



# The National Income and Product Accounts (NIPA)

© 2020 Gary R. Evans. This slide set by Gary R. Evans is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



Data source for all slides are from the *Bureau of Economic Analysis* unless otherwise indicated. See <http://www.bea.gov> for data sources.

## What I intend to show ...

1. This is a consumption-driven economy
2. We import a lot more than we export
3. Economic growth has been robust in my lifetime, about 3.5%
  - ... but slower in the last few years (2008-2018).
4. The bulk of national income is in wages and salaries, but those are stagnant.
5. We have become much more of a service (financial, health, legal, education, insurance, etc.) economy and less of a manufacturing and agricultural economy (in terms of value produced) and that trend is not reversing.
6. We don't save much (at the personal level).

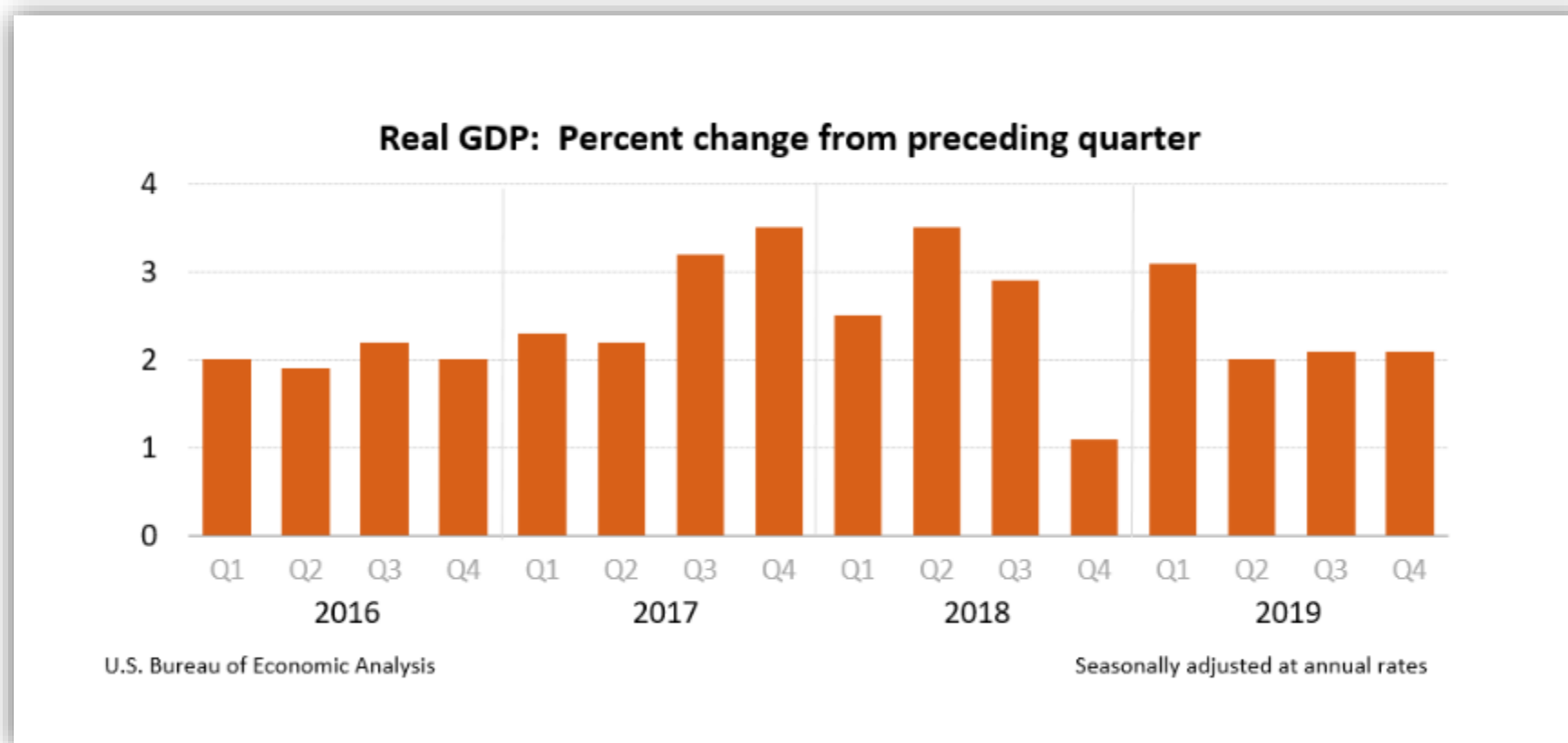
**Table 1.1.5. Gross Domestic Product**

[Billions of dollars]

