Issues in the Comparison of Welfare Between Europe and the United States

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This is One of Two Twin Papers

- The Second is
  Ian Dew-Becker and RJG,
  "The Slowdown in European Productivity Growth: A Tale of Tigers, Tortoises, and Textbook Labor Economics"

  Presented at NBER Summer Institute by IDB yesterday, July 20

Outline of this Paper

- Interpretation of falling *relative* hours per capita in Europe vs. U. S.
  - Major hypothesis: only a *small portion* of falling relative hours per capita represents welfare value of leisure
  - Addressing the current debates
    - Blanchard – it's all the taste for leisure in Europe
    - Prescott – taxes explain everything
    - Ljungvist-Sargent – welfare state is more important
    - Alesina – Politics and unions
- An Independent Issue: Is GDP in US overstated?

What are the Substantive Issues?

- "Why is Europe so Productive yet so Poor?"
- If Y/H caught up but Y/N languished, then the superficial Answer is H/N has been falling
- Why?
  - Blanchard (*JEP,* p. 4): "The main difference is that Europe has used some of the increase in productivity to increase leisure rather than income, while the United States has done the opposite."
- Blanchard will be the straw man in this discussion of more subtle interpretations

An Opposing View to Blanchard's "Taste for Leisure"

- By definition the decline in Europe's Y/N related to Y/H can be divided into:
  - Decline in relative H/E (35% 1960-95)
  - Decline in relative E/N (65% 1960-95)
- Voluntary Leisure?
  - Some of decline in H/E is not voluntary
  - Most of decline in E/N is not voluntary

Part #1: What are the Data Issues?

- How to Compare Europe GDP vs. US GDP
- Thanks to Peter Neary AER Dec 2004:
  - Geary vs. EKS vs. "QUAIDS"
- Alternative methods of converting Ypc to international PPP
  - Maddison and PWT use Geary-Khamis
  - OECD and Eurostat use EKS (Eltetö, Köves, and Szulc), a multilateral extension of Fisher "ideal"
  - Groningen web site gives both
- No issues in comparing hours, employment, or working-age population

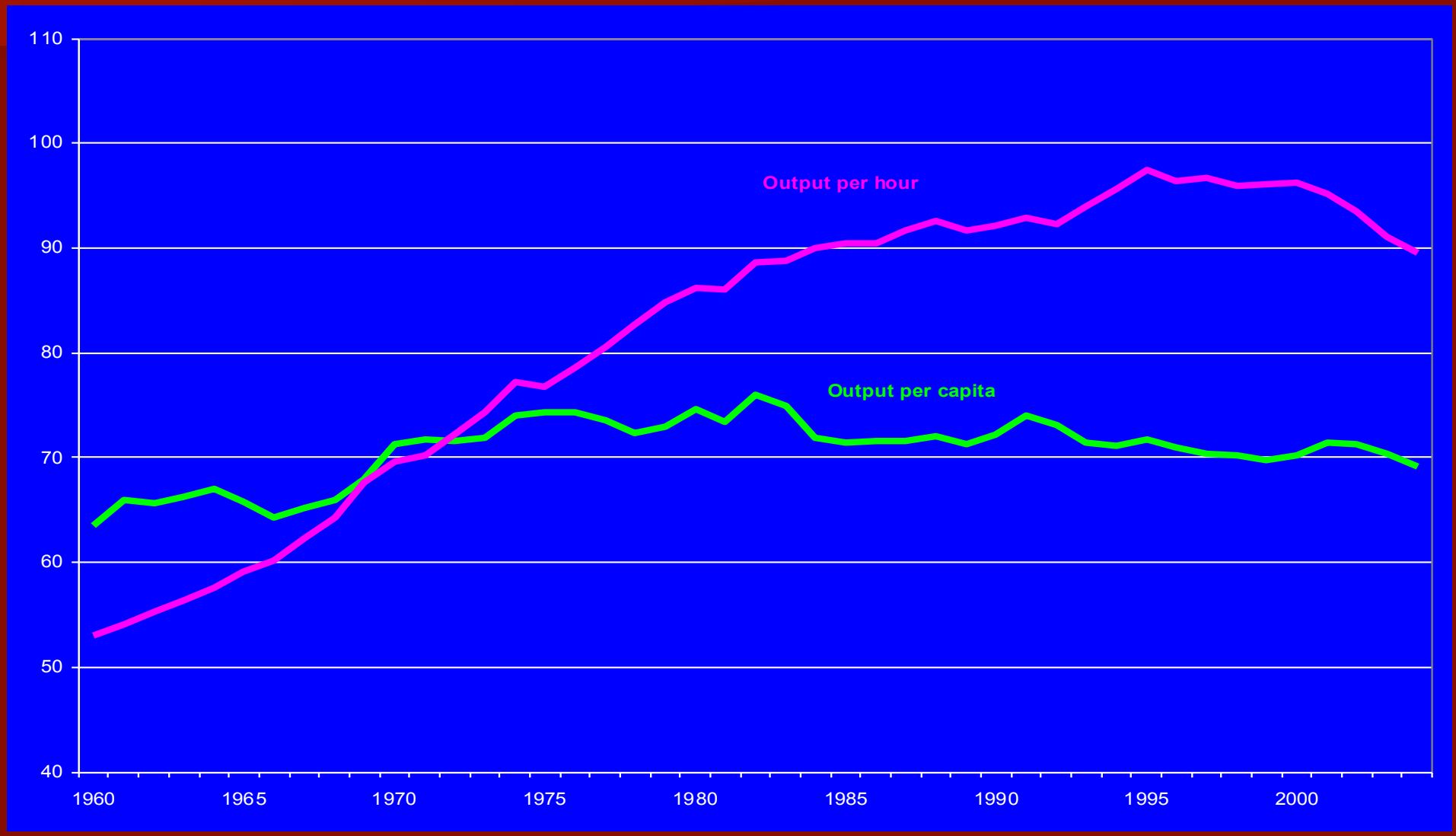
A Preview of the Charts

- Comparison of Y/N and Y/H, how could Europe be so productive yet so poor?
- Breakdown of H/N into E/N vs. H/E
- Raw Numbers on E/N and H/E
- E/L and L/N by Age
- Time Series Behavior of Labor Tax Rates

