Economics 442
Macroeconomic Policy
Lecture 25
11/30/2019

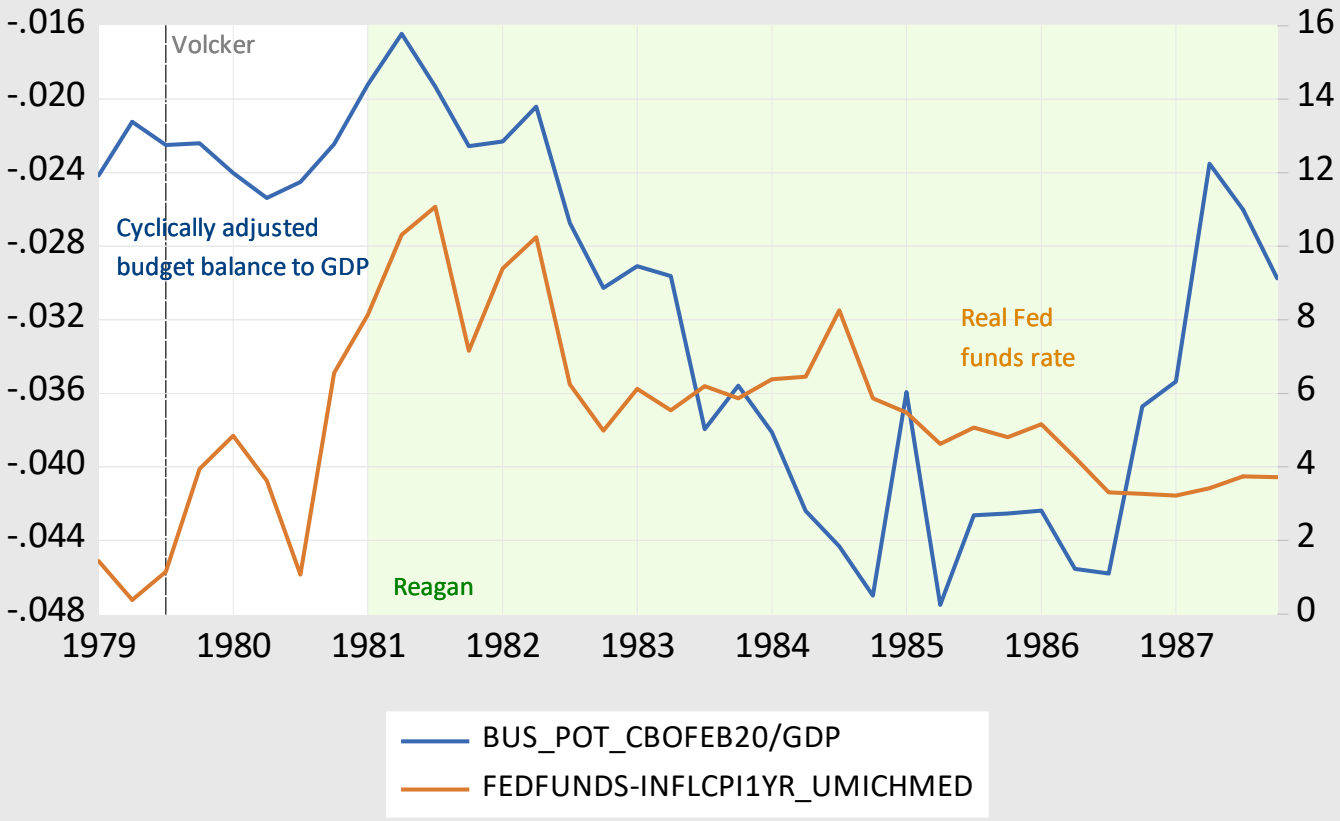
Instructor: Prof. Menzie Chinn
UW Madison
Fall 2020

Outline

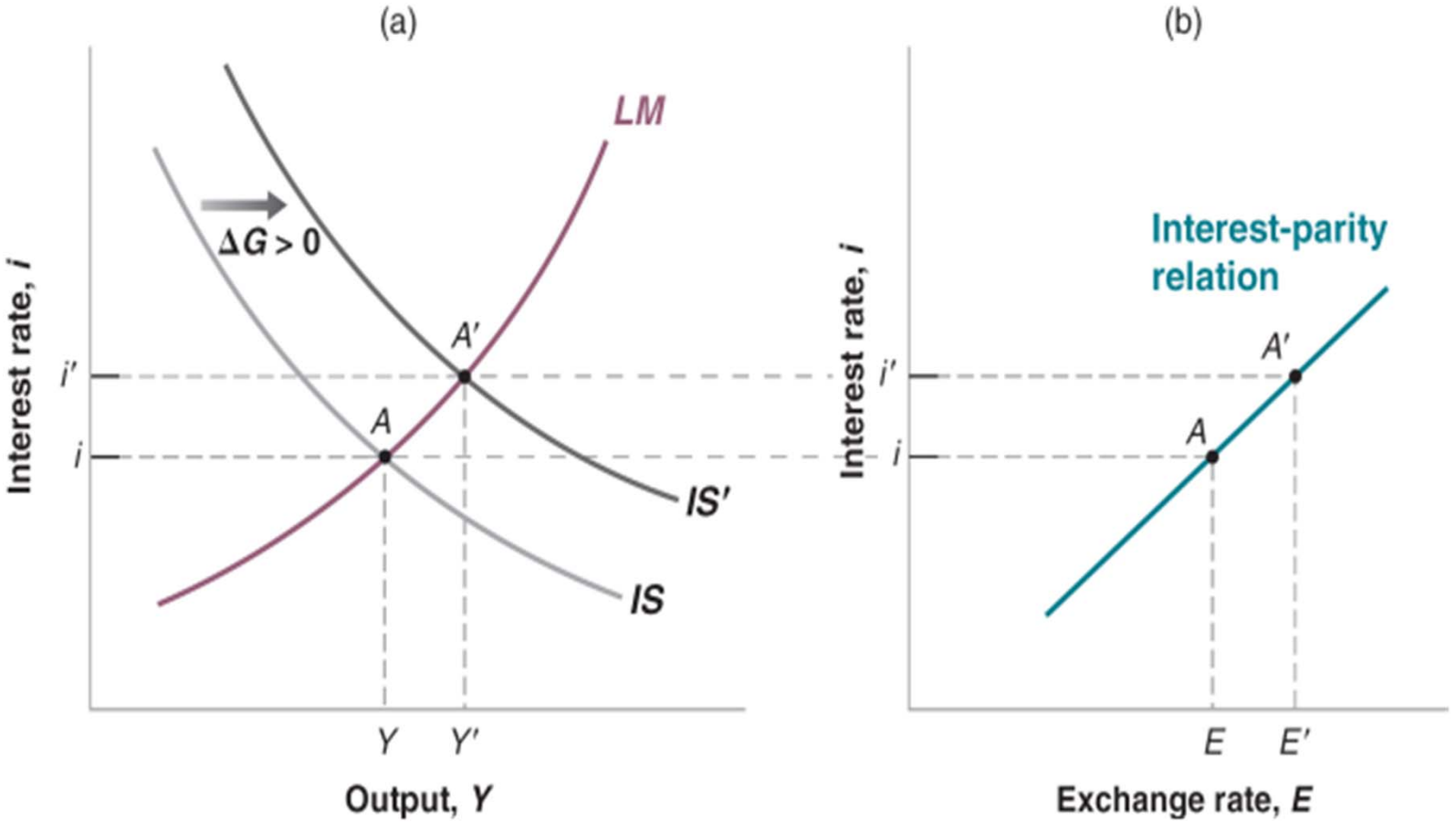
- Interpreting Reagan, 1979-87
- Interpreting Trump, 2017-19
- Interpreting Clinton, 1993-2000
- The Trade War, 2017-19
- Global imbalances & the dollar
- Fixed exchange rates in the short run
- Fixed exchange rates in the medium run

Interpreting Reagan, 1979-87

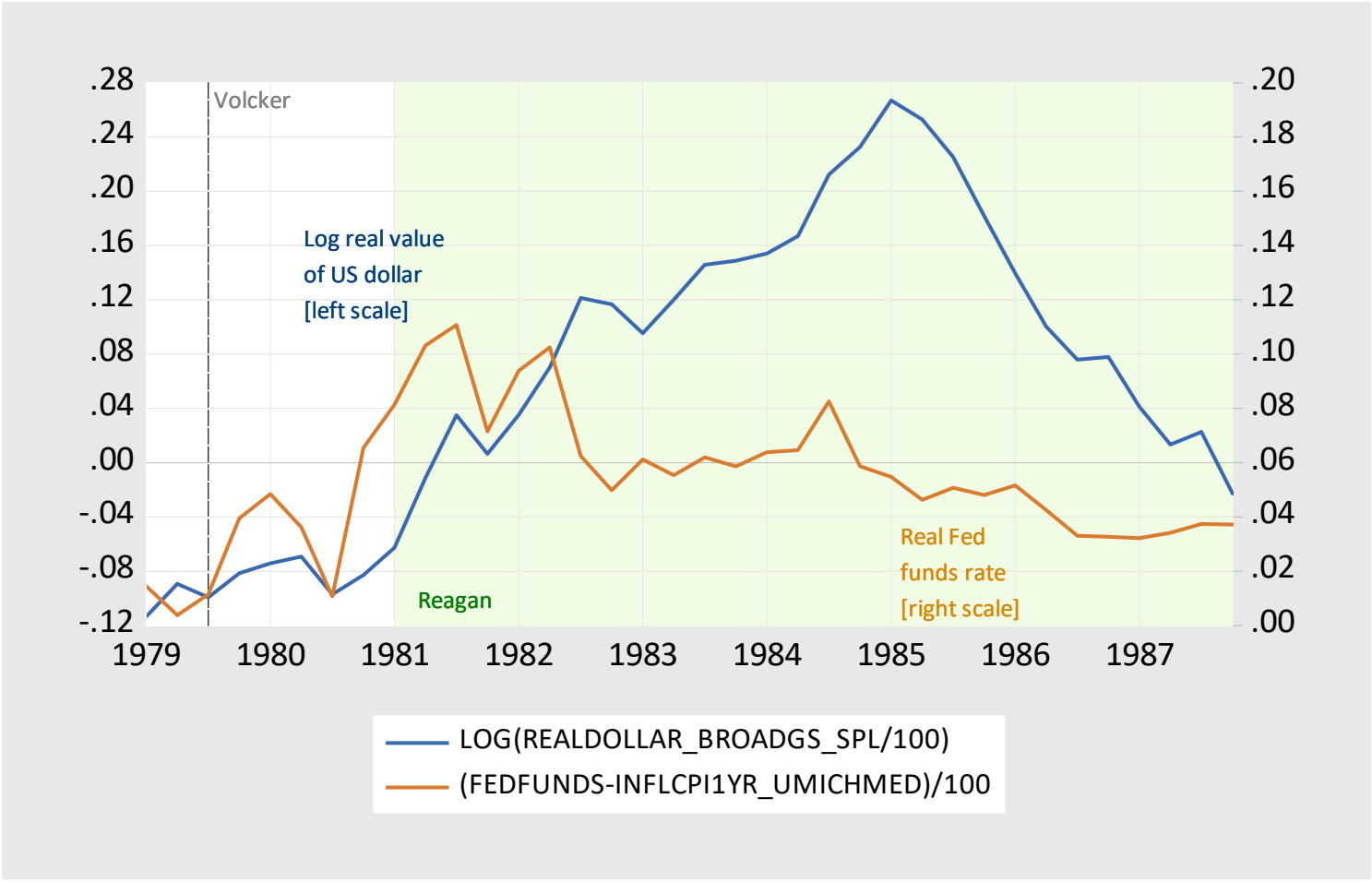
Interpreting 1979-87: Tax Cut+Tight Money



