

The Quarterly Observatory of the U.S. Economy:

Macroeconomic Trends,

4th Quarter 2023

## **Textos para Discussão**

No. 16 - janeiro, 2024.

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. 16 - janeiro, 2024.

#### Título

The Quarterly Observatory of the U.S. Economy: Macroeconomic Trends, 4th 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, segue 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

#### **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

# The Quarterly Observatory of the U.S. Economy: Macroeconomic Trends, 4<sup>th</sup> Quarter 2023

January 2024

**GPEF** 

Grupo de Pesquisa em Gestão e Planejamento Econômico-Financeiro

#### Introduction

In the fourth quarter of 2023, the strong growth of the previous period subsided to a certain extent – GDP growth diminished from 1.2% (4.8% in annual basis) to 0.8%, which still is a significant result. One of the factors that explain this reduction is that the growth of private investment in the last quarter was almost one fifth of the rate in the third quarter. In the case of aggregate consumption, there was a more stable trend at a relatively high rate of change in the fourth quarter (0,7%). On the other hand, total employment in the private sector continued to show declining, albeit still relatively high, rates of change – a trend that has been present since the end of 2021.

Inflation rates, as measured by the GDP deflator, continued to trend downward – in the last quarter, the annual rate of inflation based on this indicator was 2.6% (reduction of 0.6 percentage point). According to the CPI index, however, inflation has been higher, and annual rates have remained above 3%. The fourth quarter of last year also showed a little more favorable fiscal data for the federal government, especially in the case of government consumption and net saving – in the latter, a slightly lower deficit.

## 1. GDP growth and its main factors

After the strong performance in the third quarter, GDP growth subsequently lost momentum. One factor that contributed to this less impressive result was the more moderate expansion of private investment in the last quarter of 2023, which is related to the rise in interest rates in real terms.

Aggregate consumption growth, however, remained relatively strong in the second half of last year. In addition, the trade deficit improved slightly in the fourth quarter of 2023.

## 1. GDP growth and its main factors

|                     | Units            | Last     | Previous | Change (%) |        |       |       |       |        |       |        |        |      |      |      |
|---------------------|------------------|----------|----------|------------|--------|-------|-------|-------|--------|-------|--------|--------|------|------|------|
|                     |                  | IV-23    | III-23   | II-22      | III-22 | IV-22 | I-23  | II-23 | III-23 | IV-23 |        |        |      |      |      |
| Real net exports    | Bil. 2017 USD    | -908.1   | -930.6   | -2.17      | -12.09 | -1.59 | -3.15 | -0.73 | 0.26   | -2.42 |        |        |      |      |      |
| Real private        |                  | IV-23    | III-23   | II-22      | III-22 | IV-22 | I-23  | II-23 | III-23 | IV-23 |        |        |      |      |      |
| consumption         | Bil. 2017 USD    | 15,569.8 | 15,461.3 | 0.49       | 0.38   | 0.29  | 0.93  | 0.20  | 0.76   | 0.70  |        |        |      |      |      |
| Real private        |                  | IV-23    | III-23   | II-22      | III-22 | IV-22 | I-23  | II-23 | III-23 | IV-23 |        |        |      |      |      |
| investment          | Bil. 2017 USD    | 4,132.0  | 4,111.0  | -2.76      | -1.96  | 0.83  | -2.33 | 1.27  | 2.41   | 0.51  |        |        |      |      |      |
|                     |                  | Real R   | Rate (%) |            |        |       |       |       |        |       | Foreca | st (%) |      |      |      |
| Real interest rates |                  | IV-23    | III-23   | II-22      | III-22 | IV-22 | I-23  | II-23 | III-23 | IV-23 | 2024   | 2025   | 2026 | 2027 | 2028 |
| Moody's Aaa yield   | % (GDP Deflator) | 2.07     | 1.87     | -3.17      | -2.48  | -1.87 | -0.68 | 1.13  | 1.87   | 2.08  | 0.97   | 0.87   | 0.77 | 0.68 | 0.60 |
|                     |                  |          |          |            | ge (%) |       |       |       |        |       |        |        |      |      |      |
|                     |                  | IV-23    | III-23   | II-22      | III-22 | IV-22 | I-23  | II-23 | III-23 | IV-23 | 2024   | 2025   | 2026 | 2027 | 2028 |
| Real GDP            | Bil. 2017 USD    | 22,672.8 | 22,490.6 | -0.14      | 0.66   | 0.64  | 0.56  | 0.51  | 1.19   | 0.81  | 1.69   | 1.57   | 1.47 | 1.39 | 1.33 |

## 2. Inflation and monetary aggregates

According to the GDP deflator, inflation remains on a consistently lower path after peaking in early 2022. However, CPI data shows that price changes rose in the third quarter of last year and lost momentum afterward.

