America's Innovation and Jobs

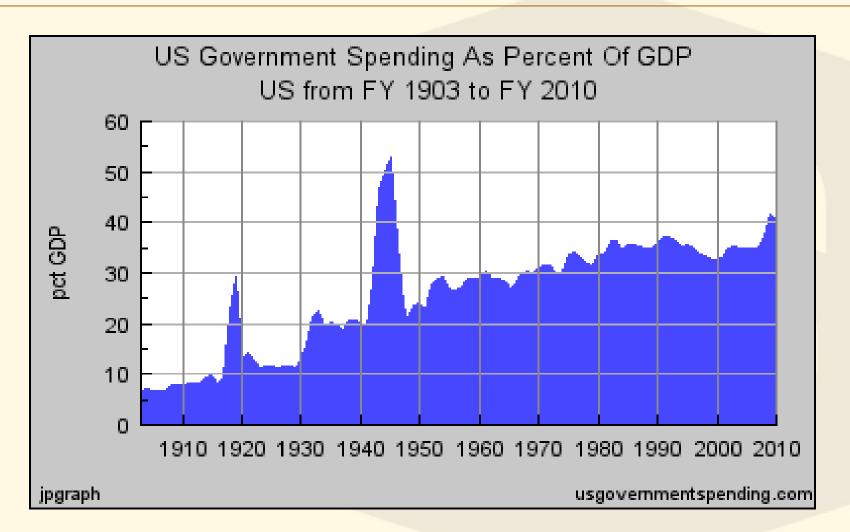
September 2011







The Size of the US Total Government is Getting out of Control

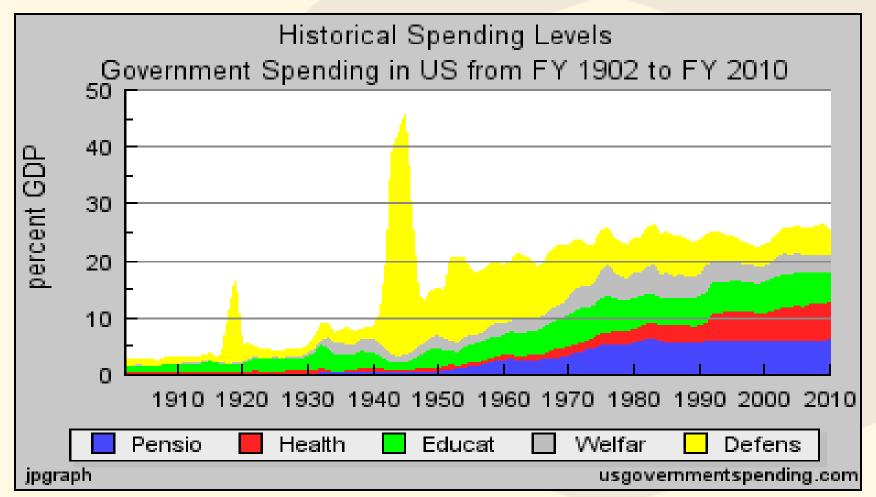


Note: US Total Government spending includes Federal, State and Local governments



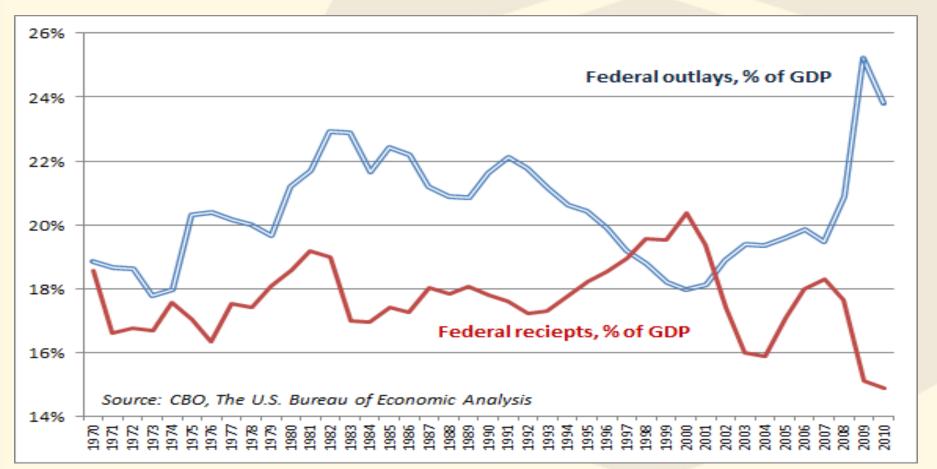
Composition of Government Expenditures

Over the last 30 years, large increases on Health care expenditures (as a % of GDP) offset reductions in other categories and led to overall increases in expenditures.