Bureau of Economic Analysis

Line		2005	2005 % tot	2013	2014	2015	2016	2017	2018	2019	% growth 2019	2019 % tot
1	<b>Gross domestic product</b>	13,093.7	<b>100.0%</b>	16,784.9	17,527.3	18,224.8	18,715.0	19,519.4	20,580.2	21,429.0	4.1	<b>100.0%</b>
2	<b>Personal consumption expenditures</b>	8,794.1	<b>67.2%</b>	11,317.2	11,822.8	12,284.3	12,748.5	13,312.1	13,998.7	14,563.9	4.0	<b>68.0%</b>
3	Goods	3,080.3	23.5%	3,730.0	3,863.0	3,920.3	3,995.9	4,165.0	4,364.8	4,508.6	3.3	21.0%
4	Durable goods	1,127.2	8.6%	1,189.4	1,242.1	1,305.9	1,352.6	1,412.6	1,475.6	1,527.0	3.5	7.1%
5	Nondurable goods	1,953.1	14.9%	2,540.6	2,620.9	2,614.4	2,643.3	2,752.5	2,889.2	2,981.6	3.2	13.9%
6	Services	5,713.8	43.6%	7,587.2	7,959.8	8,363.9	8,752.6	9,147.0	9,633.9	10,055.2	4.4	46.9%
7	<b>Gross private domestic investment</b>	2,527.1	<b>19.3%</b>	2,826.0	3,044.2	3,223.1	3,178.7	3,370.7	3,628.3	3,742.8	3.2	<b>17.5%</b>
8	Fixed investment	2,467.5	18.8%	2,721.5	2,960.2	3,091.2	3,151.6	3,340.5	3,573.6	3,676.1	2.9	17.2%
9	Nonresidential	1,611.5	12.3%	2,211.5	2,400.1	2,457.4	2,453.1	2,584.7	2,786.9	2,878.7	3.3	13.4%
10	Structures	345.6	2.6%	492.5	577.6	572.6	545.8	586.8	633.2	625.8	-1.2	2.9%
11	Equipment	790.7	6.0%	1,027.0	1,091.9	1,121.5	1,093.6	1,143.7	1,222.6	1,240.9	1.5	5.8%
12	Intellectual property products	475.1	3.6%	691.9	730.5	763.3	813.8	854.2	931.1	1,012.0	8.7	4.7%
13	Residential	856.1	6.5%	510.0	560.2	633.8	698.5	755.7	786.7	797.4	1.4	3.7%
14	Change in private inventories	59.6	0.5%	104.5	84.0	131.9	27.1	30.2	54.7	66.8	22.1	0.3%
15	<b>Net exports of goods and services</b>	(721.2)	<b>-5.5%</b>	-490.8	-507.7	-519.8	-518.8	-575.3	-638.2	-632.0	-1.0	<b>-2.9%</b>
16	Exports	1,308.9	10.0%	2,273.4	2,371.7	2,266.8	2,220.6	2,356.7	2,510.3	2,503.8	-0.3	11.7%
17	Goods	926.6	7.1%	1,559.2	1,615.0	1,494.6	1,444.0	1,538.4	1,661.3	1,643.8	-1.1	7.7%
18	Services	382.3	2.9%	714.2	756.7	772.2	776.6	818.4	848.9	859.9	1.3	4.0%
19	Imports	2,030.1	15.5%	2,764.2	2,879.4	2,786.6	2,739.4	2,932.1	3,148.5	3,135.7	-0.4	14.6%
20	Goods	1,719.4	13.1%	2,296.4	2,391.6	2,288.1	2,221.1	2,379.8	2,570.6	2,529.9	-1.6	11.8%
21	Services	310.7	2.4%	467.8	487.8	498.6	518.3	552.3	577.9	605.8	4.8	2.8%
22	<b>Government purchases and gross investment</b>	2,493.7	<b>19.0%</b>	3,132.4	3,168.0	3,237.3	3,306.7	3,412.0	3,591.5	3,754.3	4.5	<b>17.5%</b>
23	Federal	946.3	7.2%	1,226.6	1,215.0	1,221.5	1,234.1	1,269.3	1,347.3	1,423.4	5.6	6.6%
24	National defense	608.3	4.6%	764.2	743.4	730.1	728.4	746.2	793.6	846.6	6.7	4.0%
25	Nondefense	338.1	2.6%	462.4	471.6	491.4	505.7	523.1	553.7	576.8	4.2	2.7%
26	State and local	1,547.4	11.8%	1,905.8	1,953.0	2,015.7	2,072.6	2,142.7	2,244.2	2,330.8	3.9	10.9%

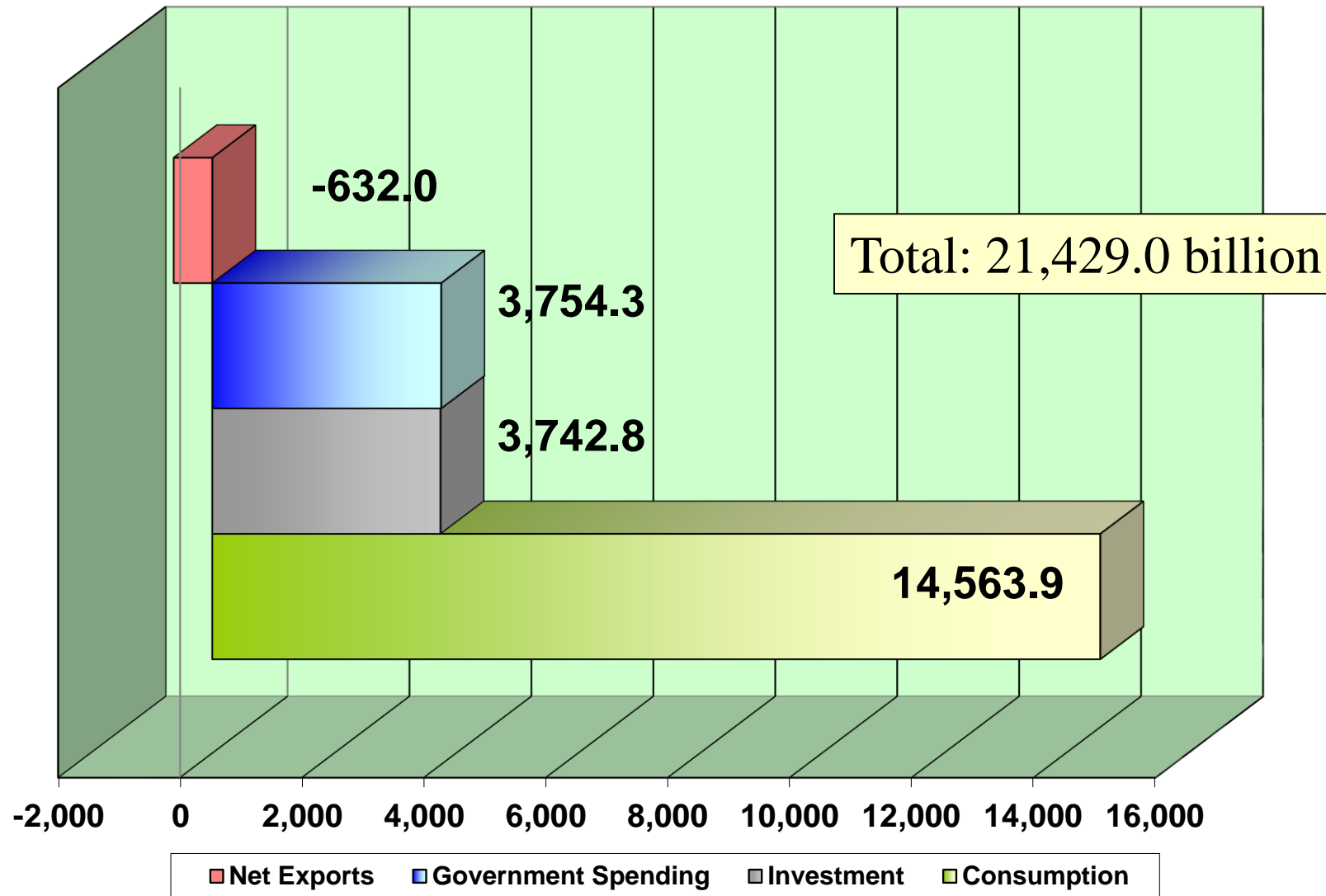
The “real” (inflation-adjusted) GDP growth rate from today’s release



