The Heritage Foundation

The Heritage Foundation 214 Massachusetts Avenue, N.E. Washington, D.C. 20002-4999 (202) 546-4400

Congressional Testimony

How Major Economic Indicators Are Affected by Changes in Current Account Balances That Stem from Foreign Price and Growth Differentials

William W. Beach
Director
Center for Data Analysis
The Heritage Foundation

Testimony Before the
Trade Deficit Review Commission
Washington, D.C.

September 9, 1999

Statement

My name is William Beach. I am the Director of the Center for Data Analysis at The Heritage Foundation. Heritage is a non-partisan public policy think tank located in Washington, D.C. The Center is a division within the Foundation that specializes in empirical analysis of public policy change. The Center uses a number of analytical tools in the course of its policy analysis, including models of the U.S. and state economies. It was one such model, the WEFA U.S. Macroeconomic Model, that I employed in preparing this testimony.

At the risk of trenching heavily on the Commission's patience, let me state the obvious: this country's current account balance can be affected in far more ways than could ever be captured in an economic model. The millions of daily decision that buyers and sellers make influence relative prices across international boundaries, alter the direction of capital flows, and shape the interplay of currency exchange rates. The continuousness of these enormous changes and the unimaginable complexity of the information signaling system upon which the structure of international trade depends make utterly impossible any attempt to fully model international trade. All modelers know this constraint on their work. Therefore, they approach with significant humility the type of analytical challenge you have laid before us today: what are the impacts of the trade deficit on the U.S. economy.

Besides calling it a "mission impossible," I am sorely tempted to say that the question contains far more interesting political than economic content. For instance, if increasing foreign ownership of U.S. based assets is one effect of running relatively large current account deficits, a somewhat intriguing economic issue arises about how much better a non-U.S. owner will be in managing the asset's economic values. However, who owns the assets is hardly relevant. Ultimately, someone will own the asset and employ it in a manner superior to any other application by any other owner.

On the one hand, what nationality the owner happens to be matters little in a world of fully open economies. On the other hand, nationality does matter a great deal if negative current account balances are approached politically, which is the same thing as saying that the trading world is not composed entirely of open economies. All politics is local, or, with respect to international trade, national. Politicians will have their say, and rightly so. After all, we most certainly do not live in a boundary-free trade world.

Can economists say more on trade deficits other than "don't worry; it all somehow works out." I think so. I believe important insights can be obtained from those models of the U.S. economy that attempt to capture the country's basic economic structure and how it responds to policy changes over time. Heritage's model belongs to this variety of forecasting tools, and can be employed to show otherwise unexpected effects from changes in trade flows.

The U.S. Macroeconomic Model is best suited to evaluating the economic effects of subtle changes in policy or the performance of the U.S. economy relative to its major trading partners. Unfortunately, this model, like all of its type, is ill suited to "counterfactual" exercises. For example, one cannot ask this model, "what would the U.S. economy look like if the software industry had developed in France rather than the US.?" Or, "how much different would the U.S. trade deficit be had there been no Asian financial crisis?'

One can ask, however, how changes in the exchange rate or the growth rates of major economic partners might affect U.S. economic performance. It is just that less ambitious variety of question that we explored for this hearing: how do basic economic indicators change when the dollar weakens or when it strengthens against the currencies of our major trading partners.

We constructed two simulations, in order to show likely effects from changes in the U.S. current account balance: the foreign "weakening" and foreign "strengthening" scenarios.

In the first scenario, we modified the baseline forecast assumptions of the model to reflect weakening in the economic performance of U.S. trading partners relative to U.S. growth in real Gross Domestic Product, 2000 through 2004. Not only did this "weakening" scenario contain slower non-U.S. GDP growth, but it also involved more rapid growth in non-U. S. producer prices. The scenario calls for relative price growth and slower non-U. S. economic growth to peak in the first quarter of 2002. Both of these variables have returned to baseline by the fourth quarter of 2004.

The second scenario, or foreign "strengthening," generally is the reverse of the "weakening" simulation: prices grow less rapidly abroad than they do in the U.S., and America's principal trading partners enjoy stronger economic growth. Again, the peak is reached in the first quarter of 2002, and all variable return to baseline levels by the fourth quarter of 2004. Even though these two simulations look like mirror images of one another, the U.S. macroeconomic model signals significantly different results in this simulation from one in which foreign economies weaken against ours.

Tables 1 and 2 display the results of these two scenarios. Let, me draw your attention first to Table 1, on which you will find the results of assuming that major trading partners weaken more than our baseline projections. Here are some of these results:

- The economic effects of greater domestic investment typify this scenario.
- In the short run, higher foreign prices put a damper on imports. As a consequence, Table 1 shows increases in purchases of U.S. products by U.S. consumers. The current account balance improves, largely because imports fall below baseline forecasts.