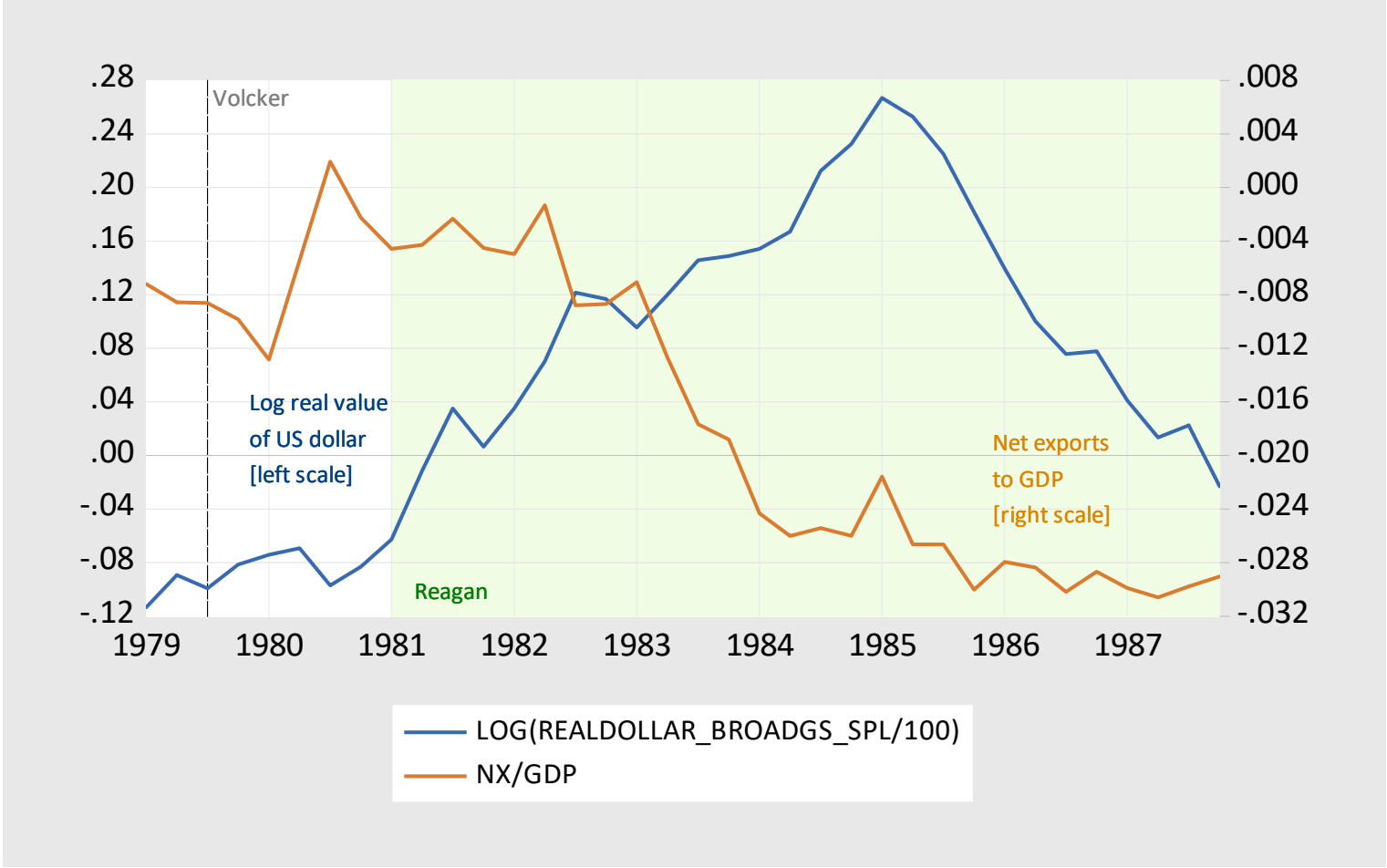
Interpreting 1979-87: Fed Targets Money Supply



Interpreting 1979-1987: Interest Rate Rise & Dollar



Interpreting 1979-87: Dollar and Trade Deficit



Interpreting Trump, 2016-19

Table A-1.

Changes in CBO's Baseline Projections of the Deficit Since June 2017

Billions of Dollars

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total 2018–2022	Total 2018–2027
Deficit in CBO's June 2017 Baseline	-563	-689	-775	-879	-1,027	-1,057	-1,083	-1,225	-1,352	-1,463	-3,933	-10,112
Legislative Changes												
Changes in Revenues												
Individual income taxes	-65	-162	-169	-166	-159	-148	-150	-151	-41	43	-722	-1,169
Corporate income taxes	-94	-96	-80	-57	-32	-7	10	14	-9	-58	-359	-409
Payroll taxes	*	*	*	1	3	6	8	7	6	6	3	36
Other	-3	-27	-16	-17	-15	-14	-15	-16	-16	-9	-78	-148
Total Change in Revenues	-163	-285	-265	-239	-203	-163	-148	-146	-60	-18	-1,156	-1,690
Changes in Outlays												
Mandatory outlays												
Medicaid	2	-4	-12	-21	-25	-27	-29	-31	-33	-34	-60	-213
Health insurance subsidies and related spending	-1	-5	-11	-21	-25	-26	-27	-29	-30	-32	-62	-206
Refundable tax credits	-11	13	13	12	12	13	12	11	25	-5	39	95
Children's Health Insurance Program	3	10	9	7	7	8	8	9	9	10	35	79
Other	17	9	6	6	6	5	9	10	-13	-28	43	27
Subtotal, mandatory	10	22	5	-17	-25	-28	-26	-30	-42	-89	-5	-219
Discretionary outlays												
Defense	40	56	13	-2	-8	-12	-15	-15	-16	-16	99	26
Nondefense	54	83	71	50	51	56	60	67	74	78	309	644
Subtotal, discretionary	94	139	84	47	44	44	46	52	58	62	408	669
Debt service	3	13	30	45	57	64	68	74	79	82	148	515
Total Change in Outlays	108	174	120	75	75	79	88	96	95	55	552	965
Increase in the Deficit From Legislative Changes	**-271**	**-459**	**-385**	**-315**	**-278**	**-243**	**-236**	**-241**	**-155**	**-74**	**-1,708**	**-2,656**

Impact of Tax Cut & Jobs Act on cyclically adjusted budget balance

Tax and Spending Changes

	Economic Changes											
Changes in Revenues												
Individual income taxes	-16	28	69	71	61	48	45	49	55	58	213	468
Corporate income taxes	45	73	66	57	48	40	37	37	37	37	288	476
Payroll taxes	-22	-8	7	13	12	14	14	18	21	24	2	92
Other	-3	-4	-3	5	8	10	11	10	8	10	2	51
Total Change in Revenues	4	88	138	146	129	113	106	114	121	129	505	1,088
Changes in Outlays												
Mandatory outlays												
Social Security	-3	-5	-5	-5	-5	-5	-5	-5	-6	-5	-22	-47
Unemployment compensation	-2	-7	-10	-8	-3	-2	-1	-1	*	*	-30	-34
Medicare	-1	-2	-3	-2	-2	-3	-3	-4	-5	-5	-11	-30
Other	-2	-5	-6	-5	-4	-4	-3	-3	-3	-3	-23	-38
Subtotal, mandatory	-8	-19	-24	-20	-14	-13	-12	-13	-13	-13	-86	-150
Discretionary outlays	*	2	1	2	2	2	2	3	3	3	7	21
Net interest outlays												
Debt service	*	-1	-5	-9	-13	-15	-17	-20	-24	-29	-29	-134
Effect of rates and inflation	7	21	41	58	68	62	40	22	11	6	195	336
Subtotal, net interest	7	20	36	49	55	47	23	2	-13	-24	166	201
Total Change in Outlays	-1	2	13	31	44	36	13	-8	-23	-33	88	73
Decrease in the Deficit From Economic Changes	**5**	**86**	**125**	**116**	**85**	**77**	**92**	**121**	**144**	**163**	**417**	**1,015**

Projected endogenous impact of Tax Cut & Jobs Act on budget balance

Fiscal Policy Estimated Impact on Current Account

Exhibit 2: A $35 Increase in the Trade Deficit per $100 Increase in the Budget Deficit

Review of the Impact of Fiscal Deficits on Trade Deficits			
Study	**Sample**	**Methodology**	**Increase in Trade Deficit Per $100 Increase in Budget Deficit ($)**
IMF EBA model	49 countries: 1986-2013	Panel analysis using instrumented cyclically adjusted fiscal balance	47
Penn Wharton budget model	US: 2000- 2015	Analysis of shares of annual increases in Treasury issuance purchased abroad	40
FRB/US model	--	Large-scale dynamic model	25
Chinn (2017)	DMs: 1971-2015	Panel analysis using 5-year averages	55
Gagnon et al (2017)	141 countries: 1985-2014	Panel analysis using cyclically adjusted fiscal balance	60*
Erceg, Guerrieri, Gust (2005)	--	Dynamic General Equilibrium Model	20
Corsetti and Muller (2006)	US: 1979-2005	Structural Vector Auto Regressions	0
		Average	**35**
		Median	**40**

* For countries with very little restrictions on capital mobility

Source: Goldman Sachs Global Investment Research

Struyven, US Daily: Twin Deficits, Goldman Sachs 13 March 2018

Table 1-4.