RGDP increased at an annual rate of 2.1% in the fourth quarter of 2019

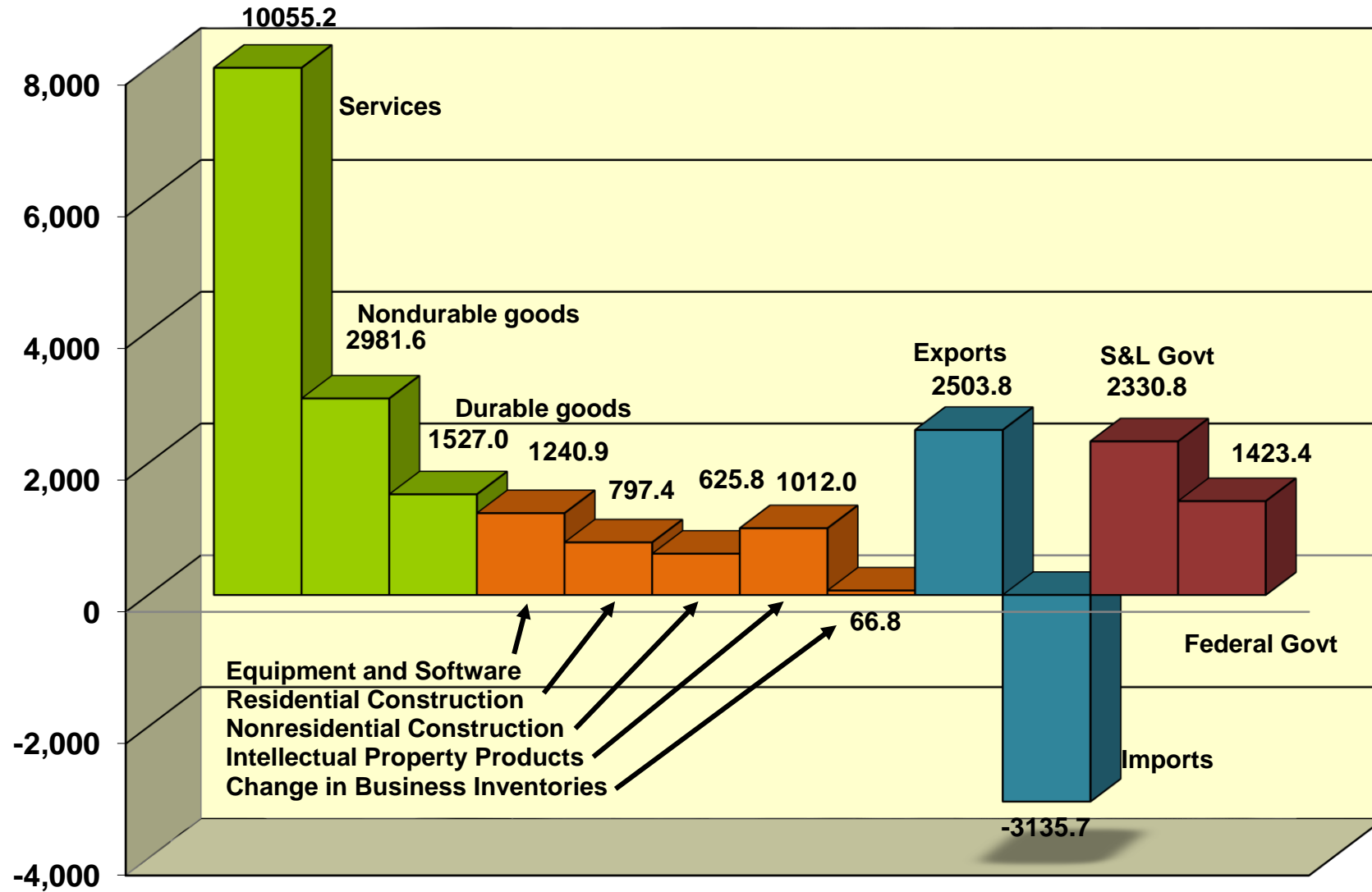
# Major Components of GDP: 2019

(billions \$, annualized data)