- Again in the short run, employment rises above baseline and the unemployment rate falls below forecasts. At the root of this temporarily improved U.S. economic performance is stronger than expected non-residential investment. Why? Two factors contribute to this result. First, the capital account tied to import purchases falls below baseline, which results in this model in greater investment as bank reserves expand. Second, the model is signaling the other part of the assumption set: slower non-U.S. growth rates. The foreign returns to capital fall along with output.
- The assumed slowing of our principal trading partners also reduces demand for American exports. Note that the last two years of this five-year simulation contain annual economic output estimates that are below baseline projections.
- This slower-than-expected rate of economic activity elicits higher unemployment. The Federal Reserve responds by lowering the federal funds rate, which is reflected in lower-than-baseline thirty-year Treasury rates.
- The index of foreign exchange rates reflects these macroeconomic results. During the first three years of the simulation, the dollar weakens slightly against all other currencies as it responds to weaker demand for U.S. products. As foreign growth rates return to baseline in the last two years of the simulation, the dollar strengthens.

Table 2 contains the results of the second simulation in which we assume that foreign prices grow more slowly than U.S. prices (as reflected through respective producer price indexes) and that non-U.S. economic growth rates are higher than baseline. This simulation has several interesting features:

- A stronger dollar and lower growth in foreign prices lead to higher levels of imports than baseline, thus more negative net exports. In some respects, it is just this combination of strong purchasing power and falling commodity prices that has resulted in higher-than-expected penetration of imported products in U.S. markets.
- Strong imports produce import-related employment growth and higher aggregate incomes. Consequently, consumption expenditures in Table 2 exceed those of Table 1, which leads to some worrisome late-period inflation.
- Lower than baseline unemployment and slightly higher growth in the consumer price index results in modest increases in federal funds rates (in the range of 30 and 40 basis points) and the long-term bond rate.
- Interestingly, this simulation indicates that import-related employment gains may contain a significant positive aspect: higher than forecasted growth in disposable income and higher savings.

Table 1
Foreign Weakening
Higher Price Growth in Non-US Markets, Weaker OECD Growth Rates

More Economic Indicators	1999	2000	2001	2002	2093	2004	(Average) 2000 - 2004
	(Fiscal Year End)						
Gross Domestic Product	In Billions of 1992 Dollars						
Forecast	7882.3	8,041.9	8,273.8	8,474.0	8677.0	8887.8	8,470.9
Baseline	7,877.9	8,025.7	8262.2	8,473.0	8688.9	8.9951	8,471.0
Difference	4.4	16.2	11.6	1.0	-11.9	-17.3	-9.1
GDP Growth Rate	Percent Change from Year Ago						
Forecast	4.2	2.0	2.9	2.4	2.4	2.4	2.4
Baseline	4.1	1.9	2.9	2.6	2.5	2.5	2.5
Difference	0.1	0.1	0.0	-9.2	-0.1	-0.1	-0.1
Total Employment	In Thousands of Jobs						
Forecast	128,420	128.779	136.274	131,750	133,056	134.377	131.647
Baseline	128,397	128,675	139,268	131,912	133,337	134,657	131,770
Difference	23	104	6	-162	-281	-280	-123
Unemployment Rate	Percent of Civilian Labor Force						
Forecast	4	5.2	5.4	5.6	5.5	5.5	5.4
Baseline	4.1	5.3	5.4	5.5	5.3	5.3	5.4
Difference	0.1	-0.1	0.0	0.1	0.2	0.2	0.1
Disposable Personal Income	In Billions of 1992 Dollars						
Forecast	5.553.1	5,753.7	5,930.6	6,089.1	6,246.0	6398.8	6,083.6
Baseline	5553.1	5,753.4	5929.3	6988.6	6.248.2	6,406.4	6985.2
Difference	0.0	0.3	1.3	0.5	-2.2	-7.6	-1.5
Consumption Expenditures	In Billions of 1992 Dollars						
Forecast	5.411.4	5,541.1	5686.2	5,818.0	5951.5	6989.4	5,817.2
Baseline	5,411.3	5,540.7	5686.5	5,819.6	5954.7	6,093.8	5,819.1
Difference	0.1	0.4	-0.3	-1.6	-3.2	4.4	-1.8
Personal Savings	In Billions of 1992 Dollars						
Forecast	44.4	33.2	88.4	98.9	122.9	139.2	91.9
Baseline	-44.2	33.7	67.0	%.1	120.7	138.8	91.3
Difference	-0.2	-0.5	1.4	28	2.2	-2.6	0.7
Personal Savings Rate	Percent of Disposable Personal Income						
Forecast	-6.7	0.5	1.0	1.3	1.6	1.7	1.2
Baseline	-6.7	0.5	0.9	1.3	1.5	1.7	1.2
Difference	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Investment	In Billions of 1992 Dollars						
Forecast	1,032.7	1,057.2	1,089.6	1,122.8	1,151.9	1.183.4	1,121.0
Baseline	1932.0	I.Ci54.6	1,088.1	1.123.2	1,154.3	1,186.3	1.121.3
Difference	0.7	2.6	1.5	-0.4	-2.4	-2.9	0.3
Federal Funds Rate	Annualized Percent						
Forecast	4.8	4.8	5.1	5.0	4.8	4.6	4.9
Baseline	4.8	4.8	5.0	5.0	5.0	5.0	5.0
Difference	0.0	0.0	0.1	0.0	-0.2	-9.4	-0.1
Treasury Bond, 30 Year	Annualized Percent						
Forecast	5.6	5.4	5.5	5.5	5.5	5.4	5.5
Baseline	5.6	5.4	5.5	5.5	5.5	5.5	5.5
Difference	0.0	0.0	0.0	0.0	0.0	-9.1	0.0
Consumer Price Index	Percent Change from Year Ago						
Forecast	2.4	2.2	2.3	2.3	2.2	2.2	2.2
Baseline	2.4	2.1	2.3	2.4	2.4	2.4	2.3
Difference	0.0	0.1	0.0	-0.1	-0.2	-9.2	0.1