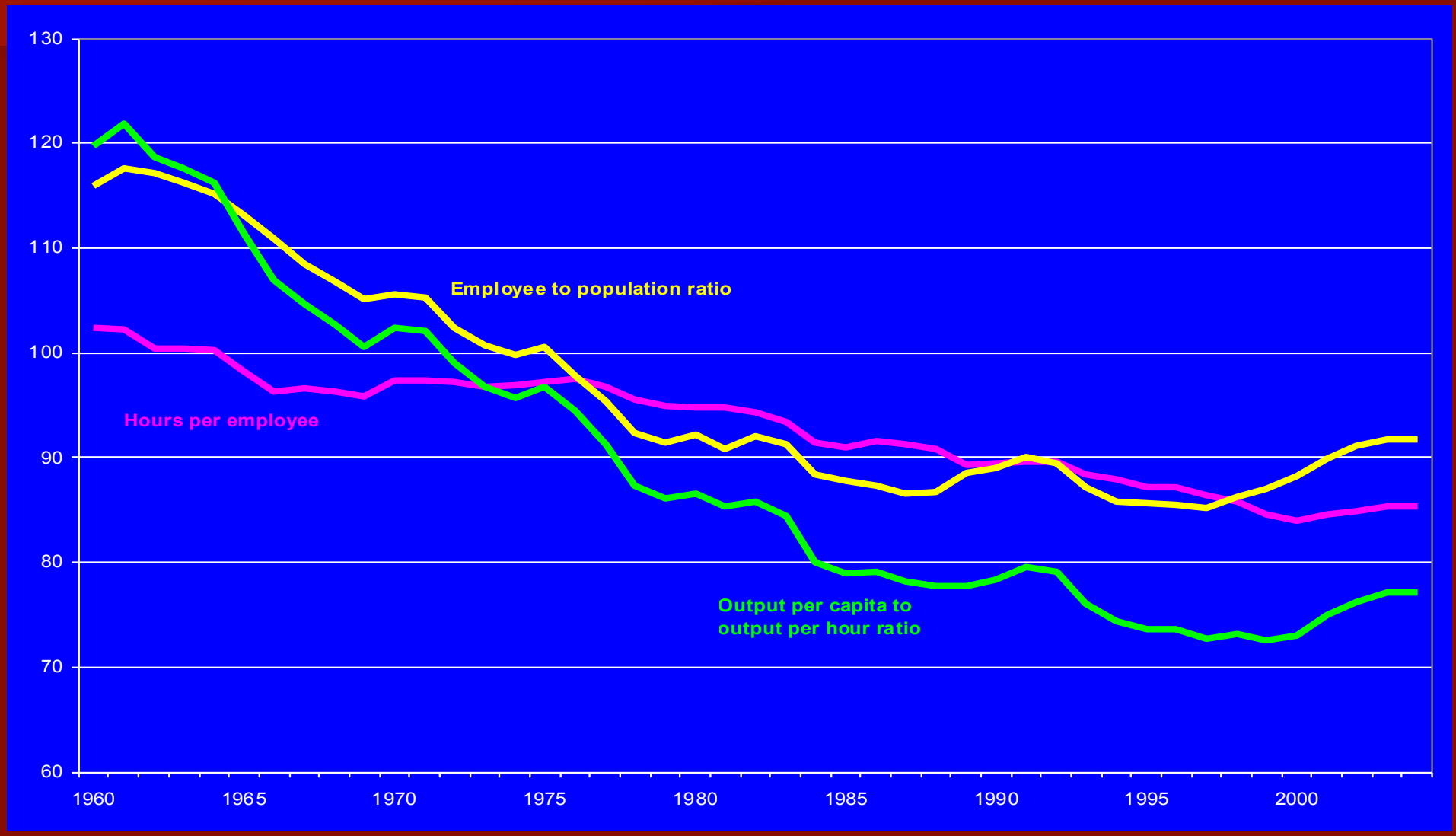
Y/N since 1960: Europe Fails to Converge and then Falls Behind

Productivity (Y/H) Post-1960: The Ratio Reaches 96.9% in 1995

The EU/US Ratios: Y/N compared to Y/H



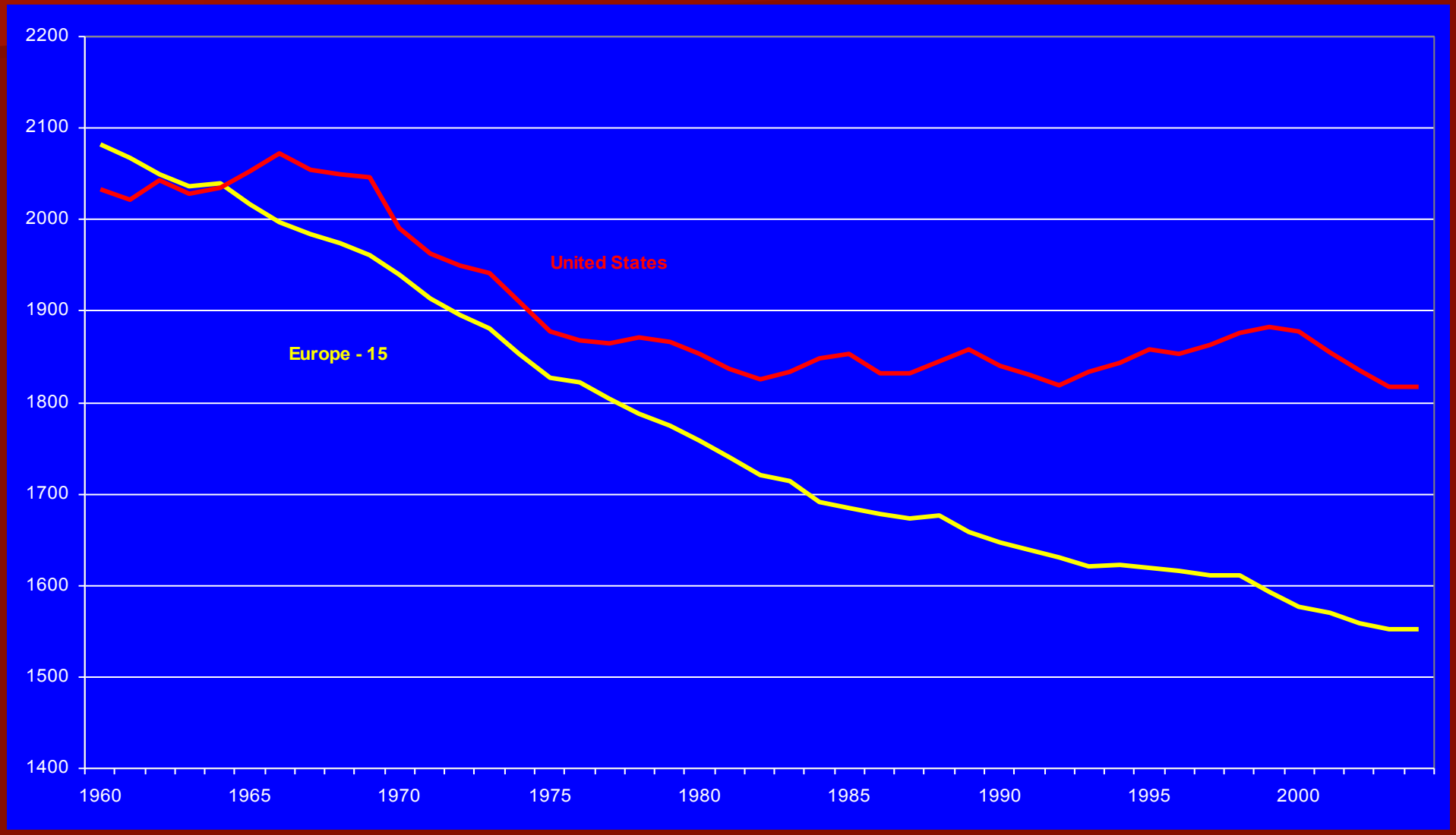
Ratios of Ratios: (Y/N)/(Y/H)=H/N and the Breakdown E/N vs. H/E



