

Railroads 2009

Economics and Capital

Washington Transportation Commission

Olympia, Washington

October 21, 2009



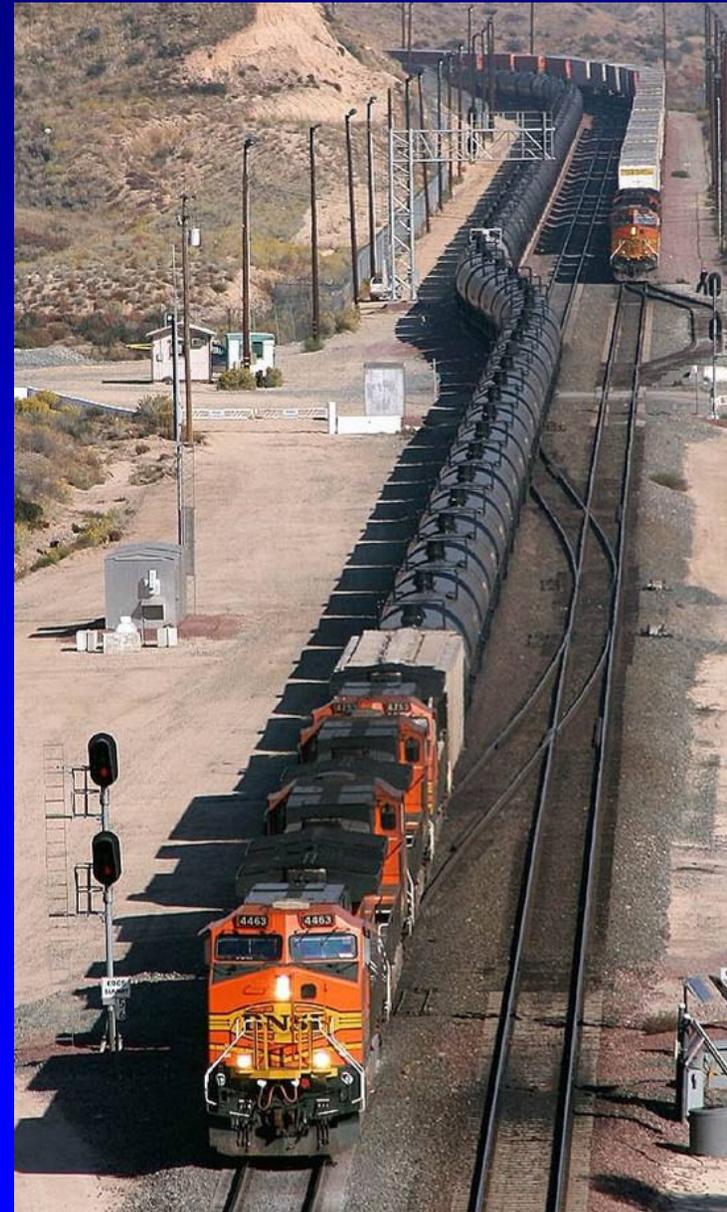
America's Freight Railroads in 2007

Type of Railroad	Number	Miles Operated*	Employees	Freight Revenue (\$ billions)
Class I	7	94,313	167,216	\$52.9
Non-Class I	556	45,821	19,596	3.9
Regional	33	16,930	7,805	1.8
Local Linehaul	324	22,298	5,602	1.3
S&T	199	6,593	6,189	0.8
Canadian**	2	561	n/a	n/a
Total	565	140,695	186,812	\$56.8

*Excludes trackage rights. **Includes CN and CP operations that are not part of a CN- or CP-owned Class I carrier. Source: AAR

The Rail Industry's Big Issues - 2009

- Preserving a balanced regulatory structure
- Climate change – Impacts and Opportunities
- Development and installation of working positive train control
- High speed rail – challenges and opportunities
- Moving highly hazardous materials
- THE ECONOMY!!



Balanced Regulation Update

- Senate Commerce Committee working on an STB reauthorization compromise proposal.
- House has not yet proposed any action.
- Rail anti-trust exemption revocation bill no longer moving in Senate. Some provisions may be consolidated in STB reauthorization bill.
- Rail anti-trust exemption revocation bill still active in House.
- STB remains active in restructuring regulatory process.

2008 Christensen Associates Study

- "There is little room to provide significant rate relief to certain groups of shippers without requiring increases in rates for other shippers or threatening railroad financial viability."
- "The overall assessment is that the [rail] industry has not used its pricing power to achieve excess profits."
- "The increase in railroad rates experienced in recent years is the result of declining productivity growth and increased costs rather than the increased exercise of market power."

Railroad Concerns With Antitrust Proposals

- Railroads are subject to most antitrust laws.
- Exemptions only cover areas subject to STB oversight.
- Retroactive application.
- Primary jurisdiction of STB.

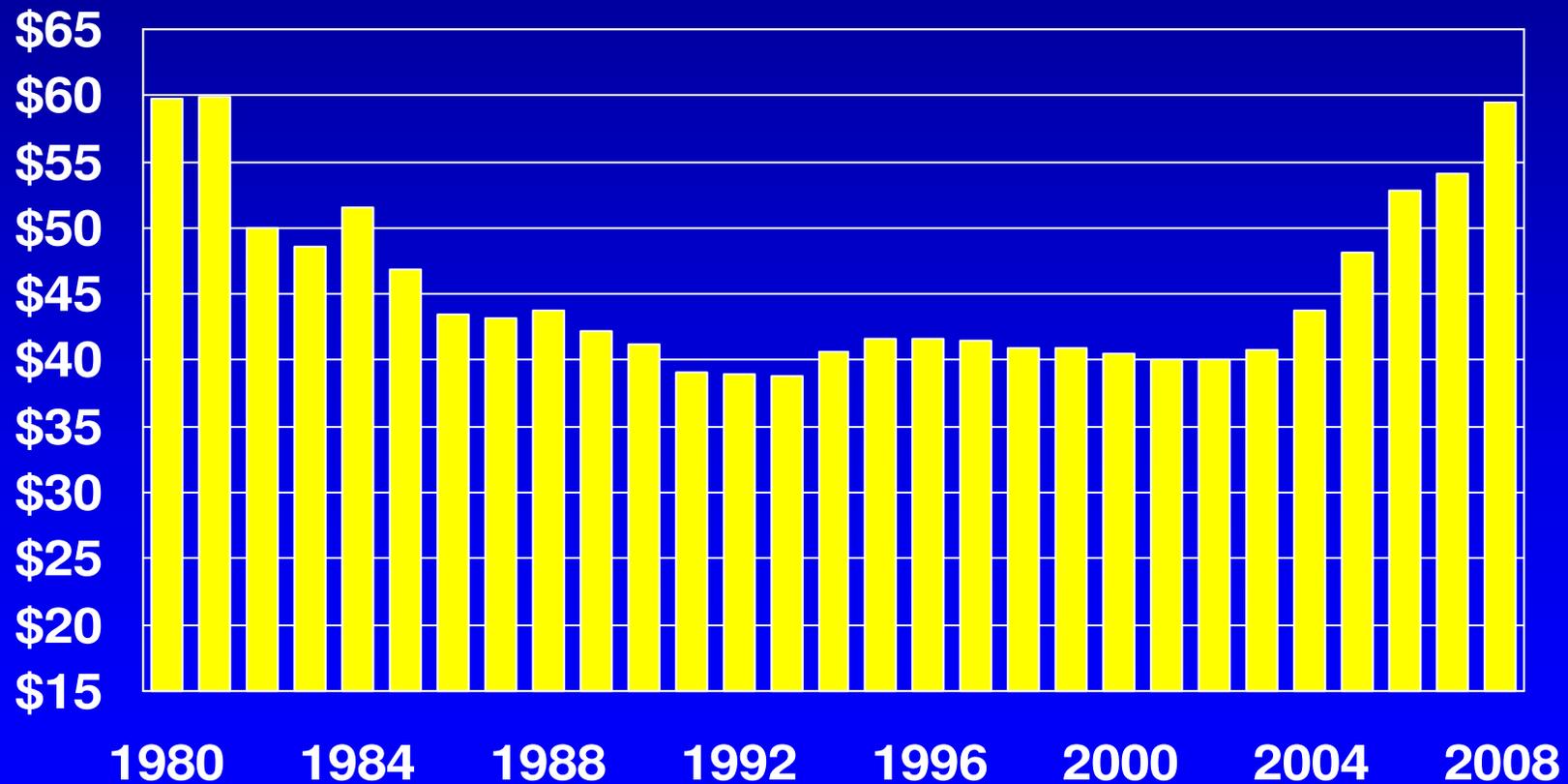


Recent STB Actions

- New process to review “paper barriers”. Process evolution continues with MNA / UP / Entergy case.
- Simplified guidelines for small rate cases. Two “three benchmark” cases filed. One “simplified stand alone” in progress.
- Two new ways to determine “cost of capital” yield lower result.
- Rate case wins for shippers. Both large and small.
- Lower filing fees.

Adjusted for Inflation, Freight Revenue is Only Now Near 1980-81 Levels

(\$ billions, constant 2008 dollars)



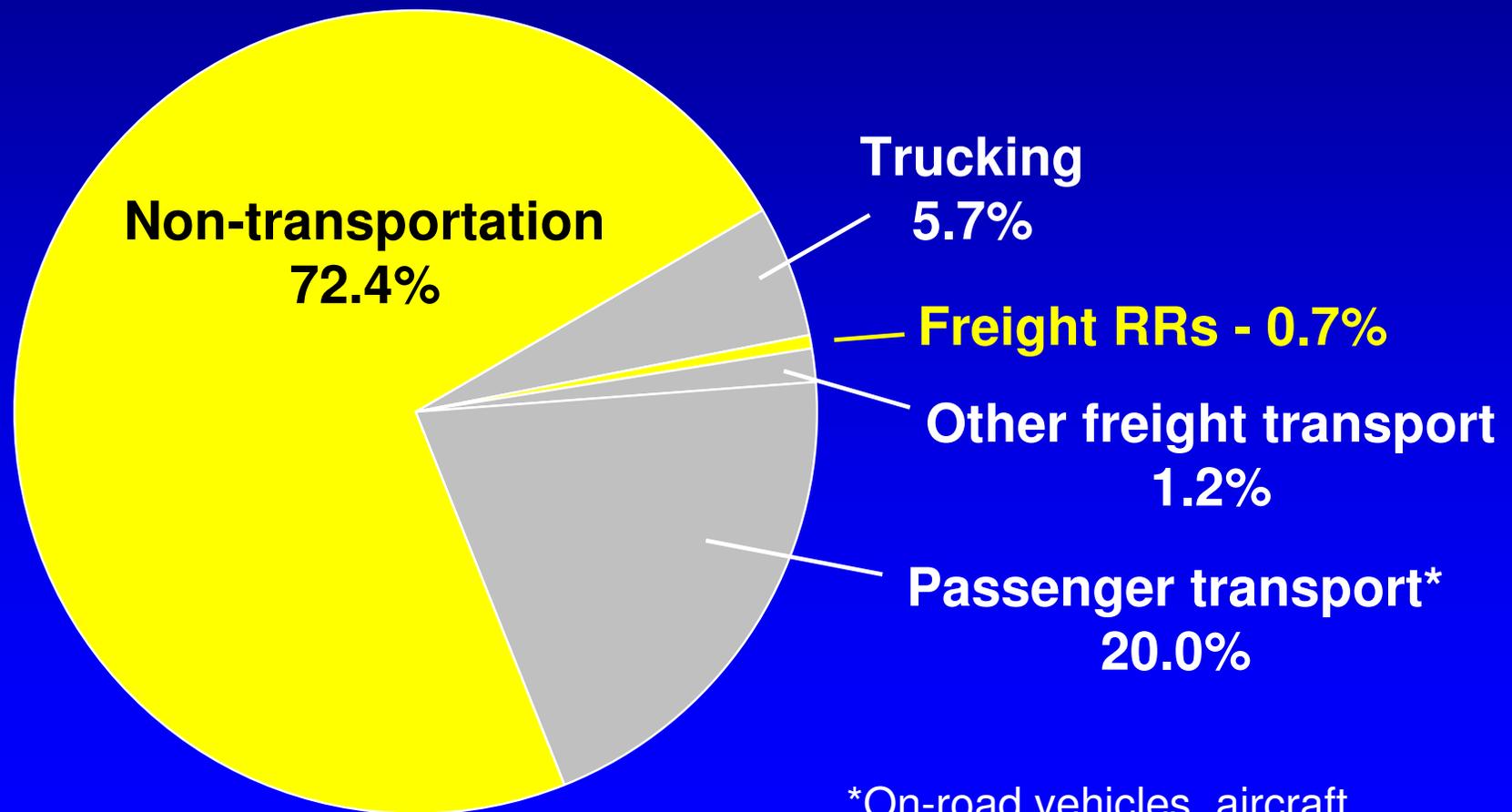
Data are for Class I railroads. Source: AAR

Climate Change

- Legislation has passed the house. Seeks an 80% reduction in CO₂ production in US by 2050.
- Impact on rail industry is potential harm to utility coal use.
- Further impact is potentially on energy intensive carload business (steel, cement, glass, etc).
- Potential opportunity represented by growth in intermodal market share versus truck.

Freight RRs Account for <1% of Greenhouse Gas Emissions

U.S. Greenhouse Gas Emissions by Source: 2006

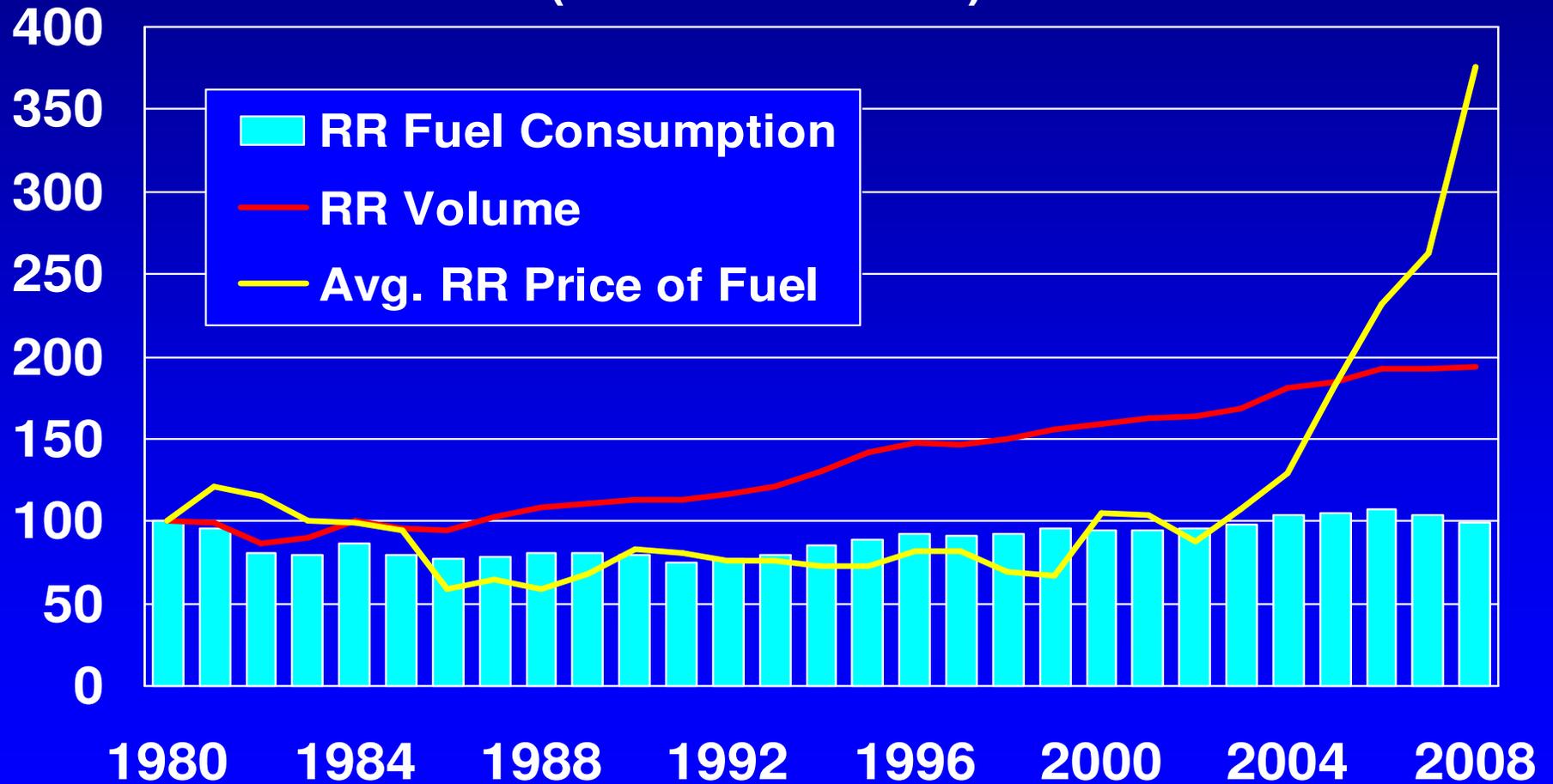


Source: EPA

*On-road vehicles, aircraft, recreational boats, passenger rail

Double the Freight on Same Amount of Fuel!

