

Economics 442  
Macroeconomic Policy

Lecture 23  
11/23/2020

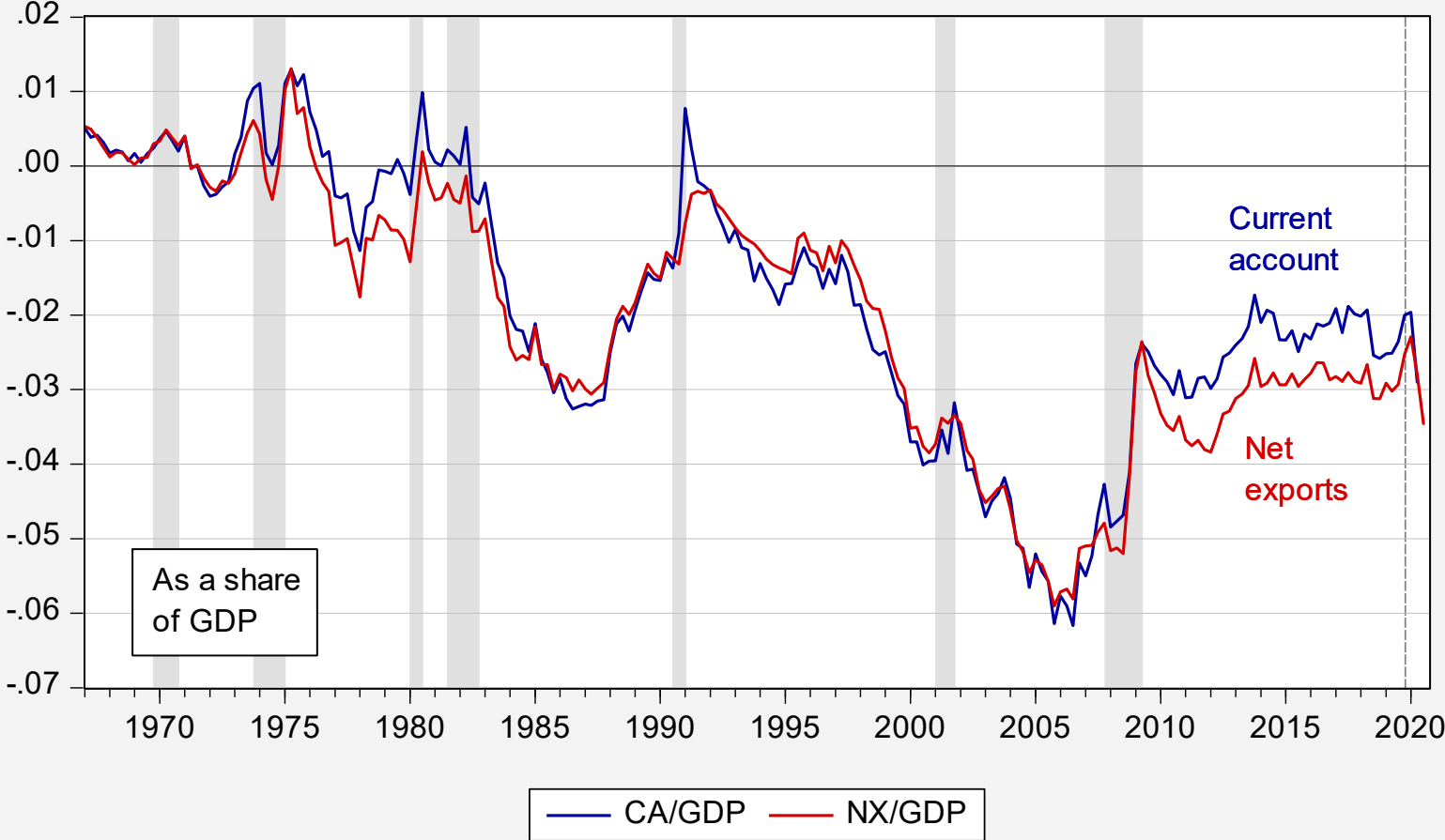
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UW Madison  
Fall 2020

# Trade, Deficits and Debt

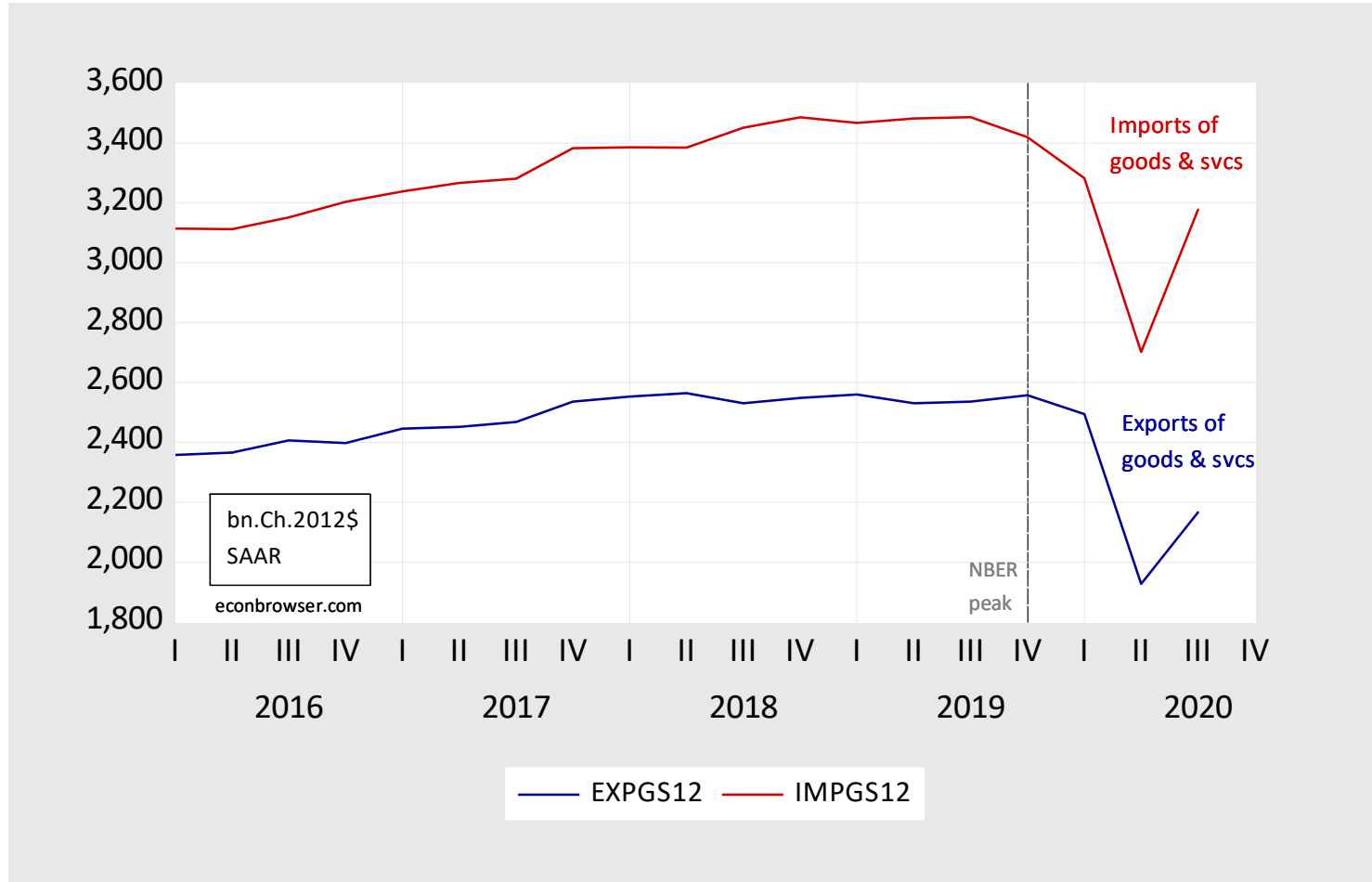
*“For many, many years, the United States has suffered through massive trade deficits. That’s why we have \$20 trillion in debt. So we’ll be changing that.”*