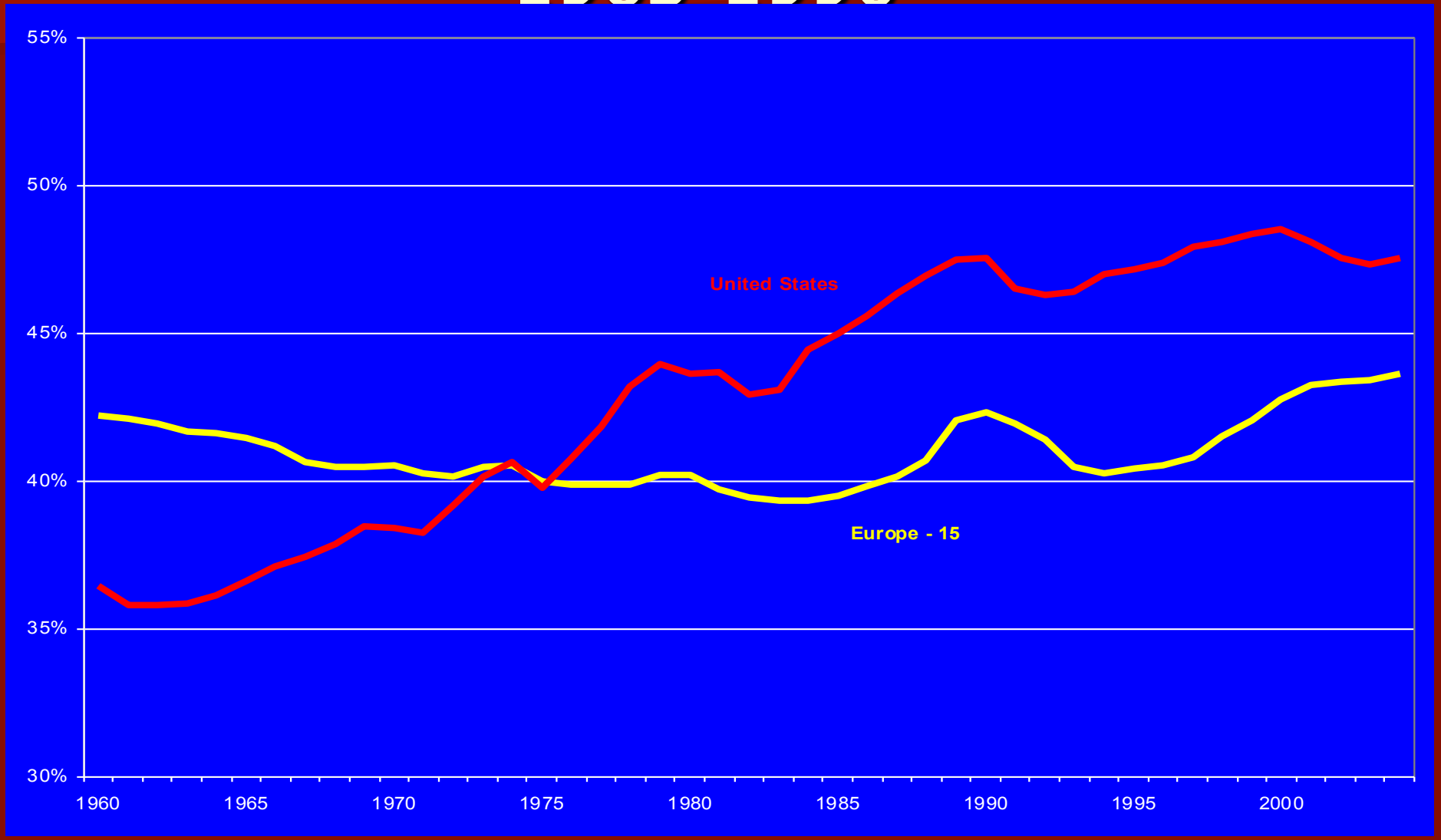
What the Recent *Macro Annual* Debate has Missed

- The EU/US Ratio for Employment-Population turned around in 1995
- Why?
  - A reversal of labor market regulations?
  - A reversal of product market regulations?
  - A reversal of labor taxes?
- But the decline in hours/employee did not turn around