# NIPA Accounts: 2019

## GDP \$21.4290 trillion



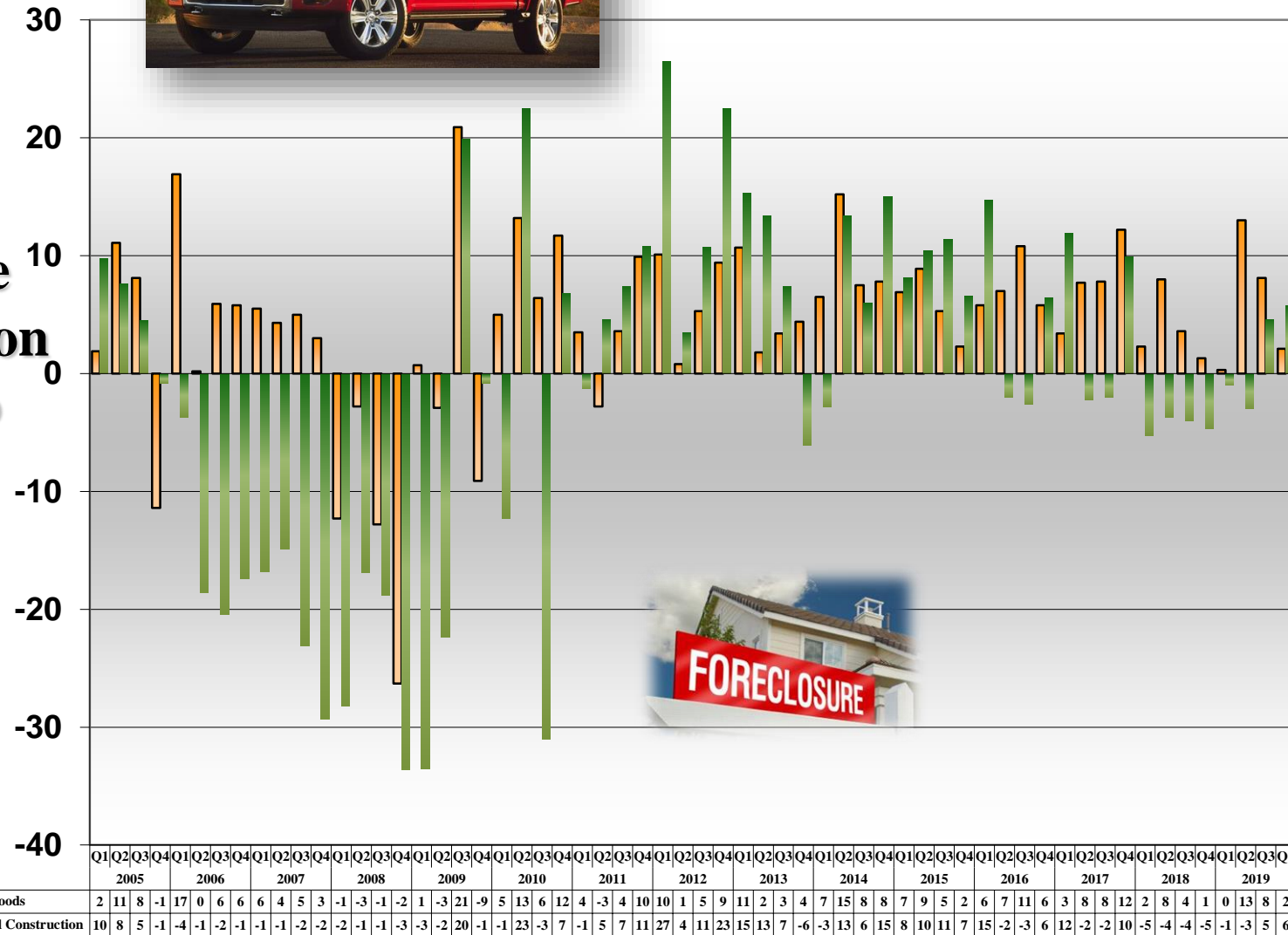
# These NIPA categories

- **Real GDP** adjusts monetary GDP by removing inflation (the data are deflated by statistics called the **chain-type price indexes**).
- **Services** include financial, health, recreational, transportation, housing, and education.
- **Consumer durables** are "big ticket" goods like autos and furniture, often purchased with credit.
- **Residential investment** reflect the value of new home construction, so this spending is not included in consumption.
- **Change in business inventories** are small, may be positive or negative, and are sometimes early indicators of recession when they grow, but deep in a recession can turn strongly negative.
- **Government** spending in both categories does *not* include **transfer payments** like Social Security.



The two primary problems areas in the last recession (and key to recovery):

Green is residential construction.



Data shown are annualized quarterly growth rates of durable goods and residential construction, 2005-I to 2018-III



## The Statistical Difference Between GDP and National Income

**DWBH!**

(and don't worry, you're not required to know this)