Among the factors that have contributed to the reduction in inflationary pressures is the fall in the money supply (M1 stock) observed since the end of last year.\* This trend is certainly related to rising interest rates that apply to the productive sector (corporate rates). On the other hand, the reduction in the money supply has been offset in part by the increase in M1 velocity since the beginning of 2022.

An even more important factor behind the reduction in inflation rates is the fall in wholesale prices. However, in the fourth quarter of 2023, the decline in the PPI index – all commodities – was less pronounced.

<sup>\*</sup> 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  | Annı  | ual Change | e (%)  |       |        |          |      |              |           |      |  |  |  |  |  |
|-----------------------|---------------|-----------|-----------|-------|------------|--------|-------|--------|----------|------|--------------|-----------|------|--|--|--|--|--|
| <b>Consumer Price</b> |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 |              |           |      |  |  |  |  |  |
| Index (CPI)           | 1982-84 = 100 | 308.85    | 307.48    | 8.93  | 8.21       | 6.44   | 4.98  | 3.09   | 3.68     | 3.30 |              |           |      |  |  |  |  |  |
| , ,                   |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |
|                       |               |           |           | Annu  | al Change  | (%)    |       |        |          |      | Forecast (%) |           |      |  |  |  |  |  |
|                       |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 | 2024 2025    | 2026 2027 | 2028 |  |  |  |  |  |
| GDP Deflator          | 2017 = 100    | 123.22    | 122.76    | 7.65  | 7.25       | 6.42   | 5.32  | 3.48   | 3.19     | 2.61 | 2.39 2.34    | 2.27 2.22 | 2.17 |  |  |  |  |  |
|                       |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |
|                       |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 | 2024 2025    | 2026 2027 | 2028 |  |  |  |  |  |
| Monetary base         | Mil. USD      | 5,827,200 | 5,567,300 | -8.63 | -15.30     | -15.70 | -9.17 | 1.85   | 2.89     | 7.79 | 4.44 4.15    | 3.89 3.65 | 3.43 |  |  |  |  |  |
|                       |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |
|                       |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 | 2024 2025    | 2026 2027 | 2028 |  |  |  |  |  |
| M1*                   | Mil. USD      | 4,370,048 | 4,371,386 | 6.42  | 2.06       | -3.39  | -8.29 | -10.26 | -10.40 - | 8.76 | -1.05 2.65   | 2.39 2.15 | 1.93 |  |  |  |  |  |
|                       |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |
|                       |               |           |           | M1 Ve | elocity    |        |       |        |          |      |              |           |      |  |  |  |  |  |
| M1 income             |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 |              |           |      |  |  |  |  |  |
| velocity              | N.A.          | 4.692     | 4.662     | 3.757 | 3.891      | 4.018  | 4.350 | 4.550  | 4.662 4  | .692 |              |           |      |  |  |  |  |  |
|                       |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |
|                       |               |           |           | Annua | al Change  |        |       |        |          |      |              |           |      |  |  |  |  |  |
| Producer Price        |               | IV-23     | III-23    | II-22 | III-22     | IV-22  | I-23  | II-23  | III-23 I | V-23 |              |           |      |  |  |  |  |  |
| Index (PPI)           | 1982 = 100    | 249.58    | 258.85    | 22.43 | 13.67      | 6.86   | -1.13 | -9.41  | -3.37 -  | 3.22 |              |           |      |  |  |  |  |  |
| All commodities       |               |           |           |       |            |        |       |        |          |      |              |           |      |  |  |  |  |  |

<sup>\*</sup> See previous page.

#### 3. Broad sectors in the economy

The trajectory of nominal income in the sector most closely linked to the general cyclical pattern of the economy – Utilities, Construction, and Manufacturing – has been showing a downward pattern for several quarters. However, there was a strong performance in the third quarter of 2023 (last data available). In the case of other sectors, though, there has not been such a distinct trend – instead, upward and downward movements in the nominal rate of change have been observed.

For financial services, there were mostly negative nominal rates of change Since the third quarter of 2022. This worsening scenario is undoubtedly affected by the problems in the real estate segment. The personal and business services sector, as expected, has shown a more regular behavior (in nominal values).