Raw Numbers on Hours per Employee



Employment per Capita: U.S. Women Marched Off to Work 1965-1990



Summary of Turnaround in E/N vs. H/E

Table 1

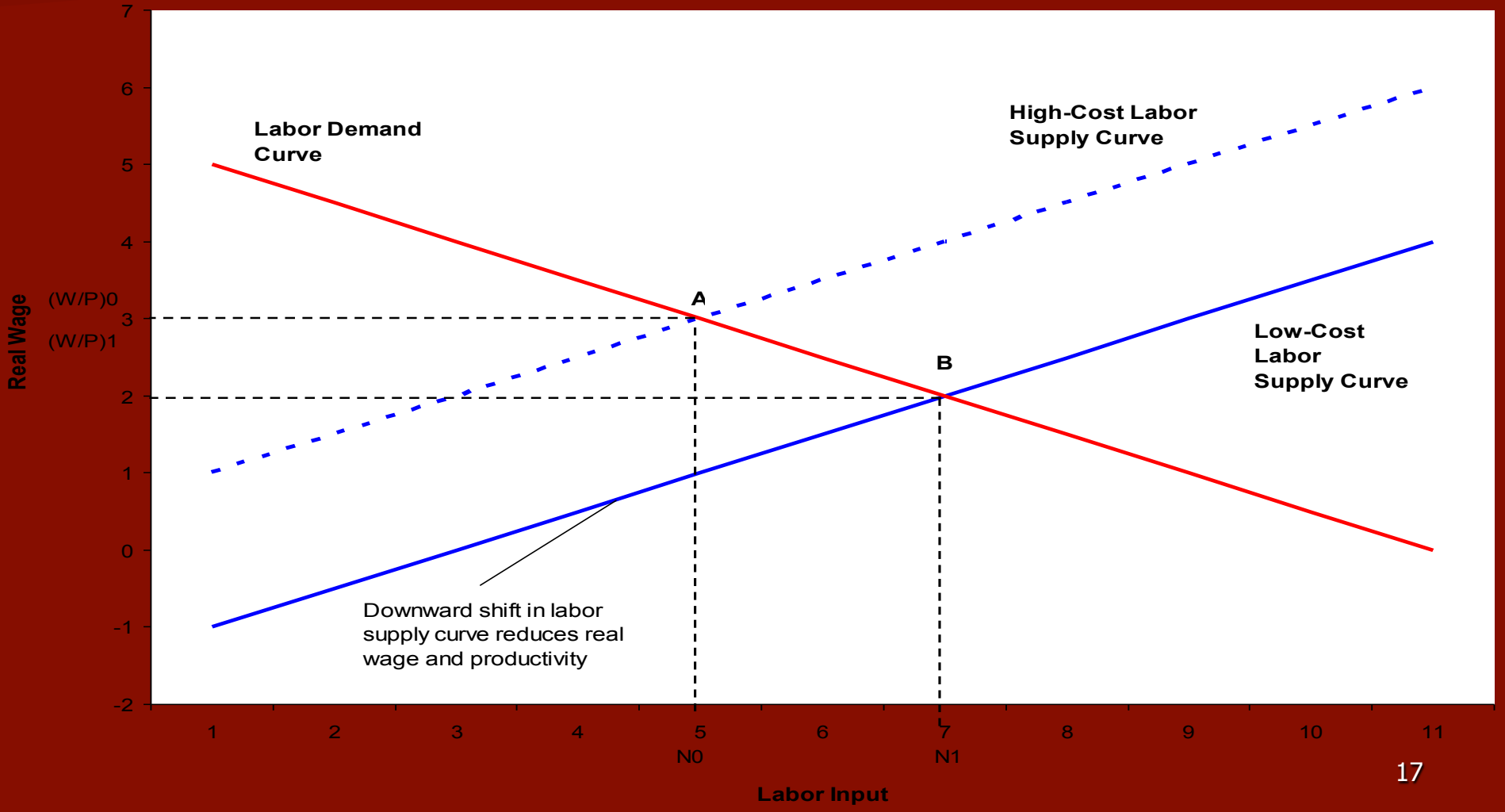
Levels and Growth Rates of Three Ratios of Europe to the United States, 1960-2004, percent

	Hours per Capita	Hours per Employee	Employees per Capita
1960	119.8	102.4	115.9
1970	102.4	97.4	105.6
1995	73.6	87.1	85.7
2004	77.2	85.4	91.7
Annual Growth Rates			
1960-70	-1.6	-0.5	-0.9
1970-95	-1.3	-0.4	-0.8
1995-2004	0.5	-0.2	0.8

An Outline of Issues for Discussion

- Europe's failure to converge is not just a matter of voluntary vacations
- Much more of the change 1960-95 was the decline in employment per capita
- Even lower hours are not entirely voluntary
  - "If the French really wanted to work only 35 hours, why do they need the hours police?"

Textbook Labor Economics



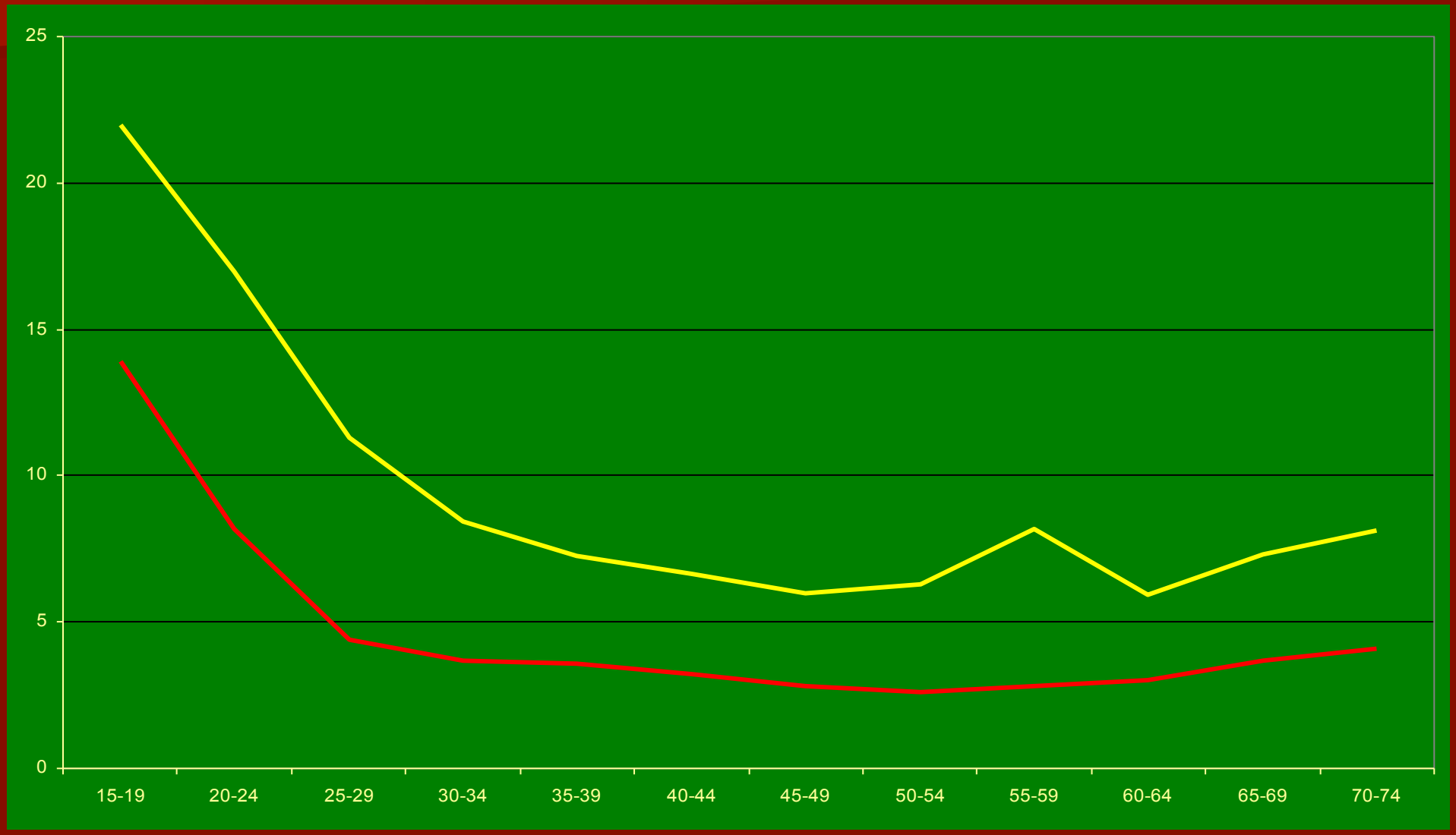
What Matters for Welfare is Y/N + Differential Leisure, not Y/H