*--President Donald J. Trump, June 30, 2017*

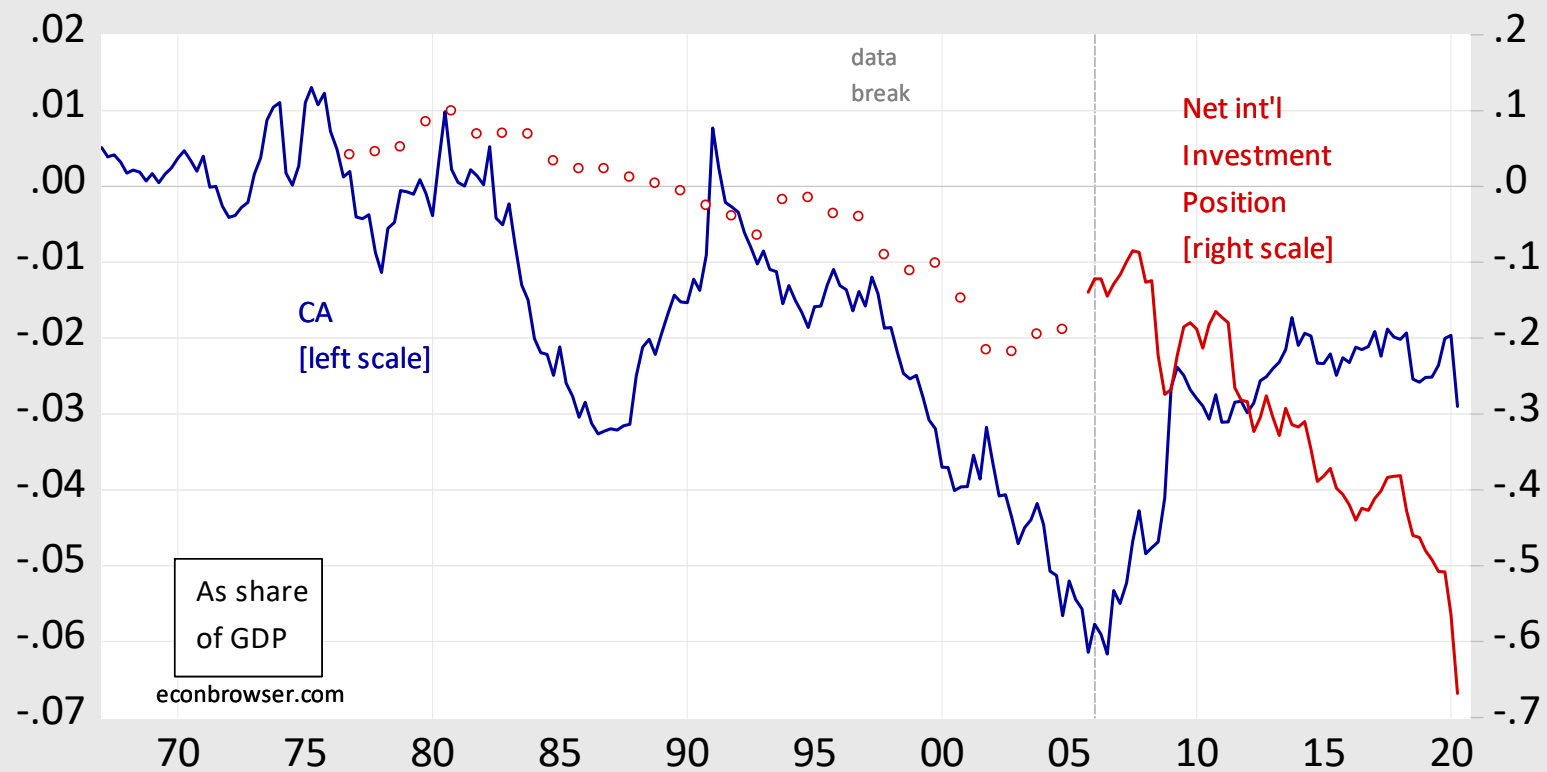
# Trade & Current Account Balances



# Net Exports



# Current Account and Net International Investment Position



# Accounting, Exchange Rates

- Balance of payments accounting
- Exchange rates
- Foreign exchange markets

# Balance of Payments Accounting

$$CA + FA + ORT \equiv 0$$

“current a/c”    “private financial a/c”    “official financial a/c”