Gross Domestic Product

plus Receipts of overseas income

less Payments to overseas income

equals Gross National Product

less Consumption of Fixed Capital

equals Net National Product

less Indirect Business Taxes and Tax Liability

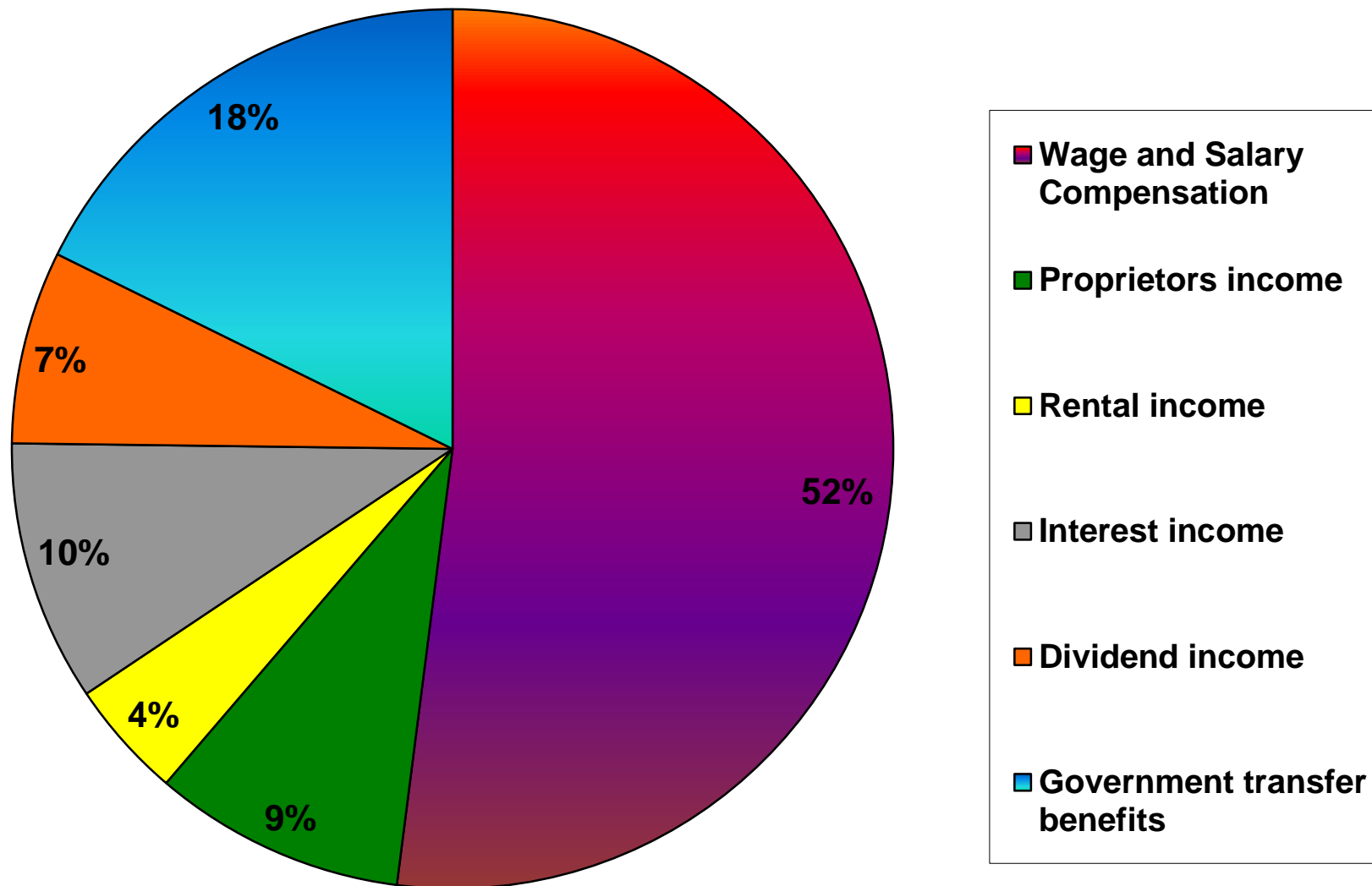
less Business Transfer Payments

less Statistical Discrepancy

plus Subsidies less current surplus of government enterprises

equals National Income

# National Income and its Disposition: 2019



# Personal Income Distribution 1981 vs. 2019

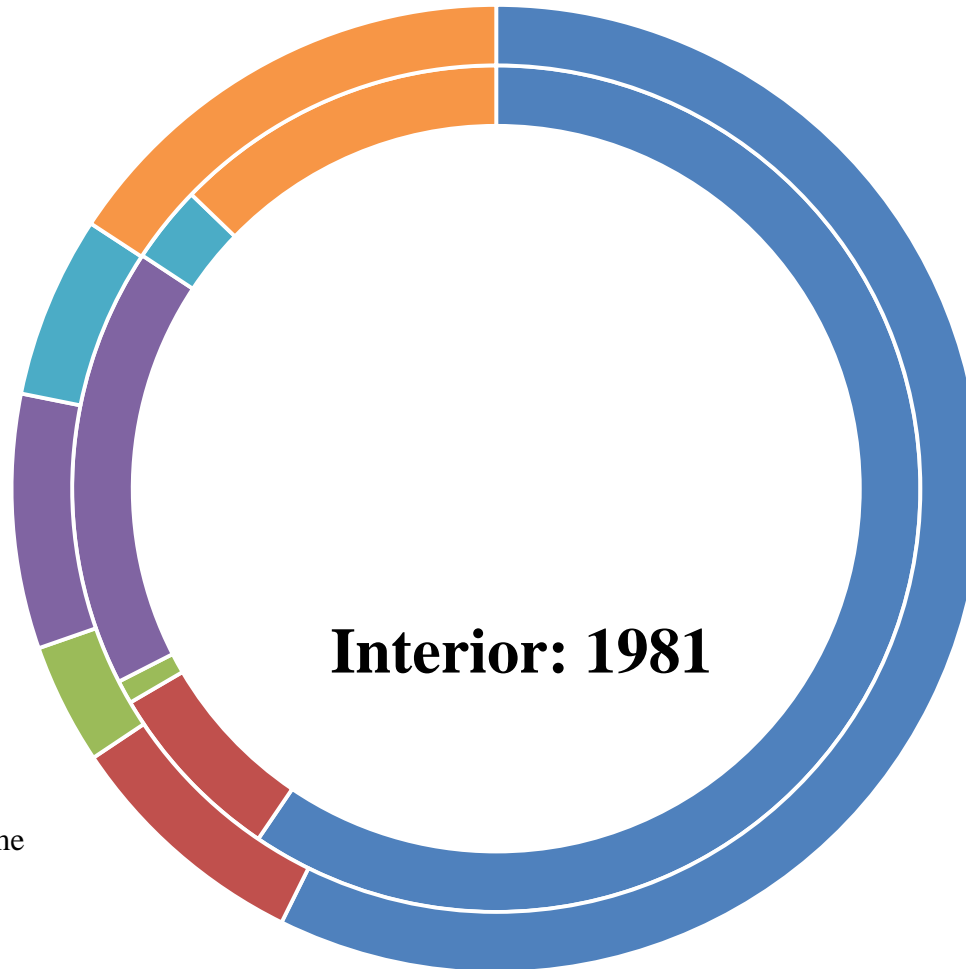


Table 2.1 Personal Income and its Disposition

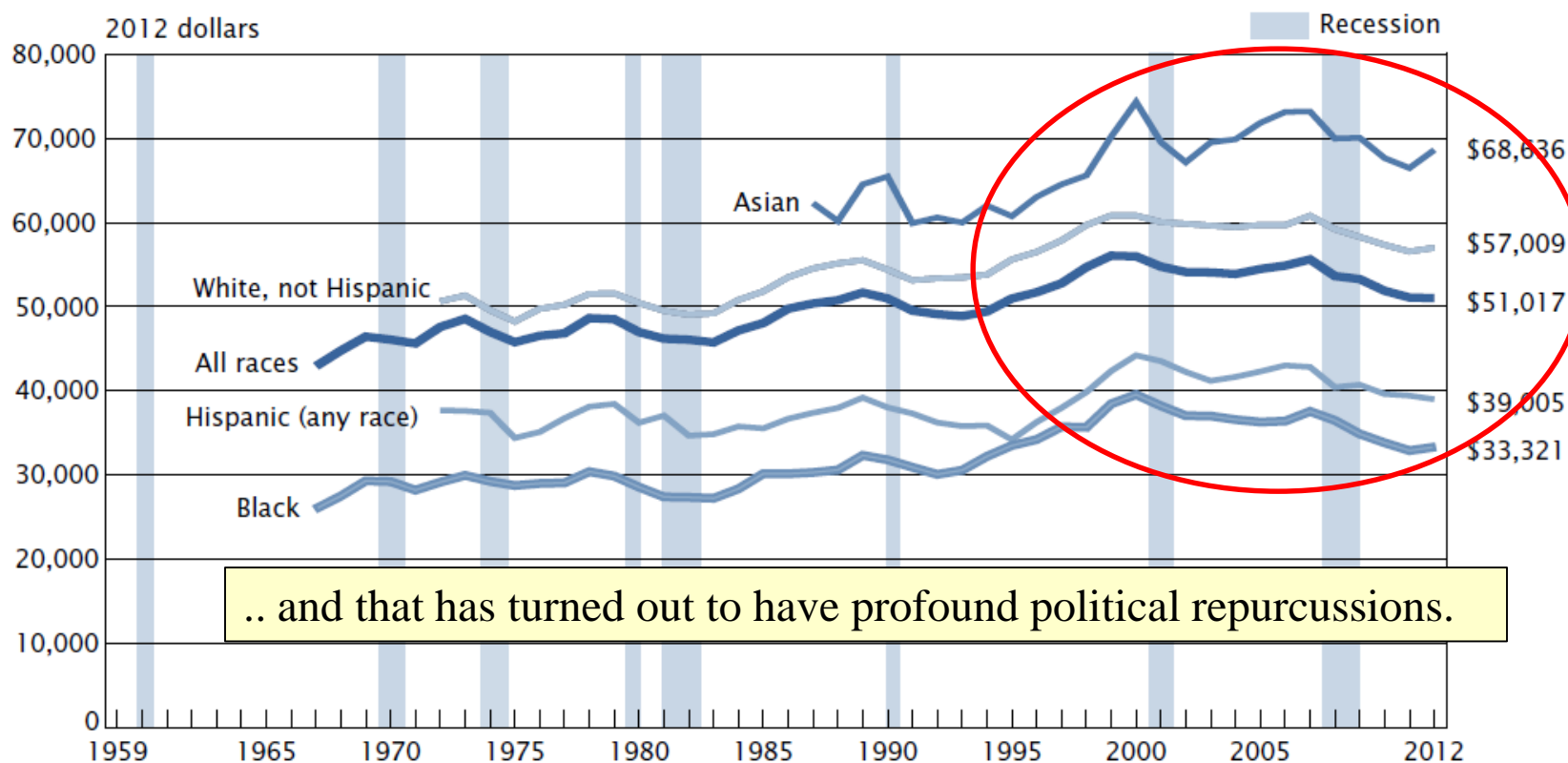
- |                                |                                |
|--------------------------------|--------------------------------|
| ■ Wage and Salary Compensation | ■ Proprietors income           |
| ■ Rental income                | ■ Interest income              |
| ■ Dividend income              | ■ Government transfer benefits |

Here you can see a decline in wage and salary compensation (although not a lot) with a growth in the importance of government transfer payments (like Social Security). Note the big differences in the wealth categories.