Higher Price Growth in Non-US Markets, Weaker OECD Growth Rates

More Economic indicators	1999	2000	2001 (Fiscal Year)	2002	2003	2004	2000 - 2004
Exchange Rate Index			Adjusted for Inflation				Average
Forecast	115.30	114.60	112.40	110.80	110.20	109.70	111.5
Baseline	116.00	115.90	113.26	110.80	109.60	109.46	111.8
Difference	-0.70	-1.30	-0.80	0.00	0.60	0.30	-0.24
Net Exports			In Billions of 1992 Dollars				Average
Forecast	342.1	327.8	-325.9	-322.0	-325.7	-315.6	-323.4
Baseline	345.8	343.5	-340.9	-329.6	-320.4	-303.5	-327.6
Difference	3.7	15.7	15.0	7.6	-5.3	-12.1	4.18
Federal Surplus/Deficit			In Billions of Dollars				Total
Forecast	- 97.7	102.1	76.4	65.3	31.3	95.6	370.7
Baseline	97.6	100.2	76.9	70.4	39.8	103.9	391.2
Difference	0.1	1.9	-0.5	-5.1	-8.5	-8.3	-20.5
Publically Held Federal Debt			In Billions of Ddlars				(Average)
Forecast	3,778.7	3,817.2	3,898.0	4,010.5	4.178.3	4,291.2	4,039.0
Baseline	3,778.9	3,819.3	3899.5	4,007.0	4,166.2	4,270.7	4,032.5
Difference	-6.2	-2.1	-1.5	3.5	12.1	20.5	6.5

More Economic Indicators	1999	2000	2001 (Fiscal Year End)	2002	2603	2004	(Average) 2000 - 2004
30 Year Mortgage Rate			Annualized Percent				
Forecast	8.0	8.0	8.0	8.0	8.0	7.0	7.8
Baseline	7.7	7.7	7.8	7.8	7.8	7.6	7.7
Difference	0.3	0.3	0.2	0.2	0.2	-0.6	0.1
Housrng Starts			In Millions				
Forecast	1.579	1.436	l.404	1.398	1.398	1.398	1.407
Baseline	1.579	1.438	1.410	1.402	1.397	1.389	1.407
Difference	0.000	-6.002	-0.006	-0.004	0.001	0.009	0.000
Car & Truck Sales			In Millions				
Forecast	15.567	14.952	15.407	15.445	15.474	15.808	15.417
Baseline	15.496	14.910	15.425	15.525	15.570	15.850	15.458
Diirence	0.011	0.042	-0.018	-0.080	-0.096	0.042	-0.039
Corporate Profits - After Tax			In Billions of Dollars				
Forecast	494.0	481 .o	485.0	493.0	563.0	529.0	498.2
Baseline	493.0	461 .0	492.0	502.0	511.0	532.0	503.6
Difference	1.0	0.0	-7.0	-9.0	-8.0	-3.0	-5.4
S&P 500			Equity Index				
Forecast	1,242	1,242	1,247	1,238	1,242	1,213	1,236
Baseline	1,241	1,244	1,258	1,249	1,248	1,210	1,242
Difference	1	-2	-11	-11	-6	3	-5

Table 2
Foreign Strengthening
Slower Price Growth in Non-US Markets, Stronger OECD Growth