- Europeans have "bought" their high productivity ratio with every conceivable way of making labor expensive
  - High marginal tax rates (payroll and income taxes)
  - Unions
  - Firing restrictions
  - Early retirement (55! 58!) with pensions paid for by working people
  - Lack of encouragement of market involvement by teens and youth

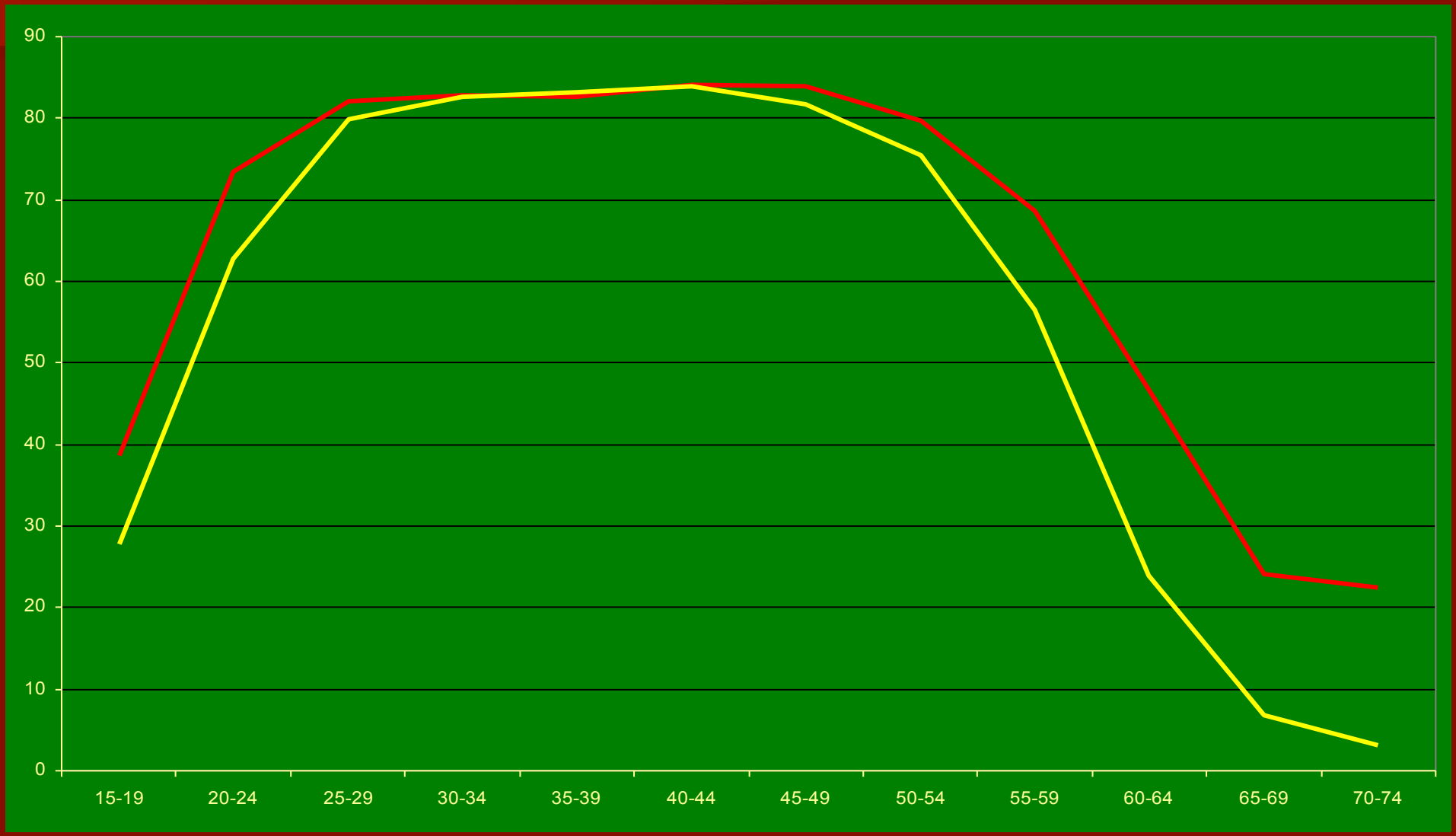
The Decline in Europe's E/N Matters more than H/E

- First, which age groups are suffering from higher unemployment in Europe?
- Second, which age groups experience lower labor force participation in Europe?
- Third, how does it come together in the distribution of low E/N by age group?
- Note: These graphs are for total population by age and blur male/female differences.