(Index 1980=100)



Volume = revenue ton-miles. Source: AAR

Positive Train Control

- PTC mandated by 2008 rail safety bill.
- Required for:
 - All main lines handling intercity and commuter passenger trains,
 - All Class I main routes over 5 million annual gross ton-miles handling Toxic Inhalation Hazard (TIH) commodities.
- Installation required by December 31, 2015.
- FRA proposed rule on installation published July 2009.
 - FRA rules seek to expand the congressionally mandated installation requirements.

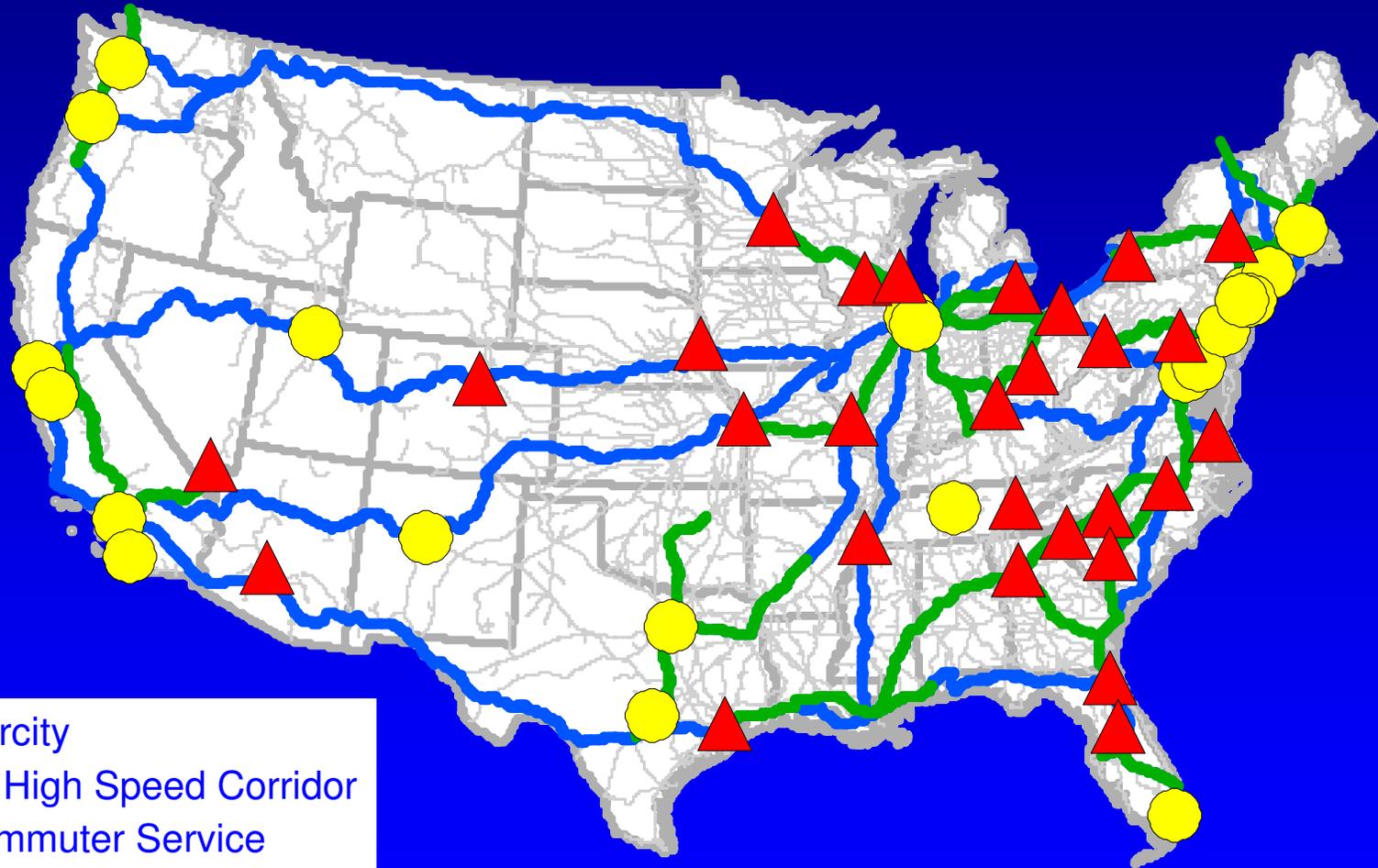
Positive Train Control – Costs and Benefits

- Federal Railroad Administration has produced a cost - benefit analysis of their proposed installation.
 - Installation cost will be between \$5.7 billion and \$5.9 billion (2009 dollars).
 - Ongoing maintenance and operations will cost railroads an additional \$860 million annually.
 - Net Present Value of all costs (7%, 20 years) is \$10 billion.
- Benefits of Installation.
 - When fully implemented the maximum potential safety benefits of the system will be \$90 million, or less, annually.
 - There are no identifiable operational capacity or efficiency benefits from this generation of PTC technology.
 - Net Present Value of all benefits (7%, 20 years) \$650 million.
- **Net Result – NPV of FRA specified costs exceeds NPV of benefits by 15.4:1 ratio.**

Positive Train Control – Implications

- Will adsorb most growth capital for next six years.
- First generation systems will reduce capacity of the rail network.
- New, ongoing operating expense will reduce net operating income in an amount equal to 40% of growth capital.
- Thus – PTC installation may represent a long-term threat to rail capacity enhancement – not just through 2015.

Sharing the Track With Passenger Trains



- Amtrak Intercity
- Designated High Speed Corridor
- Existing Commuter Service
- ▲ Proposed Commuter Service

High Speed Rail

- \$8 billion funding, in three programs, contained in 2009 stimulus package. Additional \$1 billion annually for next five years also authorized.
- “High Speed” defined as 110 mph, but money can also be used to incrementally improve existing routes toward this goal.
- Available only to public entities.
- FRA guidelines for application issued in June. First applications requested \$54 billion for public projects. Decision on projects this “winter”.
- Requires agreement, or significant progress toward an agreement, with freight carrier before application.
- Amtrak capital/safety funding in addition to HSR dollars.

Support Passenger Rail - But Not at the Expense of Freight Rail

- Passenger rail should complement, not conflict with, freight rail.
- Adequate liability protection.
- Full compensation, including return on investment, for freight railroads, both for capital and operations. No freight rail subsidies to passenger rail.
- No forced commuter or intercity passenger rail access.
- Recognize that some passenger uses are incompatible with freight rail.

Hazmat Transportation: An Unfair Liability for Railroads



- Only railroads must carry hazmat - trucks and barges can say no.
- Accidents can happen even when RRs do everything right
- Revenue doesn't come close to covering potential liability

RRs Are Working Hard to Improve Hazmat Safety

- Safer tank cars
- Emergency responder training
- Assisting local authorities
- Working with TSA
- Risk analyses
- Ultimate solution – substitution of safer products



Hazmat Bans Won't Work

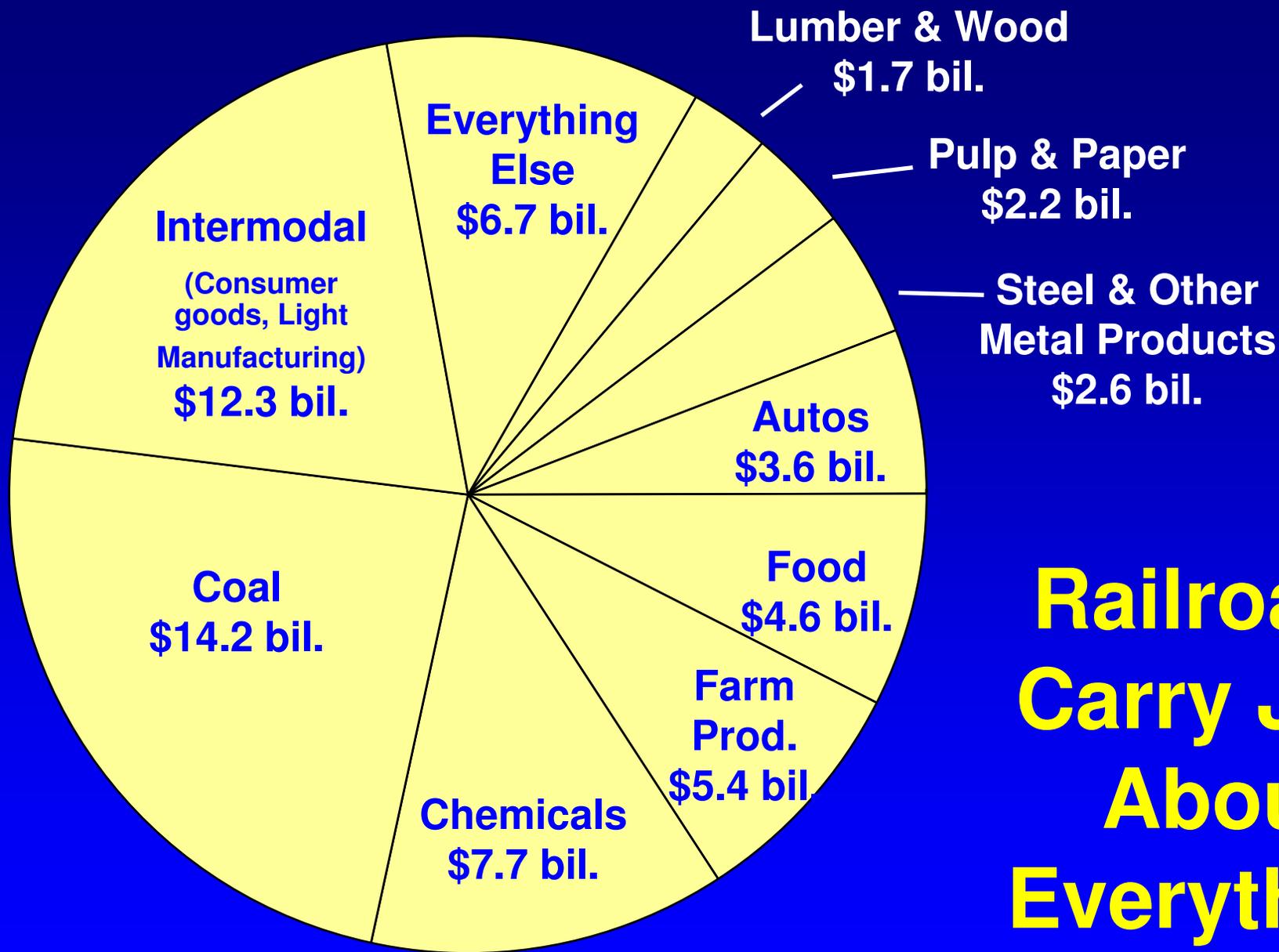
Hazmat bans:

- Could cause exposure to actually rise
- Shifts risk to other jurisdictions
- “Copy-cat” bans could shut down hazmat shipments nationwide



The Economy -

Where are we – Where do we go?



**Railroads
Carry Just
About
Everything**

***Data show Class I revenue in 2008**

Beginning Around 2003, Various Forces Pushed Freight to Rail



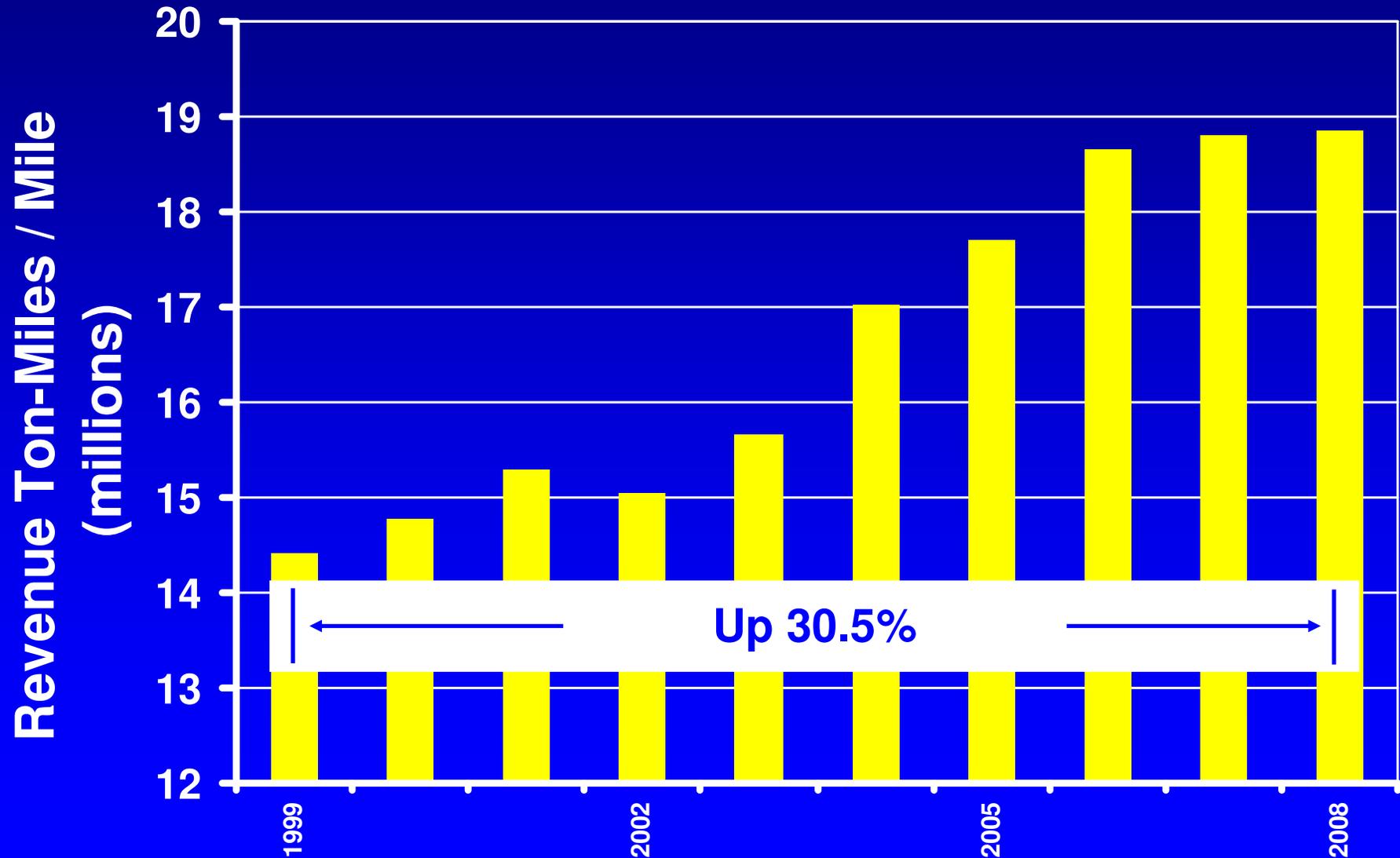
That Meant More Rail Traffic

(billions of tons)