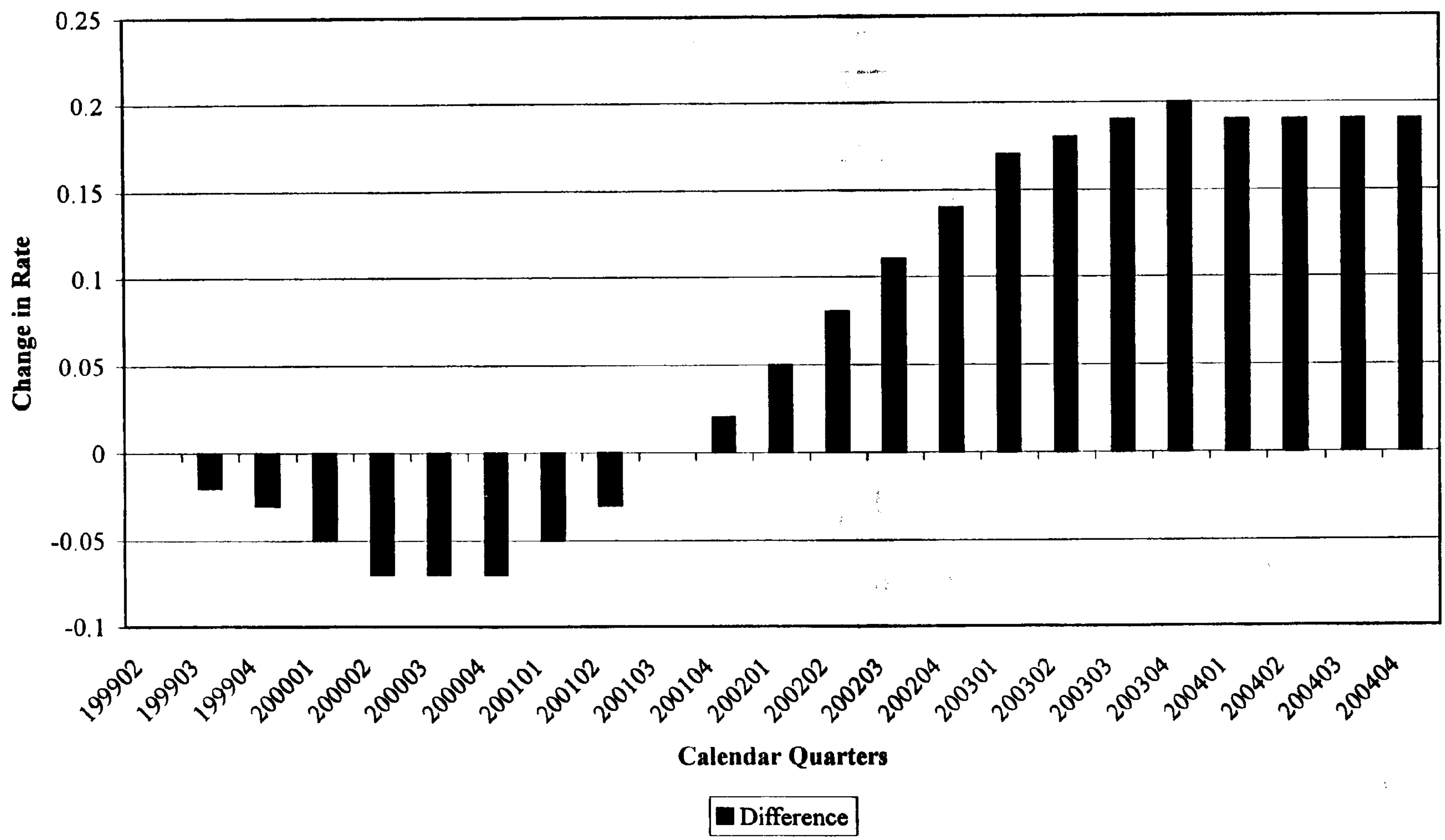
More Economic Indicators	1999	2000	2001 (Fiscal Year End)	2002	2003	2004	(Average) 2000 - 2004
Gross Domestic Product			In Billions of 1992 Dollars				
Forecast	7,881.1	8,035.3	8,262.1	8462.9	8,673.8	8,891.2	8465.1
Baseline	7,877.9	8.025.7	8262.2	8.473.0	8,688.9	8905.1	8,471 .O
Difference	3.2	9.6	-0.1	-10.1	-15.1	-13.9	-5.9
GDP Growth Rate			Percent Change from Year Ago				
Forecast	4.2	2.0	2.8	2.4	2.5	2.5	2.4
Baseline	4.1	1.9	2.9	2.6	2.5	2.5	2.5
Difference	0.1	0.1	-0.1	-0.2	0.0	0.0	0.0
Total Employment			In Thousands of Jobs				
Forecast	128,417	128.808	130.353	131,917	133.298	134.602	131,796
Baseline	128,397	128,675	130,268	131,912	133,337	134,657	131,770
Difference	20	133	85	5	-39	-55	26
Unemployment Rate			Percent of Civilian Labor Force				
Forecast	4.1	5.2	5.3	5.5	5.4	5.3	5.3
Baseline	4.1	5.3	5.4	5.5	5.3	5.3	5.4
Difference	0.0	-0.1	-0.1	0.0	0.1	0.0	0.0
Disposable Personal Income			In Billions of 1992 Dollars				
Forecast	5553.3	5,757.8	5937.1	6696.1	6,250.3	6,405.9	6,089.4
Baseline	5553.1	5.753.4	5929.3	6988.6	6,248.2	6,406.4	6,085.2
Difference	0.2	4 4	7.8	7.5	21	-0.5	4.3
Consumption Expenditures			In Billions of 1992 Dollars				
Forecast	5,411.4	5.542.9	5,690.1	5,822.9	5954.9	6,091.0	5820.4
Baseline	5,411.3	5540.7	5688.5	5,819.6	5954.7	6993.8	5,819.1
Difference	0.1	2.2	3.6	3.3	0.2	-28	1.3
Personal Savings			In Billions of 1992 Dollars				
Forecast	44.1	35.8	71.2	101.1	123.7	1425	94.9
Baseline	44.2	33.7	67.0	96.1	120.7	136.6	91.3
Difference	0.1	21	42	5.0	3.0	3.7	3.6
Personal Savings Rate			Percent of Disposable Personal Income				
Forecast	-0.7	0.5	1.0	1.4	1.6	1.7	1.2
Baseline	-0.7	0.5	0.9	1.3	1.5	1.7	1.2
Diierenoe	0.0	0.0	0.1	0.1	0.1	0.0	0.1
Investment			In Billions of 1992 Dollars				
Forecast	1,032.5	1,056.2	1,088.0	1,121.1	1,150.9	1,182.2	1,119.7
Baseline	1.032.0	1,054.6	1,088.1	1,123.2	1,154.3	1,186.3	1,121.3
Difference	0.5	1.6	-0.1	-2.1	-3.4	4.1	-1.6
Federal Funds Rate			Annualized Percent				
Forecast	4.8	4.8	5.2	5.2	5.3	5.4	5.2
Baseline	4.8	4.8	5.0	5.0	5.0	5.0	5.0
Difference	0.0	0.0	0.2	0.2	0.3	0.4	0.2
Treasury Bond, 30 Year			Annualized Percent				
Forecast	5.6	5.4	5.5	5.6	5.6	5.7	5.6
Baseline	5.6	5.4	5.5	5.5	5.5	5.5	5.5
Difference	0.0	0.0	0.0	0.1	0.1	0.2	0.1
Consumer Price Index			Percent Change from Year Ago				
Forecast	2.4	2.1	2.3	2.4	2.5	2.5	2.4
Baseline	2.4	2.1	2.3	2.4	2.4	2.4	2.3
Difference	0.0	0.0	0.0	0.0	0.1	0.1	0.0