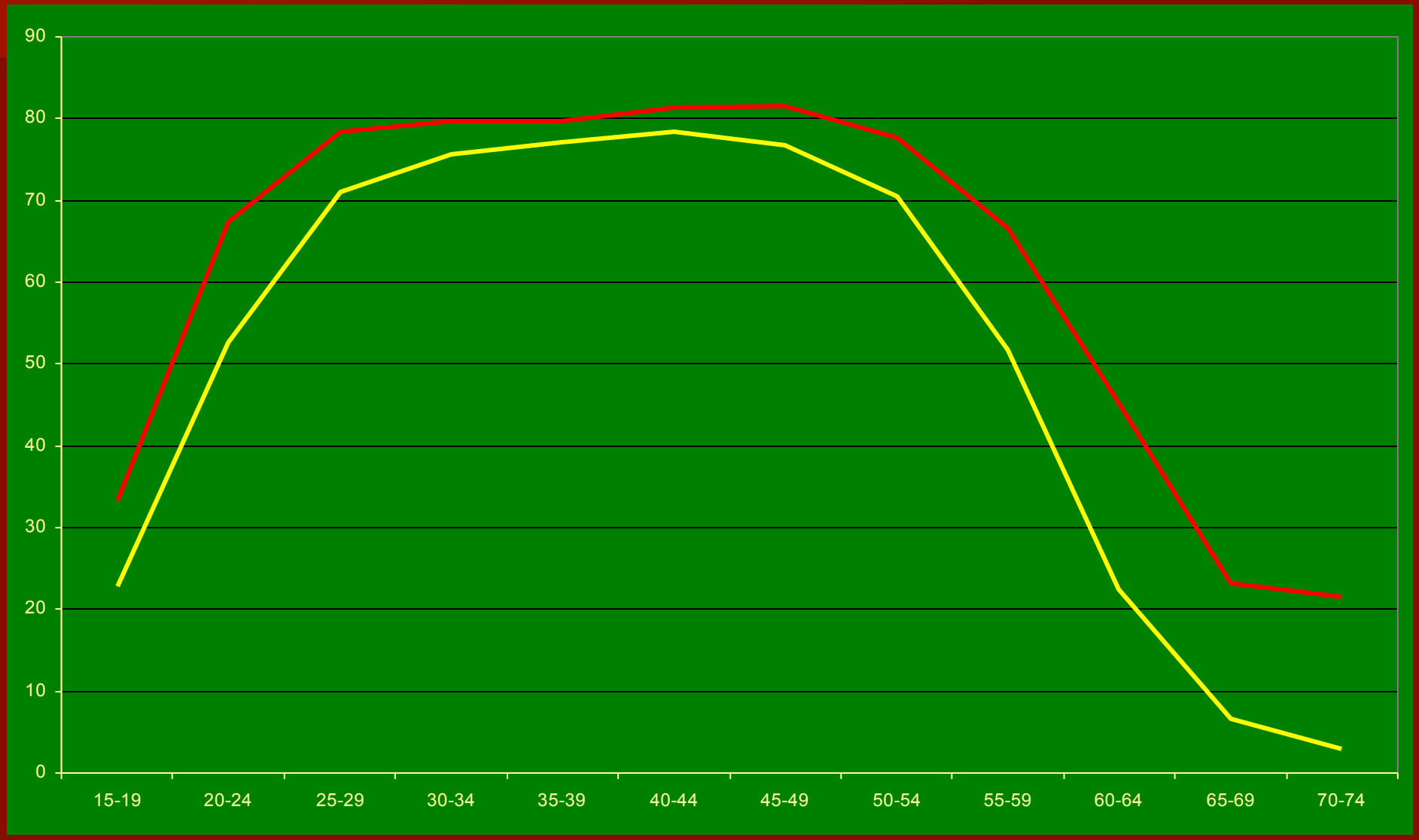
Unemployment by Age: EU vs. US in 2002



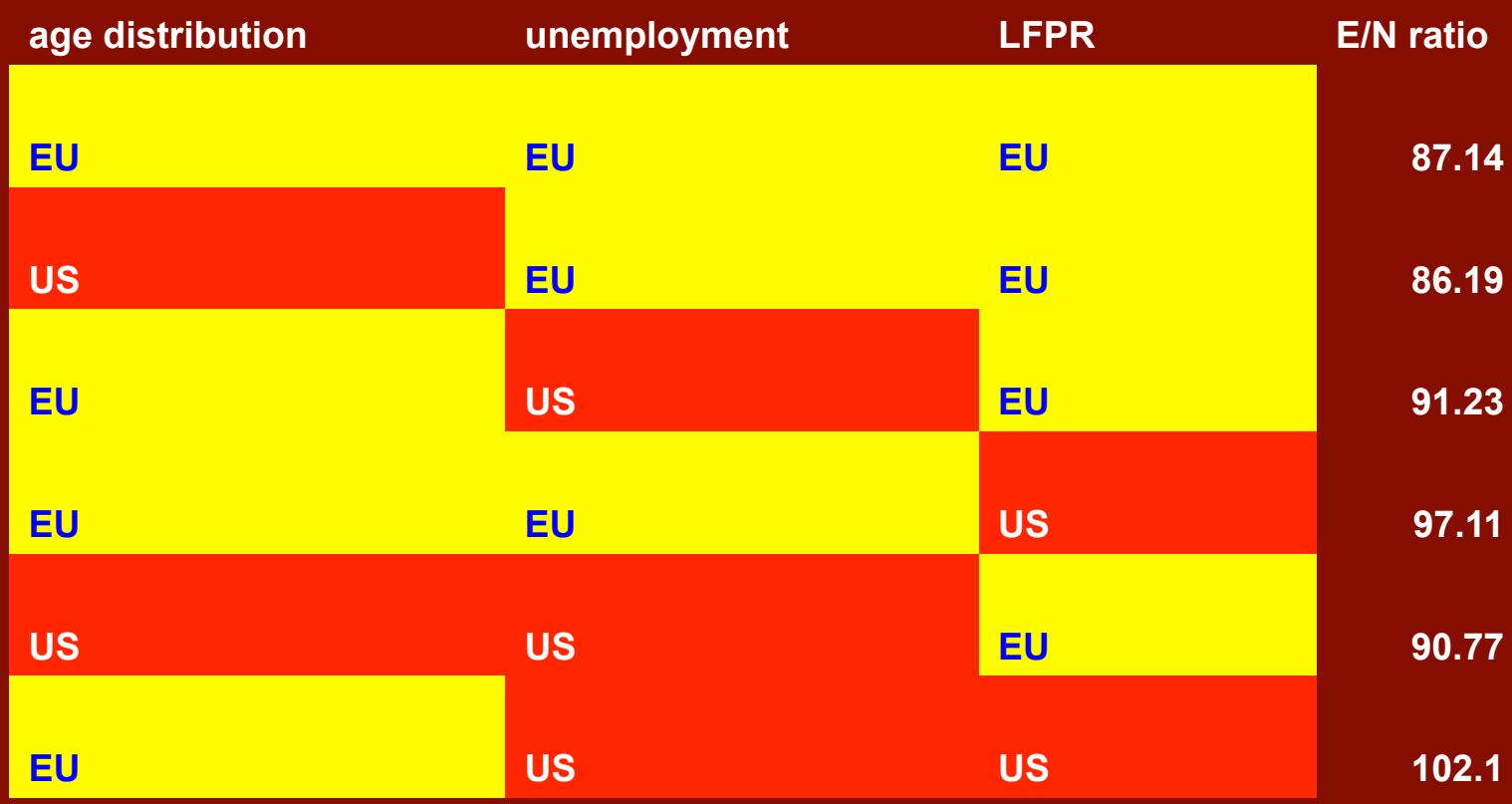
Labor-force Participation by Age



Putting it Together: Europe vs. US E/N by Age Group



Decomposing the EU/US Difference in the E/N Ratio



Brief Summary of the Recent Prescott Debate

- Prescott says it's all higher taxes in Europe
- This is consistent with
  - Firms cutting jobs
  - Employees choosing untaxed leisure
  - So decline in both H/E and E/N are involved
- Problems:
  - Alesina, labor supply elasticities don't match
    - The labor-supply elasticity for adult men is zero
    - The elasticity for females and teenagers is high, but they are only half of the story
    - Thus Prescott can explain only half of labor withdrawal
  - Me, not consistent with age distribution story

Ljungqvist-Sargent's skepticism on the "national family"

- Prescott assumes national family, voluntary redistribution to those who withdraw labor because of high taxes
- In reality most of those who withdraw labor supply because of high taxes are not supported by voluntary family transfers
- Are supported by government transfer payments that "strain social insurance systems"; "government expenditures were poor substitutes for private consumption"