$$CA \equiv NX + NI + NT$$

“net exports”    “net income”    “net transfers”

$$NX \equiv EX - IM/\epsilon$$

ORT is changes in holdings of central banks, monetary authorities

# U.S. Current Account

[Millions of dollars; quarterly data seasonally adjusted]

| Period                | Current Account <sup>1</sup> |           |                  |          |         |                     |                               |                                      |          |                           |  |                            | Current account balance as a percentage of GDP |
|-----------------------|------------------------------|-----------|------------------|----------|---------|---------------------|-------------------------------|--------------------------------------|----------|---------------------------|--|----------------------------|--|
|                       | Goods <sup>2</sup>           |           |                  | Services |         |                     | Balance on goods and services | Primary income receipts and payments |          |                           | Balance on secondary income <sup>3</sup> | Balance on current account |  |
|                       | Exports                      | Imports   | Balance on goods | Exports  | Imports | Balance on services |                               | Receipts                             | Payments | Balance on primary income |  |                            |  |
| 2010 .....            | 1,290,279                    | 1,938,950 | -648,671         | 582,041  | 436,456 | 145,584             | -503,087                      | 723,223                              | 553,311  | 169,911                   | -98,834                                  | -432,009                   | -2.9   |
| 2011 .....            | 1,498,887                    | 2,239,886 | -740,999         | 644,665  | 458,188 | 186,477             | -554,522                      | 791,469                              | 589,038  | 202,431                   | -103,211                                 | -455,302                   | -2.9   |
| 2012 .....            | 1,562,630                    | 2,303,749 | -741,119         | 684,823  | 469,610 | 215,213             | -525,906                      | 791,679                              | 593,754  | 197,925                   | -90,134                                  | -418,115                   | -2.6   |
| 2013 .....            | 1,593,708                    | 2,294,247 | -700,539         | 719,529  | 465,819 | 253,710             | -446,829                      | 811,561                              | 616,041  | 195,520                   | -85,545                                  | -336,854                   | -2.0   |
| 2014 .....            | 1,635,563                    | 2,385,480 | -749,917         | 756,705  | 490,932 | 265,773             | -484,144                      | 845,926                              | 645,623  | 200,303                   | -83,978                                  | -367,819                   | -2.1   |
| 2015 .....            | 1,511,381                    | 2,273,249 | -761,868         | 768,362  | 497,755 | 270,607             | -491,261                      | 825,100                              | 639,724  | 185,376                   | -101,470                                 | -407,355                   | -2.2   |
| 2016 .....            | 1,457,393                    | 2,207,195 | -749,801         | 780,530  | 511,898 | 268,632             | -481,169                      | 857,819                              | 660,798  | 197,021                   | -110,716                                 | -394,865                   | -2.1   |
| 2017 .....            | 1,557,003                    | 2,356,345 | -799,343         | 830,388  | 544,836 | 285,552             | -513,791                      | 997,524                              | 739,731  | 257,793                   | -109,272                                 | -365,269                   | -1.9   |
| 2018 .....            | 1,676,950                    | 2,557,251 | -880,301         | 862,433  | 562,069 | 300,364             | -579,937                      | 1,108,472                            | 857,298  | 251,174                   | -120,931                                 | -449,693                   | -2.2   |
| 2019 .....            | 1,652,437                    | 2,516,767 | -864,331         | 875,825  | 588,359 | 287,466             | -576,865                      | 1,135,691                            | 899,347  | 236,344                   | -139,705                                 | -480,226                   | -2.2   |
| 2018: I .....         | 412,989                      | 630,894   | -217,905         | 217,360  | 138,310 | 79,050              | -138,855                      | 270,402                              | 200,215  | 70,187                    | -27,918                                  | -96,587                    | -1.9   |
| II .....              | 426,060                      | 630,865   | -204,805         | 213,617  | 139,042 | 74,575              | -130,230                      | 279,752                              | 215,258  | 64,494                    | -29,678                                  | -95,414                    | -1.9   |
| III .....             | 419,341                      | 646,224   | -226,883         | 215,287  | 140,810 | 74,477              | -152,406                      | 273,725                              | 217,087  | 56,638                    | -29,473                                  | -125,241                   | -2.4   |
| IV .....              | 418,561                      | 649,269   | -230,708         | 216,170  | 143,907 | 72,263              | -158,445                      | 284,593                              | 224,738  | 59,855                    | -33,861                                  | -132,452                   | -2.5   |
| 2019: I .....         | 419,048                      | 635,180   | -216,133         | 215,162  | 144,267 | 70,895              | -145,237                      | 278,452                              | 225,153  | 53,298                    | -34,677                                  | -126,616                   | -2.4   |
| II .....              | 411,069                      | 635,641   | -224,572         | 220,326  | 147,964 | 72,362              | -152,210                      | 287,535                              | 228,069  | 59,467                    | -34,948                                  | -127,691                   | -2.4   |
| III .....             | 410,930                      | 632,059   | -221,129         | 219,259  | 147,788 | 71,471              | -149,658                      | 286,761                              | 225,140  | 61,621                    | -33,556                                  | -121,594                   | -2.3   |
| IV .....              | 411,390                      | 613,887   | -202,497         | 221,079  | 148,341 | 72,738              | -129,759                      | 282,943                              | 220,985  | 61,958                    | -36,524                                  | -104,324                   | -1.9   |
| 2020: I .....         | 403,533                      | 595,281   | -191,748         | 202,019  | 136,747 | 65,272              | -126,476                      | 256,527                              | 204,491  | 52,036                    | -37,075                                  | -111,516                   | -2.1   |
| II <sup>p</sup> ..... | 288,885                      | 508,223   | -219,338         | 155,768  | 101,328 | 54,440              | -164,898                      | 209,389                              | 180,176  | 29,213                    | -34,856                                  | -170,541                   | -3.5   |