FOUNDATION Federal Government Spending Accelerated in the Last Two Years.

Although fiscal revenues have declined, the major caused in the large fiscal deficit (the increased gap between outlays and receipts) was an increase of spending above the trend.





Government Expenditures and Public Debt

Country	Government Spending %GDP	Public Debt % GDP		
Zimbabwe	97.8	241		
Cuba	78.1	96		
France	52.8	84.2 100.2		
Belgium	50.0			
Ukraine	47.3	39.5		
Greece	46.8	130.2		
Germany	43.7	74.3		
United States	38.9	92.7		
Japan	37.1	225.8		
Australia	34.3	21.9		
Russia	34.1	11.1		
China	20.8	19.1		
Hong Kong	18.6	0.7		

- Except mainly for Europe, the US has one of the world's highest ratios of Government Spending to GDP.
- It also has one of the highest ratios of public debt to GDP.
- At 93% of GDP, public debt is not sustainable and may increase exponentially, unless the economy were to growth at a high pace.



Effects of Fiscal Deficits and Debt on Economic Growth

	GDP			
	real growth, %			
	2010	2011f		
US	2.9	1.8		
Japan	4.0	-0.5		
Germany	3.5	2.8		
Italy	1.3	1.0		
Spain	-0.1	0.8		
Portugal	1.4	-1.5		
Ireland	-1.0	0.5		
Greece	-4.5	-3.0		
Russia	4.0	3.7		
Poland	3.8	4.0		
Romania	-1.3	1.6		
Kazakhstan	7.0	6.4		
India	10.3	9.0		
China	10.4	7.5		
Brazil	7.5	3.4		
Argentina	9.2	7.0		
Mexico	5.5	10.0		

- The combination of high fiscal deficits and public debt in Europe have led to low rates of GDP growth averaging 1.8% in 2010 and 1.7% in 2011 for Europe.
- The USA is approaching European countries in government size and debt and also growing at a low rate.
- Asia and most Latin American emerging countries have managed to maintain smaller governments, lower levels of public debt, and have been able to maintain higher rates of economic growth averaging 7.4% in 2010 and 5.8% in 2011.



CBO Presentation by Director D.W. Elmendorf

Confronting the Nation's Fiscal Policy Challenges Conclusion

Given the aging of the population and rising costs for health care, attaining a sustainable federal budget will require the United States to deviate from the policies of the past 40 years in at least one of the following ways:

- Raise federal revenues significantly above their average share of GDP;
- Make major changes to the sorts of benefits provided for Americans when they become older; or
- Substantially reduce the role of the rest of the federal government relative to the size of the economy.

September 13, 2011



Public Policy Prescription for the new US Government

- The priority of US policy should be to reduce the size of the federal government.
- For this, the new government should undertake a broad review of all programs and functions currently performed by the federal government.
- The purpose of this review should be to ascertain if a program should be retained, transferred to the states, privatized, or just eliminated.
- This approach was pioneered and successfully tested in many countries, including Canada, New Zealand, Australia and Poland.
- These countries found that through this approach, the fiscal budget deficit could be reduced permanently to sustainable levels.
- They found that the role of the federal government should be limited to the elaboration and monitoring of national policies. Implementation is then transferred to the states. For the US this would mean that a good portion of Medicare and Medicaid should be transferred to the states, together with their financing.
- This approach is also consistent with international experience on how to reduce fiscal deficits effectively. Only expenditure reductions resulting from elimination of ineffective programs are sustainable. Tax increases are not, particularly if they are already high, since they discourage investments and retard growth.





