From Optimal Tax Theory to Practice: Comprehensive US Income Tax Reform

Emmanuel Saez

January 2010

ACADEMIC MOTIVATION

(1) Large **academic** literature on:

(a) Behavioral responses to taxes and transfers

(b) Optimal tax and transfer design

My academic work has tried to integrate **(a)** and **(b)**

(2) Large **practitioner** literature focusing on actual practices and administration issues

Behavioral economics has rekindled academic interest in admin issues. Integrating **(1)** and **(2)** is required to develop a comprehensive US tax reform plan

ECONOMIC MOTIVATION

(1) Inequality: Surge in US income concentration since the 1970s $\Rightarrow$ Economic growth excluding top 1% has been modest

(2) Revenue: US faces significant fiscal imbalances [past tax cuts, wars and recession shocks, and future projected spending]

(3) Fairness and Efficiency: Current US income tax system has various loopholes which limit its progressivity and revenue raising capacity

(4) Complexity: Both US tax and transfer systems are complex and impose substantial compliance costs on families

GOALS OF COMPREHENSIVE TAX REFORM

(1) Efficiency: Broaden base, eliminate loopholes, and integrate individual and corporate taxation

(2) Fairness and Revenue: Restore progressivity by tapping into fiscal capacity that has built up at the top of the income distribution

(3) Simplicity: No filing required for majority of taxpayers and means-tested transfers integrated with the income tax

ACADEMIC OPTIMAL TAX MODEL

Individuals have pre-tax market income z and disposable income $c = z - T(z)$ where $T(z)$ is tax net of transfers

1) Fairness: Public cares about the distribution of income and economic gains:

$\Rightarrow$ \$1 extra tax cut to a high income person has less value for society than \$1 extra tax cut to a low income person

2) Behavioral Responses: Individual pre-tax income z responds to taxes and transfers