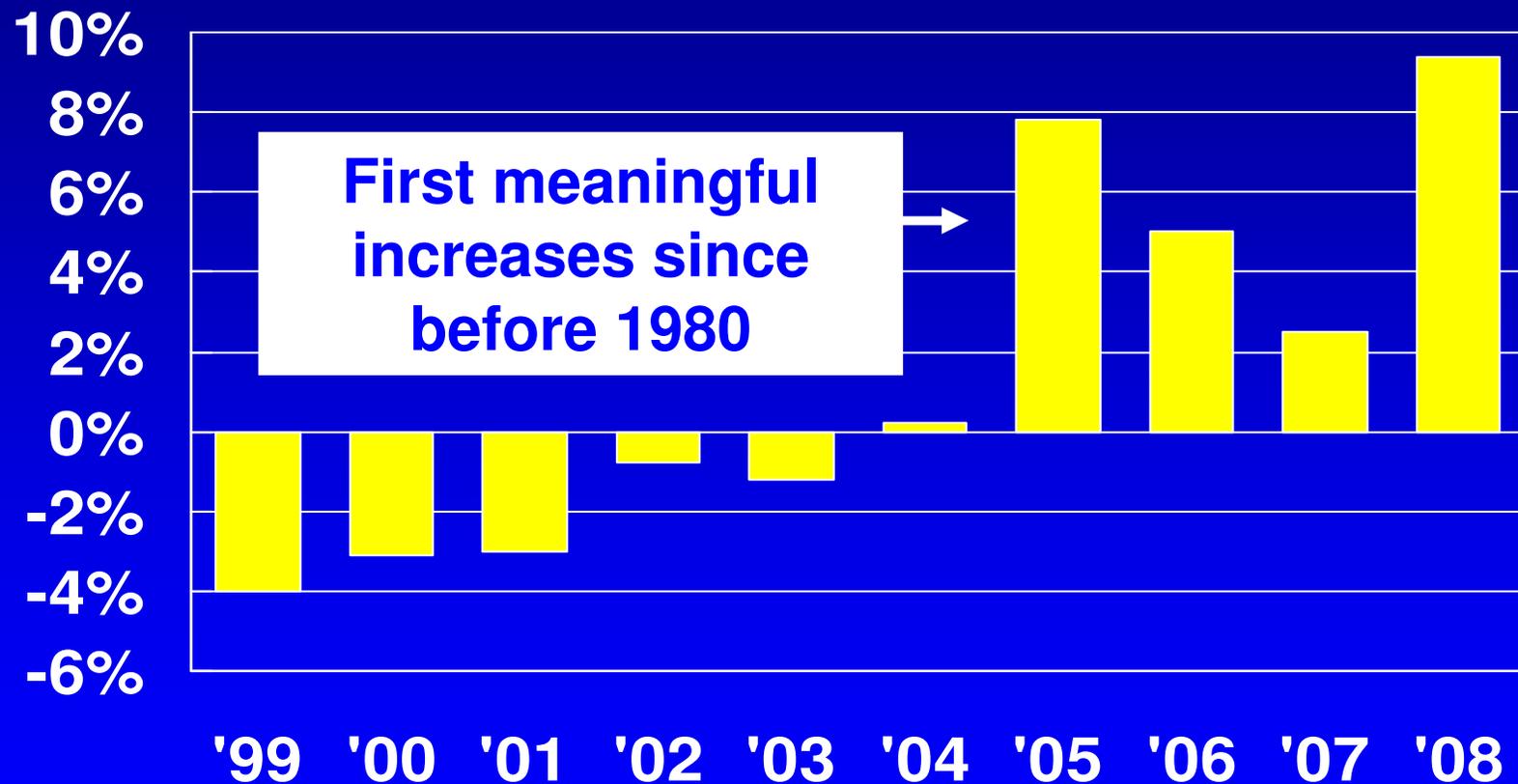


Source: AAR

That Resulted in Tighter Capacity

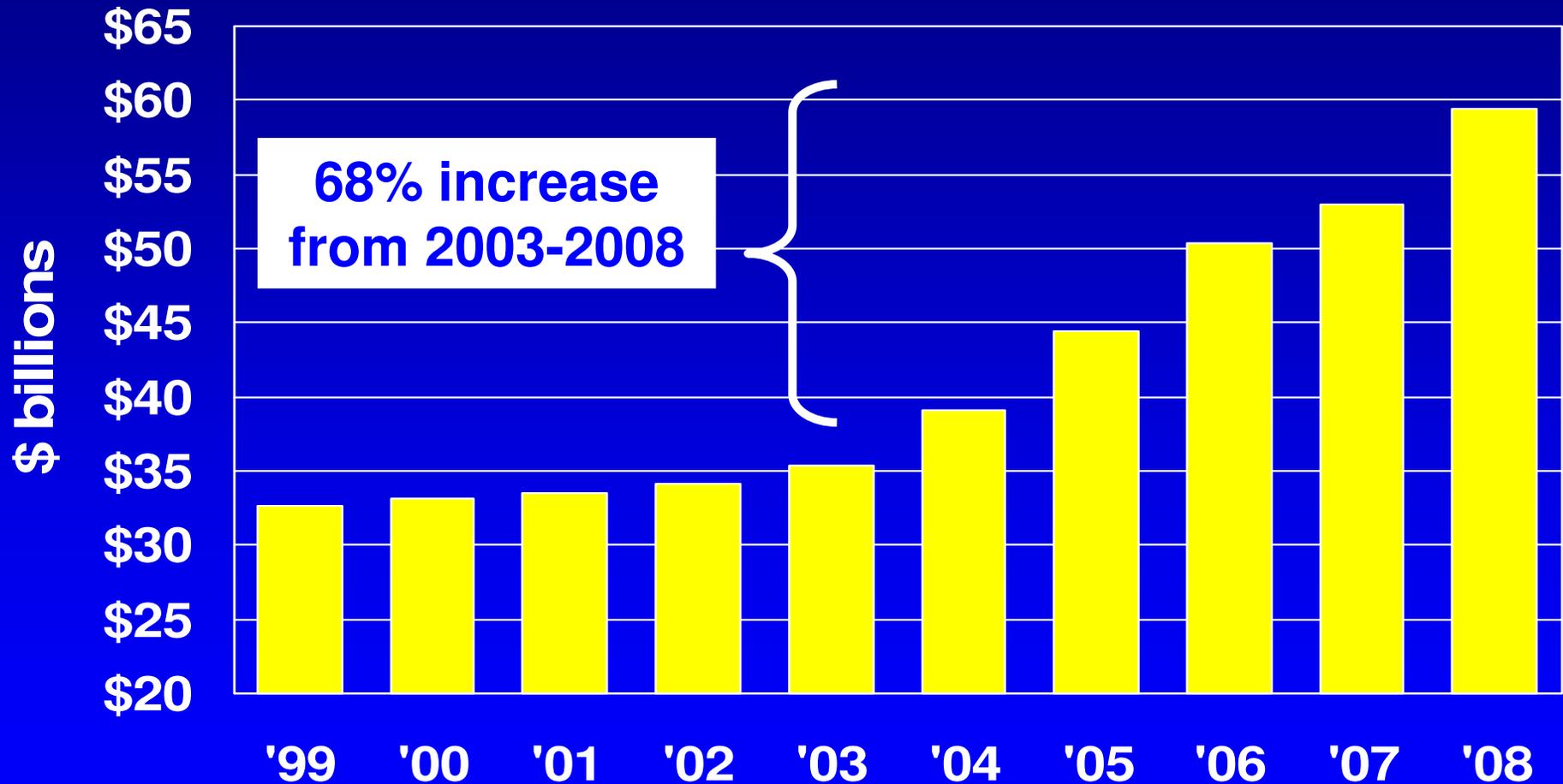


Plus, After Falling for 25 Years, Average Rail Rates* Began to Rise



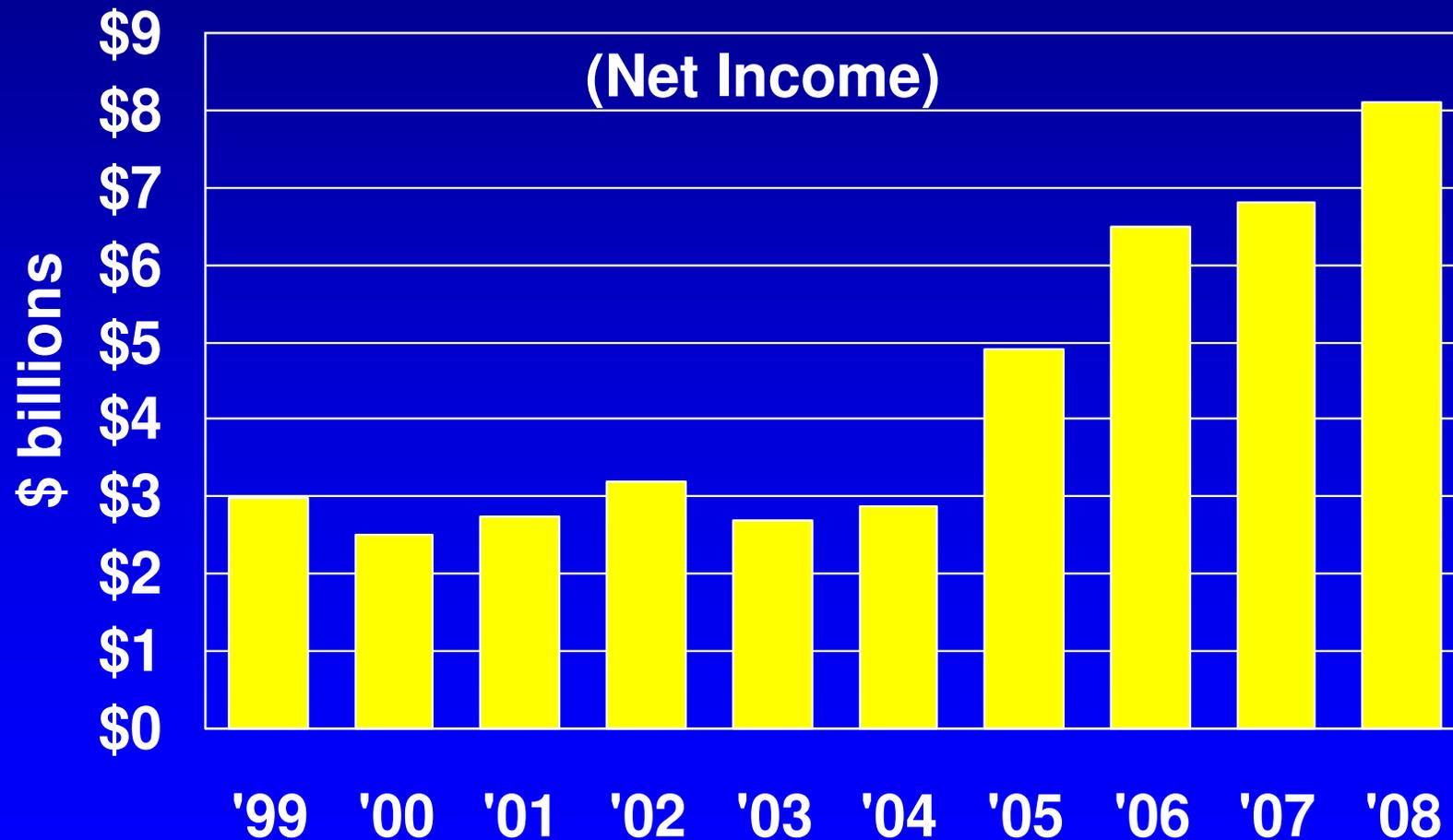
*Inflation-adjusted average revenue per ton-mile Source: AAR

More Traffic x Higher Rates = Higher Revenue



Source: AAR

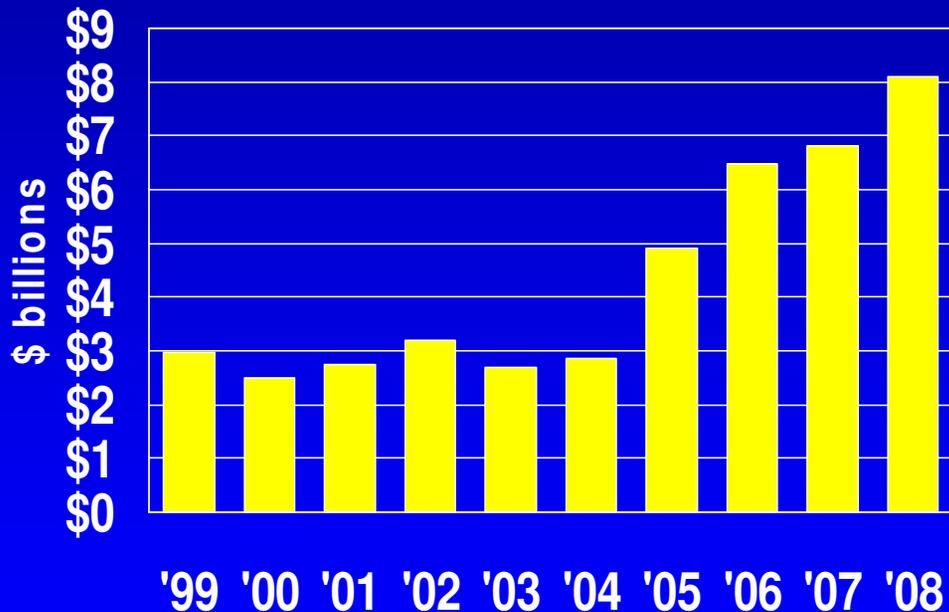
For the First Time in Forever, RRs Began Making Decent Money