Role of the Federal and State Governments in Creating Jobs

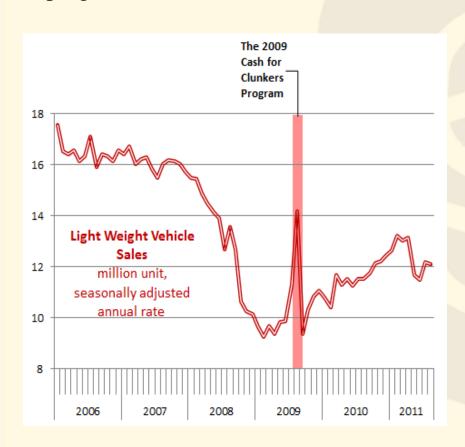
- The government is not effective in creating jobs
- Additional public sector jobs cost more money to taxpayers and are rarely effective
- Additional private sector jobs can only be created by private sector, but government can play a useful role in facilitating that by improving business environment and supporting innovation and new technologies
- These supply side measures are the only ones that create permanent jobs
- Several past government programs tried to create jobs by boosting private demand, but many of them represented temporarily shifts in fiscal policy, such as temporary cuts in taxes, or provision of temporary jobs in infrastructure
- These temporarily increases of government spending usually failed to trigger a sustainable shift in consumer behavior because of the expectations of the policy reversals in the future. As a result few new jobs were created
- The proposed America Jobs Act follows the same pattern.
- Many of these demand side measures failed
- Many studies have shown that consumers make spending plans based on permanent "average" income (Milton Friedman), rather than year-to-year changes in income.
- Furthermore, given supply rigidities (lack of qualified labor, changes in product composition required by buyers, oversupply of houses, etc.) if there were any increases in consumption, they would be for imports

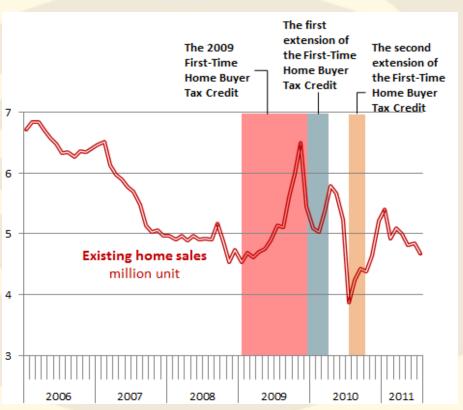




Evidence of Failure of Demand Side Policies

- There is ample evidence that these demand side programs failed.
- For example, both the cash-for-clunkers and the first-time home buyer tax credits programs failed to reverse the downtrend of car and home sales (see charts below).







Why we need to Focus on supply, rather than demand measures.

- The main reasons why we need supply side measures are **globalization and outsourcing**, which were less important in the 1980's when we had the last severe recession.
- Due to globalization, during the last decades, the US has lost many manufacturing jobs and, more recently, construction-related jobs. These jobs will not return.
- With reduced international competitiveness, of the roughly 27 million jobs created during 1990 and 2008, 98 percent were in the non-tradable sector of the economy, the sector that produces goods and services such as housing that cannot be exported and must be consumed domestically.
- On the other hand, employment barely grew in the tradable sector of the U.S. economy, the sector that produces goods and services that can be consumed anywhere, such as manufactured products, engineering, and consulting services.
- With the collapse of non-tradable jobs which are unlikely to return the US will need to come with new sources of growth (new areas in which we could be internationally competitive).
- This could only come with much greater efforts on innovation and new technologies.





Manufacturing Jobs Trends

- In 1960, manufacturing accounted for 25 percent of the economy
- By 1990 its share of GDP had declined to 17 percent
- By 2000, it accounted for just 14 percent of GDP
- Today, for the first time since the Industrial Revolution, fewer than 10 percent of American workers are employed in manufacturing
- U.S. has lost over 7 million manufacturing jobs just since 1980 (a loss of about 6% of today's labor force)



US Loss of Competitiveness

US Rank in Global Competitiveness Index

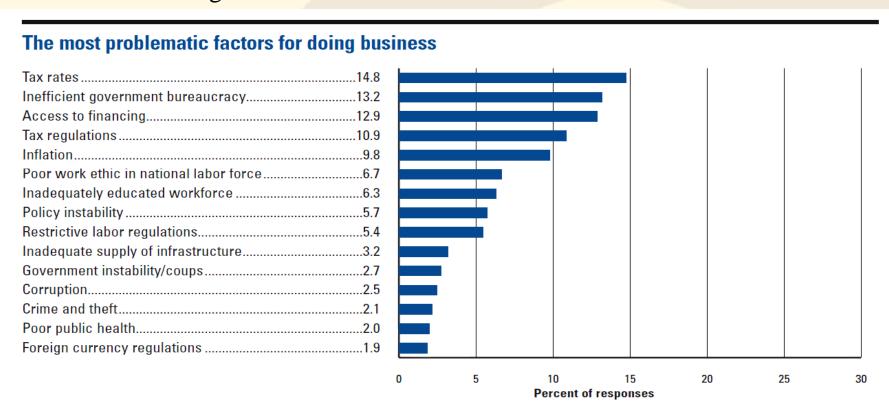
es kunk in Global competitive	TICOS III CA
	<u>Rank</u>
(ou	it of 142 countries
Basic requirements (20.0%)	36
Institutions	39
Infrastructure	16
Macroeconomic environment	90
Health and primary education	42
Efficiency enhancers (50.0%)	3
Higher education and training	13
Goods market efficiency	24
Labor market efficiency	4
Financial market development	22
Technological readiness	
Market size	1
Innovation and sophistication factors (30.0%)	6). 6
Business sophistication	10
Innovation	
Source: World Economic Forum, The Global Competitiveness l	Report, 2011-12

