due to a decline in the estimated business tax receivable account by provisioning a higher uncollectible allowances percentage and adjusting estimated assessments based on the determination of taxable receipts. Sales Tax revenues increased by \$11.4 million, reflecting the improvement of economic activities from the post-pandemic reopening. Utility Users Taxes increased by \$63.8 million or 10.1%, attributed to Users Tax increase due to increased natural gas fuel prices and an increase in Electrical Users Tax revenues.

Gwinnett County, GA Property Tax Revenue



Property Taxes and the Condition of the Tax Digest

Property taxes are an extremely important revenue source for the County. More than one-third (39.2 percent) of the total revenue for all operating funds and more than three-quarters (77.3 percent) of the revenues for the tax-related funds are derived from property taxes. Property taxes provide most of the funding in the General Fund for County operations and in the Recreation Fund for park operations and maintenance. Property tax revenues are also used to pay for services such as police, fire, development and enforcement, and emergency medical services, as well as economic development activity. Tax-related funds make up 52.3 percent of the fiscal year 2023 operating budget.

Economic Forecasting



Percentage change, seasonally adjusted annual rates (except where noted)

Q Search in table

	2022				2023				2024			
	I Q*	II Q*	III Q*	IV Q*	I Q*	II Q*	III Q*	IV Q*	IQ	II Q	III Q	IV Q
Real GDP	-2.0	-0.6	2.7	2.6	2.2	2.1	4.9	3.3	1.7	0.5	0.0	1.3
Real GDP (YoY)	3.6	1.9	1.7	0.7	1.7	2.4	2.9	3.1	3.0	2.6	1.4	0.9
Real disposable income	-9.8	-1.4	3.6	2.2	10.8	3.3	0.3	2.5	1.7	0.9	0.3	1.0
Real consumer spending	0.0	2.0	1.6	1.2	3.8	0.8	3.1	2.8	2.0	0.5	0.0	0.9
Residential investment	-1.9	-14.1	-26.5	-24.9	-5.3	-2.2	6.7	1.0	1.0	1.0	1.0	2.0
Nonresidential investment	10.7	5.3	4.7	1.7	5.7	7.4	1.5	1.9	1.7	0.7	0.9	1.2
Inventory change (bln chn '17\$)	197.0	93.0	71.0	152.0	27.0	15.0	78.0	83.0	35.0	5.0	-10.0	0.0
Total gov't spending	-2.9	-1.9	2.9	5.3	4.8	3.3	5.8	3.3	3.0	2.4	2.1	2.1
Exports	-4.6	10.6	16.2	-3.5	6.8	-9.3	5.4	6.3	4.5	1.5	0.5	2.0
Imports	14.7	4.1	-4.8	-4.3	1.3	-7.6	4.2	1.9	1.0	0.0	2.0	2.5
Unemployment rate (%)	3.8	3.6	3.5	3.6	3.5	3.6	3.7	3.7	3.7	3.9	4.0	4.1
Labor Force Participation Rate (%)	62.2	62.2	62.3	62.2	62.5	62.6	62.7	62.7	62.6	62.6	62.5	62.4
PCE Inflation (%Y/Y)	б.б	6.8	6.6	5.9	5.0	3.9	3.3	2.7	2.5	2.3	2.0	2.0
Core PCE Inflation (%Y/Y)	5.5	5.2	5.2	5.1	4.8	4.6	3.8	3.2	2.6	2.3	2.1	2.0
Fed Funds (%, Midpoint, Period End)	0.375	1.625	3.125	4.375	4.875	5.125	5.375	5.375	5.375	5.125	4.625	4.125

Source: https://www.conference-board.org/research/us-forecast



Source: https://www.conference-board.org/research/us-forecast

The Conference Board Economic Forecast for the US Economy

February 07, 2024

The US economy started 2024 on strong footing. Various indicators of business activity, labor markets, sentiment, and inflation are moving in a favorable direction. However, headwinds including rising consumer debt and elevated interest rates will weigh on economic growth. With these factors in mind, The Conference Board is upgrading its US forecast for the year. While we no longer forecast a recession, we do expect the consumer spending growth to cool and for overall GDP growth to slow to under 1% in Q2 and Q3 2024. Thereafter, inflation and interest rates should normalize and quarterly annualized GDP growth should converge toward its potential of near 2 percent in 2025.

US consumer spending held up remarkably well in 2023 despite elevated inflation and higher interest rates. However, this trend is unlikely to hold, in our view. Real disposable personal income growth struggled to outpace real consumer spending in H2 2023, pandemic savings are dwindling, and household debt is rising (along with delinquencies). Additionally, the growth in 'buy now, pay later' plans may also weigh on future spending as bills come due. Thus, we forecast that overall consumer spending growth will gradually slow to a standstill in Q3 2024 as households struggle to find a new equilibrium between income, debt, savings and spending. While we expect labor market conditions to soften over this period, we do not expect them to deteriorate. As inflation and interest rates abate, consumption should expand once again in late 2024. Following a pop in Q2 2023, business investment growth slowed materially in H2 2023 as interest rate increases made financing activities more expensive. This trend should intensify in H1 2024 as the Fed resists calls to cut interest rates until June 2023. Residential investment, which had been contracting since 2021, began to grow again in Q3 2023. Persistent demand for homes and a dearth of supply was the driver. However, looking ahead, we do not expect residential investment growth to meaningfully improve until interest rates begin to fall.

Government spending was a positive contributor to growth in 2023 due to federal non-defense spending associated with infrastructure investment legislation passed in 2021 and 2022. However, growth is likely to slow in 2024 and 2025 as infrastructure spend out stabilizes. Furthermore, political volatility surrounding fiscal policy, debt, and outlays could impact government spending over the next few years.