$\Rightarrow$ Taxes and transfers create efficiency costs

Government trades-off Equity and Efficiency optimally

TOP INCOMES AND TAXES

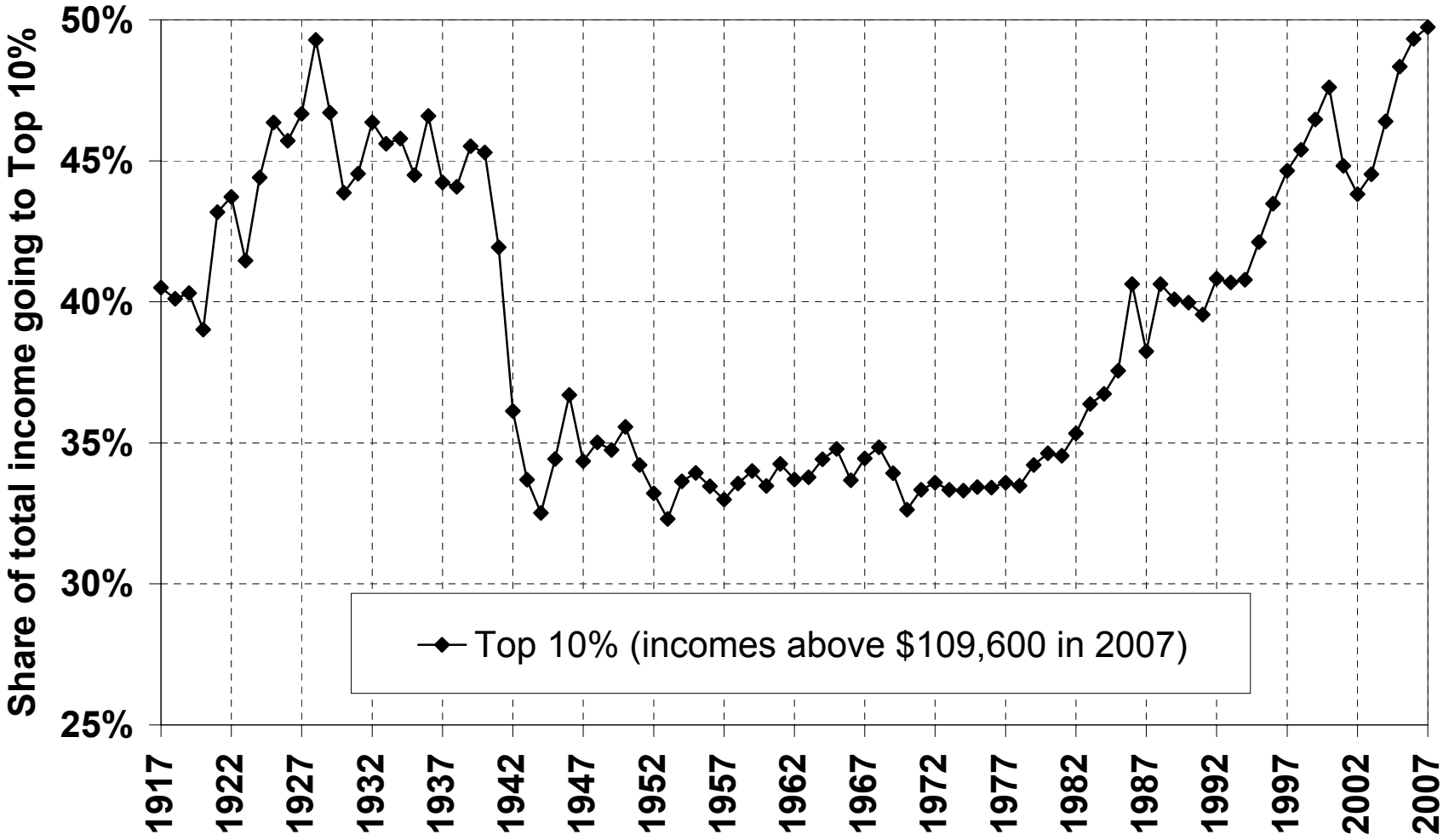
Top US incomes have surged in recent decades: top 1% income share increased from 9% in 1970 to 23.5% in 2007 [Piketty-Saez]

In 2007, top 1% incomes [$> \$400K$] paid average Fed individual tax rate of "only" 22% but this was 40% of total Fed individual taxes paid [IRS statistics of income]

$\Rightarrow$ Top 1% has large potential tax capacity but increasing top 1% marginal tax rate might reduce top incomes through behavioral responses