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2017 to 2027

				Annual Average		
	2017[a]	2018	2019	2017–2021	2022–2027	Total, 2017–2027
	Percentage Change From Fourth Quarter to Fourth Quarter					
Real GDP[b]						
April 2018	2.6	3.3	2.4	2.3	1.7	2.0
June 2017	2.2	2.0	1.5	1.8	1.9	1.8
Nominal GDP						
April 2018	4.5	5.2	4.5	4.3	3.9	4.1
June 2017	4.0	4.0	3.4	3.8	4.0	3.9
PCE Price Index						
April 2018	1.7	1.8	2.0	2.0	2.0	2.0
June 2017	1.8	2.0	2.0	2.0	2.0	2.0
Core PCE Price Index[c]						
April 2018	1.5	1.9	2.1	2.0	2.0	2.0
June 2017	1.8	2.0	2.0	1.9	2.0	2.0
Consumer Price Index[d]						
April 2018	2.1	2.0	2.3	2.3	2.4	2.4
June 2017	2.1	2.3	2.4	2.3	2.4	2.4
Core Consumer Price Index[c]						
April 2018	1.7	2.3	2.5	2.4	2.4	2.4
June 2017	2.1	2.3	2.3	2.3	2.4	2.3
GDP Price Index						
April 2018	1.9	1.8	2.1	2.0	2.1	2.1
June 2017	1.8	2.0	1.9	1.9	2.1	2.0
Employment Cost Index[e]						
April 2018	2.8	3.1	3.6	3.3	3.2	3.2
June 2017	3.1	3.3	3.4	3.2	3.1	3.2
Real Potential GDP						
April 2018	1.7	2.0	2.1	2.0	1.8	1.9
June 2017	1.6	1.7	1.8	1.7	1.9	1.8

CBO, Budget and Economic Outlook (April 2018)

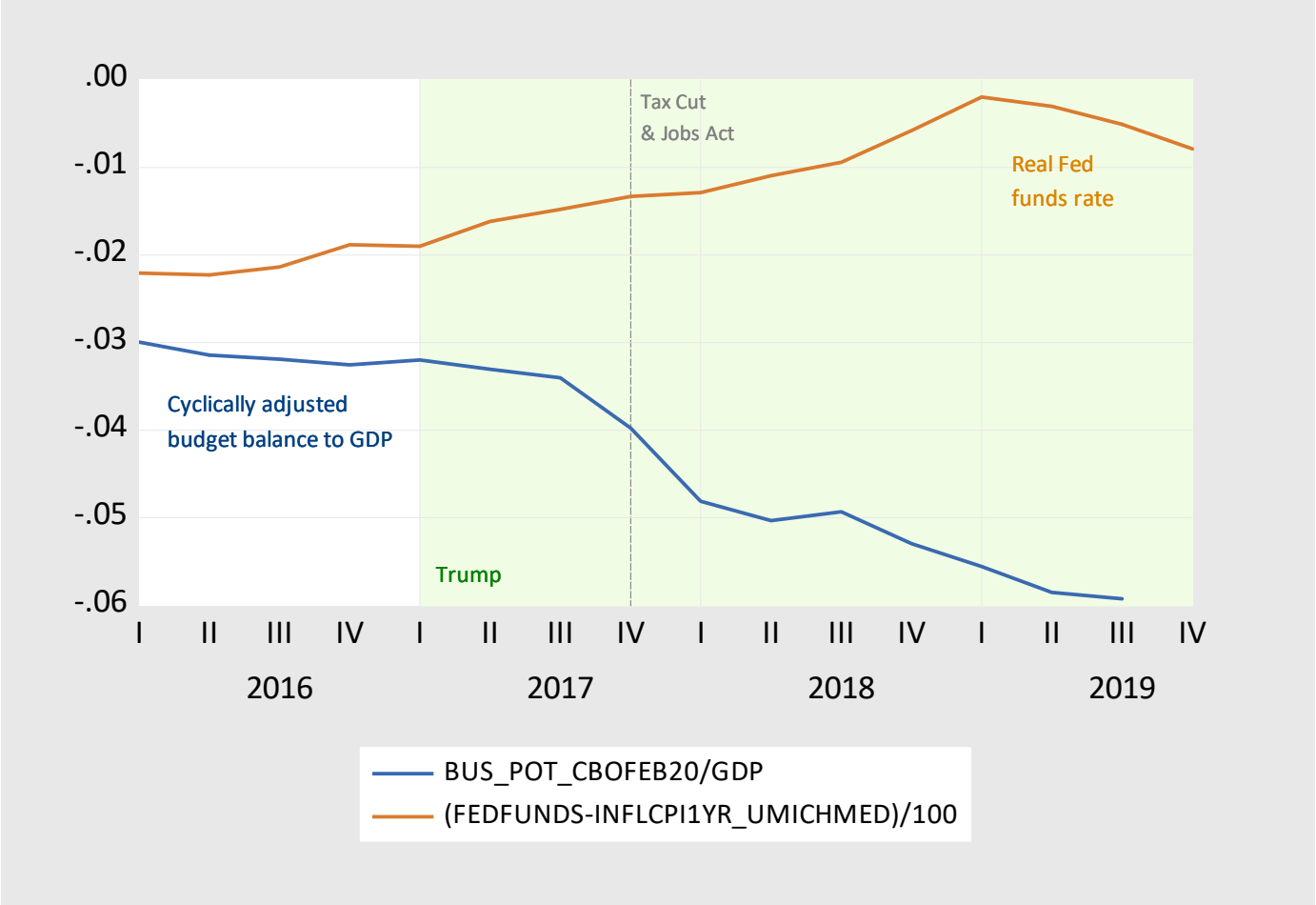
Table 1-4. Continued

Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2017 to 2027

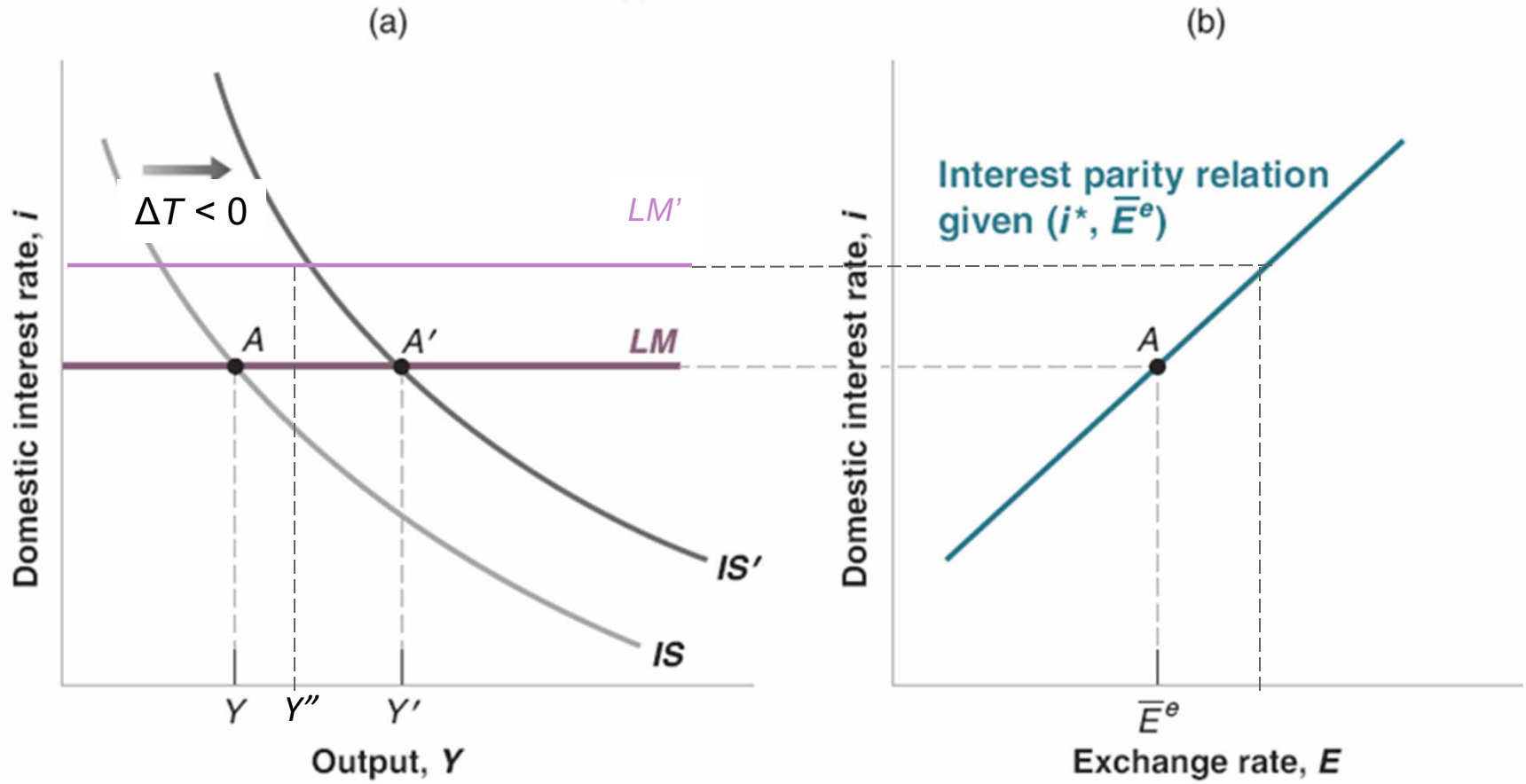
				Annual Average		
	2017[a]	2018	2019	2017–2021	2022–2027	Total, 2017–2027
	Annual Average					
Unemployment Rate (Percent)						
April 2018	4.4	3.8	3.3	3.8	4.8	4.3
June 2017	4.4	4.2	4.4	4.5	4.9	4.8
Interest Rates (Percent)						
Three-month Treasury bills						
April 2018	0.9	1.9	2.9	2.6	2.9	2.8
June 2017	0.9	1.5	2.2	2.0	2.8	2.4
Ten-year Treasury notes						
April 2018	2.3	3.0	3.7	3.5	3.8	3.6
June 2017	2.4	2.8	3.2	3.1	3.7	3.4
Tax Bases (Percentage of GDP)						
Wages and salaries						
April 2018	43.1	43.2	43.5	43.5	44.2	43.9
June 2017	44.4	44.5	44.6	44.5	44.5	44.5
Domestic Corporate Profits[f]						
April 2018	8.9	9.5	9.6	9.1	8.1	8.6
June 2017	8.6	8.4	8.2	8.2	7.5	7.8

CBO, Budget and Economic Outlook (April 2018)