Slower Price Growth in Non-US Markets, Stronger OECD Growth

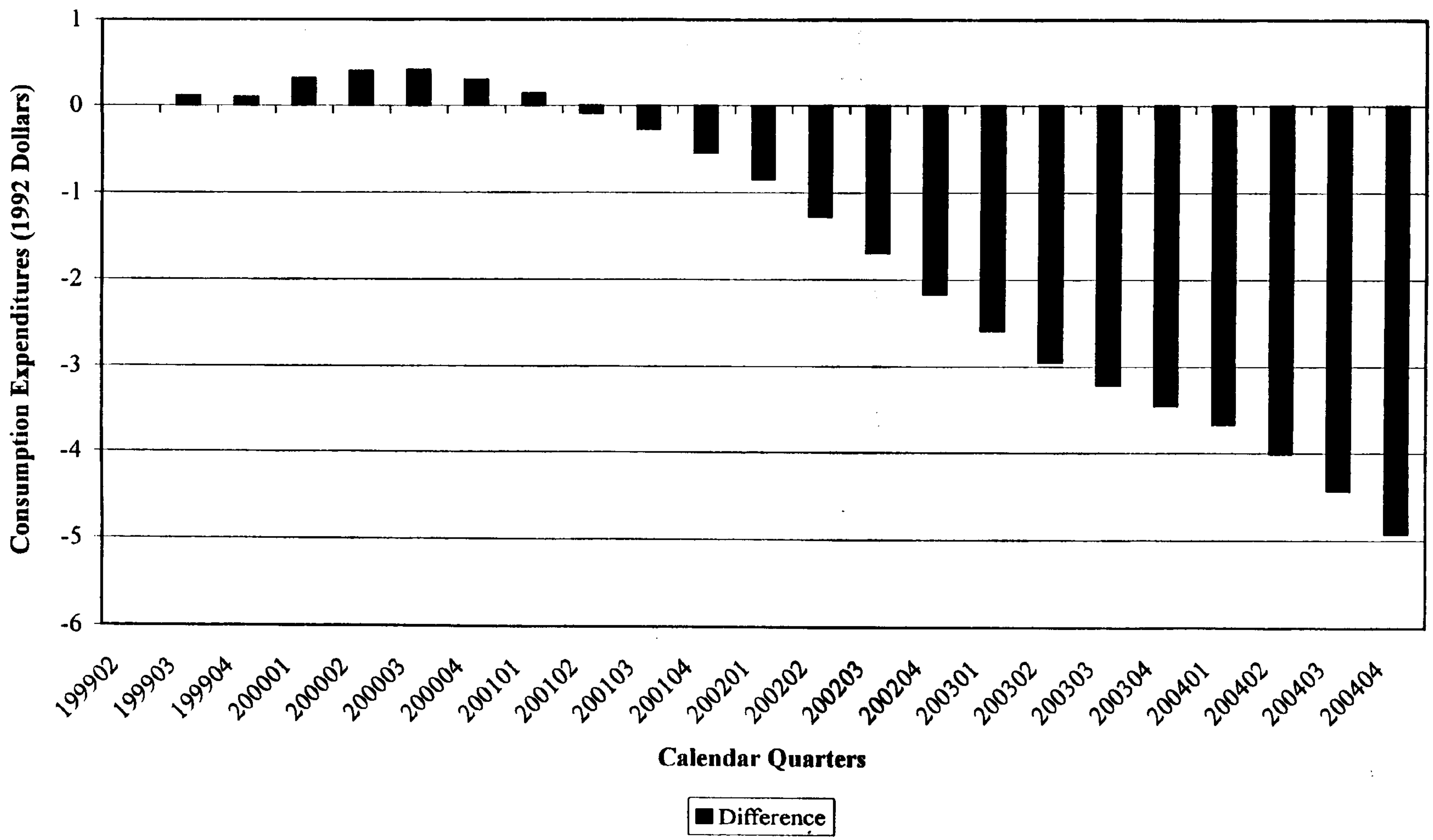
More Economic Indicators	1999	2000	2001 (Fiscal Year)	2002	2003	2 0 0 4	2000-2004
Exchange Rate index			Adjusted for Inflation				Average
Forecast	115.70	116.20	114.80	112.49	110.30	108.90	112.5
Baseline	116.00	115.90	113.20	11080	109.60	109.46	111.8
Difference	-0.30	0.30	1.60	1.60	0.70	-0.50	0.74
Net Exports			In Billions of 1992 Dollars				Average
Forecast	-342.8	-337.4	346.0	-345.1	-335.4	-311.2	-335.0
Baseline	-345.8	-343.5	-340.9	-329.6	-320.4	-303.5	-327.6
Difference	3.0	6.1	5.1	-15.5	-15.0	-7.7	-7.44
federal Surplus/Deficit			In Billions of Dollars				Total
Forecast	97.7	102.5	79.3	71.1	38.3	98.5	389.7
Baseline	97.6	100.2	76.9	70.4	39.8	103.9	391.2
Difference	0.1	2.3	2.4	0.7	-1.5	5.4	-1.5
Publically Held Federal Debt			In Billions of Dollars				(Average)
Forecast	3,778.7	3.816.8	3,894.7	4,001.5	4.162.2	4,272.1	4.0295
Baseline	3,778.9	3.819.3	3899.5	4,007.0	4,166.2	4,270.7	4,032.5
Difference	-0.2	-2.5	4.8	-5.5	-4.0	1.4	-3.1