Source: *Economic Indicators*, October 2020

<https://www.govinfo.gov/content/pkg/ECONI-2020-10/pdf/ECONI-2020-10-Pg36.pdf>



# Financial Account

[Millions of dollars; quarterly data seasonally adjusted]

| Period                      | Balance on capital account <sup>1</sup> | Financial account  |                          |                             |                         |                             |  |                               |                                  |                              |   |   | Statistical discrepancy | U.S. official reserve assets, net (unadjusted, end of period) <sup>4</sup> |
|-----------------------------|---|--|--------------------------|-----------------------------|-------------------------|-----------------------------|--|-------------------------------|----------------------------------|------------------------------|---|---|-------------------------|--|
|                             |   | Net U.S. acquisition of financial assets excluding financial derivatives<br>[net increase in assets / financial outflow (+)] |                          |                             |                         |                             | Net U.S. incurrence of liabilities excluding financial derivatives<br>[net increase in liabilities / financial inflow (+)] |                               |                                  |                              | Financial derivatives other than reserves, net transactions | Net lending (+) or net borrowing (-) from financial account transactions <sup>5</sup> |                         |  |
|                             |   | Total  | Direct investment assets | Portfolio investment assets | Other investment assets | Reserve assets <sup>4</sup> | Total  | Direct investment liabilities | Portfolio investment liabilities | Other investment liabilities |   |   |                         |  |
| 2010 .....                  | -6,891                                  | 958,737  | 349,829                  | 199,620                     | 407,454                 | 1,835                       | 1,391,042  | 264,039                       | 820,434                          | 306,569                      | -14,076   | -446,381  | -7,481                  | 132,433  |
| 2011 .....                  | -9,020                                  | 492,556  | 436,615                  | 85,365                      | -45,301                 | 15,877                      | 983,522  | 263,499                       | 311,626                          | 408,397                      | -35,006   | -525,972  | -61,650                 | 147,953  |
| 2012 .....                  | 931                                     | 176,937  | 377,239                  | 248,760                     | -453,522                | 4,460                       | 632,034  | 250,343                       | 747,017                          | -365,327                     | 7,064   | -448,032  | -30,849                 | 150,175  |
| 2013 .....                  | -6,559                                  | 649,753  | 392,796                  | 481,298                     | -221,242                | -3,099                      | 1,052,068  | 288,131                       | 511,987                          | 251,949                      | 2,222   | -400,093  | -56,681                 | 144,575  |
| 2014 .....                  | -6,535                                  | 866,702  | 387,528                  | 582,676                     | -99,920                 | -3,583                      | 1,109,443  | 251,857                       | 697,607                          | 159,979                      | -54,335   | -297,076  | 77,278                  | 130,090  |
| 2015 .....                  | -7,940                                  | 197,359  | 302,072                  | 160,410                     | -258,831                | -6,292                      | 503,468  | 511,434                       | 213,910                          | -221,876                     | -27,035   | -333,144  | 82,151                  | 117,581  |
| 2016 .....                  | -6,606                                  | 335,233  | 299,814                  | 36,283                      | -2,955                  | 2,090                       | 706,693  | 474,388                       | 231,265                          | 1,040                        | 7,827   | -363,633  | 37,838                  | 117,332  |
| 2017 .....                  | 12,394                                  | 1,188,188  | 405,375                  | 569,375                     | 215,127                 | -1,690                      | 1,546,281  | 366,996                       | 790,796                          | 388,489                      | 23,998  | -334,095  | 18,779                  | 123,313  |
| 2018 .....                  | -4,196                                  | 358,971  | -151,298                 | 335,263                     | 170,017                 | 4,989                       | 758,291  | 261,480                       | 303,075                          | 193,736                      | -20,404   | -419,724  | 34,165                  | 125,798  |
| 2019 .....                  | -6,244                                  | 440,751  | 188,469                  | 46,570                      | 201,053                 | 4,659                       | 797,960  | 351,629                       | 179,980                          | 266,350                      | -38,340   | -395,549  | 90,921                  | 129,479  |
| 2018: I .....               | -1,406                                  | 320,758  | -58,184                  | 289,989                     | 88,959                  | -7                          | 446,162  | 65,445                        | 301,122                          | 79,595                       | 29,139  | -96,265   | 1,727                   | 126,510  |
| 2018: II .....              | -2,912                                  | -223,399   | -105,044                 | -17,704                     | -103,719                | 3,068                       | -135,152   | 9,475                         | -18,368                          | -126,259                     | -15,723   | -103,970  | -5,644                  | 125,099  |
| 2018: III .....             | -455                                    | 109,691  | 74,289                   | 83,451                      | -47,872                 | -177                        | 114,982  | 137,899                       | 12,157                           | -35,075                      | -11,505   | -16,796   | 108,900                 | 123,729  |
| 2018: IV .....              | 576                                     | 151,921  | -62,359                  | -20,473                     | 232,649                 | 2,105                       | 332,299  | 48,662                        | 8,164                            | 275,474                      | -22,315   | -202,693  | -70,817                 | 125,798  |
| 2019: I .....               | -2,542                                  | 84,497   | -11,846                  | -40,720                     | 136,855                 | 208                         | 158,290  | 117,543                       | -18,569                          | 59,315                       | -21,383   | -95,175   | 33,983                  | 125,175  |
| 2019: II .....              | -848                                    | 158,966  | 115,561                  | 45,025                      | -3,980                  | 2,359                       | 317,227  | 99,461                        | 146,049                          | 71,717                       | -9,642  | -167,903  | -39,364                 | 128,338  |
| 2019: III .....             | -835                                    | 142,221  | 25,574                   | 20,460                      | 94,305                  | 1,882                       | 238,964  | 78,119                        | 105,660                          | 55,185                       | -6,382  | -103,125  | 19,303                  | 127,595  |
| 2019: IV .....              | -2,019                                  | 55,067   | 59,180                   | 21,806                      | -26,128                 | 210                         | 83,479   | 56,506                        | -53,160                          | 80,133                       | -933  | -29,345   | 76,998                  | 129,479  |
| 2020: I .....               | -2,971                                  | 830,858  | -9,065                   | 115,814                     | 724,354                 | -245                        | 952,306  | 52,201                        | -20,547                          | 920,653                      | -21,611   | -143,059  | -28,572                 | 127,910  |
| 2020: II <sup>p</sup> ..... | -1,052                                  | -147,602   | 35,861                   | -29,818                     | -158,606                | 4,960                       | -4,777   | -8,510                        | 338,957                          | -335,225                     | 60,256  | -82,569   | 89,025                  | 133,890  |