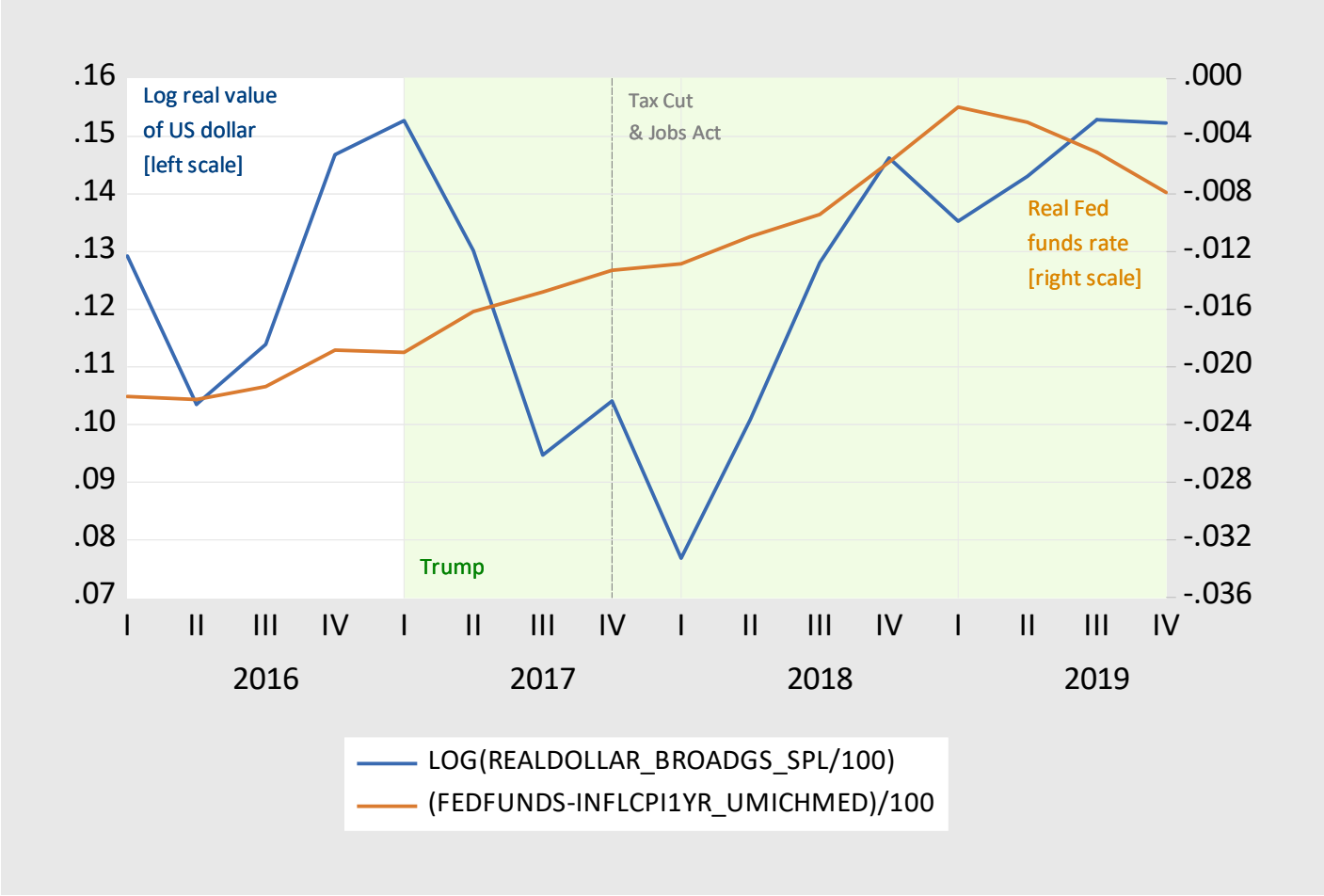
Interpreting 2016-19: Tax Cut+Taylor Rule



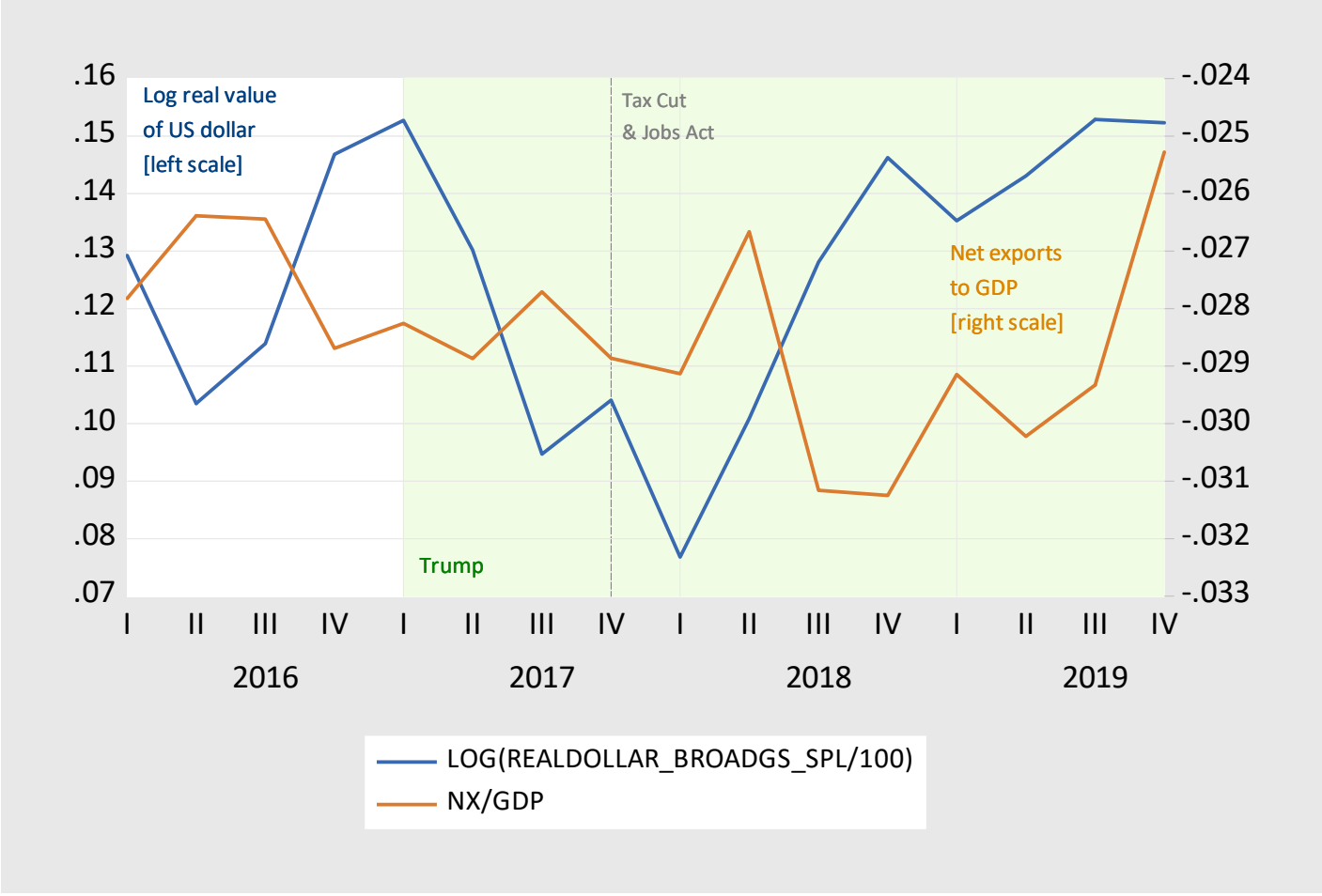
Interpreting 2016-19: Fed Targets Interest Rate Using Taylor Rule