# But income is stagnating !!!

Figure 1.

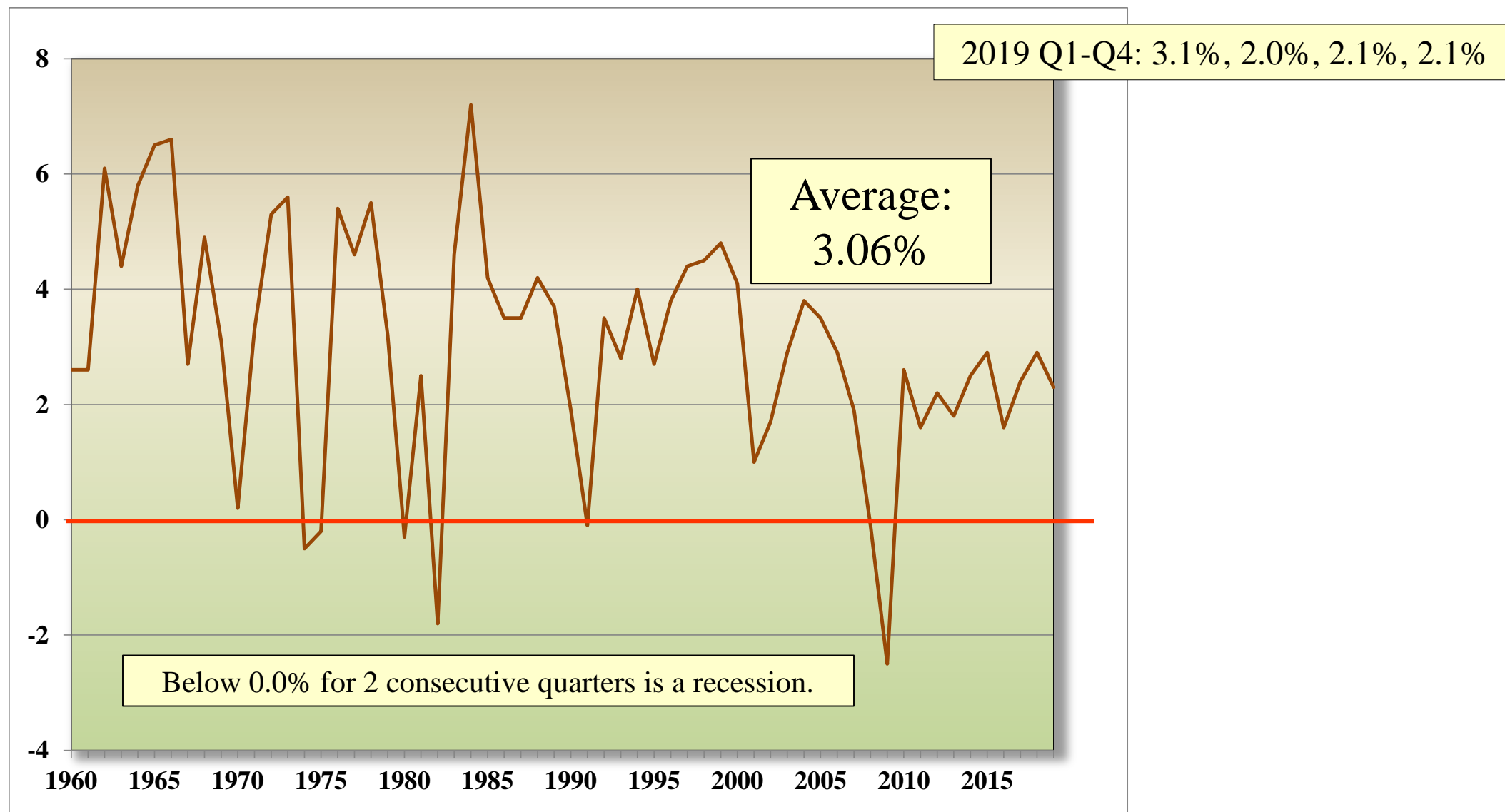
## Real Median Household Income by Race and Hispanic Origin: 1967 to 2012



Note: Median household income data are not available prior to 1967. Implementation of 2010 Census population controls began in 2010. For information on recessions, see Appendix A.