- The US loss of competitiveness is shown in the most recent competitiveness ranking by the WEF.
- In basic competitiveness requirements, the US is now ranked number 36.
- Even on technological readiness
 an area where the US used to excel- it is now 20.
- Its overall competitiveness ranking is good only because of its market size. But even here it has competition from the large EU, China and India.



Problematic Factors for Doing Business in the US

Out of the four most problematic factors for doing business in the US, three of them are related to the large size of the US Government



Note: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

The Global Competitiveness Report 2011-2012 © 2011 World Economic Forum





Why has the US lost Competitiveness?

- The US used to be one of the most competitive countries in the world.
- This was due to ample availability of one of its most valuable resources: a "favorable business environment" that included: a free and competitive market, small government with few interferences in businesses, plentiful human capital, entrepreneurship, and lots of innovation promoted by good business opportunities.
- These resources enabled the US to compete in tradable and non-tradable goods.
- But these "unique" resources have now been partly "depleted" by two recent developments that have affected our competitive edge:
 - First, a large government size has led to **encroachment** on private sector activities, through increased taxes and tax regulations, over regulation of market activities by inefficient public institutions, inadequate education, etc. Excessive public debt has also crowed out financing to the private sector.
 - Second, other countries principally in Asia and LAC have moved in opposite direction: they introduced the features that used to characterize the US: fiscal discipline, smaller government size, lower taxation, business deregulation, etc.
- To regain competitiveness, the US must replenish our unique resource of a favorable business environment by reducing the size of the government and putting increased emphasis on promoting innovation and new technologies.

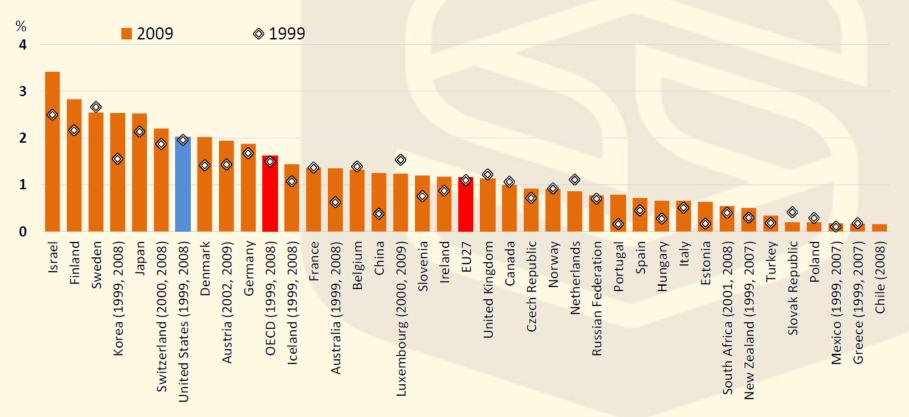


Creating Jobs through Innovation and New Technologies

The State Governments should focus on promoting innovation as the key to improve competitiveness and create permanent jobs.

Unfortunately, the US has lost its leadership in the level of R&D investments. It has been surpassed by many countries. This trend must be reversed.

Business expenditure on R&D (As a percentage of GDP)