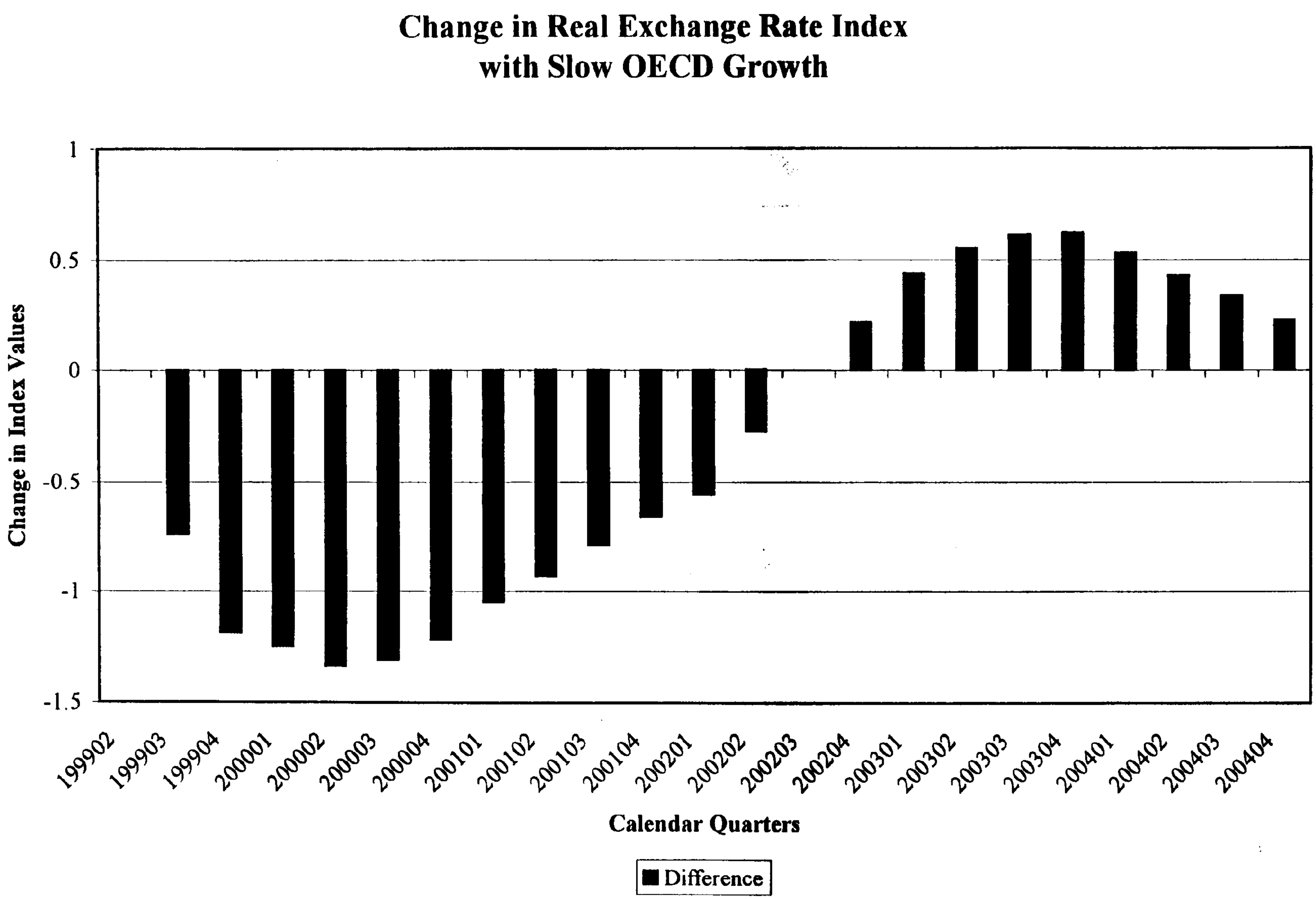
More Economic Indicators	1999	2000	2001 (Fiscal Year End)	2062	2003	2004	(Average) 2000 - 2004
30 Year Mortgage Rate			Annualized Percent				
Forecast	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Baseline	7.7	7.7	7.8	7.8	7.8	7.6	7.7
Diierence	0.3	0.3	0.2	0.2	0.2	0.4	0.3
Housing Starts			In Millions				
Forecast	1.579	1.437	1.407	1.398	1.391	1.380	1.403
Baseline	1.579	1.438	1.410	1.402	1397	1.389	1.407
Difference	0.000	-0.001	-0.003	xl.004	-0.006	-0.009	-0.005
Car & Truck Sales			In Millions				
Forecast	15.504	14.964	15.415	15.460	15.482	15.754	15.413
Baseline	15.498	14.910	15.425	15.625	15.570	15.858	15.456
Difference	0.008	0.044	-0.010	-0.065	-0.088	-0.096	-0.043
Corporate Profits - After Tax			In Billions of Dollars				
Forecast	494.0	482.0	491 .0	502.0	509.0	526.0	502.0
Baseline	493.0	481.0	492.0	502.0	511.0	532.0	503.6
Difference	1 .0	1 .0	-1 .0	0.0	-2.0	-6.0	-1.6
S&P 500			Equity Index				
Forecast	1,242	1,244	1,255	1,249	1,243	1,196	1,237
Baseline	1,241	1,244	1,258	1,249	1,248	1.210	1,242
Difference	1	0	-3	0	-5	-14	-4