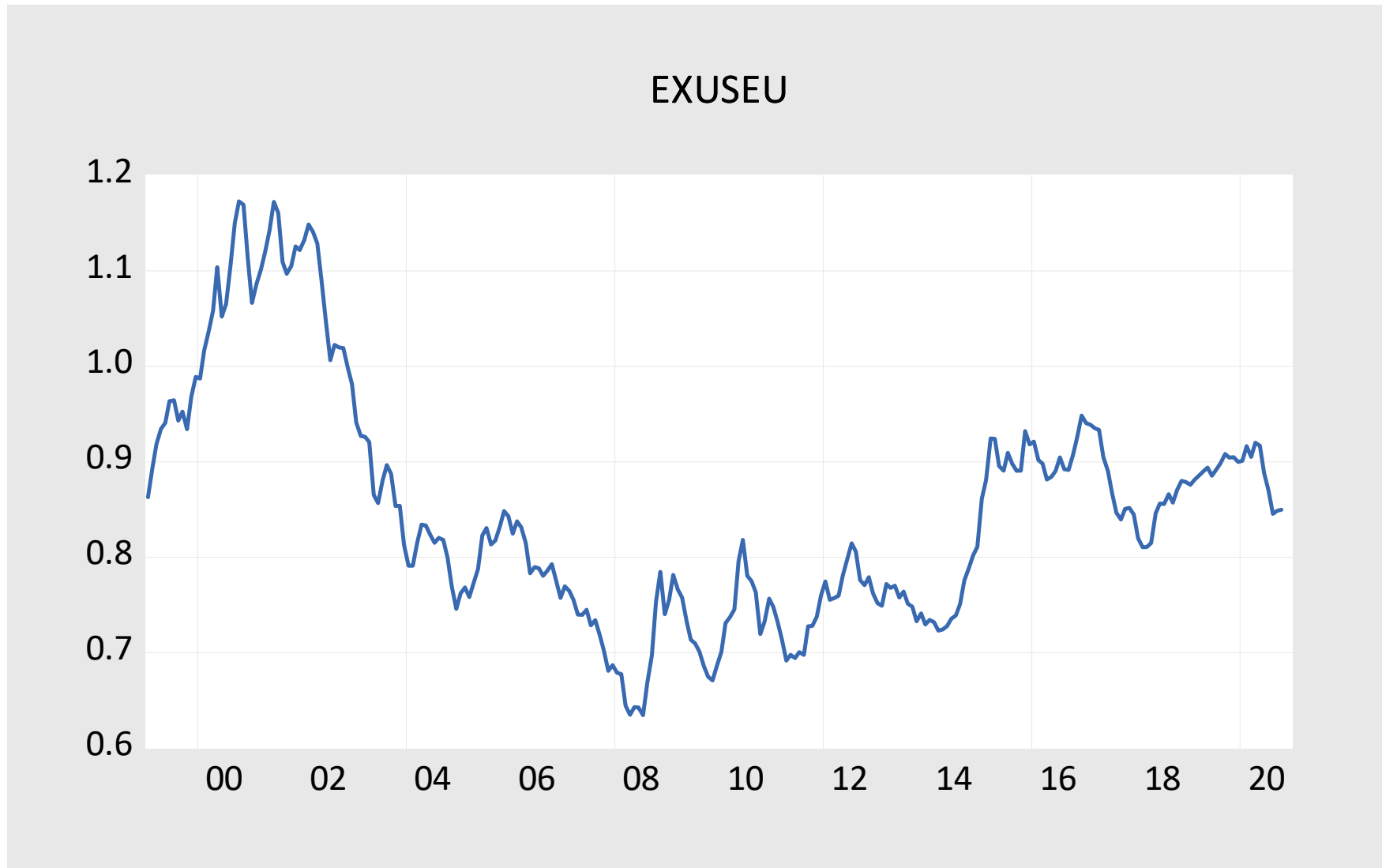
Source: *Economic Indicators*, October 2020