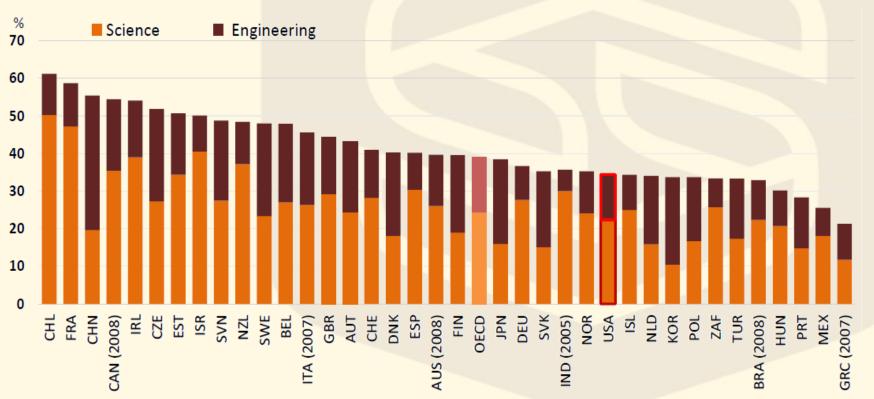


Education Role on Innovation and Technology

University Education in the US is also less focused on science and technology subjects:

Science and engineering graduates at doctorate level, 2009

As a percentage of all new degrees awarded at doctorate level





Drivers of Innovation and Technology

Several think-tanks, including The Bleyzer Foundation, have identified the main drivers that could spur a boom in innovation and technology. These drivers include the following:

a. Reducing the Cost of Doing Business in the State.

- Innovation and technology will not create jobs if the cost of doing business is high.
- New technologies could be developed; but their manufacturing may take place elsewhere.
- Therefore, the first priority should be to remove those conditions that make difficult and more costly to do businesses in the US.
- According to studies by The Bleyzer Foundation, the World Bank, the World Economic Forum and others, the main obstacles for business in the US are: high taxes, dealing with construction permits, constraints in trading across borders, inefficiency of government bureaucracy, access to financing, and tax regulations.

b. Investment in Information Technology Infrastructure:

- Innovation and technology provide benefit not only to the firms undertaking them, but have many spill-over effects that benefit the economy as a whole, including competitors
- This also means that private enterprises (which want to maximize their profits) may not by themselves invest in IT has much as may be needed by the country
- The state government therefore does have a role to play in encouraging and promoting the growth of a well-developed technology infrastructure that can facilitate innovation





c. Establish Better Links between Government, Businesses, and Universities:

- An effective innovation system must have a dynamic interaction between the government, the world of science and technology and the world of business.
- In the US, this collaboration between government, businesses and universities was quite intensive in the past.
- But it has now declined below many other countries.
- The state governments must encourage an expansion in the number of university programs with support/collaboration with businesses.

d. Investment in Education:

- Universities can also be important sources for R&D.
- But US expenditures on R&D as a share of GDP is now significantly below other countries.
- The state governments should find ways to encourage the greater private sector financing of educational facilities not only at the university level, but at all levels of education.

e. Establish Technology Parks with government infrastructure support but managed by the private sector:

- Well-designed technology parks have proven to be effective in reducing the cost of doing business for technology firms.
- State government can promote the establishment of these parks with government support of infrastructure, but with private sector management.





Appendix

Additional slides





Total Government Spending as a Percentage of GDP

The large size of European governments explain why they have major economic difficulties.

	Cuba	78.1	Ireland	42.0	Slovakia	34.8	Colombia	26.5
	Iceland	57.8	New Zealand	41.1	Australia	34.3	Malaysia	26.3
	France	52.8	Spain	41.1	Russia	34.1	Argentina	24.7
	Sweden	52.5	Brazil	41.0	Egypt	34.0	Mexico	23.7
	Denmark	51.8	Ecuador	40.8	Venezuela	34.0		23.4
	Bosnia-Herz	50.3	Croatia	40.7	Switzerland	32.0	Turkey	
	Belgium	50.0	Norway	40.2	Kuwait	31.8	Honduras	21.8
	Belarus	49.6	Estonia	39.9	Azerbaijan	31.1	Chile	21.1
	Finland	49.5			Uzbekistan	31.1	Costa Rica	20.9
	Hungary	49.2	Canada	39.7	South Korea	30.0	China	20.8
	Austria	49.0	United States		Kyrgyzstan	29.3	El Salvador	20.0
	Italy	48.8	Latvia	38.5	Morocco	29.1	Pakistan	19.3
	Ukraine	47.3	Romania	37.6	Saudi Arabia	29.1		
	Uted Kingd	47.3	Lithuania	37.4	Vietnam	28.8	Indonesia	19.2
	Greece	46.8	Bulgaria	37.3	Iran	28.3	Hong Kong	18.6
	Portugal	46.1	Luxembourg	37.2	Uruguay	28.0	Taiwan	18.5
	Netherlands	45.9	Japan	37.1	Tajikistan	27.5	Thailand	17.7
	Serbia	44.0	Georgia	36.4	South Africa	27.4	Philippines	17.3
	Germany	43.7	Jordan	36.1	Tunisia	27.3	Singapore	17.0
	Poland	43.3	Bolivia	34.8	India	27.2		
	Israel	42.9			Kazakhstan	26.8		
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Source: 2011 Index of Economic Freedom, The Heritage Foundation