Change in Unemployment Rate with Slow OECD Growth



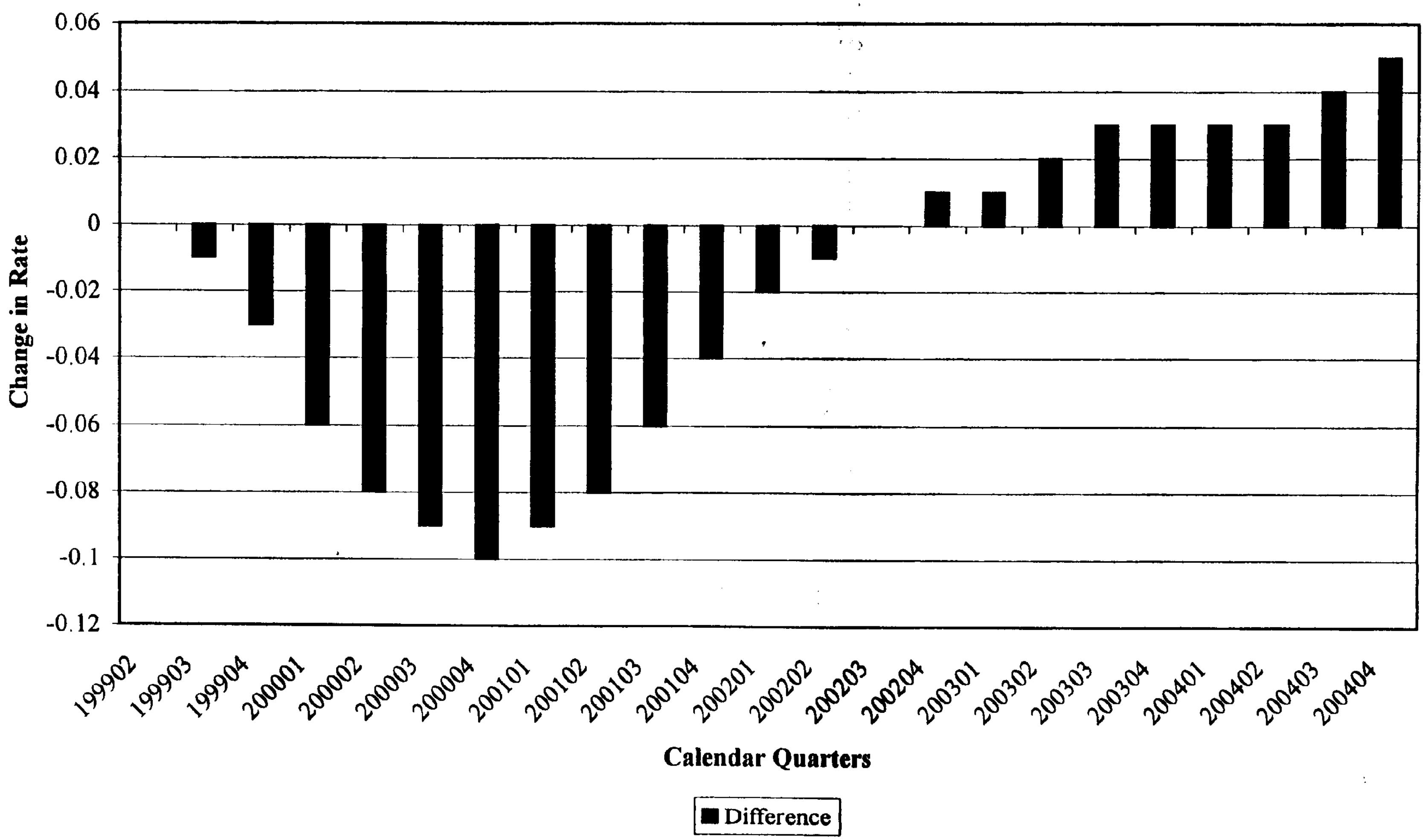
Change in Consumption Expenditures
Slow Growth in OECD