<https://www.govinfo.gov/content/pkg/ECONI-2020-10/pdf/ECONI-2020-10-Pg37.pdf>

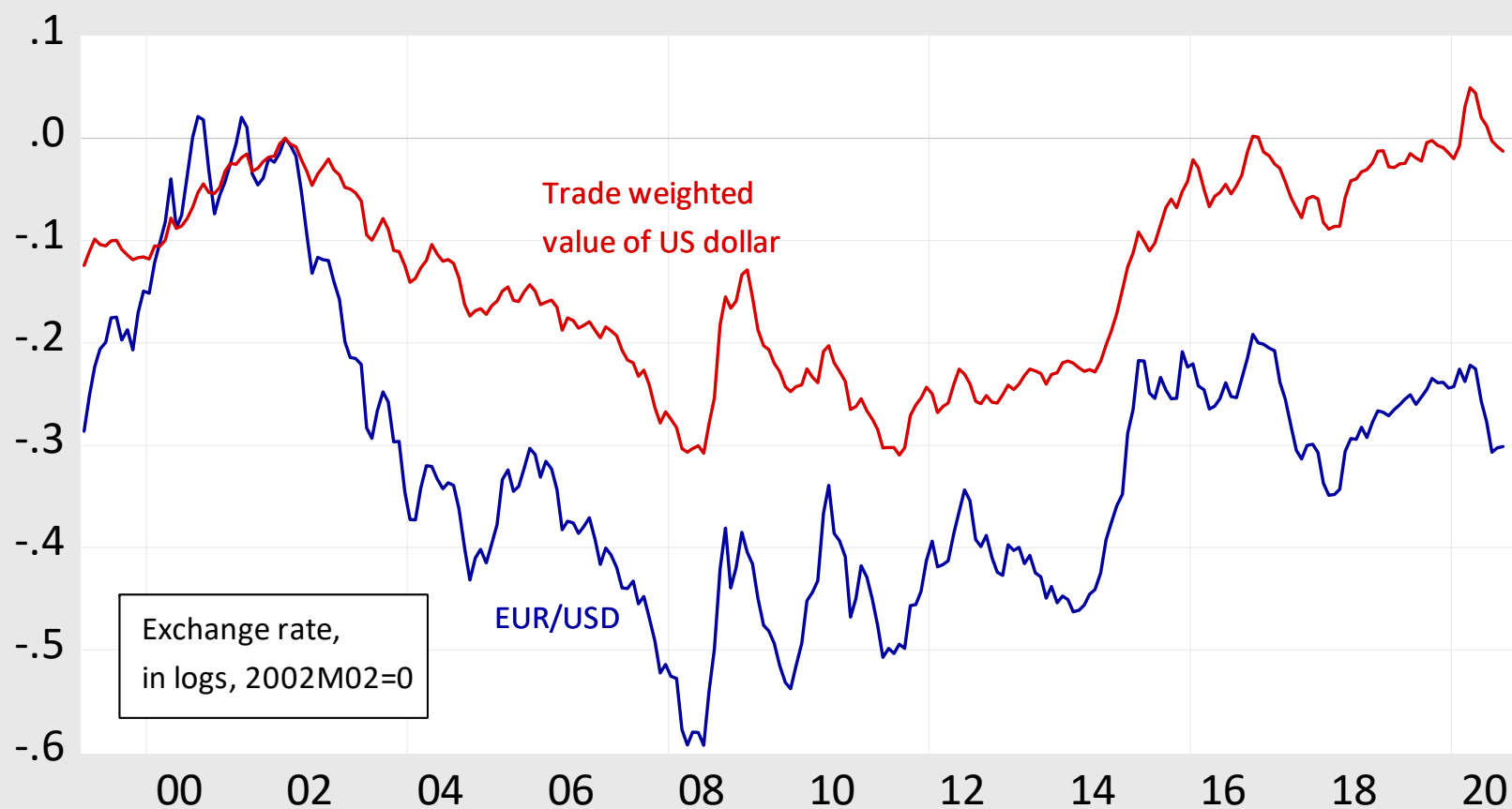
# Definitions

- Exchange rates: number of foreign currency units required to purchase one unit of home currency; also value of home currency.
- E.g., from EU resident perspective:  $\$/\epsilon$ ,  
 $\yen/\epsilon$
- E.g., from Chinese resident perspective:  
 $\$/\yen$