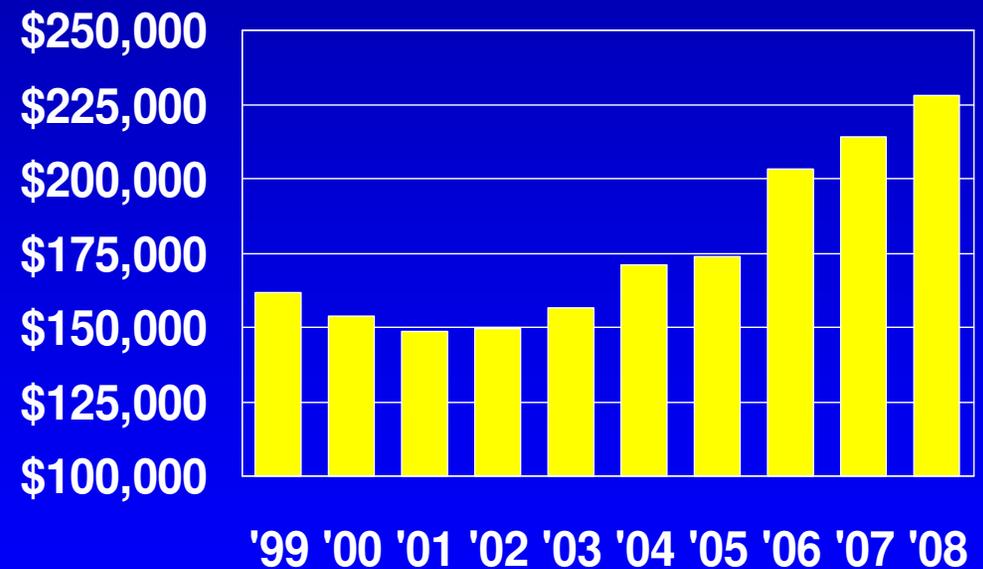
Source: AAR

And, They Re-Invested More Than Ever Before Back Into Their Systems

(Net Income)



RR Spending Per Mile



Source: AAR

Railroads Spend More Than Most State Highway Agencies

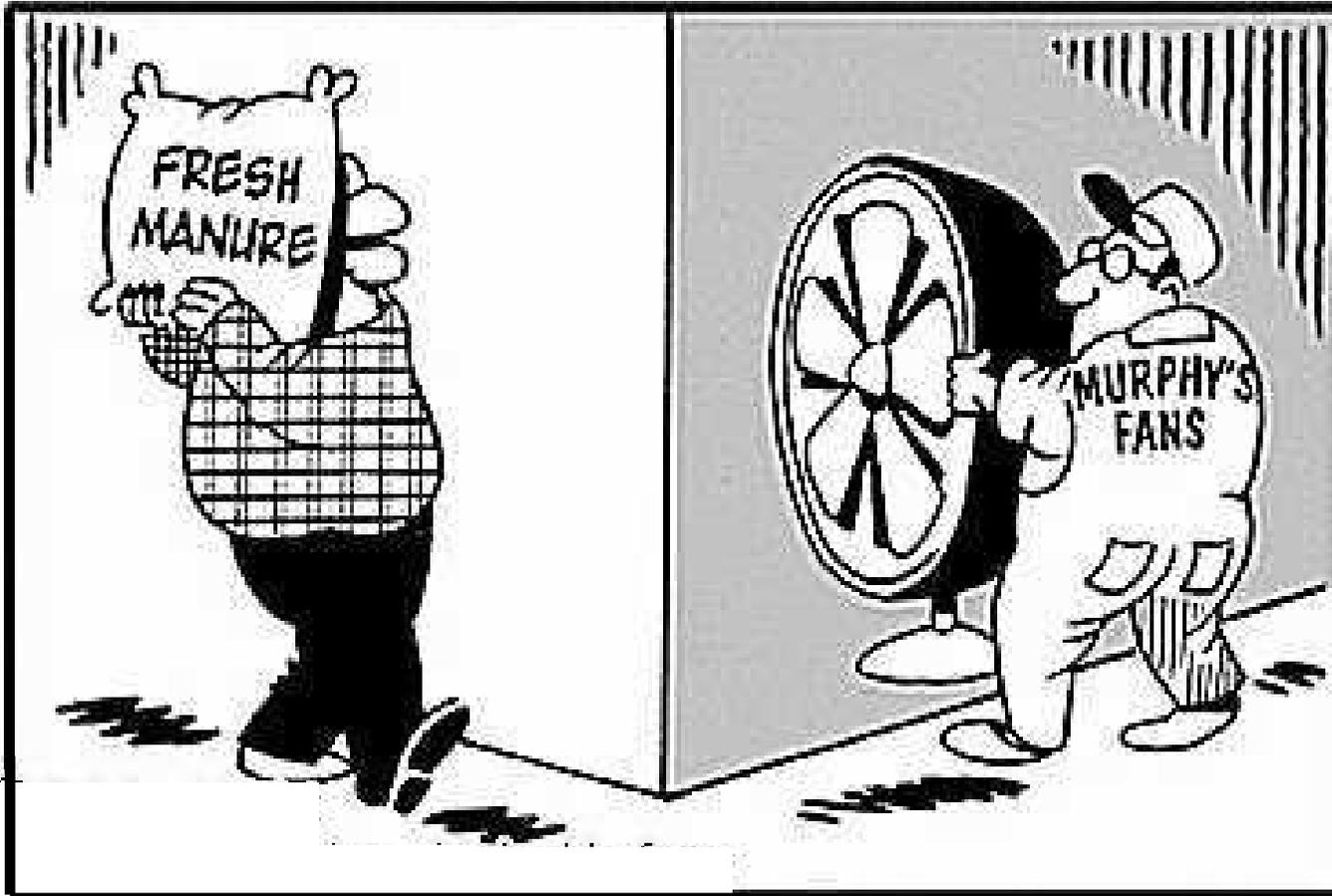
**Class I Railroad Spending*
on Way & Structures
VS.
State Highway Agency
Spending* - 2007
(\$ billions)**

*Data include capital outlays and maintenance expenses.

Sources: FHWA Highway Statistics Table SF-12, AAR

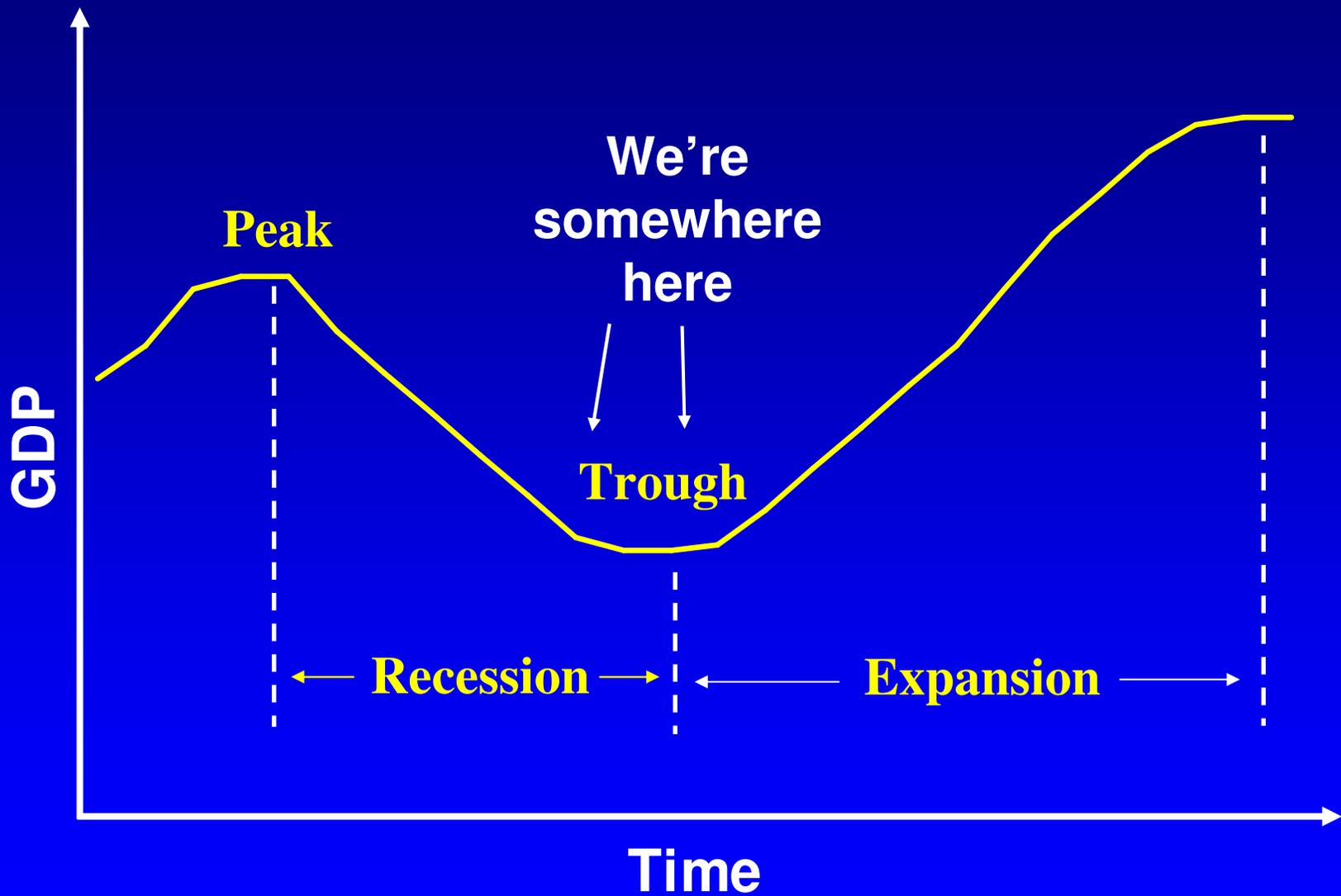
1.	Texas	\$10.96
2.	Florida	\$6.09
3.	California	\$5.43
	Union Pacific	\$4.16
	BNSF	\$4.05
4.	New York	\$3.88
5.	Pennsylvania	\$3.79
6.	Illinois	\$3.51
7.	Michigan	\$2.65
8.	North Carolina	\$2.52
	CSX	\$2.49
9.	Georgia	\$2.30
10.	Ohio	\$2.25
11.	New Jersey	\$2.08
	Norfolk Southern	\$2.07
12.	Virginia	\$1.90

But Then...



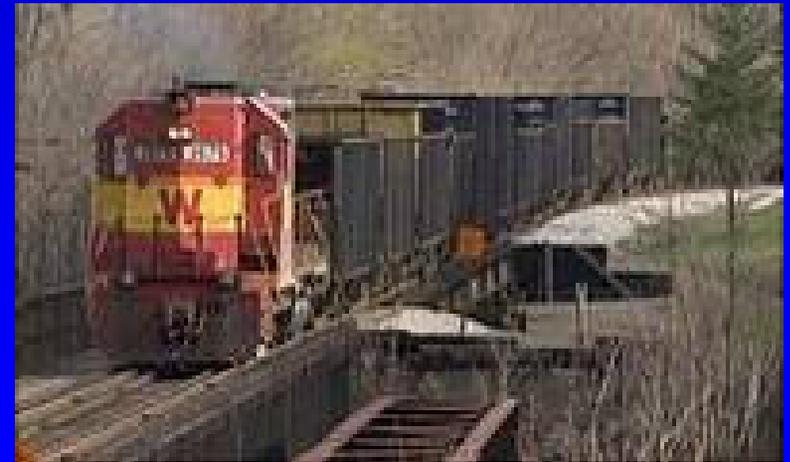
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What Economies Do



Two Things to Remember

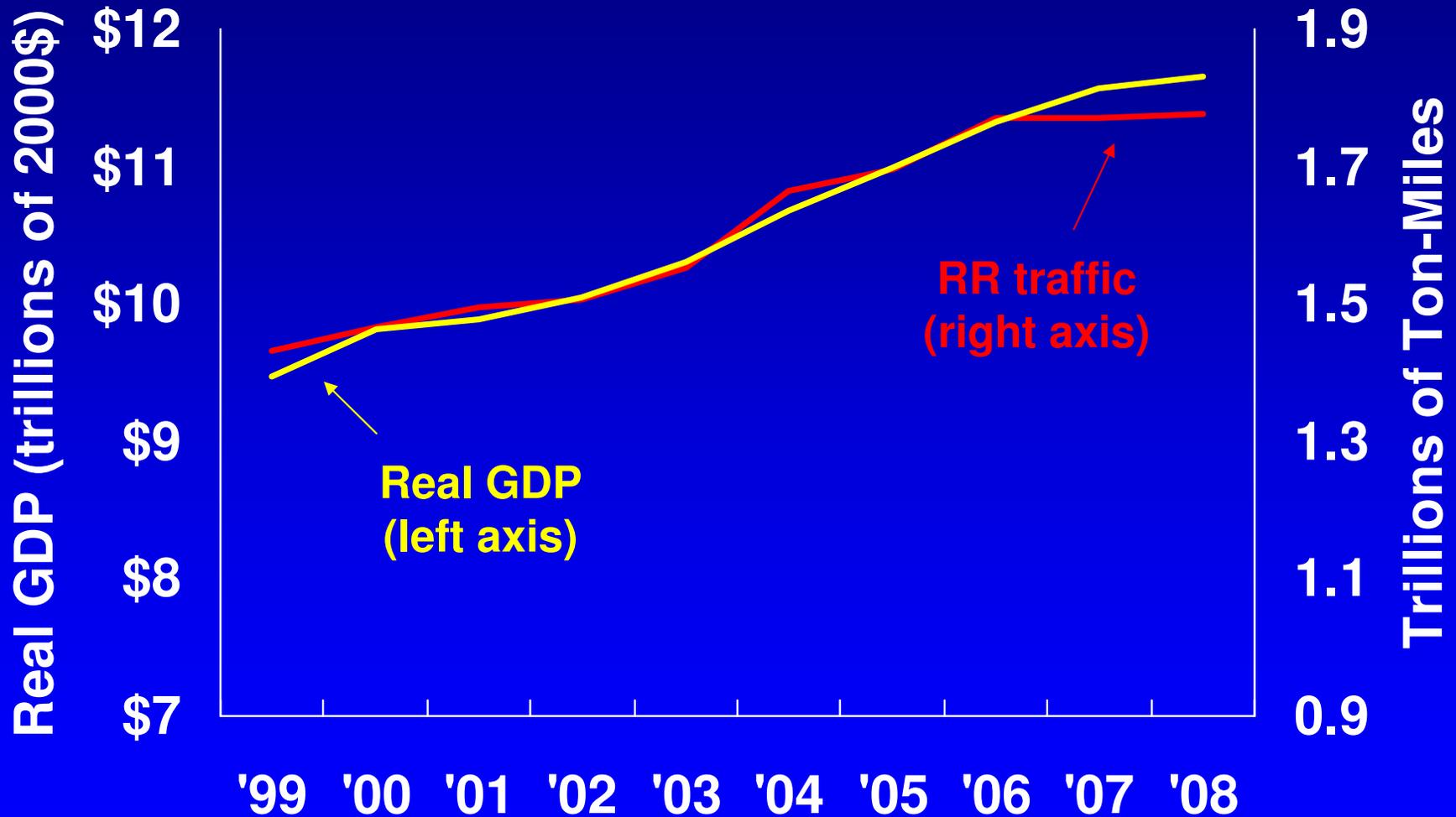
1. Railroads are a derived demand industry – no one moves freight by rail just for fun.
2. $GDP = C + I + G + (X - M)$
 - C = consumption (~70%)
 - I = investment (~15%)
 - G = government (~19%)
 - (X-M) = Trade Balance (~ -4%)