Alesina on Unions and Regulation

- Contrast between U. S. and EU
- U. S. union penetration peaked in late 30s, 1940s, declined after 1950s
- Europe peaked in late 1970s, early 1980s
- No disagreement about what unions do to the labor supply and demand diagrams
  - Unions push the economy northwest

Channels of European Union Influence (Alesina)

- Unions keep wages artificially high
- Unions may pursue a political agenda to reduce work hours
- Unions have pushed for early retirement financed by state pensions
- Unions impede the reallocation of labor in response to sectoral shocks

- Neither Alesina nor critics notice turnaround in Europe's E/N after 1995

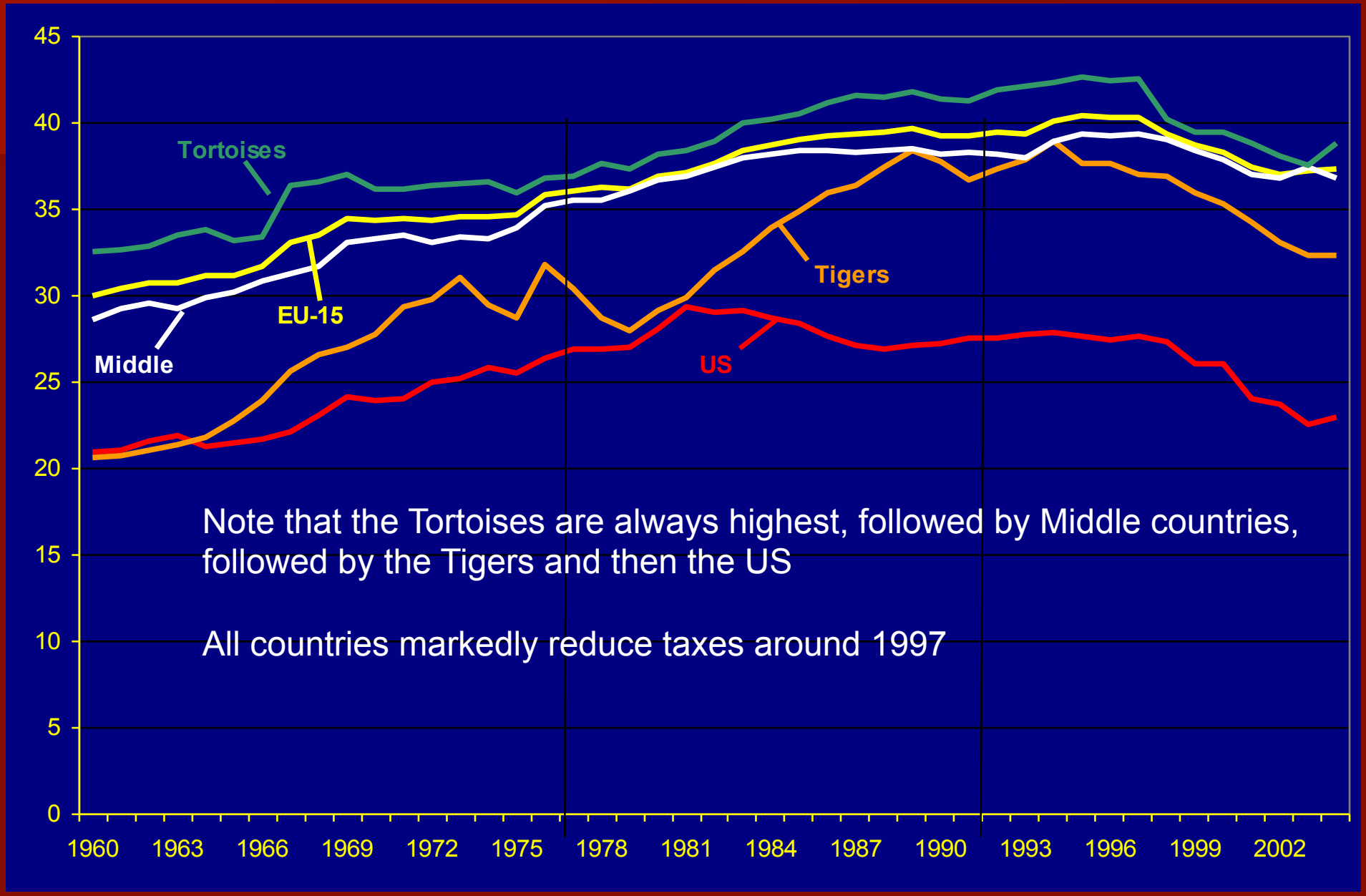
Critique of Modern Macro Interpretations

- About Alesina, timing is wrong. Union density increased 1960-80, but then fell to 1995 to about the same level as 1960
- This argument from Rogerson (2006) ignores inertia in political process
- Decline in unions and decline in taxes consistent with post-1995 turnaround in H/N

Paper #2 with IDB on Tigers and Tortoises, Pop Shares and Private Y/H Growth, 1995-2004

- Tigers: Ireland, Finland, Greece
  - Pop Share: 5% ALP 4.79%
- Middle: Sweden, Austria, UK, Germany, Portugal, France
  - Pop Share: 61% ALP: 2.45%
- Tortoises: Belgium, Netherlands, Denmark, Luxembourg, Spain, Italy
  - Pop Share: 34% ALP: 0.72%
- Tortoise Failure by Industry: Across the Board

Average Tax wedge, 1960-2004



Reactions of Hours to Taxes

- Regressions of H/N on tax wedge
  - Using H/N is a first approximation, need to study separate effects on E/N and H/E
- Double-log specification, estimated elasticity of H/N to tax wedge is -0.4
- Changes after 1995 don't match the tax changes very well, but they go in the right direction
- Middle countries are the exception
- While everybody else was increasing H/N, middle countries were working less – counter to tax story

Bottom Line About Tigers and Tortoises

- Recent Reports by the OECD and others join together high unemployment and slow productivity growth as part of a general malaise.
- Our focus is different
- Labor market and tax reforms have raised hours per capita after three decades of decline.
- Rising hours per capita and declining growth of output per hour are signs of victory for European labor market reforms, not signs of defeat.