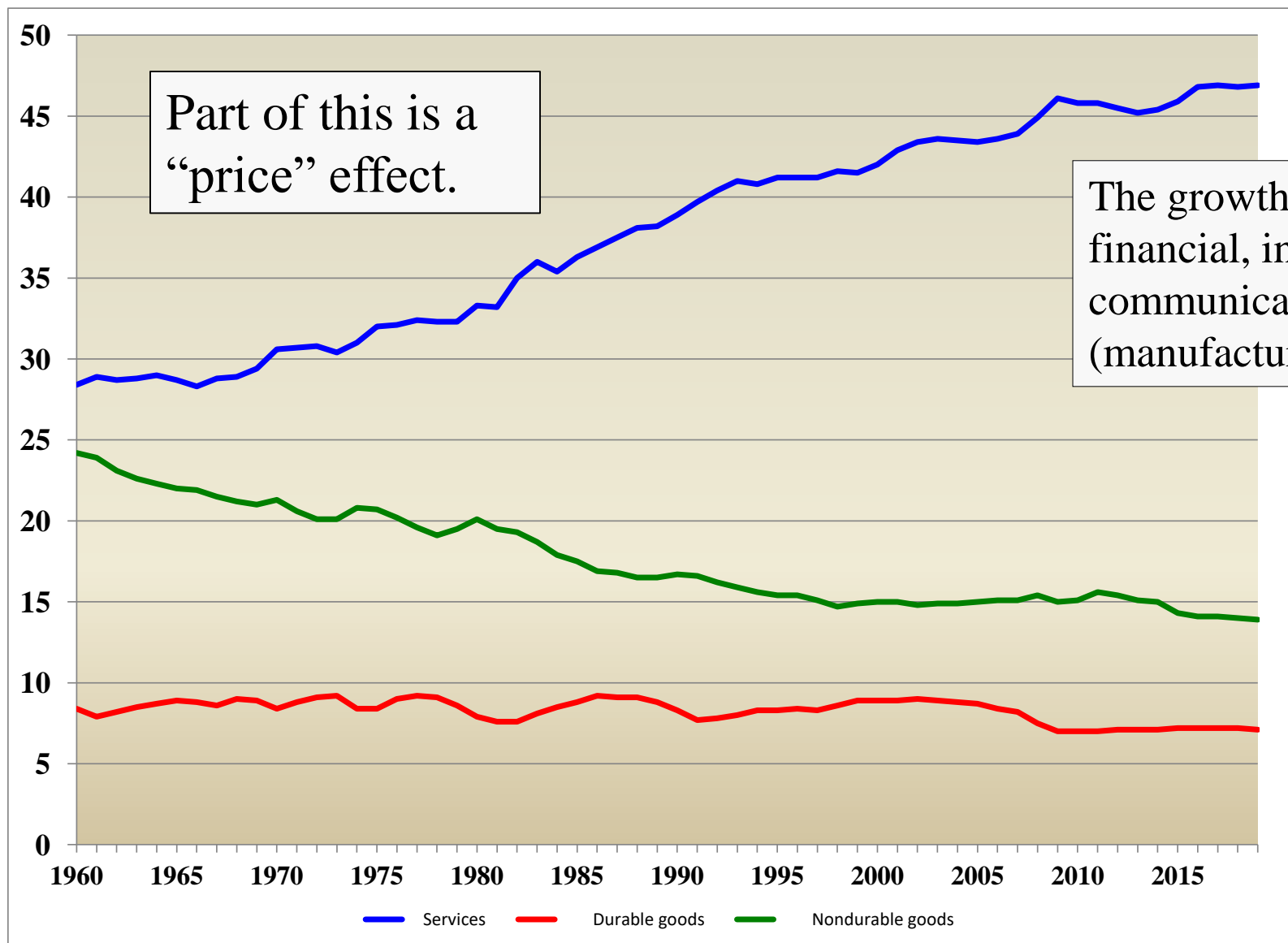
Source: U.S. Census Bureau, Current Population Survey, 1968 to 2013 Annual Social and Economic Supplements.

# Real GDP Growth: 1960-2019 ann.

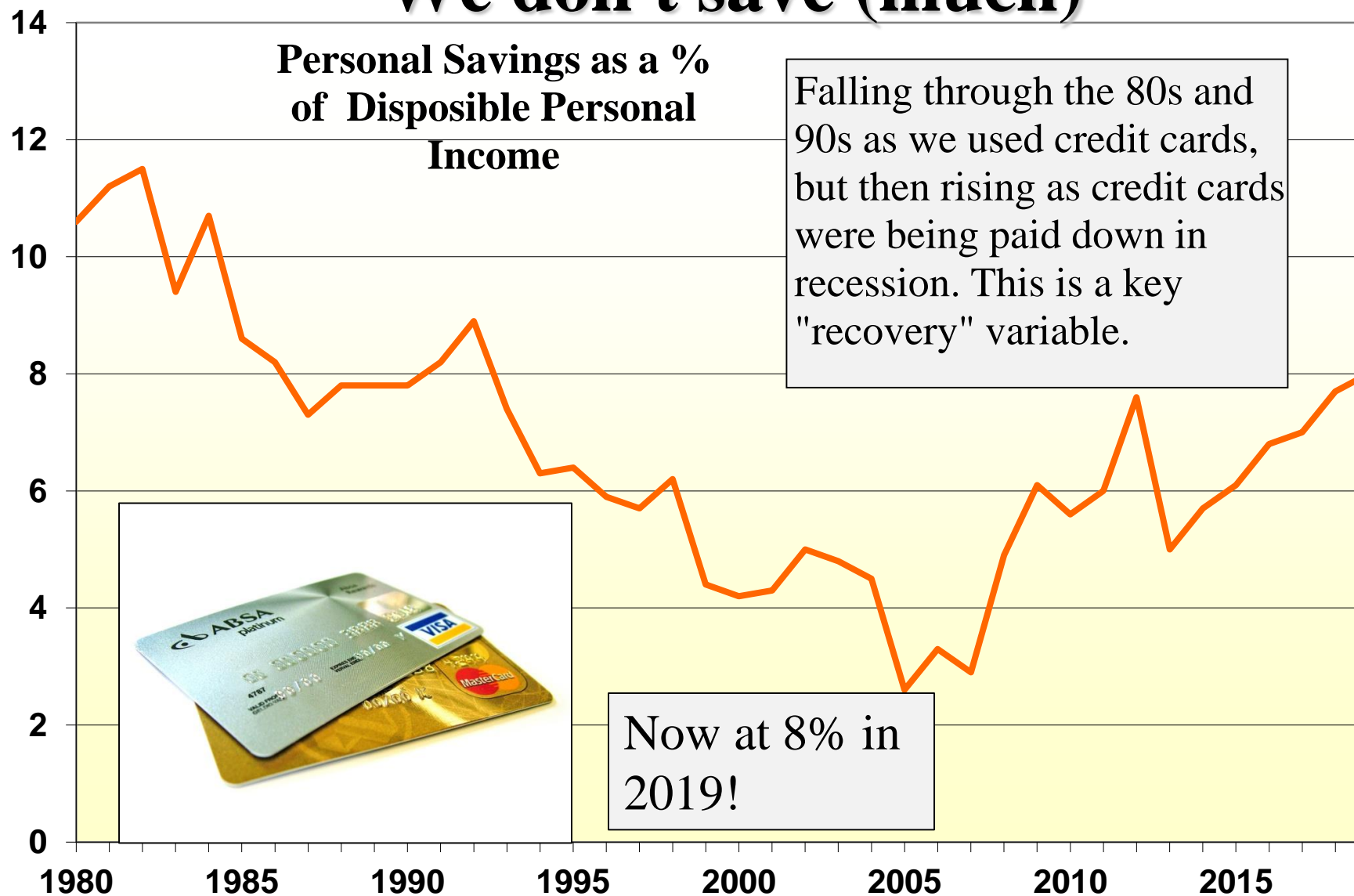


Source: Bureau of Economic Analysis, National Income and Product Accounts, Table 1.1.1

# Significant Trends in Consumption



# We don't save (much)



# About savings

- **Personal savings** is equal to gross personal savings less new consumer debt (which explains how it can be negative).
- Usually a "decline" in the savings rate represents an increase in the use of debt rather than a decision to reduce savings.
- Personal savings quarterly turned negative for the first time in 2005.
- We have high levels of gross personal savings in the form of **institutional savings** 401Ks, IRAs, other retirement vehicles, and fairly high **discretionary savings** by upper-income individuals.
- We have high levels of business savings in the U.S. and very high levels of "global savings" overseas.



