



Grupo de Pesquisa em  
**Gestão e Planejamento Econômico-Financeiro**  
Universidade Federal do Rio de Janeiro – UFRJ

The Quarterly Observatory of the  
U.S. Economy:  
Macroeconomic Trends,  
1<sup>st</sup> Quarter 2023

## **Textos para Discussão**

**No. 13 – maio, 2023.**

O GPEF é um grupo de pesquisa criado na Universidade Federal do Rio de Janeiro (UFRJ) com foco em gestão financeira, economia empresarial, administração pública, e planejamento econômico-financeiro.

Os **Textos para Discussão** têm como objetivo principal fazer circular resultados de pesquisas teóricas e aplicadas nas áreas de atuação do GPEF-UFRJ, tanto no meio acadêmico, como fora dele. As opiniões e conclusões expressas nos **Textos** são de responsabilidade dos autores e não representam, necessariamente, as opiniões do GPEF ou da UFRJ. Todas as solicitações e comentários referentes aos **Textos para Discussão** devem ser dirigidos ao coordenador do GPEF:

Manuel Alcino Ribeiro da Fonseca (mfonseca@facc.ufrj.br).

**Web address:** <http://modelosfinanceiros.com.br/publicacoes/>

## Textos para Discussão

No. 13 – maio, 2023.

### Título

The Quarterly Observatory of the U.S. Economy:  
Macroeconomic Trends, 1st Quarter 2023

### Autor

GPEF \*

\* Grupo de Pesquisa em Gestão e Planejamento Econômico-Financeiro

#### Resumo:

O principal objetivo do Observatório Trimestral é avaliar a evolução da economia norte-americana em uma perspectiva de mais longo prazo, e levando em conta um referencial macroeconômico bem definido. Este referencial, assim como as previsões elaboradas no texto, seguem material disponível em outro Texto para Discussão:

“A macro-econometric model containing income distribution, price changes and Government financing: Solutions and dynamic analysis for the US.”

[https://modelosfinanceiros.com.br/assets/documentos/gpef\\_-\\_texto\\_para\\_discusso\\_no\\_11\\_-\\_20222.pdf](https://modelosfinanceiros.com.br/assets/documentos/gpef_-_texto_para_discusso_no_11_-_20222.pdf)

#### Abstract:

The main objective of the Quarterly Observatory is to evaluate the path of the U.S. economy in a longer-term perspective and considering a well-defined macroeconomic framework. This framework, as well as the predictions elaborated in the text, follow material available in another Text for Discussion:

“A macro-econometric model containing income distribution, price changes and Government financing: Solutions and dynamic analysis for the US.”

[https://modelosfinanceiros.com.br/assets/documentos/gpef\\_-\\_texto\\_para\\_discusso\\_no\\_11\\_-\\_20222.pdf](https://modelosfinanceiros.com.br/assets/documentos/gpef_-_texto_para_discusso_no_11_-_20222.pdf)

# The Quarterly Observatory of the U.S. Economy: Macroeconomic Trends, 1st Quarter 2023

May 2023

GPEF

Grupo de Pesquisa em Gestão e Planejamento  
Econômico-Financeiro

## Introduction

In the first quarter of 2023, the trend of reduced growth in aggregate output, that initiated in the third quarter of last year, continued to be observed. In the case of private consumption, there was a sharp increase in the first quarter of this year. Similarly, total employment in the private sector has also been showing declining growth rates. But in this case, the peak of growth occurred in the fourth quarter of 2021.

Inflation rates, as measured by both the CPI and the GDP deflator, also continued to trend downward. In the case of price changes, the peak occurred in the second quarter of 2022. The first quarter of the year was also marked by a strong fiscal deterioration for the federal government, with a consistent increase in expenditure items and a strong reduction in revenues. The consequence was the sharp growth (36.5%) of the federal deficit.

## 1. GDP growth and its main factors

The growth of GDP is in a descending trend since the third quarter of 2022. Nevertheless, two factors contribute to a higher GDP increase, namely, the reduction of the trade deficit and a faster growth of private consumption – specially in the first quarter of this year.

On the other hand, in the first quarter of 2023, private investment had a negative rate of growth despite the fact that average real interest rates remain negative. Certainly, inflation is a major factor contributing for this negative trend.