# Example: €/€

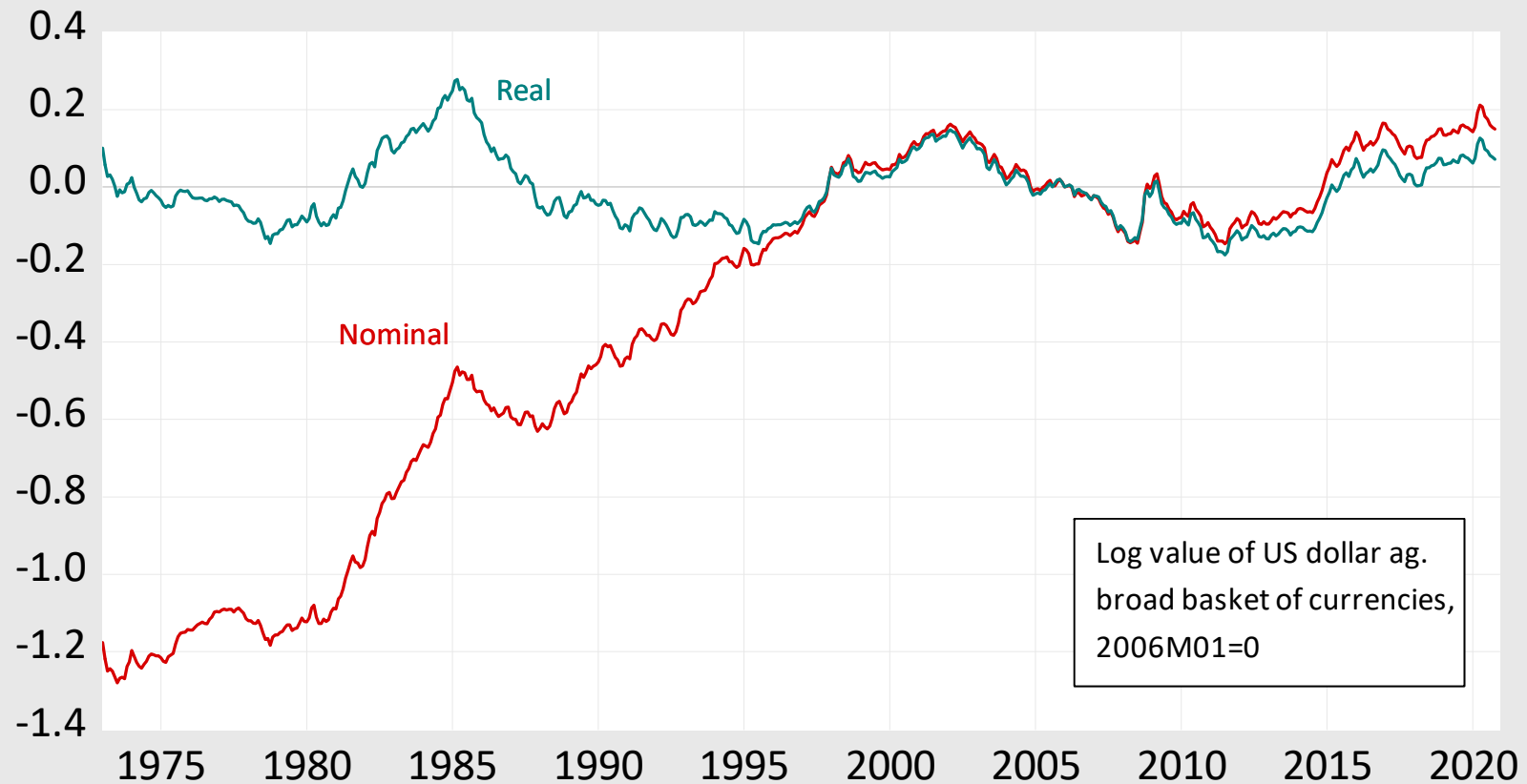


# The Dollar Exchange Rate (vs. Euro, Trade Weighted basket)



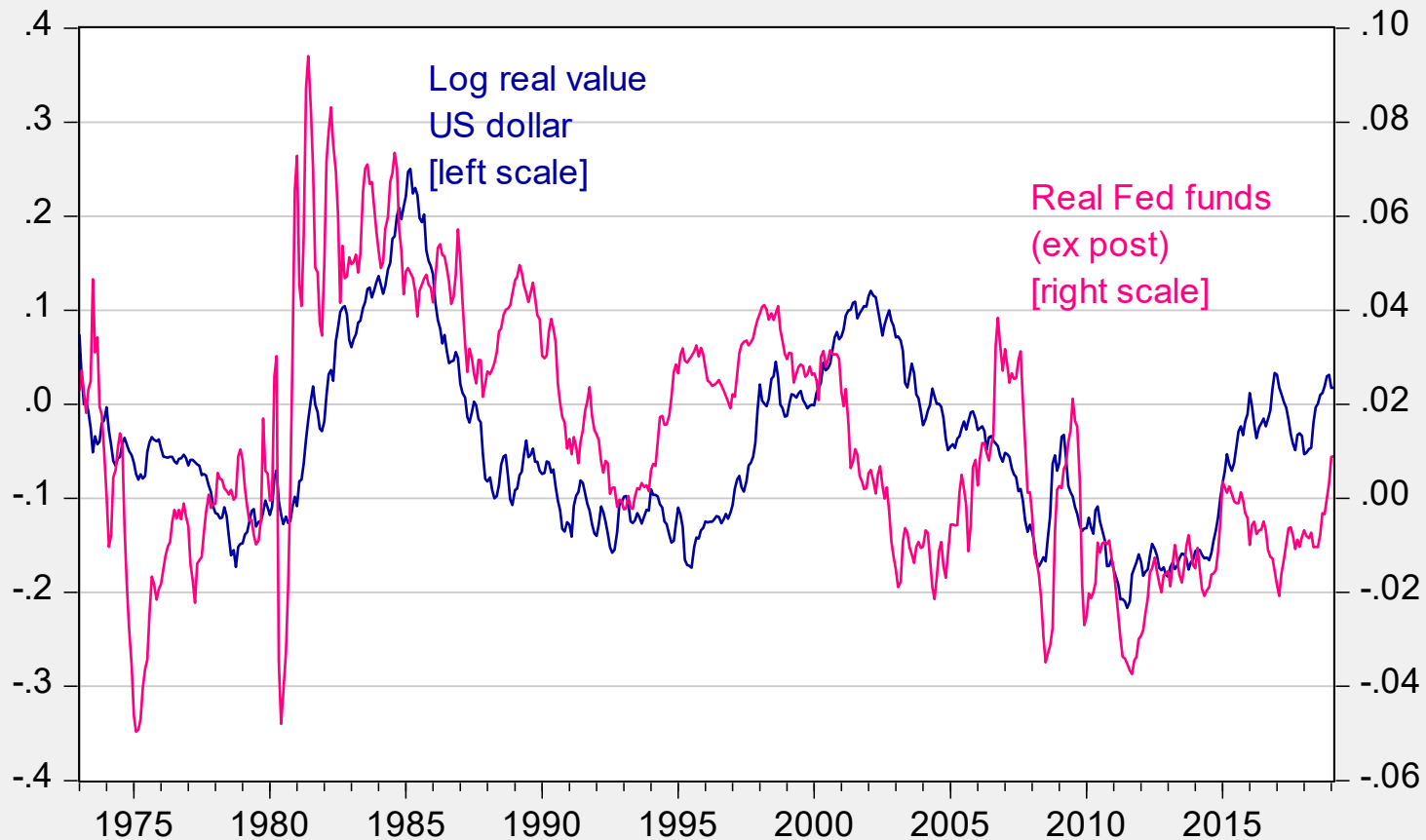
Source: Federal Reserve Board via FRED

# The Dollar Exchange Rate (Nominal vs. Real)

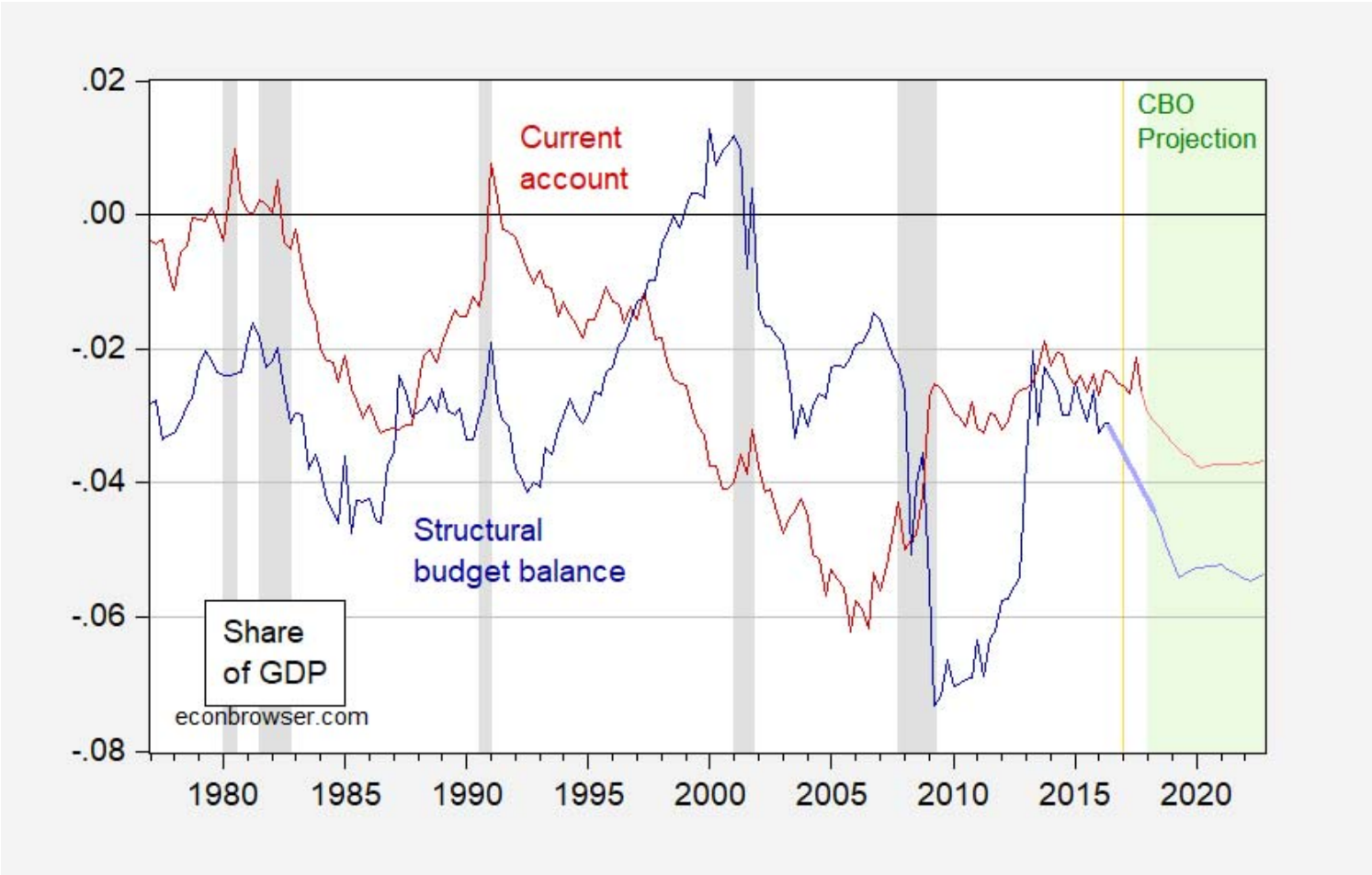