Interpreting 2016-19: Interest Rate Rise & Dollar

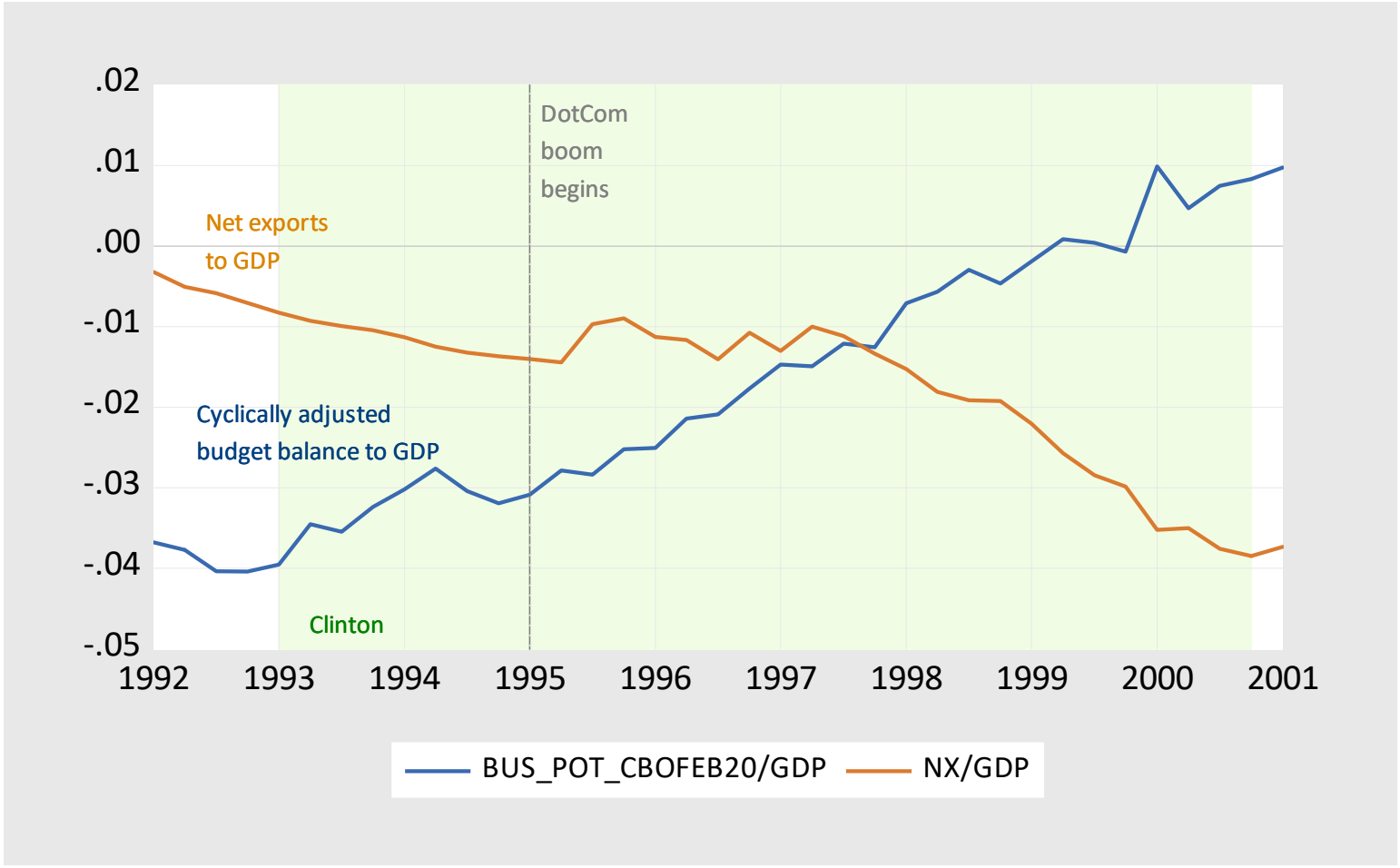


Interpreting 2016-19: Dollar and Trade Deficit

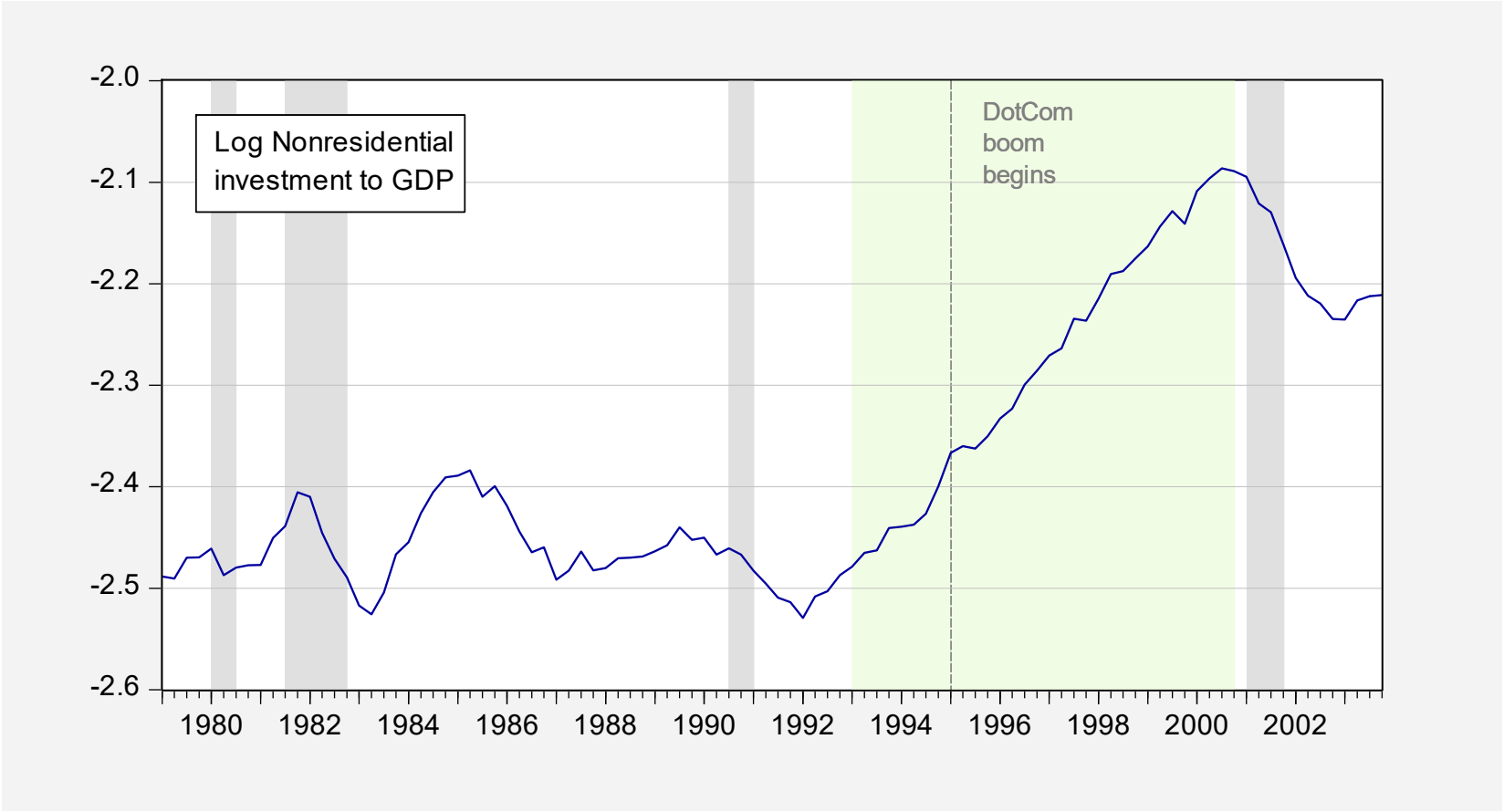


Interpreting Clinton, 1992-2000

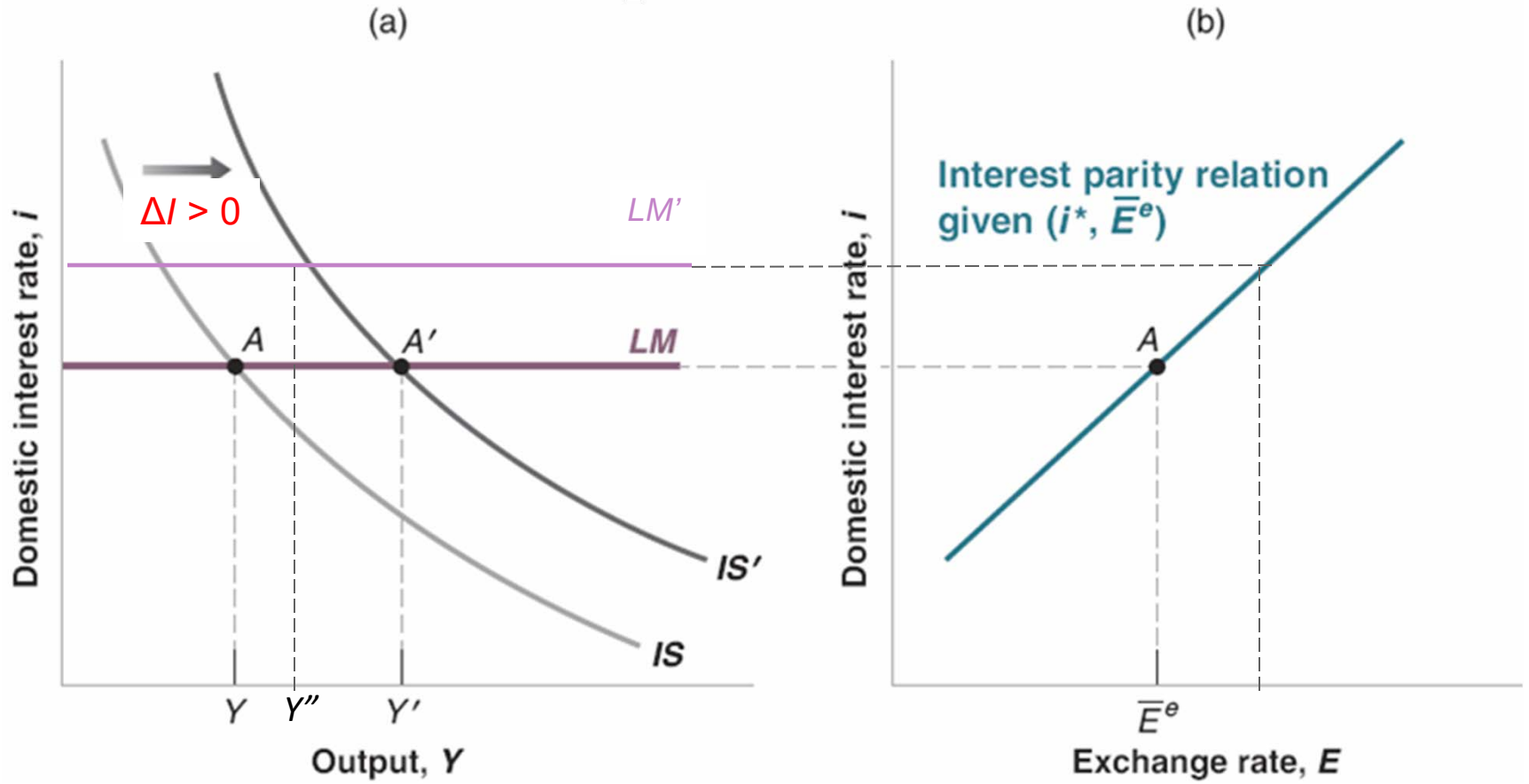
Interpreting 1992-2000



Interpreting 1992-2000

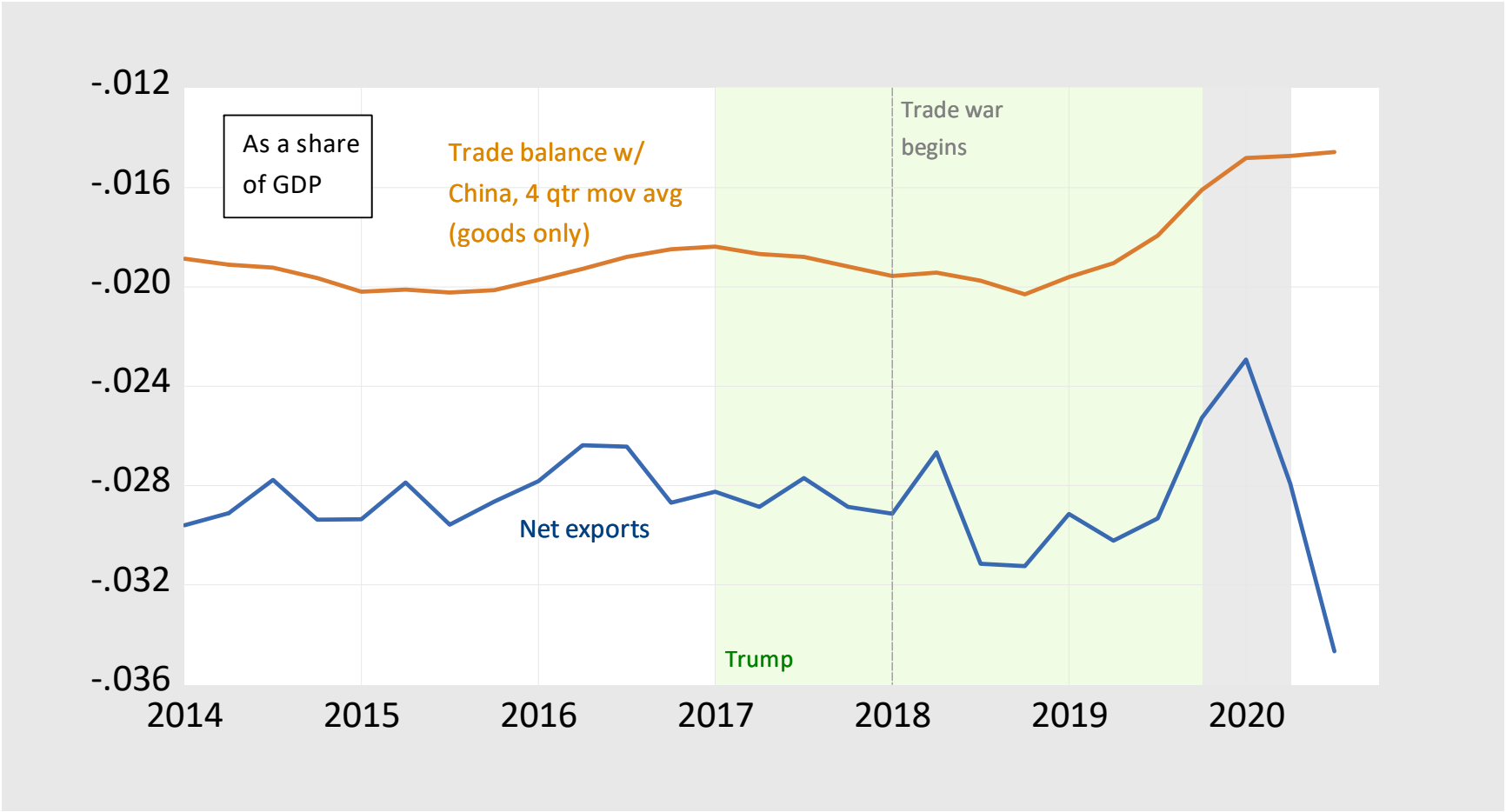


Interpreting 1992-2000: Fed Targets Interest Rate Using Taylor Rule

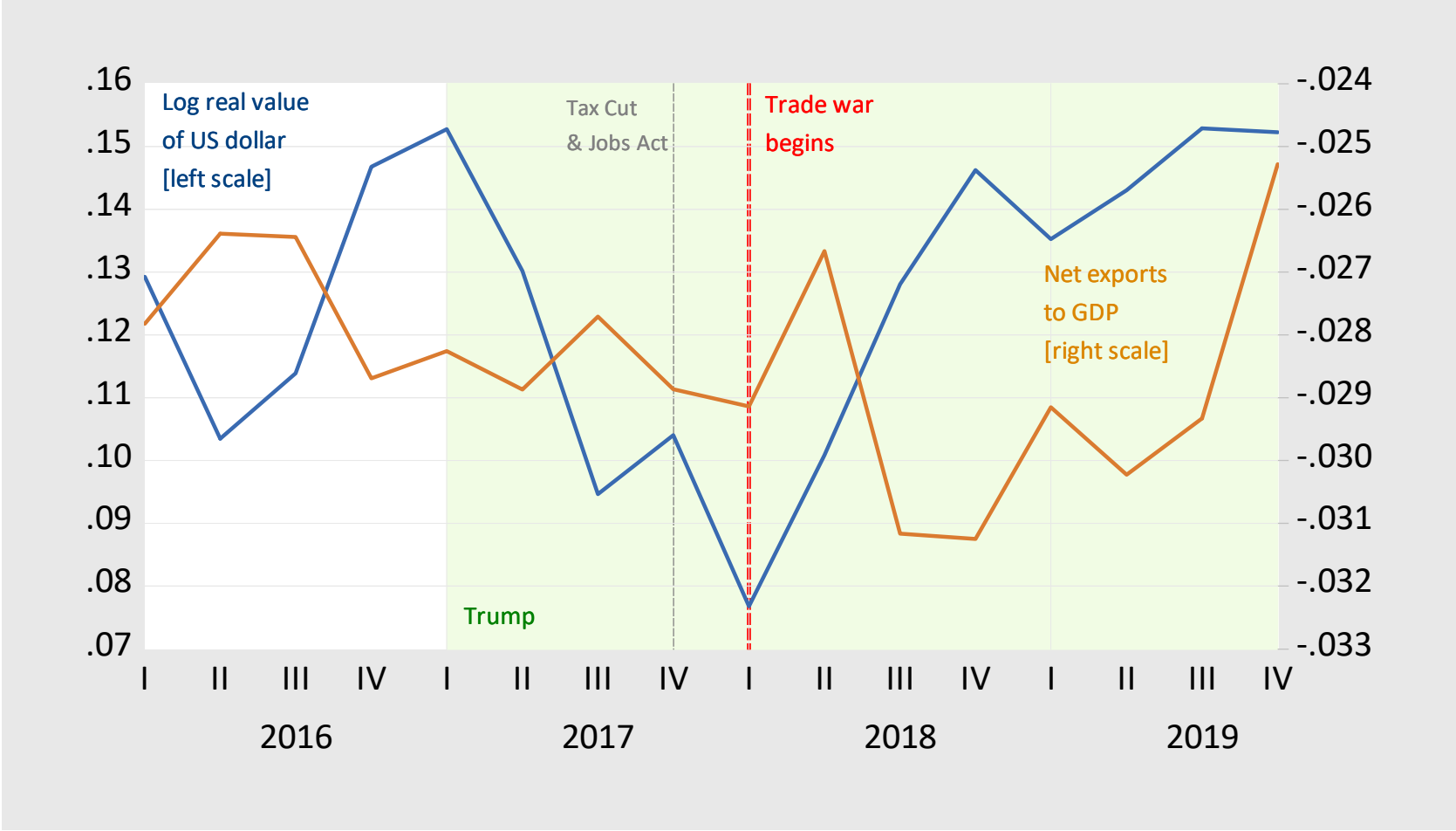


The Trade War, 2017-19

TheTrade War



The Trade War

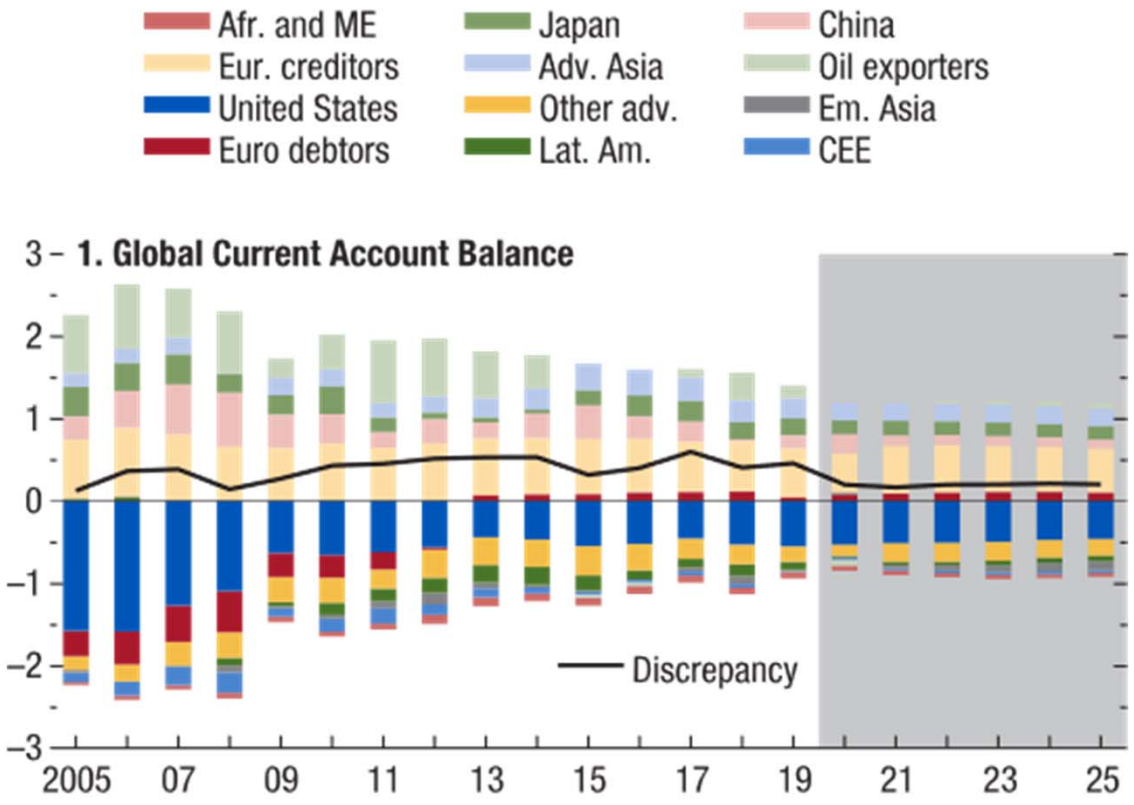


Global Imbalances and the Dollar

Global Imbalances