## 1. GDP growth and its main factors

	Units	Last I-23	Previous IV-22	Change (%)											
				III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Real net exports	Mil. 2012 USD	-1,235,844	-1,238,615	5.28	2.38	14.72	-3.90	-11.30	-2.37	-0.22					
Real private consumption	Mil. 2012 USD	I-23 14,346,593	IV-22 14,214,863	III-21 0.73	IV-21 0.77	I-22 0.33	II-22 0.50	III-22 0.56	IV-22 0.25	I-23 0.92					
Real private investment	Mil. 2012 USD	I-23 3,583,323	IV-22 3,694,128	III-21 2.49	IV-21 7.19	I-22 1.31	II-22 -3.73	III-22 -2.48	IV-22 1.10	I-23 -2.99					
Real interest rates		Real Rate (%)						Forecast (%)							
Moody's Aaa yield	% (GDP Deflator)	I-23 -0.71	IV-22 -1.85	III-21 -2.38	IV-21 -3.26	I-22 -3.27	II-22 -3.14	III-22 -2.38	IV-22 -1.85	I-23 -0.71	2023 0.85	2024 0.91	2025 0.74	2026 0.67	2027 0.63
Real GDP	Mil. 2012 USD	Change (%)													
		I-23 20,246,439	IV-22 20,182,491	III-21 0.65	IV-21 1.69	I-22 -0.41	II-22 -0.14	III-22 0.80	IV-22 0.63	I-23 0.31	2023 2.44	2024 2.34	2025 1.75	2026 1.53	2027 1.43

## 2. Inflation and monetary aggregates

After peaking in the second quarter of 2022, CPI inflation has entered a declining trajectory, and the same trend is observed in the GDP deflator.

Among the factors associated with the reduction of inflation are the decrease in the money supply (M1 stock) and, mainly, the monetary base reduction.\* These last two trends are explained by the rise in nominal interest rates that apply to the economy as a whole (business rates). On the other hand, the reduction in money supply was offset in part by the increase of M1 velocity.

Another factor even more important contributing to lower CPI rates of change is the slowdown in the increase of wholesale prices. In the first quarter of 2023 there was, in fact, a decline in the index PPI – all commodities.

---

\* One major issue with data for monetary variables was the change in the definition of M1 adopted by the Fed in May 2020, which caused a fourfold increase in the figure for that month. To deal with this change, an adjustment has been made to bring recent data in line with the original series.

## 2. Inflation and monetary aggregates

	Units	Last	Previous	Annual Change (%)							Forecast (%)				
		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23	2023	2024	2025	2026	2027
Consumer Price Index (CPI)	1982-84 = 100	301.80	298.99	5.38	7.19	8.51	8.93	8.21	6.44	4.98					
GDP Deflator	2012 = 100	130.81	129.50	5.03	6.11	6.93	7.61	7.14	6.40	5.35	3.45	2.46	1.77	1.70	1.88
Monetary base	Mil. USD	5,321,000	5,405,400	30.90	23.17	5.05	-8.63	-15.30	-15.71	-13.25	2.40	2.24	2.13	2.04	1.96
M1*		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23	2023	2024	2025	2026	2027
* See previous page	Mil. USD	4,660,518	4,792,579	15.79	14.68	11.14	6.42	2.05	-3.34	-7.02	2.40	2.24	2.13	2.04	1.96
M1 Velocity															
M1 income velocity	N.A.	I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
		5.602	5.425	4.954	4.935	4.991	5.155	5.323	5.425	5.602					
Annual Change (%)															
Producer Price Index (PPI)	1982 = 100	I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
All commodities		257.02	257.92	20.55	20.36	20.93	22.43	13.67	6.87	-1.15					

### **3. Broad sectors in the economy**

The trajectory of nominal income in the sector with the greatest link with the economy's overall cyclical pattern – Utilities, Construction and Manufacturing – peaked in the last quarter of 2021, and since then has shown a downward pattern in the nominal rate of change. In the case of Trade and Transportation, there is not such a distinct trend – instead, up and down movements in the nominal rate of change have been observed.