Source: Federal Reserve Board via FRED

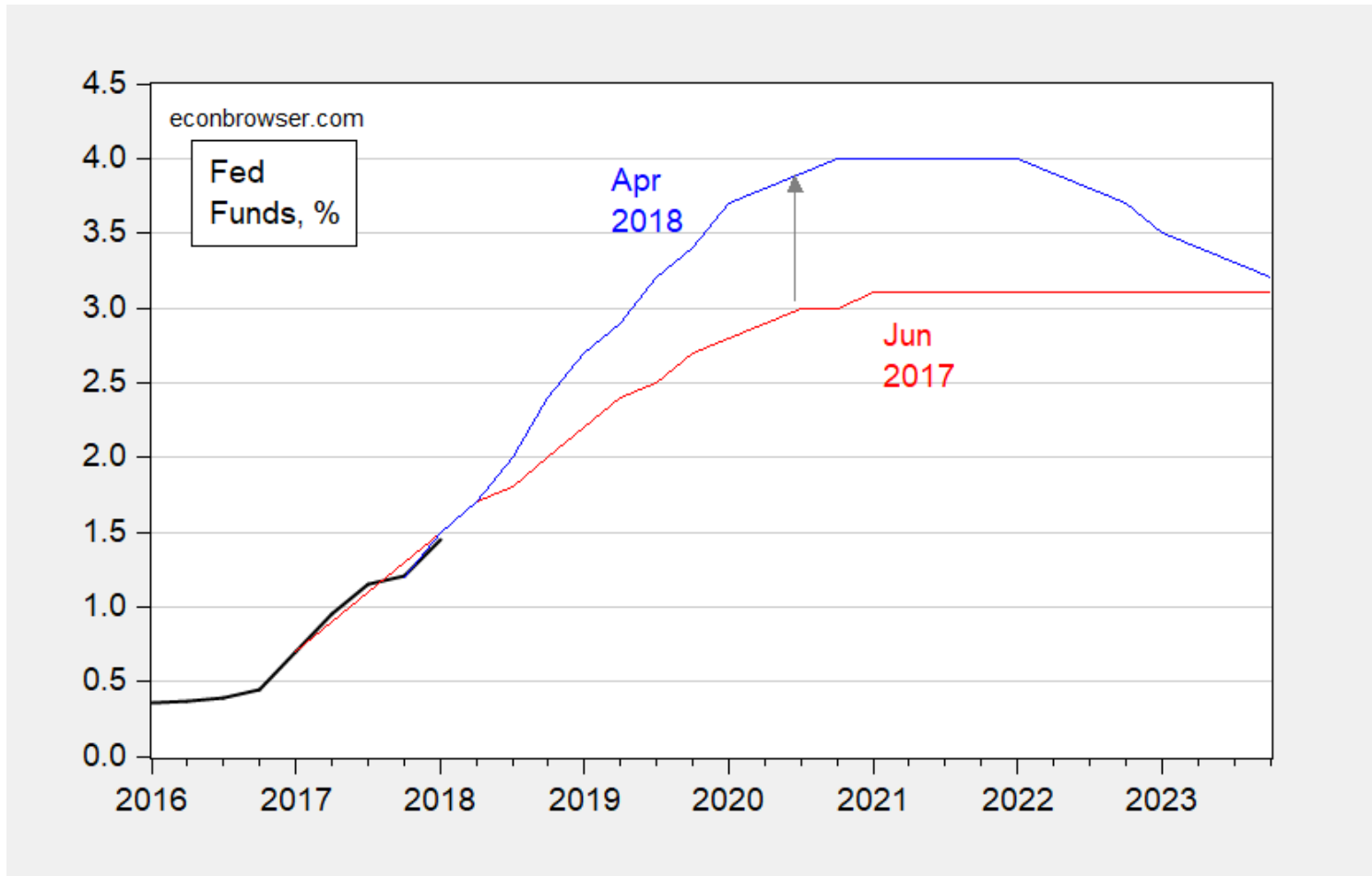
# Exchange Rate – Interest Rate



# TCJA: CBO Predicts Twin Deficits



# TCJA: CBO Predicts Interest Rates





# TCJA: CBO Predicts the Dollar