Consumption = ~70% of the Economy



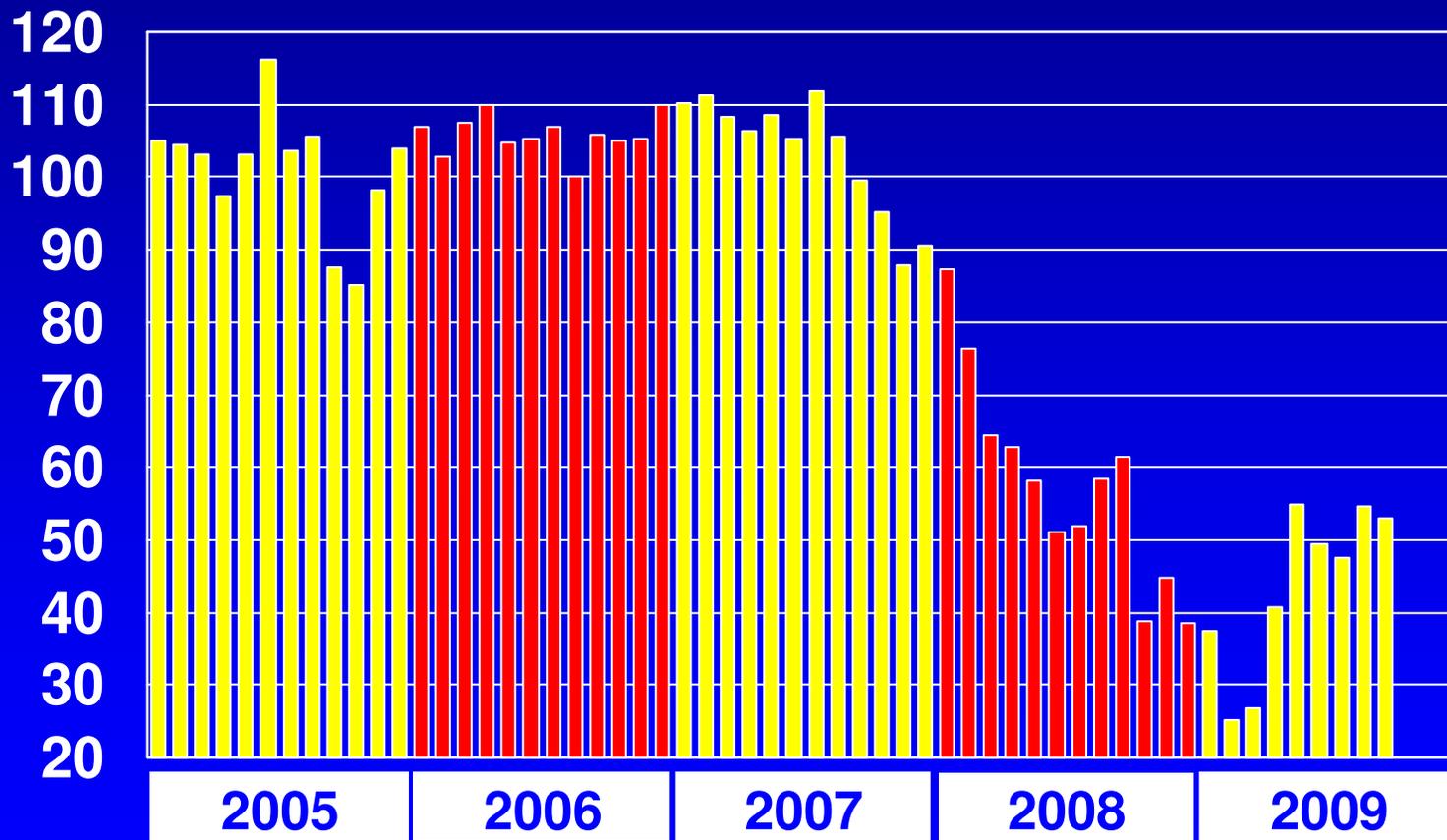
Rail Traffic vs. GDP



Source: Bureau of Economic Analysis, AAR

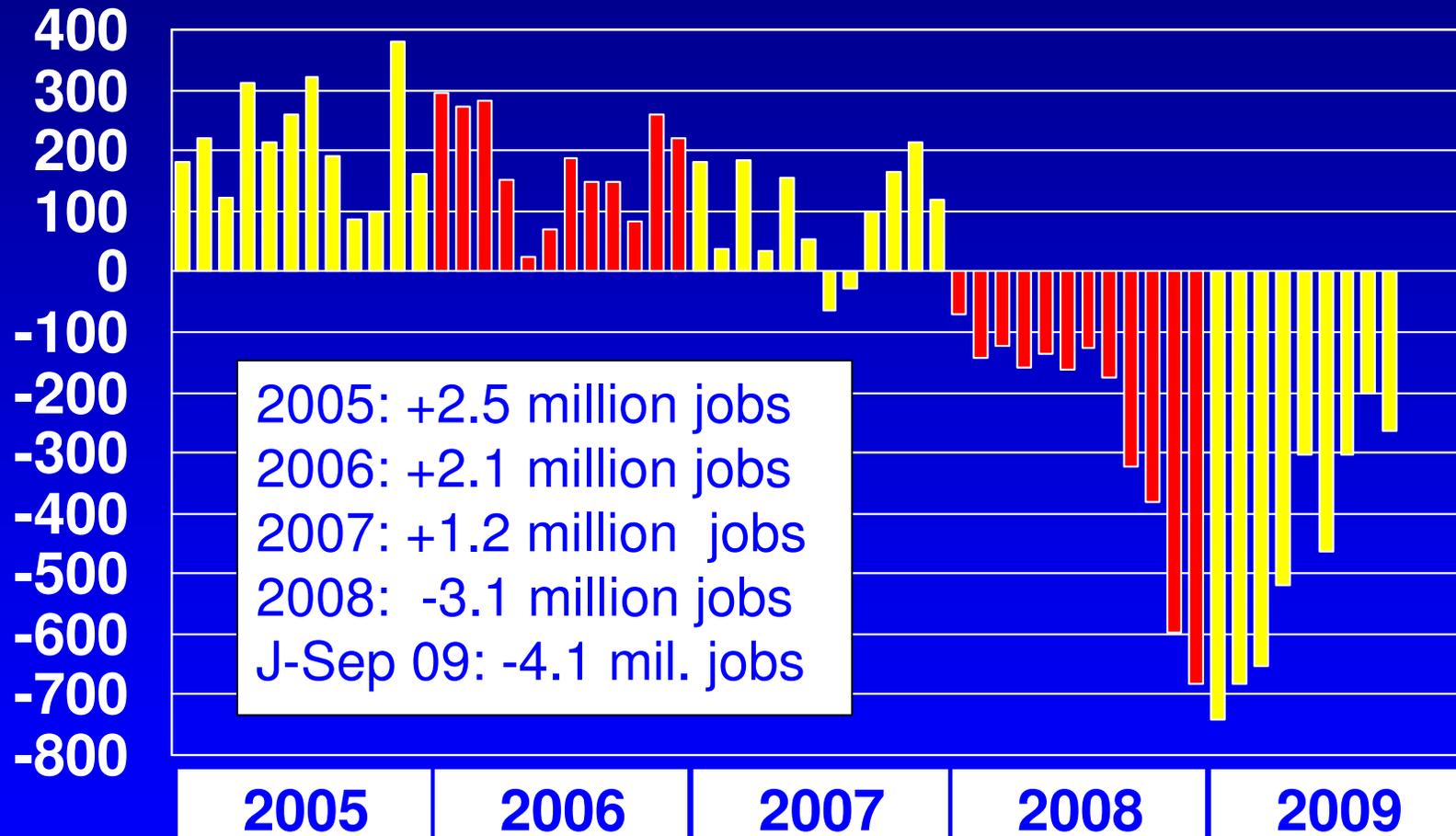
But, Unhappy Consumers Don't Spend as Much

(Consumer Confidence, 1985=100)



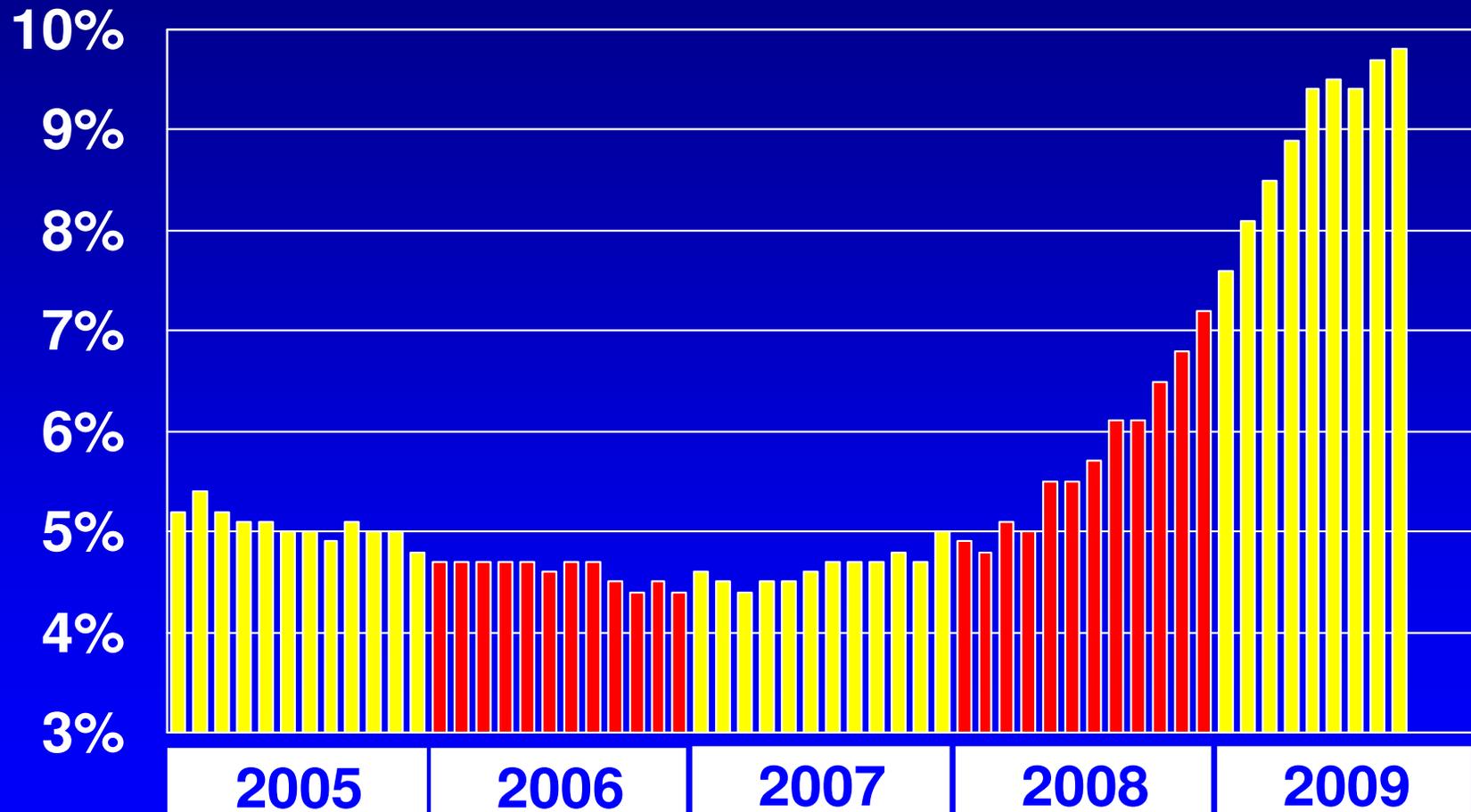
Source: Conference Board

Change in U.S. Non-Farm Employment (thousands)