Labor market tightness has been remarkably persistent over the last year. As this should continue over the coming quarters, we do not expect labor markets to unravel even as the economy slows. The tightness largely reflects a shrinking labor force as Baby Boomers retire. As such, businesses are likely to be resistant to lay off workers. Indeed, this persistence should prevent overall economic growth from slipping into contractionary territory and facilitate a rebound next year.

On inflation, we expect to see continued progress over the coming quarters. Supply chains are continuing to heal and price pressures emanating from dwellings and services continue to moderate. Notably, services demand should cool as consumer spending wanes, but upward wage pressures may persist. We expect year-over-year inflation readings to hit the Fed's 2 percent target in Q3 2024. This expectation will trigger rate cuts starting in June 2024. We anticipate 25 basis point cuts at every meeting (125bp in 2024) until rates fall below 3 percent in Q3 2025.

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, December 2023

Percent

			Median <u>1</u>				Cent	tral Tenden	cy²		
Variable	2023	2024	2025	2026	Longer run	2023	2024	2025	2026	Longer run	2023
Change in real GDP	2.6	1.4	1.8	1.9	1.8	2.5–2.7	1.2–1.7	1.5–2.0	1.8–2.0	1.7–2.0	2.5–2.7
September projection	2.1	1.5	1.8	1.8	1.8	1.9–2.2	1.2–1.8	1.6–2.0	1.7–2.0	1.7–2.0	1.8–2.6
Unemployment rate	3.8	4.1	4.1	4.1	4.1	3.8	4.0-4.2	4.0-4.2	3.9–4.3	3.8-4.3	3.7–4.0
September projection	3.8	4.1	4.1	4.0	4.0	3.7–3.9	3.9-4.4	3.9–4.3	3.8-4.3	3.8-4.3	3.7–4.0
PCE inflation	2.8	2.4	2.1	2.0	2.0	2.7–2.9	2.2-2.5	2.0-2.2	2.0	2.0	2.7-3.2
September projection	3.3	2.5	2.2	2.0	2.0	3.2-3.4	2.3–2.7	2.0-2.3	2.0-2.2	2.0	3.1–3.8
Core PCE inflation ⁴	3.2	2.4	2.2	2.0		3.2-3.3	2.4–2.7	2.0-2.2	2.0-2.1		3.2-3.7
September projection	3.7	2.6	2.3	2.0		3.6-3.9	2.5-2.8	2.0-2.4	2.0-2.3		3.5-4.2
Memo: Projected appropriate policy path											
Federal funds rate	5.4	4.6	3.6	2.9	2.5	5.4	4.4-4.9	3.1–3.9	2.5-3.1	2.5-3.0	5.4
September projection	5.6	5.1	3.9	2.9	2.5	5.4–5.6	4.6–5.4	3.4-4.9	2.5-4.1	2.5-3.3	5.4–5.6

Make Full Screen

THE FED'S FORECAST

Source:

1. Economic growth is likely to decelerate in 2024 as the effects of monetary policy take a broader toll and post-pandemic tailwinds fade.

2. We assume the hiking cycle is over, leaving the Fed Funds on hold at 5.25%-5.5% until the middle of 2024.

3. The U.S. consumer could begin to bend, but not break.

4. The larger-than-expected fiscal boost to the U.S. economy in 2023 could flip to a slight headwind in 2024.

5. Labor markets are showing signs of normalization to end 2023; unemployment could drift higher in 2024 while remaining low in historical context.



OUTLOOK

2024 economic outlook: 10 considerations for the US economy

December 22, 2023

The economy is losing some of its steam, but could land softly in 2024.

Source: https://www.jpmorgan.com/insights/outlook/economicoutlook/economic-trends 6. Inflation trends are cooling, but likely to remain above the Fed's 2% target through 2024.

7. Housing sector activity has dropped 30%-40% over the past 18 months amid the surge in mortgage rates.

8. Supply chain bottlenecks are mostly in the rearview, while global supply chain restructuring will take time.

9. Pressures on the commercial real estate sector are likely to intensify.

10. Geopolitical risks will remain top of mind.



OUTLOOK

2024 economic outlook: 10 considerations for the US economy

December 22, 2023

The economy is losing some of its steam, but could land softly in 2024.

Source: https://www.jpmorgan.com/insights/outlook/economicoutlook/economic-trends

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- <u>https://www.census.gov/economic-indicators/</u>
- https://www.bls.gov/
- <u>https://fred.stlouisfed.org/</u>
- <u>https://www.federalreserve.gov/monetarypolicy.htm</u>
- <u>https://www.conference-board.org/research/us-forecast</u>

Economic Indicators and the Typical Bond Market Effect

	Number a	nd Direction	Effect in 1	Ferms of Price
Gross Domestic Product (GDP)	^	$\hat{\nabla}$	•	合
Initial Unemployment Claims	1	$\hat{\nabla}$		$\hat{\Delta}$
Unemployment Rate	¢	$\hat{\Delta}$	1	$\overline{\nabla}$
Consumer Price Index (CPI)	1	$\hat{\Delta}$	•	仓
Producer Price Index (PPI)		$\hat{\Delta}$	₽	仓
Consumer Sentiment	1	$\hat{\nabla}$	•	仓
Housing Starts		$\hat{\Delta}$	₽	企
Retail Sales	1	$\hat{\Delta}$	•	企
Industrial Production and Capacity Utilization		$\hat{\Delta}$	•	企
Durable Goods	1	$\hat{\nabla}$	₽	仓
New Home Sales	^	$\hat{\Delta}$	₽	仓