Figure 1.19. Current Account and International Investment Positions
(Percent of world GDP)

Global current account deficits and surpluses are projected to shrink in 2020 to the lowest level in the past two decades.

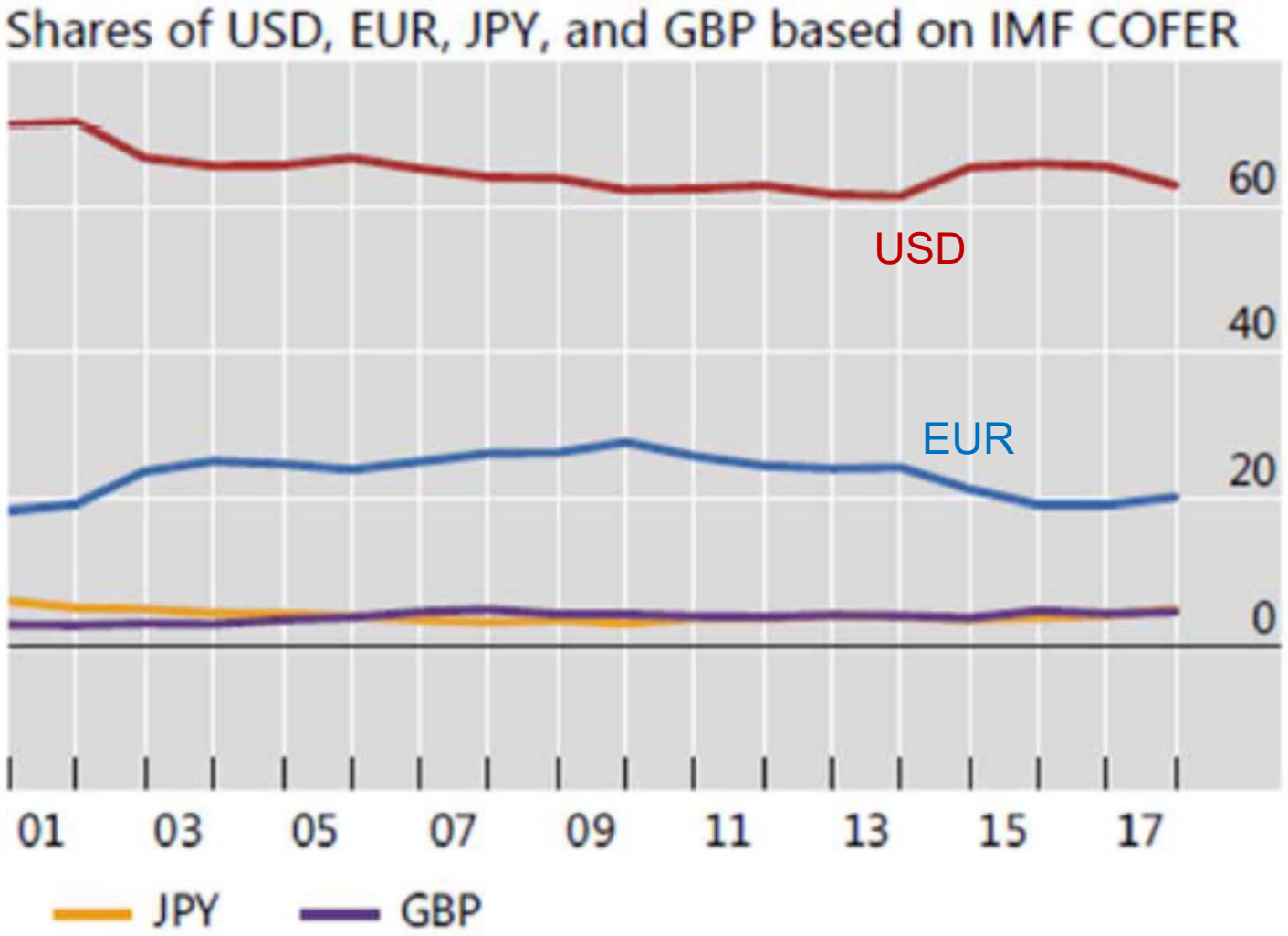


IMF, World Economic Outlook, October 2020

Global Imbalances & the Dollar

- Why has the US consistently run a bigger trade deficit?
- Private saving less than investment (and budget deficit)
- Saving low because it borrows at low interest rates
- Which in turn is because foreigners (including foreign central banks) desire US assets (denominated in US dollars)
- “Exorbitant privilege”