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

|                      | Units    | Last   | Previous | Chai | nge (%) | Forecast (real rate, %) |       |      |       |        |       |      |      | <b>6</b> ) |      |
|----------------------|----------|--------|----------|------|---------|-------------------------|-------|------|-------|--------|-------|------|------|------------|------|
| Utilities, Construc. |          | III-23 | II-23    | I-22 | II-22   | III-22                  | IV-22 | I-23 | II-23 | III-23 | 2024  | 2025 | 2026 | 2027       | 2028 |
| and Manufactur.      | Bil. USD | 3,744  | 3,674    | 5.94 | 2.71    | 1.78                    | 1.29  | 0.31 | -0.05 | 1.92   | 0.18  | 1.10 | 1.08 | 1.00       | 0.95 |
| Trade and            |          | III-23 | II-23    | I-22 | 11-22   | III-22                  | IV-22 | I-23 | II-23 | III-23 | 2024  | 2025 | 2026 | 2027       | 2028 |
| Transportation       | Bil. USD | 3,797  | 3,766    | 1.13 | 3.16    | 3.75                    | -0.25 | 1.43 | 1.26  | 0.81   | -0.34 | 1.75 | 1.57 | 1.49       | 1.42 |
|                      |          | III-23 | II-23    | I-22 | II-22   | III-22                  | IV-22 | I-23 | II-23 | III-23 |       |      |      |            |      |
| Financial services   | Bil. USD | 3,468  | 3,471    | 0.86 | 0.57    | -0.23                   | -2.45 | 0.95 | -1.60 | -0.07  |       |      |      |            |      |
| Professional and     | _        | III-23 | II-23    | I-22 | II-22   | III-22                  | IV-22 | I-23 | II-23 | III-23 |       |      |      |            |      |
| business services    | Bil. USD | 3,637  | 3,594    | 2.97 | 1.31    | 2.96                    | 1.09  | 2.82 | 1.07  | 1.22   |       |      |      |            |      |

#### 4. Labor market

The growth (annual rate) of total employment in the private sector has been on a downward trend since the beginning of 2022, and a similar pattern is present for specific segments of the economy.

The downward trend in employment expansion has been especially strong in the manufacturing sector, with a growth rate close to zero in the last quarter of 2023. In the case of construction, however, the growth rate in the last quarter was relatively high (2.5%).

As the labor market loses momentum, the level of productivity in the private sector tends to rise. In the third quarter of 2023, labor productivity increased by 2.5% (annual rate).

## 4. Labor market

|                    | Units     | Last    | Previous | Anı   | nual Cha | nge (%) |       |       |        |        |              |      |      |      |      |  |
|--------------------|-----------|---------|----------|-------|----------|---------|-------|-------|--------|--------|--------------|------|------|------|------|--|
| Employment         |           | IV-23   | III-23   | II-22 | III-22   | IV-22   | I-23  | II-23 | III-23 | IV-23  |              |      |      |      |      |  |
| Total non-farm     | Thousands | 157,232 | 156,738  | 4.54  | 3.99     | 3.20    | 2.67  | 2.40  | 1.98   | 1.75   |              |      |      |      |      |  |
|                    |           |         |          |       |          |         |       |       |        |        |              |      |      |      |      |  |
|                    |           |         |          | Anı   | nual Cha | nge (%) |       |       |        |        | Forecast (%) |      |      |      |      |  |
| Employment         |           | IV-23   | III-23   | II-22 | III-22   | IV-22   | I-23  | II-23 | III-23 | IV-23  | 2024         | 2025 | 2026 | 2027 | 2028 |  |
| Total private      | Thousands | 134,229 | 133,885  | 5.26  | 4.56     | 3.53    | 2.74  | 2.39  | 1.85   | 1.53   | 1.49         | 1.50 | 1.40 | 1.33 | 1.27 |  |
|                    |           |         |          |       |          |         |       |       |        |        |              |      |      |      |      |  |
| Employment         |           | IV-23   | III-23   | II-22 | III-22   | IV-22   | I-23  | II-23 | III-23 | IV-23  |              |      |      |      |      |  |
| Construction       | Thousands | 8,056   | 8,006    | 4.71  | 4.34     | 3.48    | 2.57  | 2.65  | 2.68   | 2.51   |              |      |      |      |      |  |
|                    |           |         |          |       |          |         |       |       |        |        |              |      |      |      |      |  |
| Employment         |           | IV-23   | III-23   | II-22 | III-22   | IV-22   | I-23  | II-23 | III-23 | IV-23  |              |      |      |      |      |  |
| Manufacturing      | Thousands | 12,986  | 12,992   | 4.42  | 3.85     | 3.09    | 2.04  | 1.29  | 0.58   | 0.09   |              |      |      |      |      |  |
| _                  |           |         |          |       |          |         |       |       |        |        |              |      |      |      |      |  |
| Employment         |           | IV-23   | III-23   | II-22 | III-22   | IV-22   | I-23  | II-23 | III-23 | IV-23  |              |      |      |      |      |  |
| Private services   | Thousands | 112,546 | 112,242  | 5.38  | 4.64     | 3.56    | 2.81  | 2.49  | 1.92   | 1.63   |              |      |      |      |      |  |
|                    |           |         |          |       |          |         |       |       |        |        |              |      |      |      |      |  |
| Labor productivity |           | III-23  | II-23    | I-22  | II-22    | III-22  | IV-22 | I-23  | II-23  | III-23 |              |      |      |      |      |  |
| in private sector  | 2012=100  | 111.11  | 109.70   | -1.27 | -2.37    | -1.82   | -2.03 | -0.45 | 1.24   | 2.49   |              |      |      |      |      |  |