In the case of financial services, there has been a negative and decreasing nominal rate of change in the last three quarters of 2022. This worsening scenario is undoubtedly affected by the problems in the real estate segment. The sector of personal and business services, as expected, has shown much less dramatic variations in national income in nominal values.

### 3. Broad sectors in the economy: National income

	Units	Last	Previous	Change (%)		Forecast (real rate, %)									
		IV-22	III-22	II-21	III-21	IV-21	I-22	II-22	III-22	IV-22	2023	2024	2025	2026	2027
Utilities, Construc. and Manufactur.	Bil. USD	3,588	3,551	0.64	3.72	4.94	3.59	3.25	1.94	1.03	5.15	1.79	1.96	1.53	1.28
Trade and Transportation	Bil. USD	3,616	3,618	4.89	2.12	3.71	2.64	1.66	3.18	-0.07	3.01	2.77	1.04	1.40	1.42
Financial services	Bil. USD	3,353	3,470	2.04	0.95	3.10	0.24	-0.53	-1.02	-3.36					
Professional and business services	Bil. USD	3,509	3,484	2.17	3.20	3.83	3.46	1.41	2.77	0.70					



## 4. Labor market

The growth (annual rate) of total non-farm employment has been in a diminishing trend since the record rate observed in the last quarter of 2021. A similar pattern is also present in the total employment of the private sector, as well as in the case of services provided by private companies.

In both the construction and manufacturing sectors, however, the highest rate of growth of employment occurred in the second quarter of 2022 – two quarters after the peak of labor increase in the overall economy.

As expected, the pattern of the productivity level in the private sector is less regular, with a succession of small increases and decreases in comparison with the previous year's data. In the first quarter of 2023, there was a decrease following two quarters with a positive rate.

#### 4. Labor market

	Units	Last	Previous	Annual Change (%)											
		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Employment															
Total non-farm	Thousands	155,472	154,535	4.24	5.10	4.91	4.54	3.99	3.20	2.67					
				Annual Change (%)							Forecast (%)				
		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23	2023	2024	2025	2026	2027
Employment															
Total private	Thousands	132,907	132,204	4.89	5.69	5.63	5.26	4.56	3.53	2.74	2.16	2.34	1.58	1.41	1.33
Employment		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Construction	Thousands	7,890	7,859	2.97	3.24	4.01	4.71	4.34	3.48	2.57					
Employment		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Manufacturing	Thousands	12,976	12,974	2.77	3.15	3.63	4.42	3.85	3.09	2.04					
Employment		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Private services	Thousands	111,406	110,743	5.30	6.19	5.98	5.38	4.64	3.56	2.81					
Labor		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
productivity															
in private sector	2012=100	113.03	113.51	-0.66	0,55	-1.59	-0.88	0.24	0.48	-0.42					

## 5. Government budget

The tax receipts of the Federal Government had a major decrease in this year's first quarter.

Federal Government's consumption kept growing at relatively high rates since the third quarter of 2022.

After a long period with decreasing rates, the Federal Government's net transfers had a 6.8% increase in the first quarter.

Although the Federal Government's deficit had a 36.5% increase in the first quarter, the debt went up only moderately (3.5%) due to the limitations imposed by the debt ceiling.

## 5. Government budget

	Units	Last	Previous	Change (%)											
		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23					
Federal Govmt. tax revenue	Mil. USD	2,953,607	3,193,384	3.29	4.32	12.85	2.65	0.73	-0.82	-7.50					
Federal Govmt. consumption	Mil. USD	1,343,466	1,305,879	-1.47	1.06	-0.01	0.38	2.39	2.16	2.87					
Federal Govmt. net transfer payments	Mil. USD	2,351,175	2,201,739	-22.79	-15.14	-3.14	-0.86	-1.81	-0.34	6.78					
Federal Govmt. net saving	Mil. USD	-1,663,805	-1,219,318	-31.58	-34.15	-39.03	-5.29	15.43	20.04	36.45					
				Annual Change (%)					Forecast (%)						
		I-23	IV-22	III-21	IV-21	I-22	II-22	III-22	IV-22	I-23	2023	2024	2025	2026	2027
Total federal debt	Mil. USD	31,458,438	31,419,689	5.50	6.73	8.06	7.14	8.79	6.08	3.47	2.90	2.74	2.63	2.54	2.46