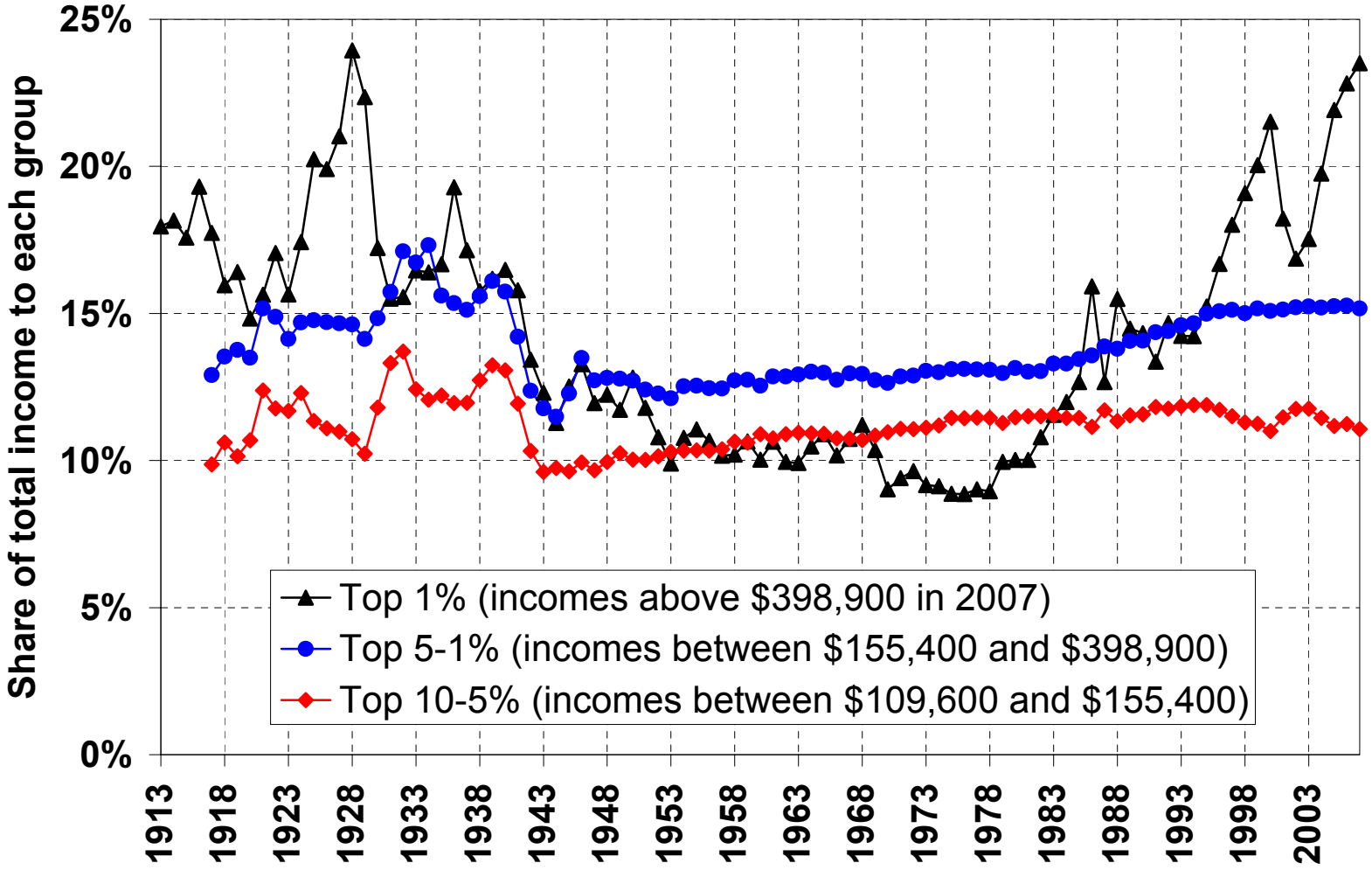
Top 1% plays a key role in tax revenue and tax reform debates