#### 5. Government budget

After a large drop in the first quarter of last year, the tax receipts of the Federal Government have shown positive and increasing rates – until the third quarter of last year.

Following a relatively strong expansion in the third quarter of 2023, Federal Government consumption had a more moderate rate of growth in the last three months of the year.

The Federal Government's net transfers have shown a downward trajectory since the second quarter of 2023.

The major growth in the Federal Government's deficit that occurred in the first quarter of last year (34.8%) contributed to a strong expansion of the debt in the second and, mainly, in the third quarter (up 7.2%). Since then, the deficit has been expanding at near-zero rates.

## 5. Government budget

|                    | Units    | Last       | Previous   | Ch     | nange (%) |          |       |       |        |        |         |       |      |      |      |
|--------------------|----------|------------|------------|--------|-----------|----------|-------|-------|--------|--------|---------|-------|------|------|------|
| Federal Govmt.     |          | III-23     | II-23      | I-22   | II-22     | III-22   | IV-22 | I-23  | II-23  | III-23 |         |       |      |      |      |
| tax revenue        | Mil. USD | 2,803,825  | 2,788,722  | 9.99   | 1.85      | 0.08     | -1.69 | -9.64 | 0.27   | 0.54   |         |       |      |      |      |
|                    |          |            |            |        |           |          |       |       |        |        |         |       |      |      |      |
| Federal Govmt.     |          | IV-23      | III-23     | II-22  | III-22    | IV-22    | I-23  | II-23 | III-23 | IV-23  |         |       |      |      |      |
| consumption        | Mil. USD | 1,362,210  | 1,346,278  | 0.26   | 1.89      | 2.88     | 2.76  | 0.32  | 2.99   | 1.18   |         |       |      |      |      |
|                    |          |            |            |        |           |          |       |       |        |        |         |       |      |      |      |
| Federal Govmt. net |          | IV-23      | III-23     | II-22  | III-22    | IV-22    | I-23  | II-23 | III-23 | IV-23  |         |       |      |      |      |
| transfer payments  | Mil. USD | 2,128,293  | 2,172,040  | 0.24   | -1.91     | 0.08     | 1.58  | -1.62 | -3.53  | -2.01  |         |       |      |      |      |
|                    |          |            |            |        |           |          |       |       |        |        |         |       |      |      |      |
| Federal Govmt.     |          | III-23     | II-23      | I-22   | II-22     | III-22   | IV-22 | I-23  | II-23  | III-23 |         |       |      |      |      |
| net saving         | Mil. USD | -1,676,025 | -1,665,694 | -32.87 | -1.42     | 11.68    | 15.70 | 34.84 | -0.47  | 0.62   |         |       |      |      |      |
|                    |          |            |            |        |           |          |       |       |        |        |         |       |      |      |      |
|                    |          |            |            |        | Annual Ch | ange (%) |       |       |        |        | Forecas | t (%) |      |      |      |
|                    |          | III-23     | II-23      | I-22   | II-22     | III-22   | IV-22 | I-23  | II-23  | III-23 | 2024    | 2025  | 2026 | 2027 | 2028 |
| Total federal debt | Mil. USD | 33,167,334 | 32,332,274 | 8.06   | 7.14      | 8.79     | 6.08  | 3.47  | 5.76   | 7.24   | 6.44    | 5.65  | 4.89 | 4.15 | 3.93 |