## Our conclusions ...

1. This is a consumption-driven economy
2. We import a lot more than we export
3. Economic growth has been robust in my lifetime, about 3.5%
  - ... fairly strong in 2018 .. no trouble in the data, but ...
4. The bulk of national income is in wages and salaries, and these are somewhat stagnant.
5. We have become much more of a service (financial, health, legal, education, insurance, etc.) economy and less of a manufacturing and agricultural economy (in terms of value produced) and that trend is not reversing.
6. We don't save much (at the personal level).

## Additional information ...

*“A Guide to the National Income and Product Accounts of the United States,”* Bureau of Economic Analysis, Sept. 2006. Detailed description of NIPA accounts and appendix about how chain-price indexes are constructed.

<http://www.bea.gov/national/pdf/nipaguid.pdf>

*“Measuring the Economy: A Primer on GDP and the National Income Accounts,”* Bureau of Economic Analysis, Sept. 2007. Has more about how to obtain the data. [http://www.bea.gov/national/pdf/nipa\\_primer.pdf](http://www.bea.gov/national/pdf/nipa_primer.pdf)

*“Taking the Pulse of the Economy: Measuring GDP,”* Landefeld, Seskin, & Fraumeni, Journal of Economic Perspectives, Spring 2008. Detailed description of methods and NIPA classifications. Available on the BEA site at [http://www.bea.gov/about/pdf/jep\\_spring2008.pdf](http://www.bea.gov/about/pdf/jep_spring2008.pdf)

**Table 1.1.5. Gross Domestic Product**

[Billions of dollars]

Bureau of Economic Analysis

Line		2005	2005 % tot	2013	2014	2015	2016	2017	2018	2019	% growth 2019	2019 % tot
1	<b>Gross domestic product</b>	13,093.7	<b>100.0%</b>	16,784.9	17,527.3	18,224.8	18,715.0	19,519.4	20,580.2	21,429.0	4.1	<b>100.0%</b>
2	<b>Personal consumption expenditures</b>	8,794.1	<b>67.2%</b>	11,317.2	11,822.8	12,284.3	12,748.5	13,312.1	13,998.7	14,563.9	4.0	<b>68.0%</b>
3	Goods	3,080.3	23.5%	3,730.0	3,863.0	3,920.3	3,995.9	4,165.0	4,364.8	4,508.6	3.3	21.0%
4	Durable goods	1,127.2	8.6%	1,189.4	1,242.1	1,305.9	1,352.6	1,412.6	1,475.6	1,527.0	3.5	7.1%
5	Nondurable goods	1,953.1	14.9%	2,540.6	2,620.9	2,614.4	2,643.3	2,752.5	2,889.2	2,981.6	3.2	13.9%
6	Services	5,713.8	43.6%	7,587.2	7,959.8	8,363.9	8,752.6	9,147.0	9,633.9	10,055.2	4.4	46.9%
7	<b>Gross private domestic investment</b>	2,527.1	<b>19.3%</b>	2,826.0	3,044.2	3,223.1	3,178.7	3,370.7	3,628.3	3,742.8	3.2	<b>17.5%</b>
8	Fixed investment	2,467.5	18.8%	2,721.5	2,960.2	3,091.2	3,151.6	3,340.5	3,573.6	3,676.1	2.9	17.2%
9	Nonresidential	1,611.5	12.3%	2,211.5	2,400.1	2,457.4	2,453.1	2,584.7	2,786.9	2,878.7	3.3	13.4%
10	Structures	345.6	2.6%	492.5	577.6	572.6	545.8	586.8	633.2	625.8	-1.2	2.9%
11	Equipment	790.7	6.0%	1,027.0	1,091.9	1,121.5	1,093.6	1,143.7	1,222.6	1,240.9	1.5	5.8%
12	Intellectual property products	475.1	3.6%	691.9	730.5	763.3	813.8	854.2	931.1	1,012.0	8.7	4.7%
13	Residential	856.1	6.5%	510.0	560.2	633.8	698.5	755.7	786.7	797.4	1.4	3.7%
14	Change in private inventories	59.6	0.5%	104.5	84.0	131.9	27.1	30.2	54.7	66.8	22.1	0.3%
15	<b>Net exports of goods and services</b>	(721.2)	<b>-5.5%</b>	-490.8	-507.7	-519.8	-518.8	-575.3	-638.2	-632.0	-1.0	<b>-2.9%</b>
16	Exports	1,308.9	10.0%	2,273.4	2,371.7	2,266.8	2,220.6	2,356.7	2,510.3	2,503.8	-0.3	11.7%
17	Goods	926.6	7.1%	1,559.2	1,615.0	1,494.6	1,444.0	1,538.4	1,661.3	1,643.8	-1.1	7.7%
18	Services	382.3	2.9%	714.2	756.7	772.2	776.6	818.4	848.9	859.9	1.3	4.0%
19	Imports	2,030.1	15.5%	2,764.2	2,879.4	2,786.6	2,739.4	2,932.1	3,148.5	3,135.7	-0.4	14.6%
20	Goods	1,719.4	13.1%	2,296.4	2,391.6	2,288.1	2,221.1	2,379.8	2,570.6	2,529.9	-1.6	11.8%
21	Services	310.7	2.4%	467.8	487.8	498.6	518.3	552.3	577.9	605.8	4.8	2.8%
22	<b>Government purchases and gross investment</b>	2,493.7	<b>19.0%</b>	3,132.4	3,168.0	3,237.3	3,306.7	3,412.0	3,591.5	3,754.3	4.5	<b>17.5%</b>
23	Federal	946.3	7.2%	1,226.6	1,215.0	1,221.5	1,234.1	1,269.3	1,347.3	1,423.4	5.6	6.6%
24	National defense	608.3	4.6%	764.2	743.4	730.1	728.4	746.2	793.6	846.6	6.7	4.0%
25	Nondefense	338.1	2.6%	462.4	471.6	491.4	505.7	523.1	553.7	576.8	4.2	2.7%
26	State and local	1,547.4	11.8%	1,905.8	1,953.0	2,015.7	2,072.6	2,142.7	2,244.2	2,330.8	3.9	10.9%