Dollar as Reserve Currency



Source: Ito and McCauley (2020).

Are Global Imbalances a Problem?

- So far, this is like a free lunch to the US
- Although it tends to make the US dollar stronger than it otherwise would be
- Which means a smaller tradables (manufacturing) sector
- Makes US vulnerable to surging financial inflows
- Which leads to credit booms/busts like 2007-09
- Also increasing indebtedness

CA & Net Int'l Investment Position

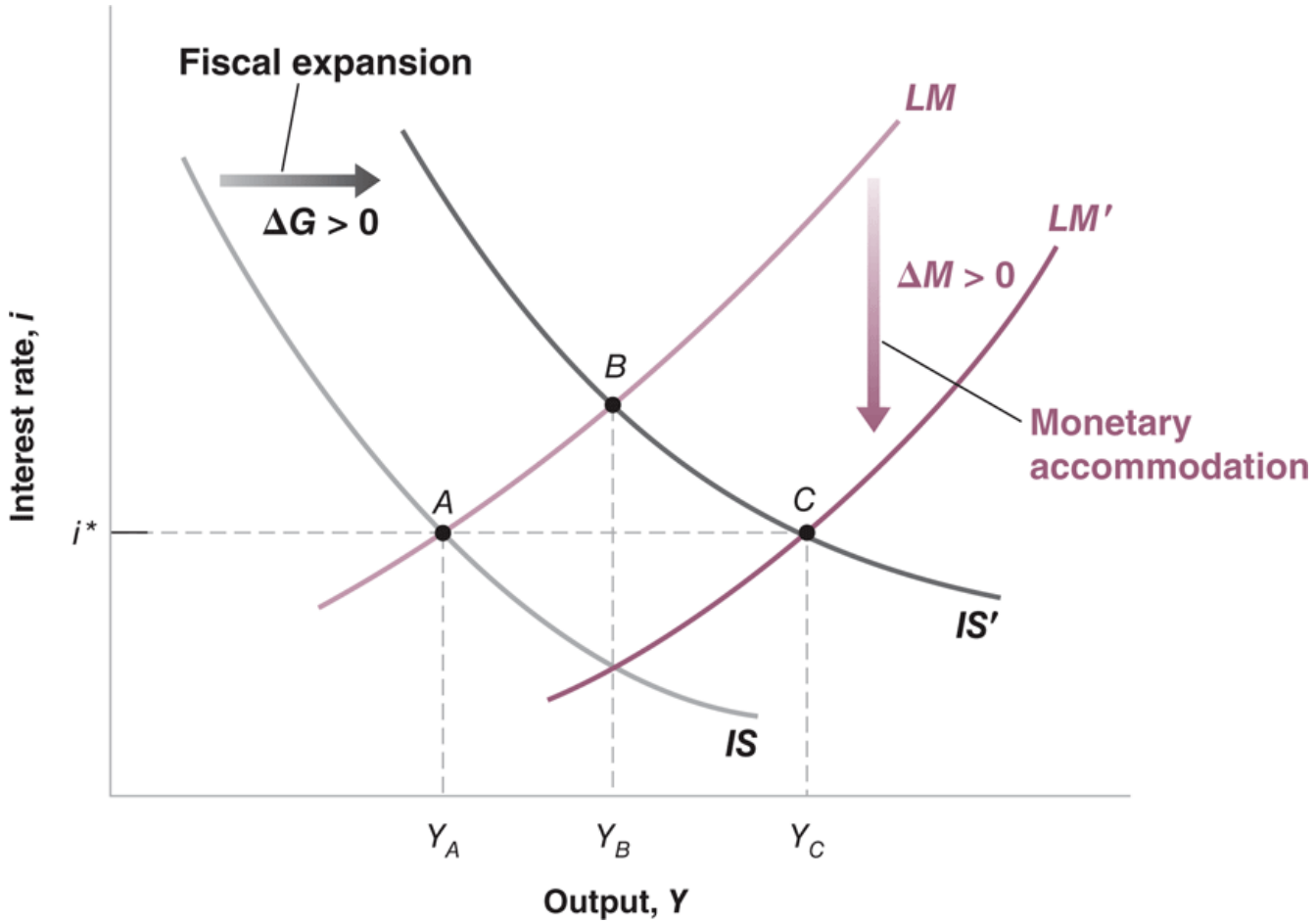
Fixed Exchange Rates in the Short Run

Fixed Exchange Rates

- Alternative to floating exchange rates
- (In reality, most countries are in-between fixed and floating)
- HK is fixed to US, pre-1999 European Monetary System pegged (effectively) to DeutscheMark
- Fixed eliminated uncertainty, day-to-day risk of converting currencies, hence pricing
- But fixed eliminates monetary autonomy

Fixed Exchange Rates

Figure 20-5 The Effects of a Fiscal Expansion under Fixed Exchange Rates



Focus: German Reunification, Interest Rates, and the EMS

Table 1 German Reunification, Interest Rates, and Output Growth: Germany, France, and Belgium, 1990–1992

	Nominal Interest Rates (%)			*Inflation* (%)		
	1990	1991	1992	1990	1991	1992
Germany	8.5	9.2	9.5	2.7	3.7	4.7
France	10.3	9.6	10.3	2.9	3.0	2.4
Belgium	9.6	9.4	9.4	2.9	2.7	2.4
	Real Interest Rates (%)			*GDP Growth* (%)		
	1990	1991	1992	1990	1991	1992
Germany	5.8	5.5	4.8	5.7	4.5	2.1
France	7.4	6.6	7.9	2.5	0.7	1.4
Belgium	6.7	6.7	7.0	3.3	2.1	0.8

The nominal interest rate is the short-term nominal interest rate. The real interest rate is the realized real interest rate over the year—that is, the nominal interest rate minus actual inflation over the year. All rates are annual.

Source: OECD Economic Outlook

Fixed Exchange Rates in the Medium Run

Fixed Exchange Rates

- Removes the “shock absorber” of flexible exchange rates
- This means adjustment has to take place through price, wage changes
- Since these are “sticky”, adjustment could be slow

The Medium Run

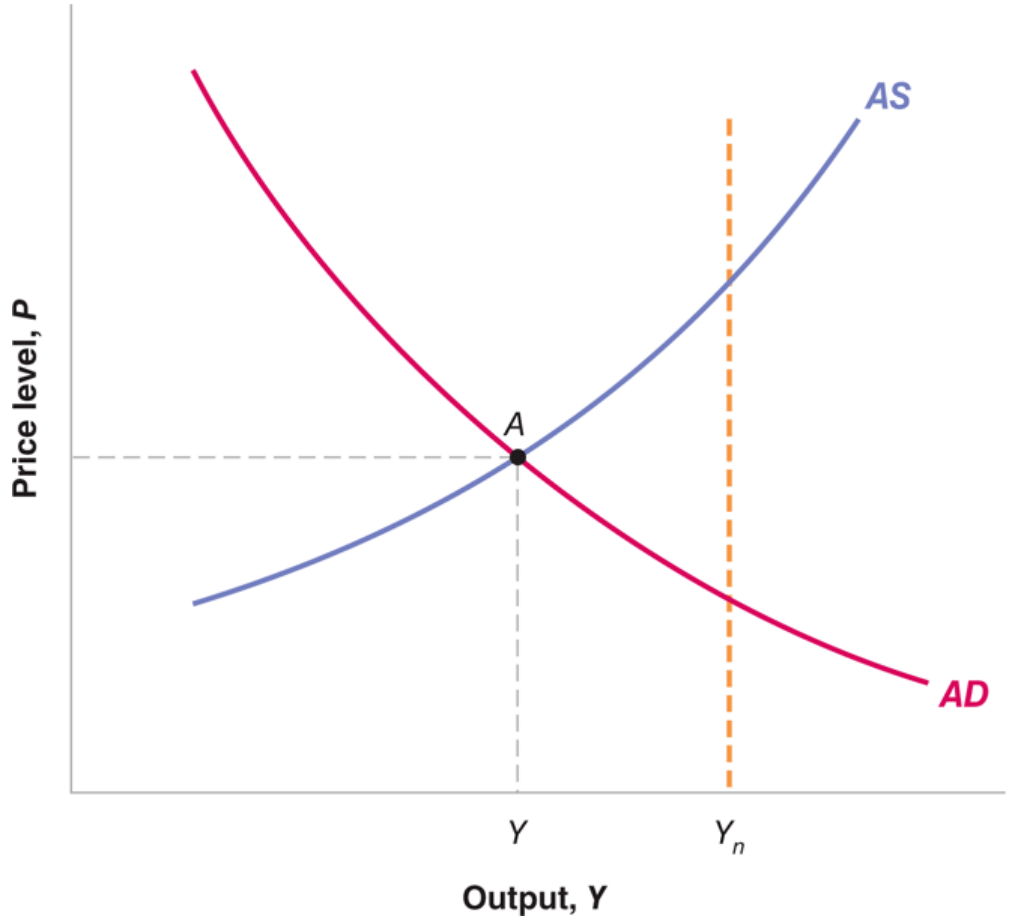
$$Y = Y\left(\frac{\overline{E}P}{P^*}, G, T\right) \qquad (21.1)$$