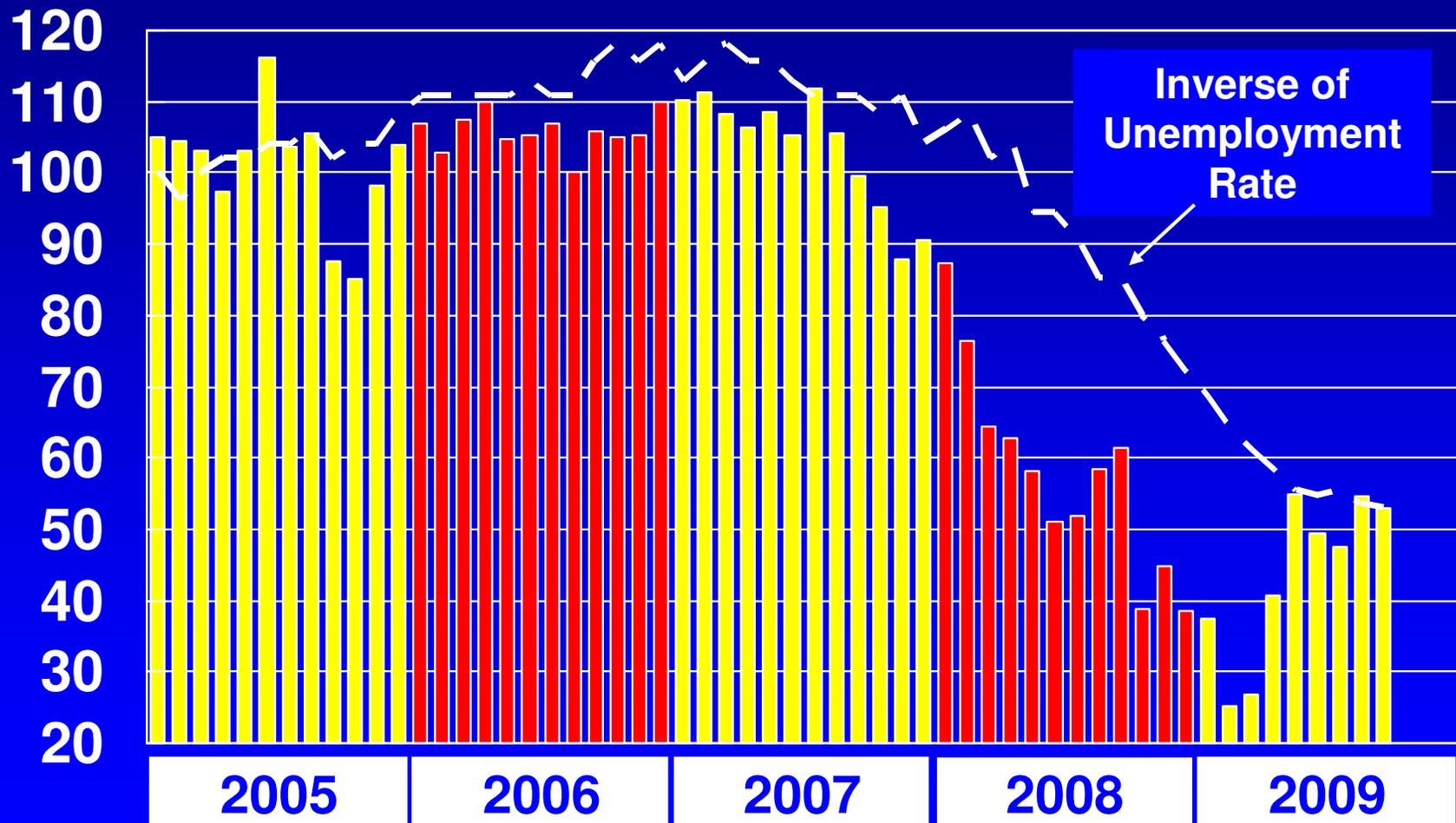
Source: U.S. Bureau of Labor Statistics

U.S. Unemployment Rate



Source: U.S. Bureau of Labor Statistics

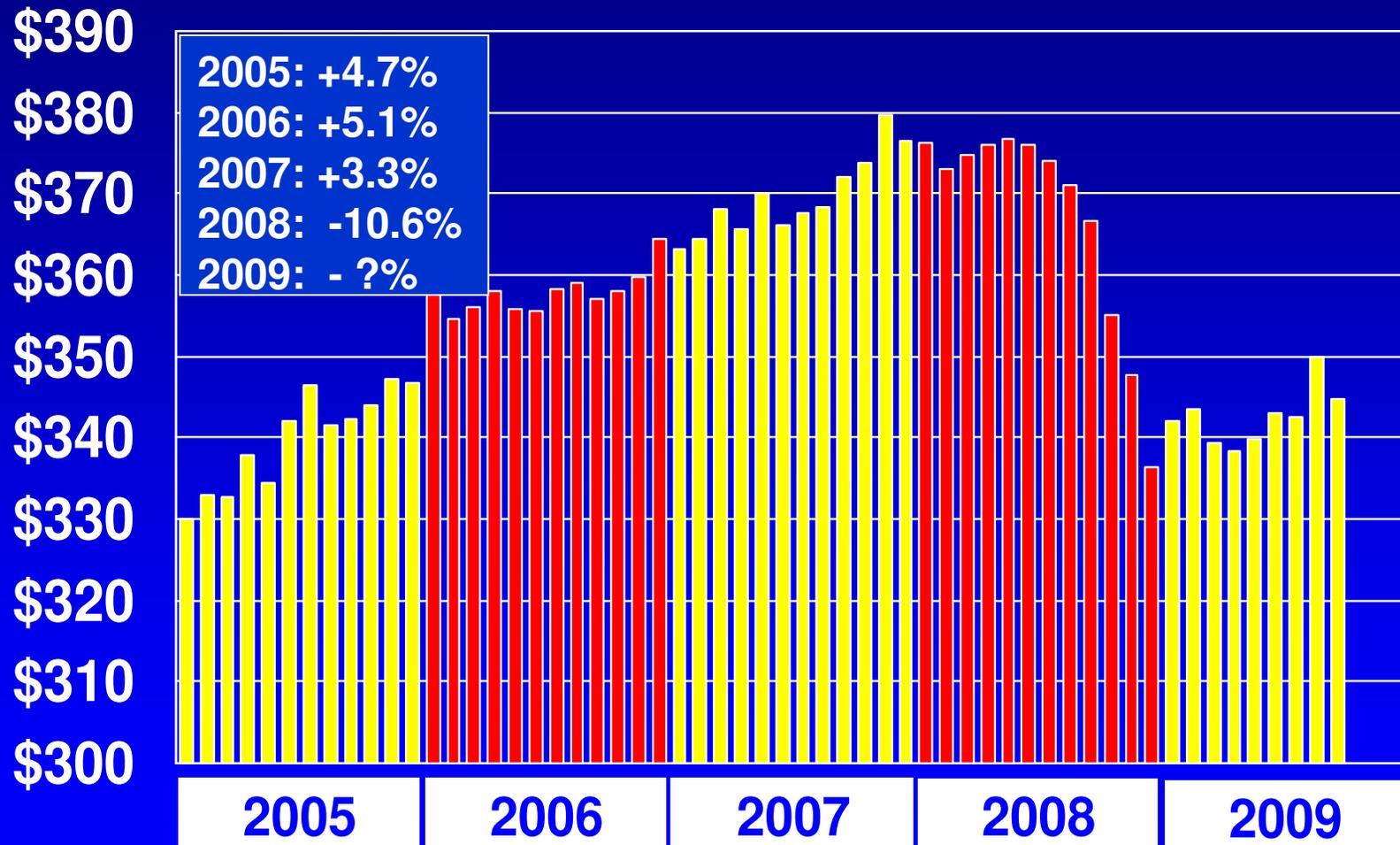
Consumer Confidence vs. Unemployment Rate



Source: Conference Board

Retail Sales

(\$ billions)



Source: U.S. Census Bureau

HOW'S
OUR
NEST
EGG?



FRIED.



Much of Rail Intermodal is Consumer Goods for Big Box and Other Retailers



WAL★MART®
ALWAYS LOW PRICES.
Always.
Walmart.com



Sears

COSTCO®
WHOLESALE



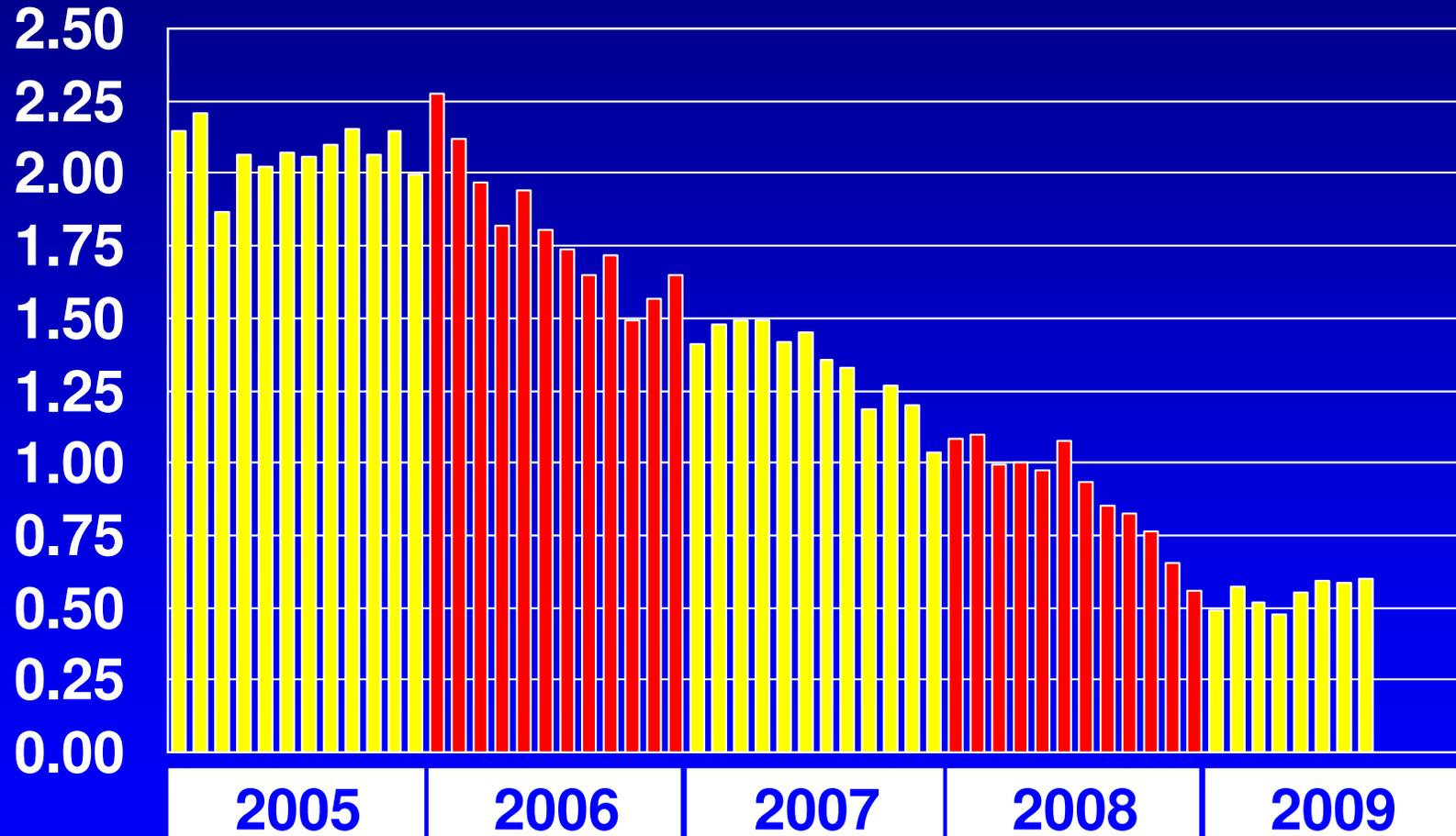
U.S. Rail Intermodal Traffic (Trailers and Containers Originated)



Data are weekly averages. Source: AAR [Weekly Railroad Traffic](#)

Housing Starts

(seasonally-adjusted annual rate, millions)



Source: U.S. Census Bureau

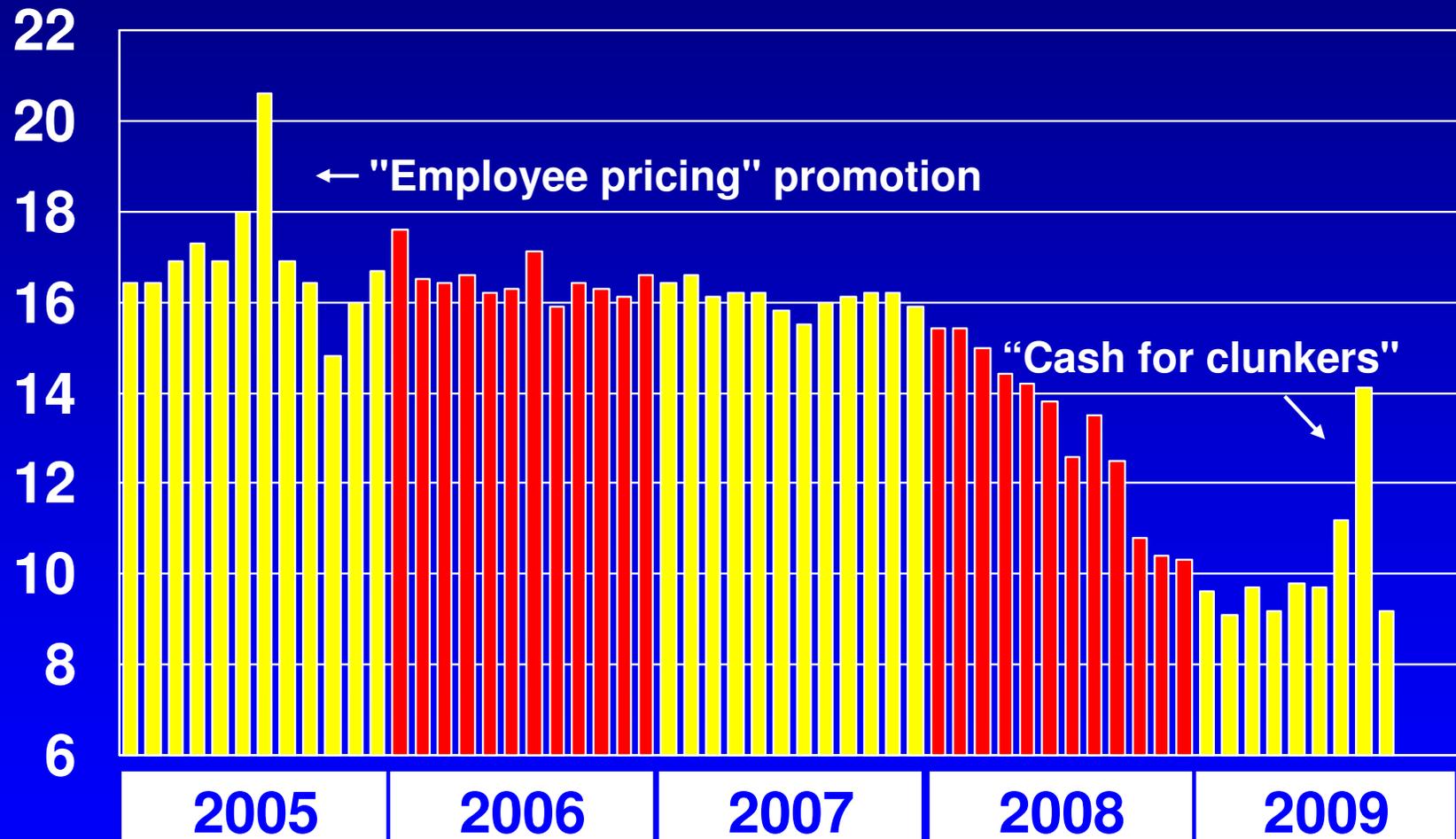
Housing Starts vs. Rail Carloads of Lumber and Wood Products

(seasonally-adjusted annual rate, millions)



Source: U.S. Census Bureau, AAR

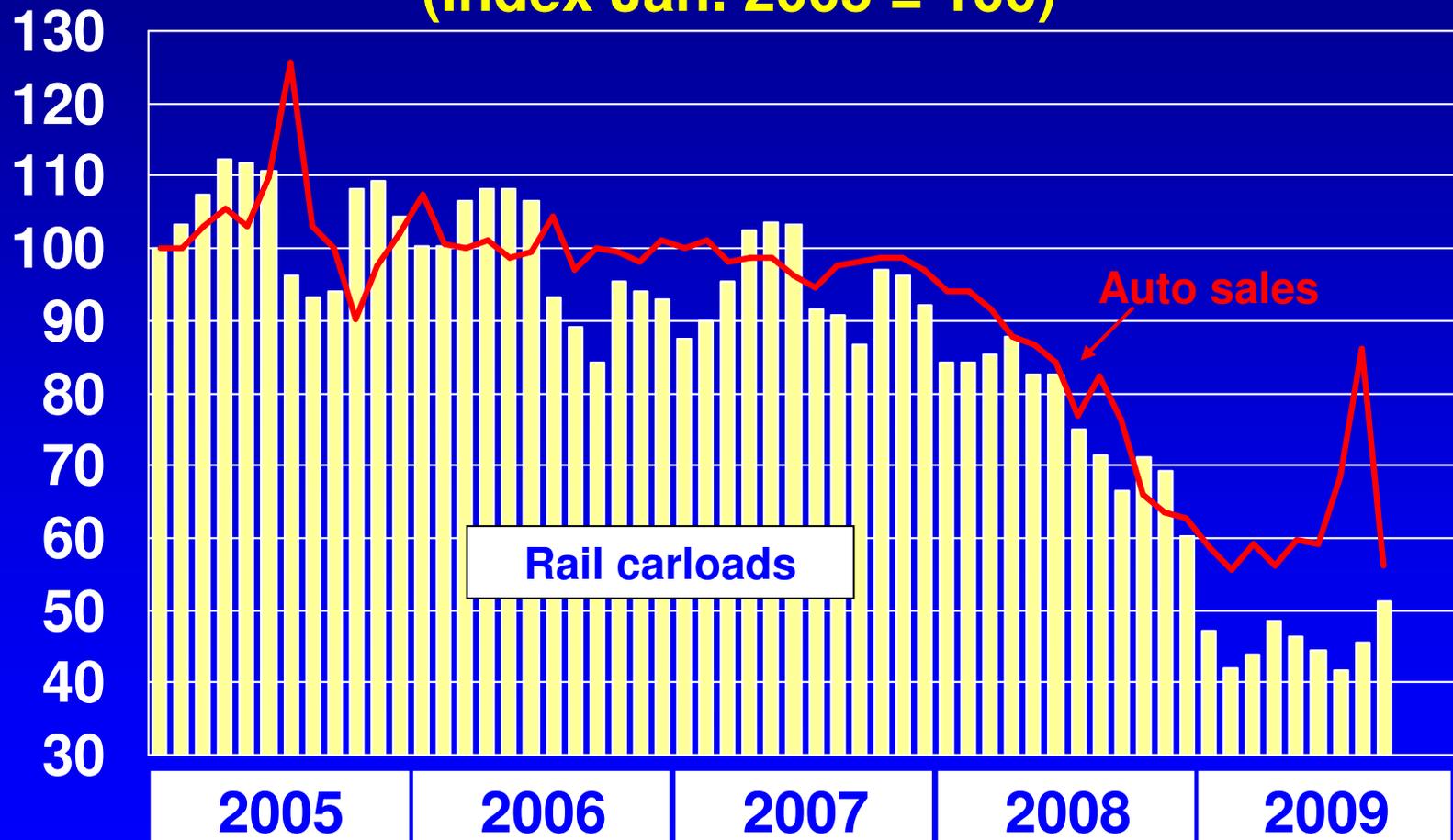
U.S. Auto Sales Rates (millions)