A Broader View: The Welfare Cost of Higher Unemployment

- The distinction between marginal hours of leisure (40 work, 80 leisure) vs. inframarginal hours (20 work, 100 leisure)
- Leisure hours on vacations and weekends are more valuable than mid-week leisure hours
  - Apply analysis to unemployment
  - Apply analysis to early retirement

The Welfare Effect of Early Retirement: Back-of-Envelope

- Baseline: work age 20-65, retire 65-84
- No saving, investment
- 30% tax finances pay-as-you-go pensions with balanced govt budget
  - Tax finances equality of consumption in retirement to consumption during work years
- Alternative retirement age at 55 requires tax increase to 45.6%, 25.1% decline in consumption during work years and retirement

Welfare calculation

- With 55 retirement age, after-tax wage is 25% less
- Extra hours switched from work to retirement leisure are low-valued (2/3)
- Total welfare = market consumption plus total value of leisure
- Market consumption declines 25.1 percent, welfare declines 22.6 percent, ratio 90% (i.e., leisure offsets 10%)

Some Time of Unemployed is Spent In Home Production not Leisure

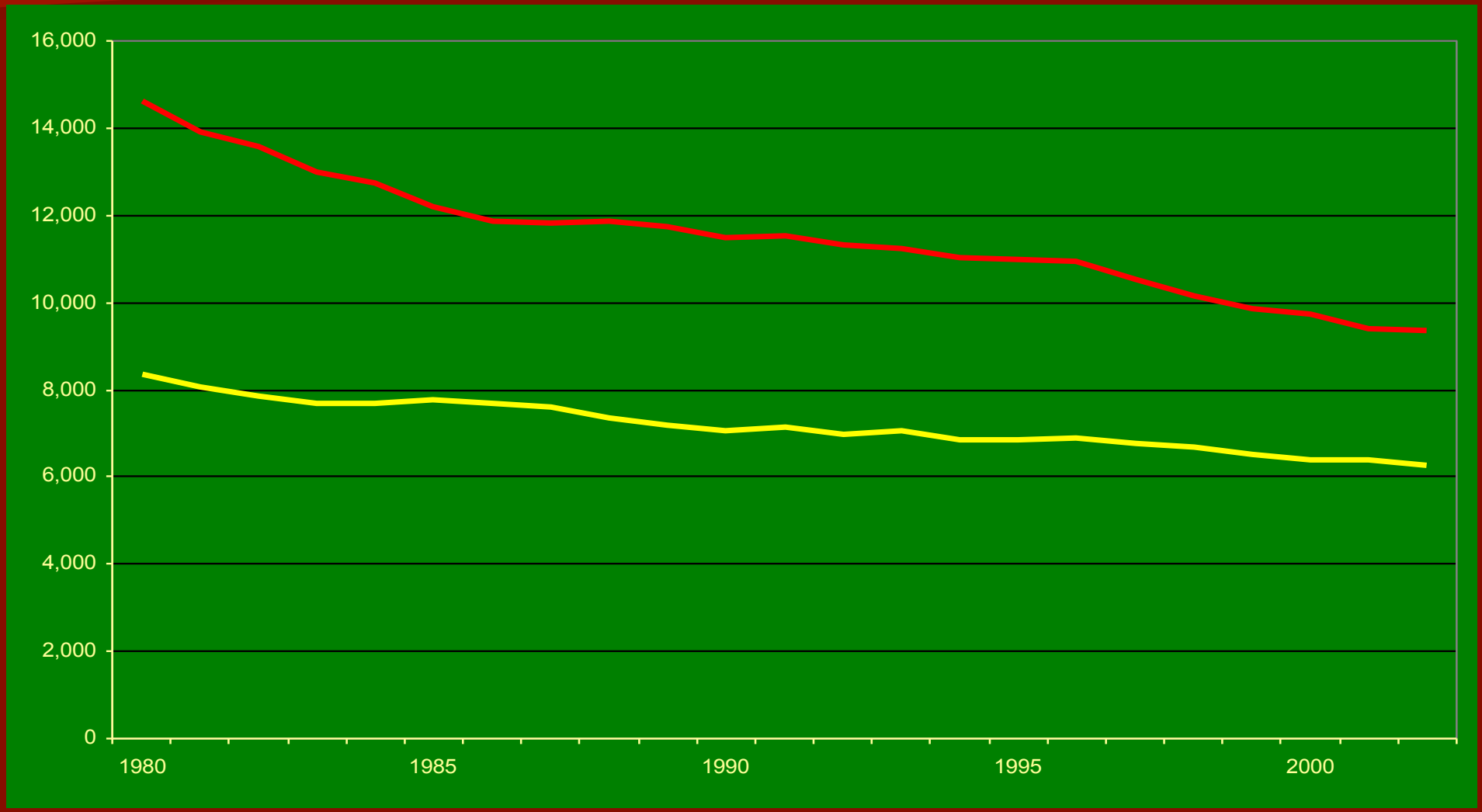
- Freeman-Schettkat
- M=market, H=home production, L=leisure, P=personal time (sleep)
- I set P>9.0 as Leisure

	M	H	L	P
Employed	8.0	2.5	4.5	9
Unemployed	1.0	4.5	9.5	9

Turn the Tables on the U. S.: The "Disconnect" between Welfare and PPP-Adjusted GDP

- GDP Exaggerates U. S. GDP per Capita
  - Extreme climate, lots of air conditioning, low petrol prices, huge excess energy use
  - U. S. urban sprawl: energy use, congestion
  - Crime, 2 million in prison
  - Insecurity, lack of employment protection, lack of citizen's right to medical care
- How much is this worth?

BTUs per GDP: The EU-US Difference is only 2% of GDP



Other Additions or Subtractions from Europe's Welfare

- Urban Congestion?
  - London vs. NY? Paris vs. Chicago?
  - Time spent in London underground vs. in a Chicago automobile?
- Prisons, perhaps 1% of GDP
- Inefficiency of U.S. Medical Care (Table 2)
- Undeniable U. S. superiority: housing
  - People value interior square feet (2X in US)
  - People value exterior land (4X in US)

The Value of Extra Security in Europe

- By Measuring Y/N Pre-tax instead of Post-Tax, we treat EU Welfare System as Valuable as Equivalent in Market Consumption
- Prescott counts only the substitution effects of higher labor taxes
- Europeans get full value back per tax dollar in valued government services
  - U comp, maternity leave, pensions, severance pay
- To Make an extra allowance would be double counting

Additional Subtleties

- Immigration?
  - U.S. Illegal but Voluntary
  - Illegal Immigrants have jobs
  - Alienated French *banlieues*
  - European immigrants more political than economic?
- Inequality
  - U. S. median real income grows slower than mean real income, increasing skewness of income distribution

Table 3

Summary of Adjustments to the Europe-to-U.S. Ratio of Per-capita Income, 2004

	Europe-to-U. S. Ratio of Real GDP per Capita	Adjustment to Leisure Component of Hours	Adjustment to GDP
Market PPP Ratio of Y per Capita	68.8		
Add: 2/3 of Difference in Hours per Employee (11.8)		7.9	
Add: 1/10 of Difference in Employment per Capita (8.6)		0.9	
Add: Half of Energy Use Difference			1.0
Add: Prisons and Other			1.0
Add: Medical Care Inefficiency			3.0
Sum of Market PPP Ratio and above Additions	82.6		
Market PPP Ratio of Y per Hour	89.2		
Percent Prody Gap Explained	67.6		
Percent Total Gap Explained	44.2		