$$(-, \ +, -)$$

$$P = P^e\,(1 + m)\,F\left(1 - \frac{Y}{L}, z\right) \qquad (21.2)$$

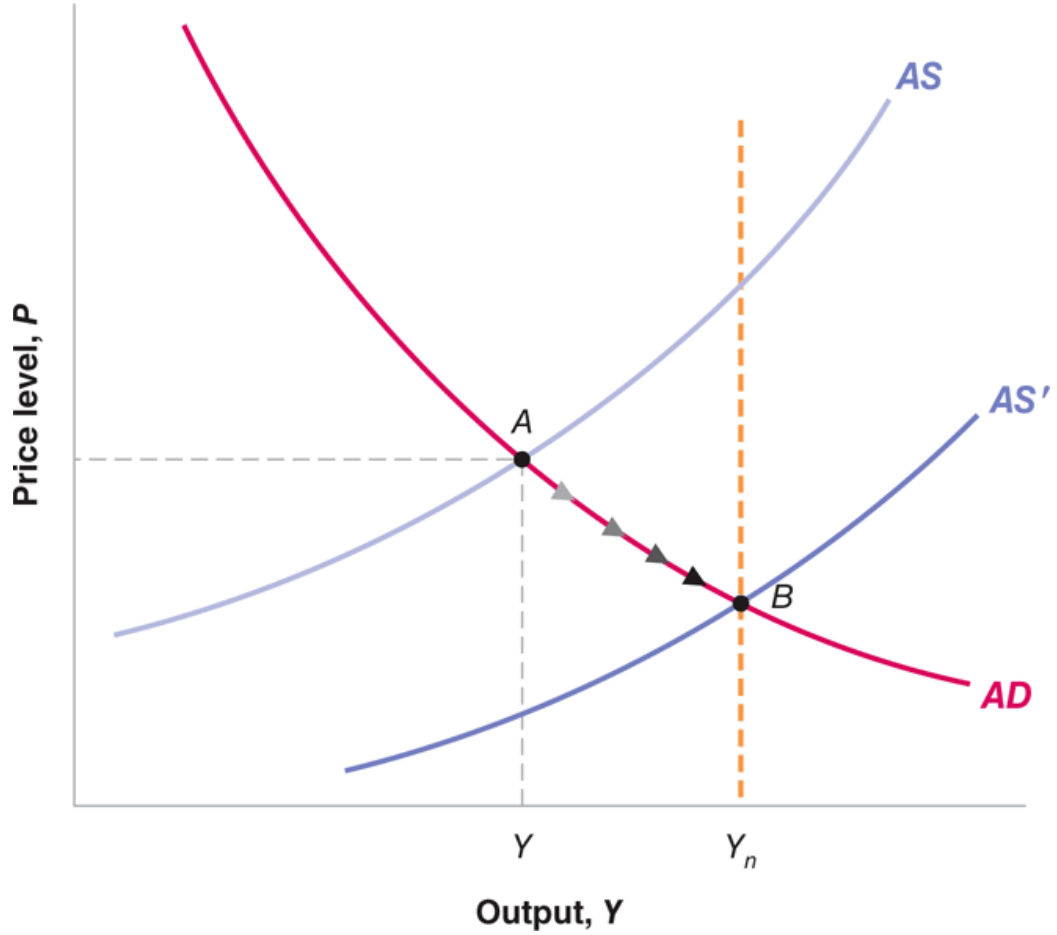
The Medium Run

Figure 21-1 Aggregate Demand and Aggregate Supply in an Open Economy under Fixed Exchange Rates



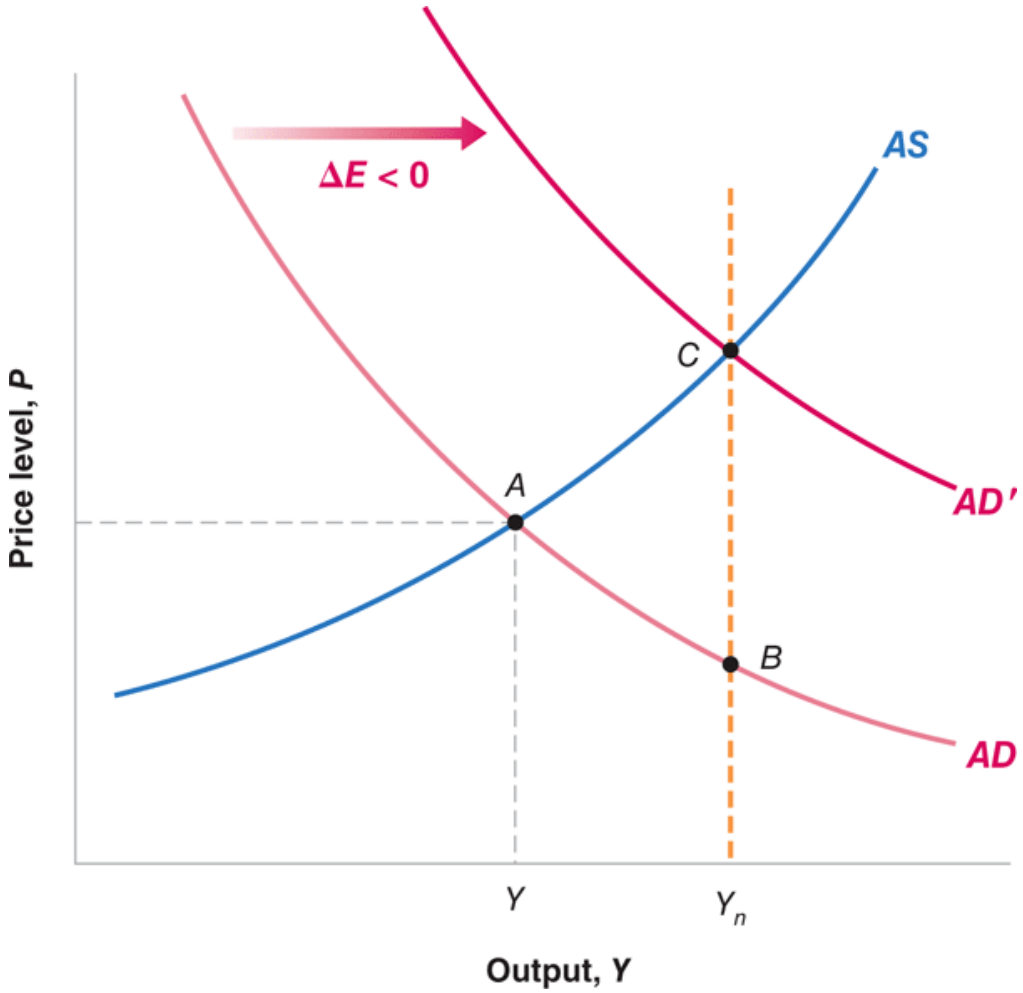
The Medium Run

Figure 21-2 Adjustment under Fixed Exchange Rates

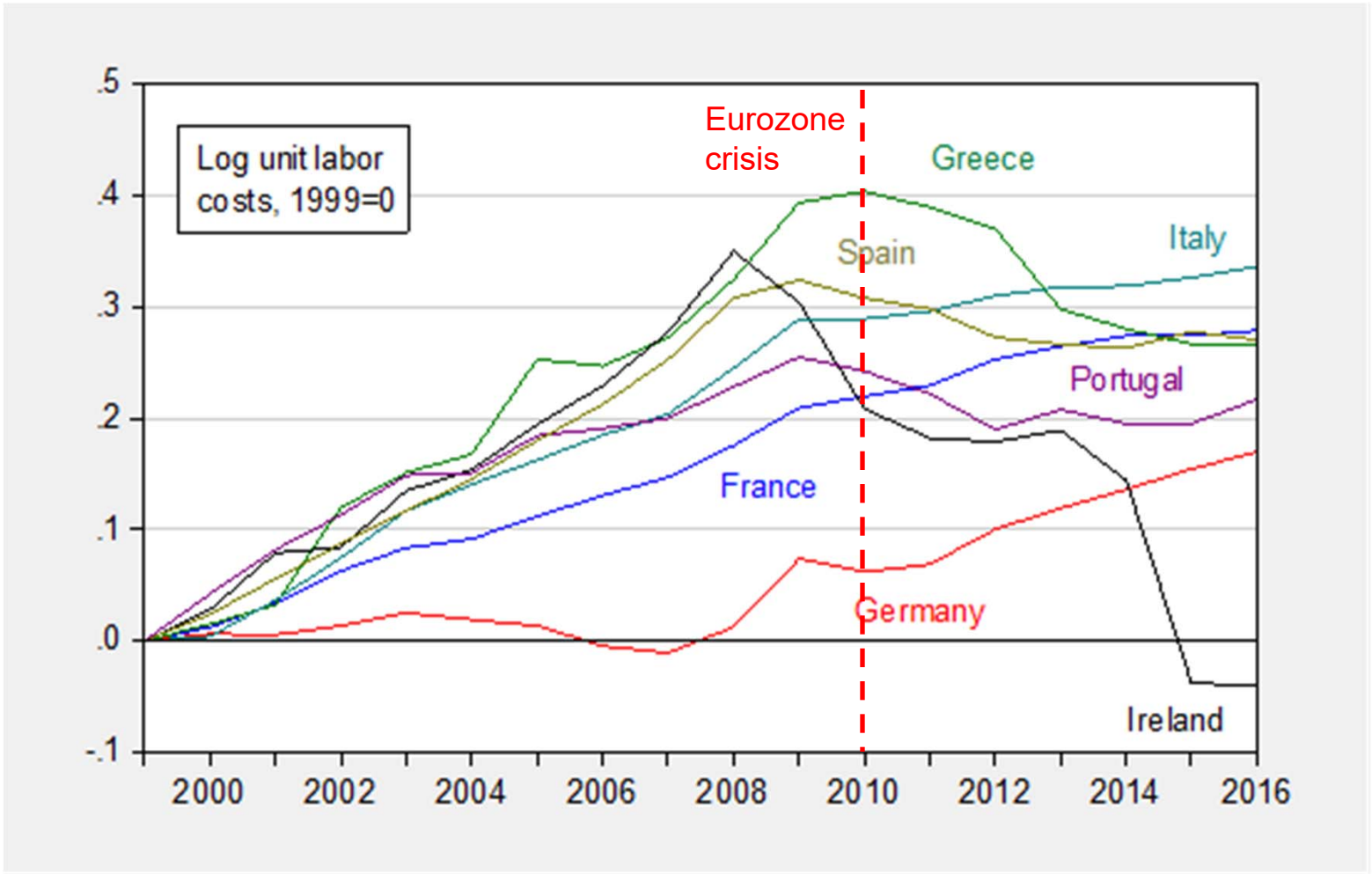


The Medium Run

Figure 21-3 Adjustment with a Devaluation



Hard Fix/Currency Union



Hard Fix/Currency Union