Data are monthly numbers annualized. Source: U.S. Bureau of Economic Analysis

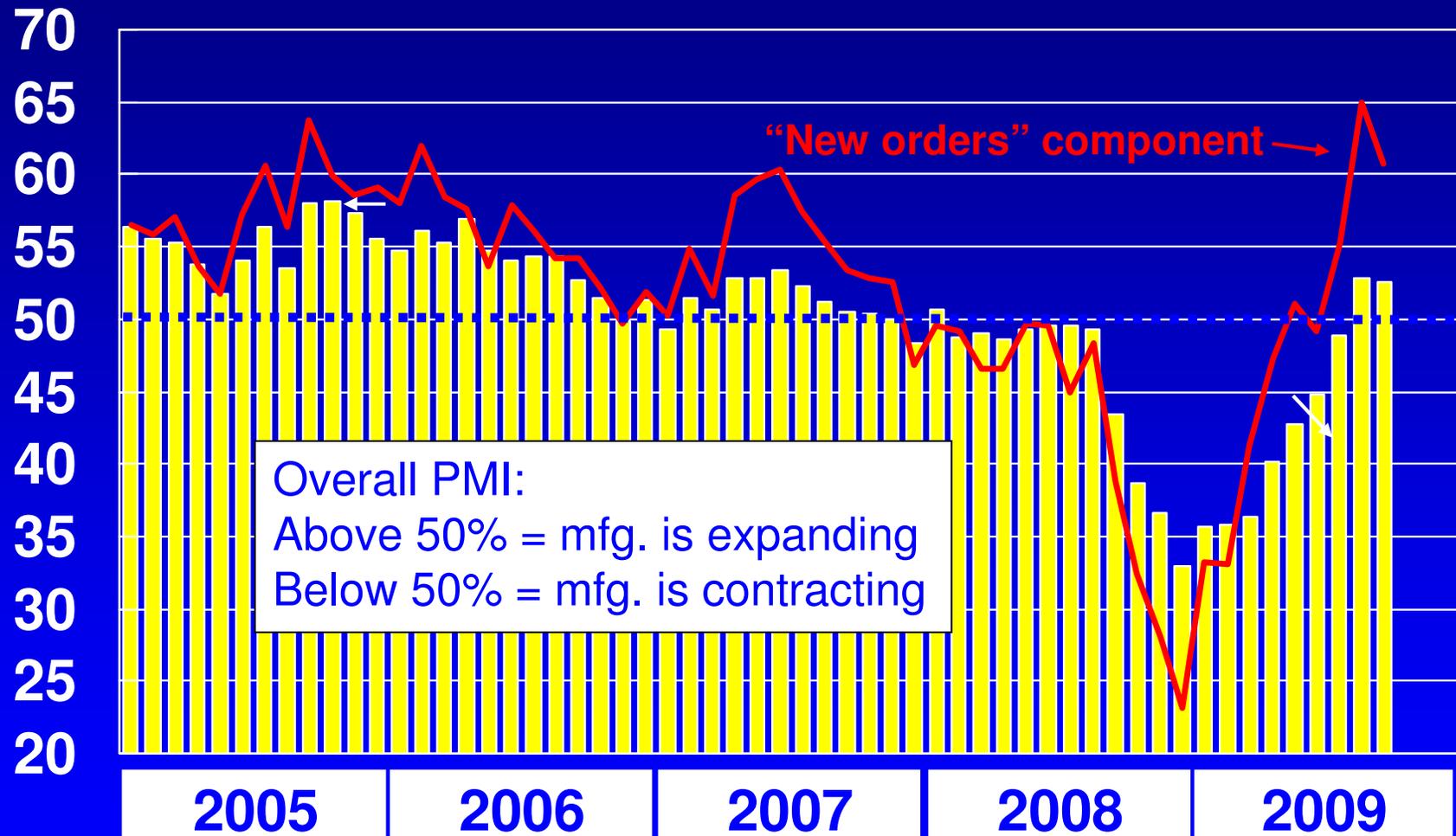
U.S. Auto Sales vs. Rail Carloads of Autos and Auto Parts

(Index Jan. 2005 = 100)



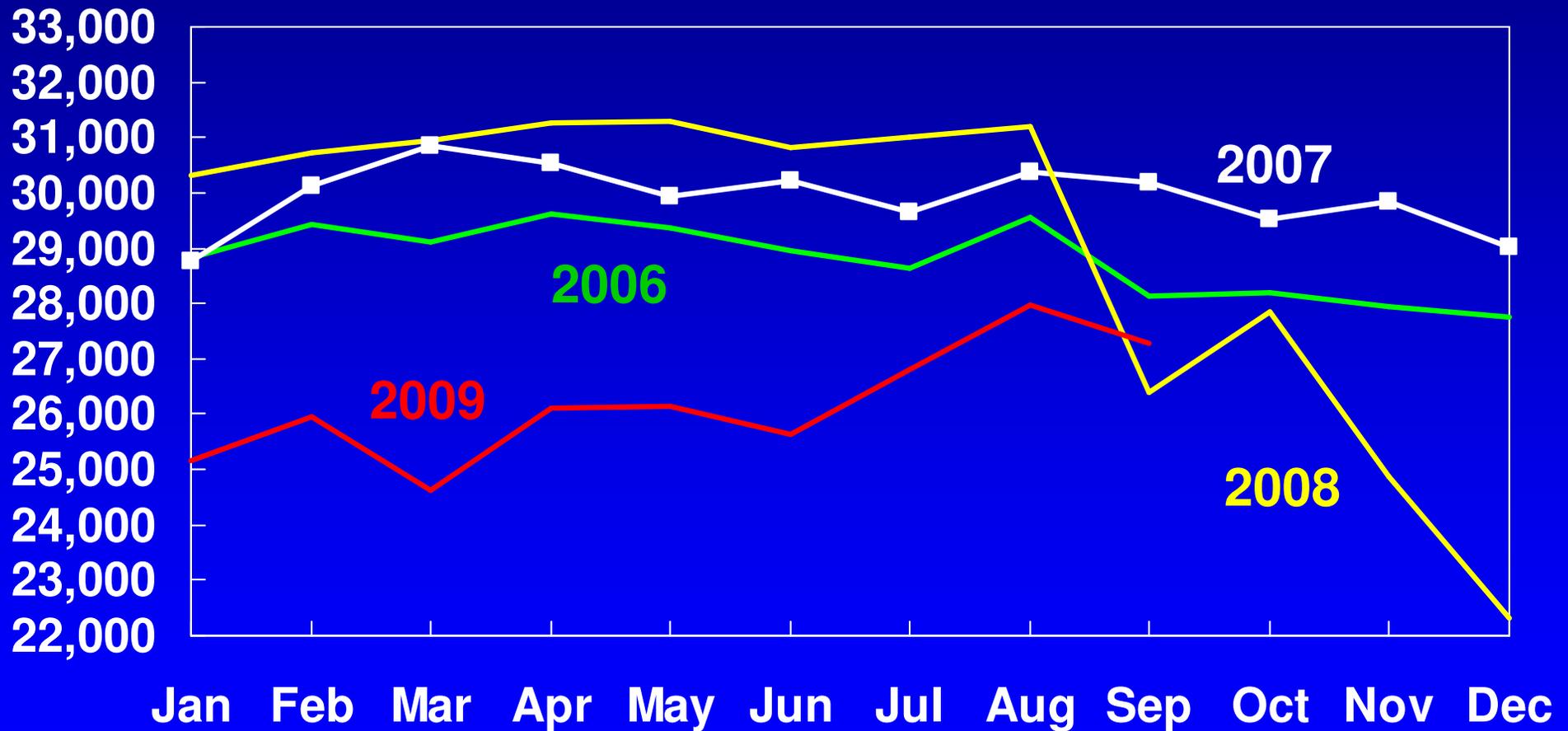
*Passenger cars, SUVs, minivans, and pickups. Vehicle sales are seasonally-adjusted annualized selling rate. **Railroad carloads are unadjusted, 3-month moving averages. Source: AAR, BEA

Purchasing Managers Index



Data are seasonally adjusted. Source: Institute for Supply Management

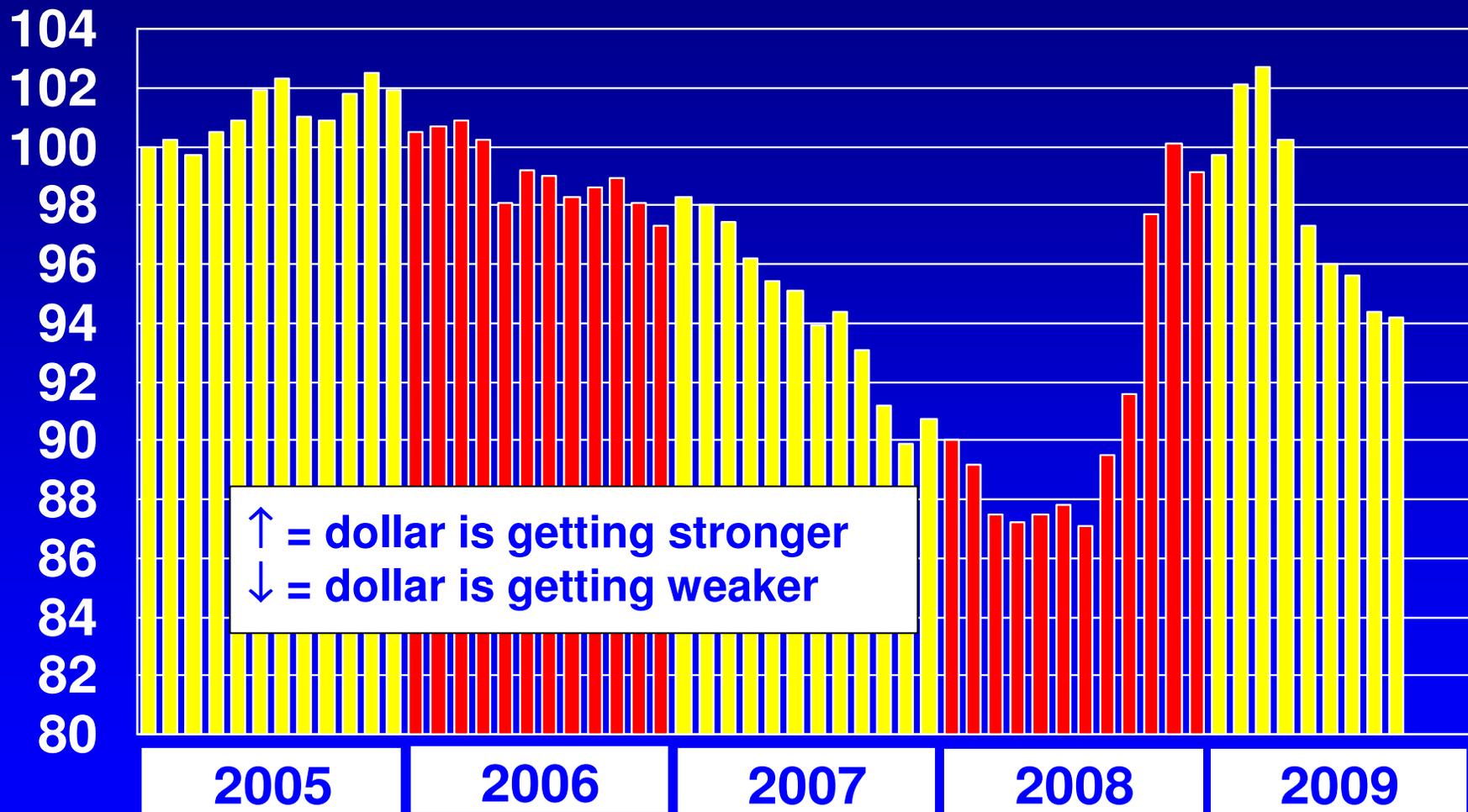
U.S. Rail Chemical Traffic (Carloads Originated)



Data are weekly averages. Source: AAR [Weekly Railroad Traffic](#)

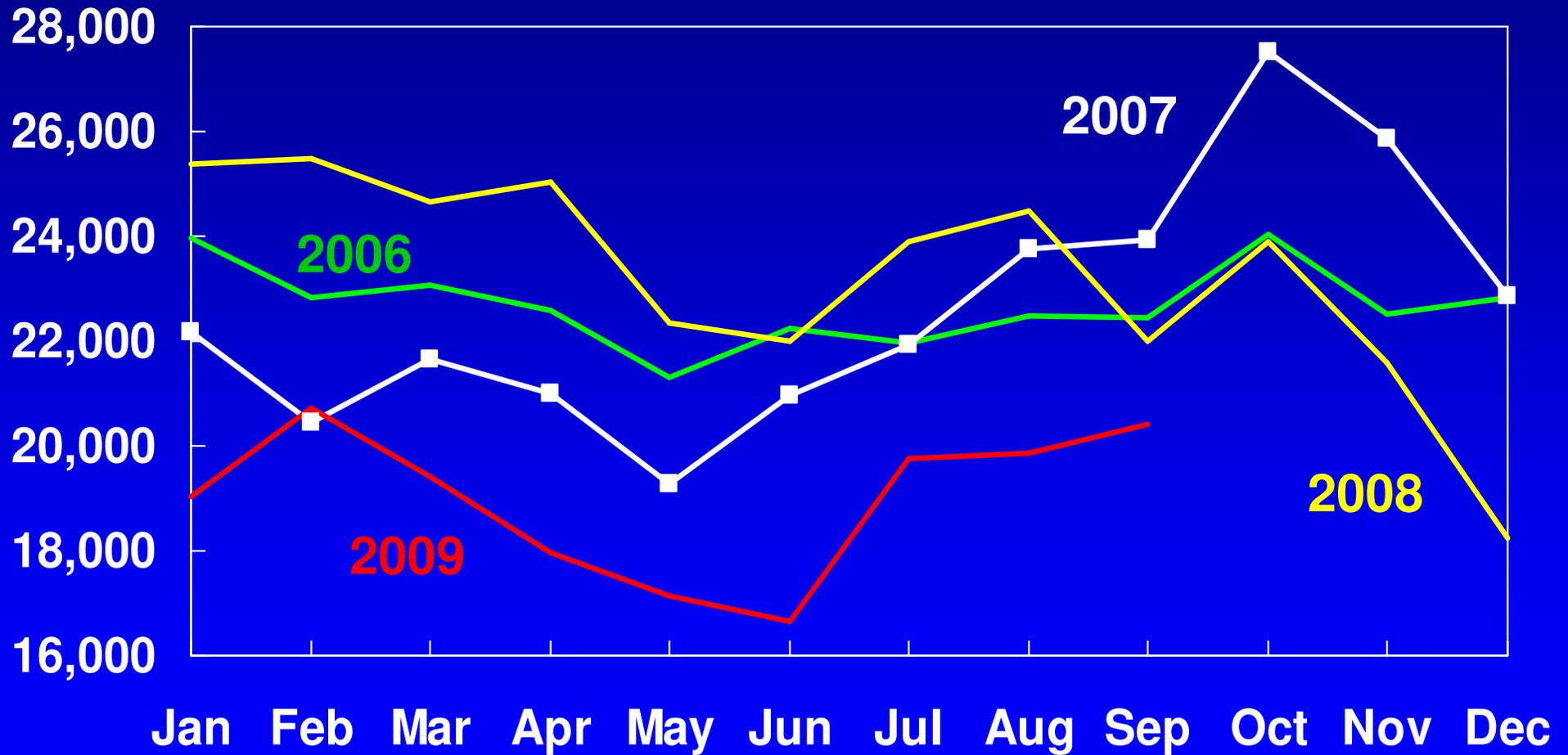
U.S. Dollar Exchange Rate*

(Jan. 2005 = 100)