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Public Debt as a percentage of GDP, 2010

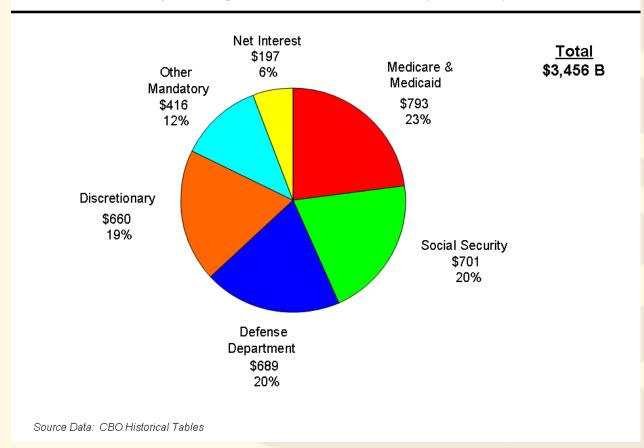
With large public expenditures, most European countries have accumulated large public debts

Japan	225.8	Uruguay	55.9	Switzerland	39.5	Bulgaria	18.2
Greece	130.2	Poland	55.2	Bosnia-Herze	39.0	Kazakhstan	16.0
Italy	118.4	Malaysia	55.1			Ecuador	13.7
Iceland	115.6	Norway	54.3	Taiwan	39.0	Saudi Arabia	12.9
Belgium	100.2	Argentina	52.2	Bolivia	37.8	Azerbaijan	12.9
Ireland	93.6	Salvador	50.0	Colombia	35.7	Kuwait	11.8
<u>USA</u>	<u>92.7</u>	Finland	50.0	Romania	35.5	Russia	11.1
		Morocco	49.9	Venezuela	34.8	Uzbekistan	10.4
France	84.2	Philippines	46.3	Slovenia	34.5	Estonia	8.1
Portugal	83.1	Thailand	45.5	South Africa	34.1	Chile	7.6
Canada	81.7	Mexico	45.2	Moldova	32.6	Hong Kong	0.7
Hungary	78.4	Denmark	44.2	Korea, South	32.1		
UK	76.7			New Zealand	31.0		
Israel	76.1	Turkey	43.4	Costa Rica	29.5		
Germany	74.3	Latvia	42.2	Dominic Rep	29.0		
India	71.8	Slovakia	41.8	Indonesia	26.7		
Austria	70.0	Sweden	41.7	Honduras	26.1		
Brazil	66.8	Serbia	40.5	Peru	25.4		
Netherld	66.0	Czech Rep	40.1	Macedonia	24.9		
Spain	64.5	Croatia	40.0	Australia	21.9		
Pakistan	56.8	Ukraine	39.5	China	19.1		
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Source: International Monetary Fund, 2011

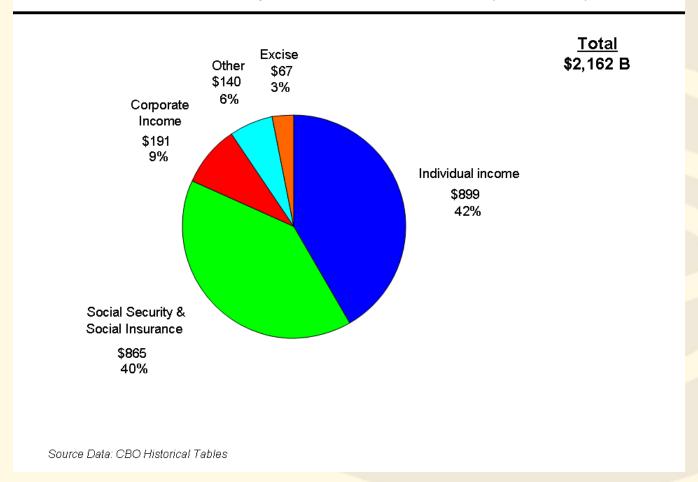


U.S. Federal Spending – Fiscal Year 2010 (\$ Billion)





U.S. Federal Tax Receipts – Fiscal Year 2010 (\$ Billions)





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