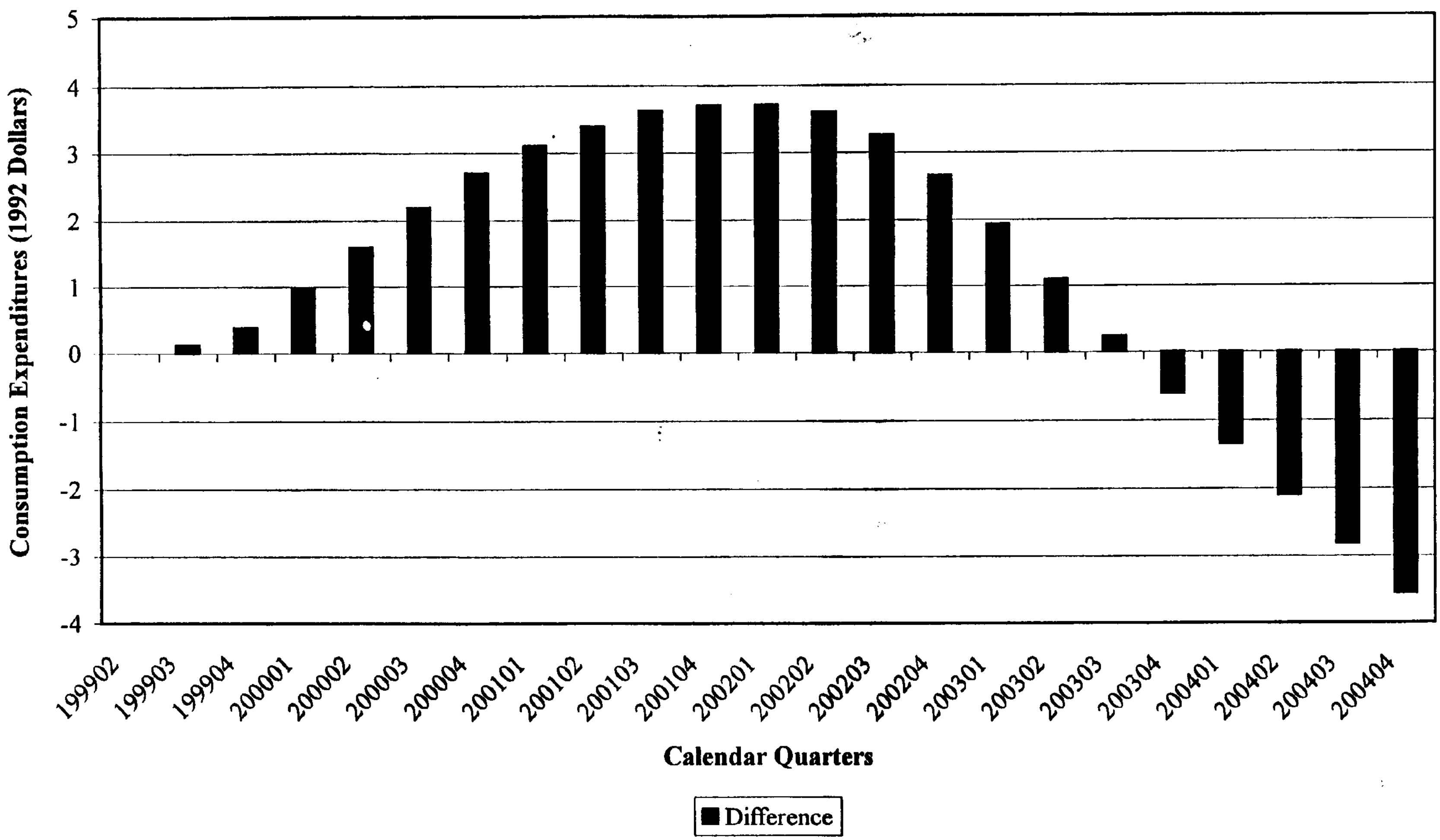


Change in Real Exchange Rate Index
with Slow OECD Growth
1
0.5
0
-0.5
-1
-1.5
Change in Index Values
199902
199903
199904
200001
200002
200003
200004
200101
200102
200103
200104
200201
200202
200203
200204
200301
200302
200303
200304
200401
200402
200403
200404
Calendar Quarters
Difference

Change in Unemployment Rate
with Stronger OECD Growth



Change In Consumption Expenditures with Stronger OECD Growth



Change in Real Exchange Rate Index with Stronger OECD Growth