*Weighted average against the currencies of a broad group of major U.S. trading partners.
Source: U.S. Federal Reserve

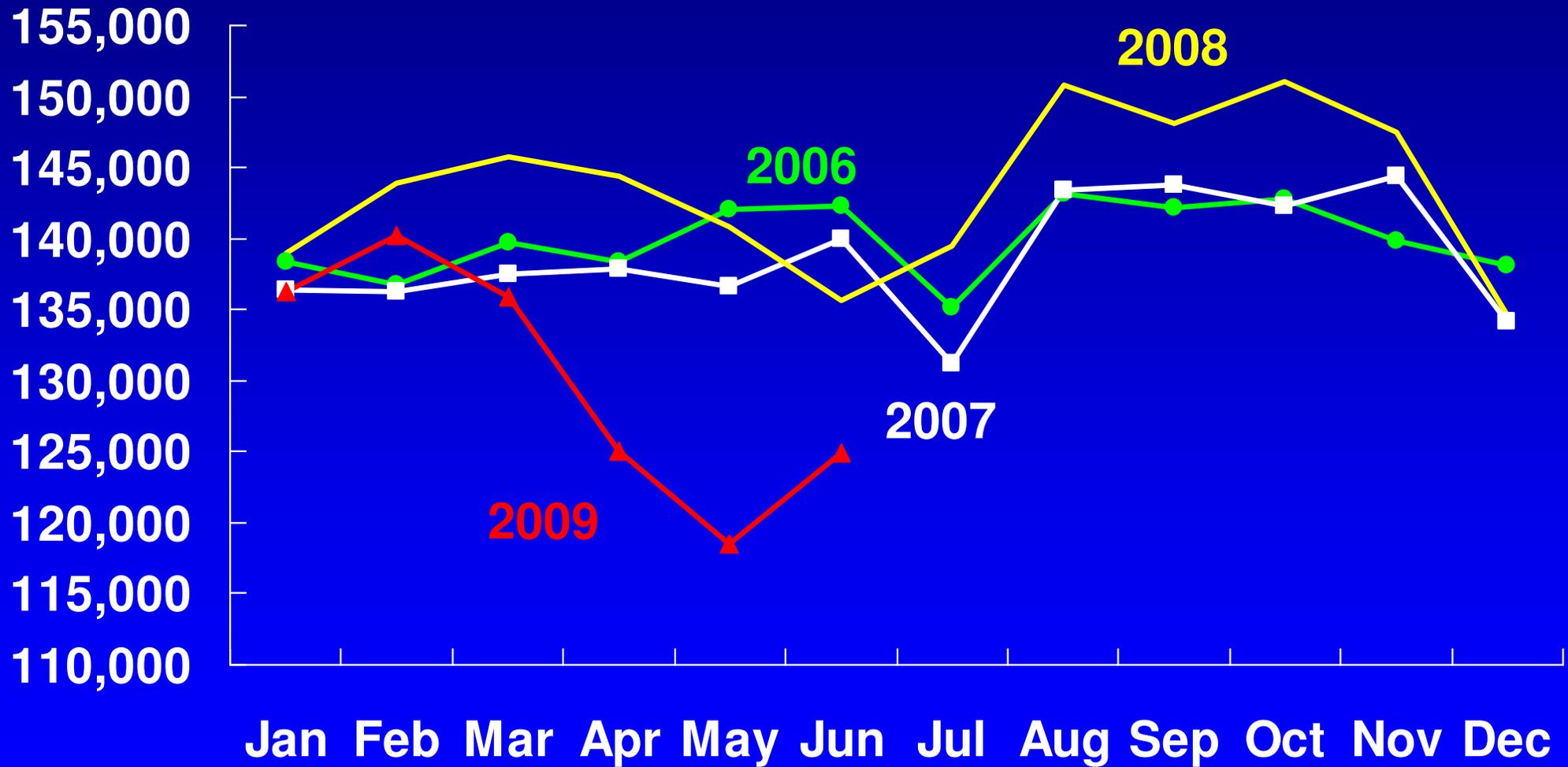
U.S. Rail Grain Traffic (Carloads Originated)



Data are weekly averages. Source: AAR [Weekly Railroad Traffic](#)

U.S. Rail Coal Traffic

(Average Weekly Carloads Originated)



Excludes U.S. operations of CN and CP. Source: AAR *Weekly Railroad Traffic*

Manufacturing Sales & Inventories

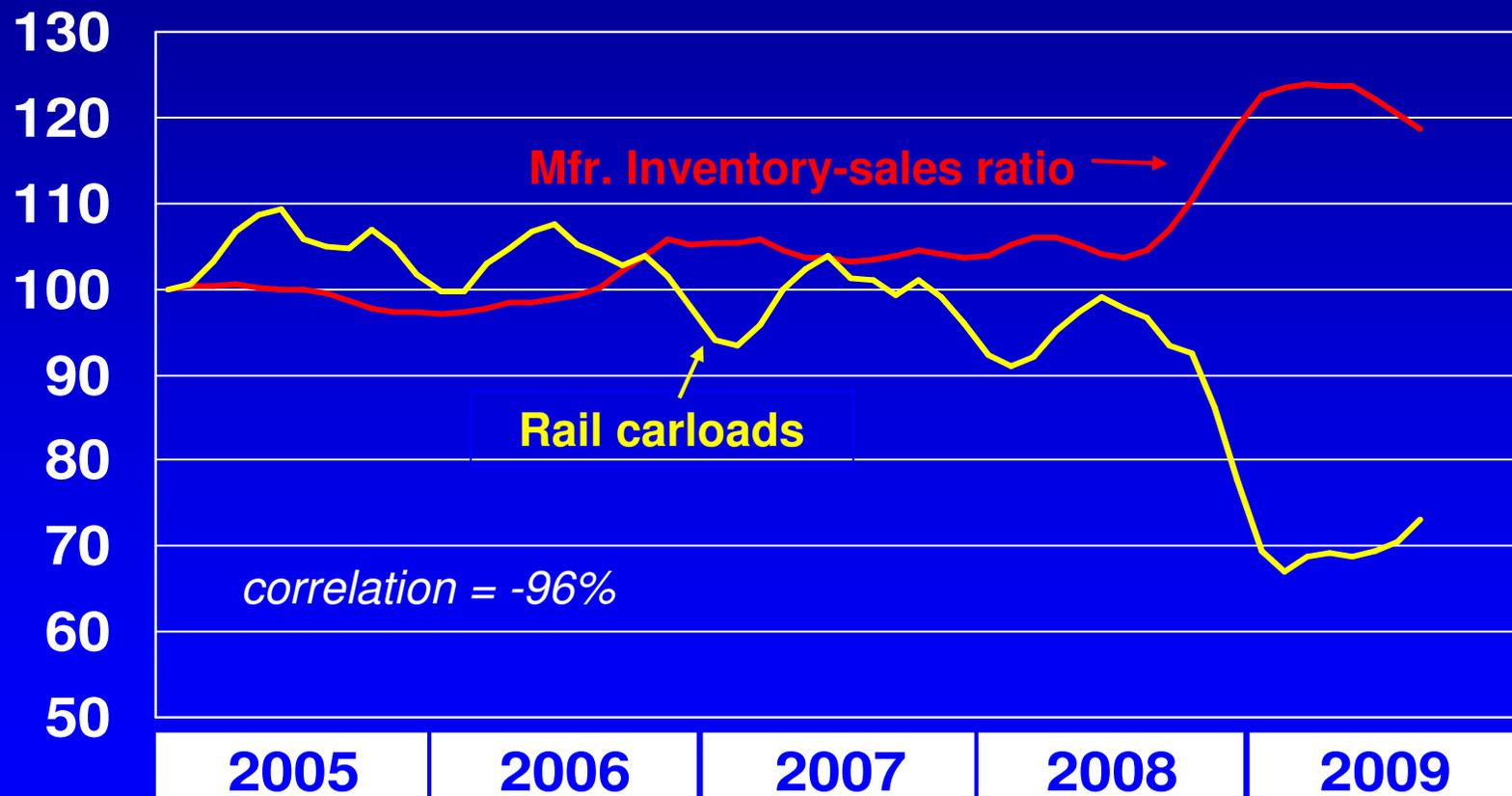
(Seasonally-Adjusted, \$ billions)



Source: Conference Board

Manufact. Inventory-Sales Ratio vs. Rail Carload Excluding Coal and Grain

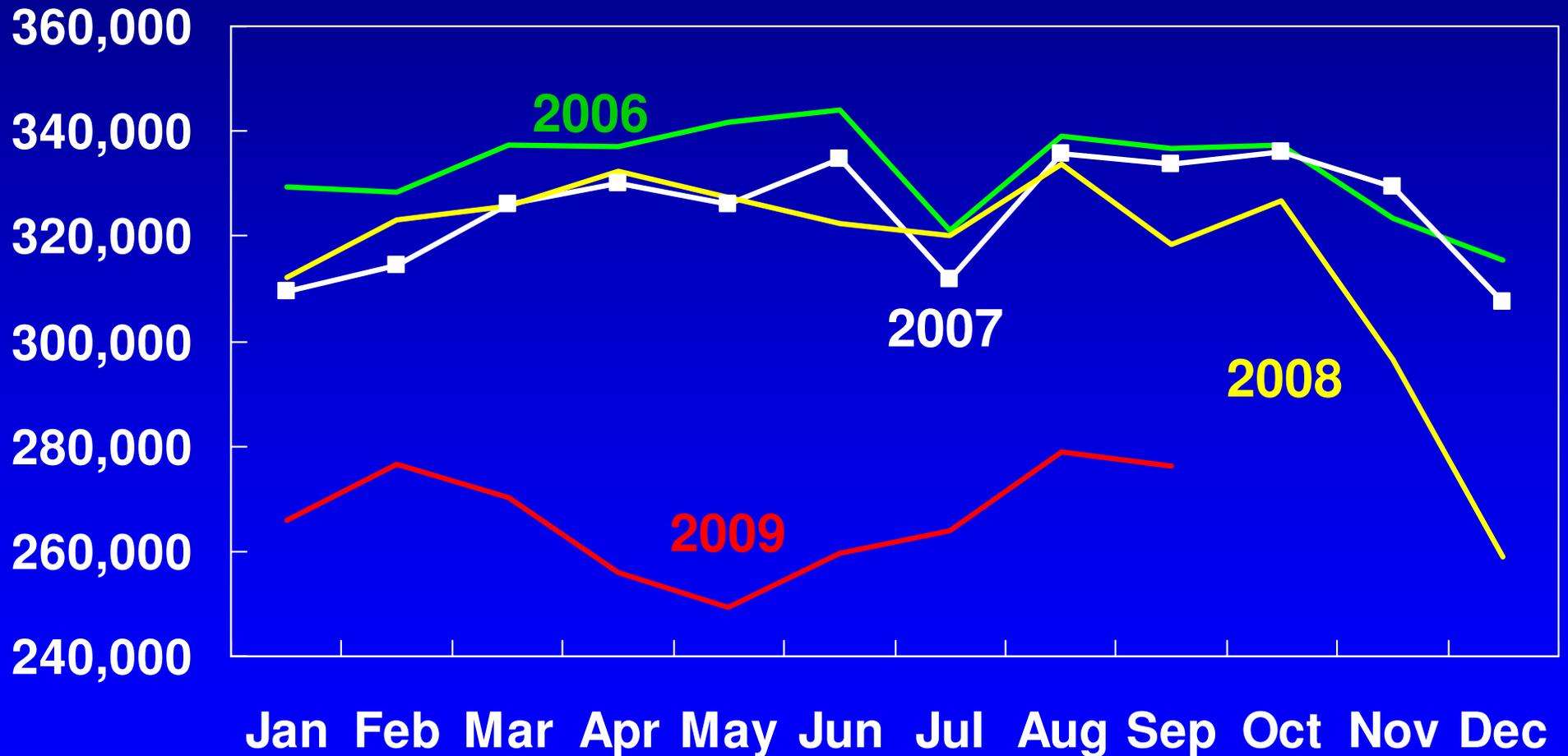
(Index Jan. 2005 = 100)



Inventory-sales ratio is seasonally adjusted; carloads are not. Data are 3-month moving averages. Carloads exclude U.S. operations of CN and CP. Sources: Census Bureau, AAR

U.S. Rail Traffic – All Carloads

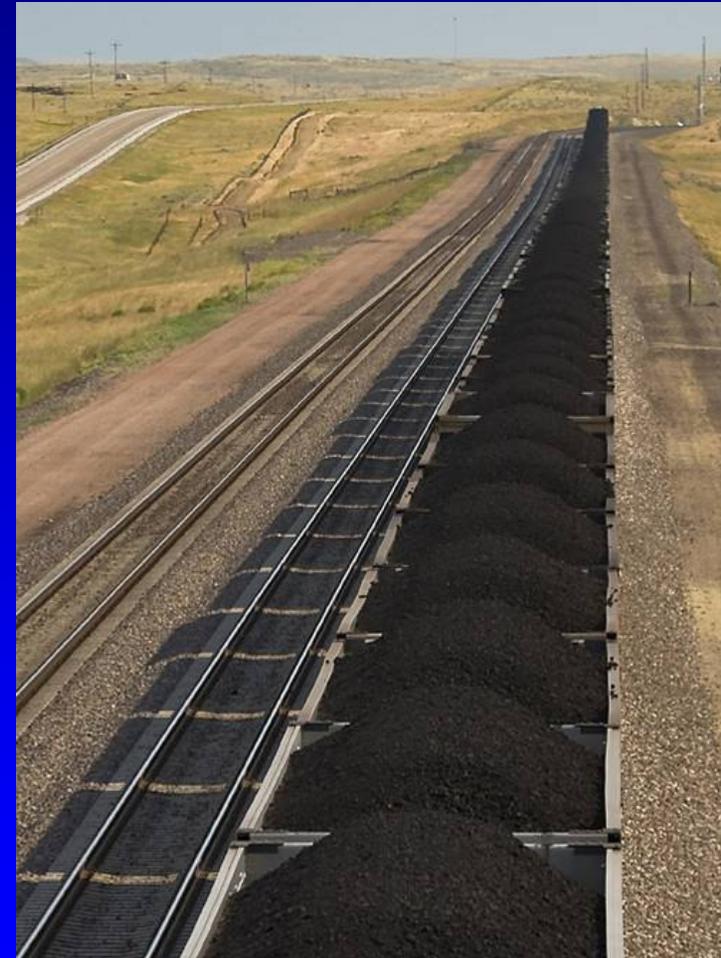
(Carloads Originated)



Data are weekly averages. Source: AAR [Weekly Railroad Traffic](#)

State of the Rail Industry Today

- YTD carload traffic down 18.1%;
YTD intermodal traffic down 16.8%
- ~460,000 freight cars (~29% of total) and ~4,800 locomotives (~18%) in storage
- Down 18,500 employees (~11%) since Nov. 2006 peak
- **But – still making infrastructure improvements – 2009 will be third largest year in history - \$8.8 billion**



SPEED BUMP

DAVE COVERLY

Which Way for the Economy?