1. US Top Decile Income Share, 1917-2007



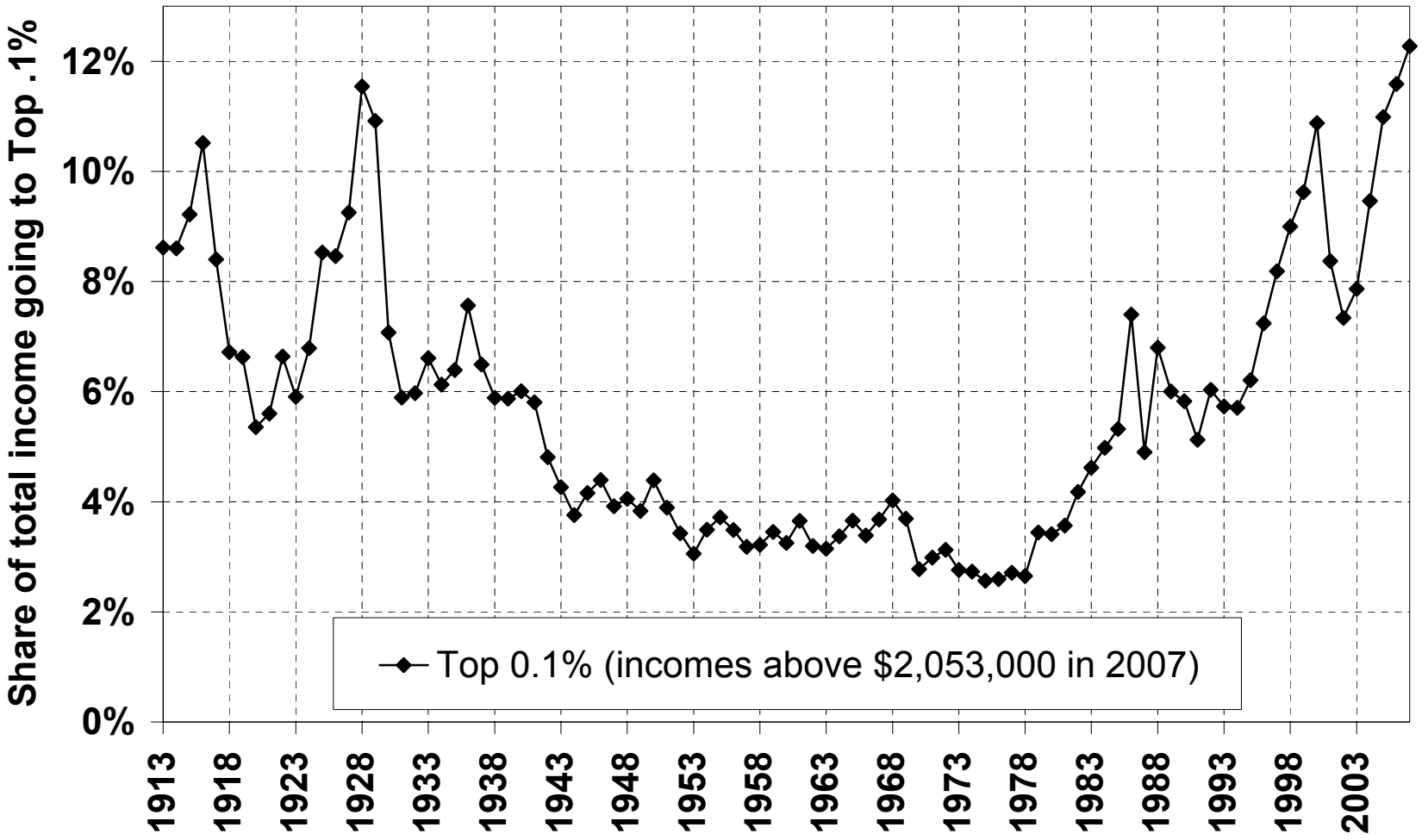
Source: Piketty and Saez QJE'03, updated to 2007, pre-tax cash market income including capital gains

2. Decomposing US Top Decile, 1913-2007



Source: Piketty and Saez QJE'03, updated to 2007, pre-tax cash market income including capital gains

3. US Top 0.1% Income Share, 1913-2007



Source: Piketty and Saez QJE'03, updated to 2007, pre-tax cash market income including realized capital gains

1. Top Percentile Share and Average Income Growth in the US

	Average Income Real Growth	Top 1% Incomes Real Growth	Bottom 99% Incomes Real Growth	Fraction of total growth captured by top 1%
Period 1976-2007	43%	279%	20%	58%
Clinton Expansion 1993-2000	31%	99%	20%	45%
Bush Expansion 2002-2007	16%	62%	7%	65%

Computations based on family market income including realized capital gains (before individual taxes).
Incomes are deflated using the Consumer Price Index (and using the CPI-U-RS before 1992).
Column (4) reports the fraction of total real family income growth captured by the top 1%.
Source: Piketty and Saez (2003), series updated to 2007 in August 2009 using final IRS tax statistics.

FAIR INCOME TAXATION

Gains from economic growth should be distributed evenly across income groups [= uniform growth rates across income groups]

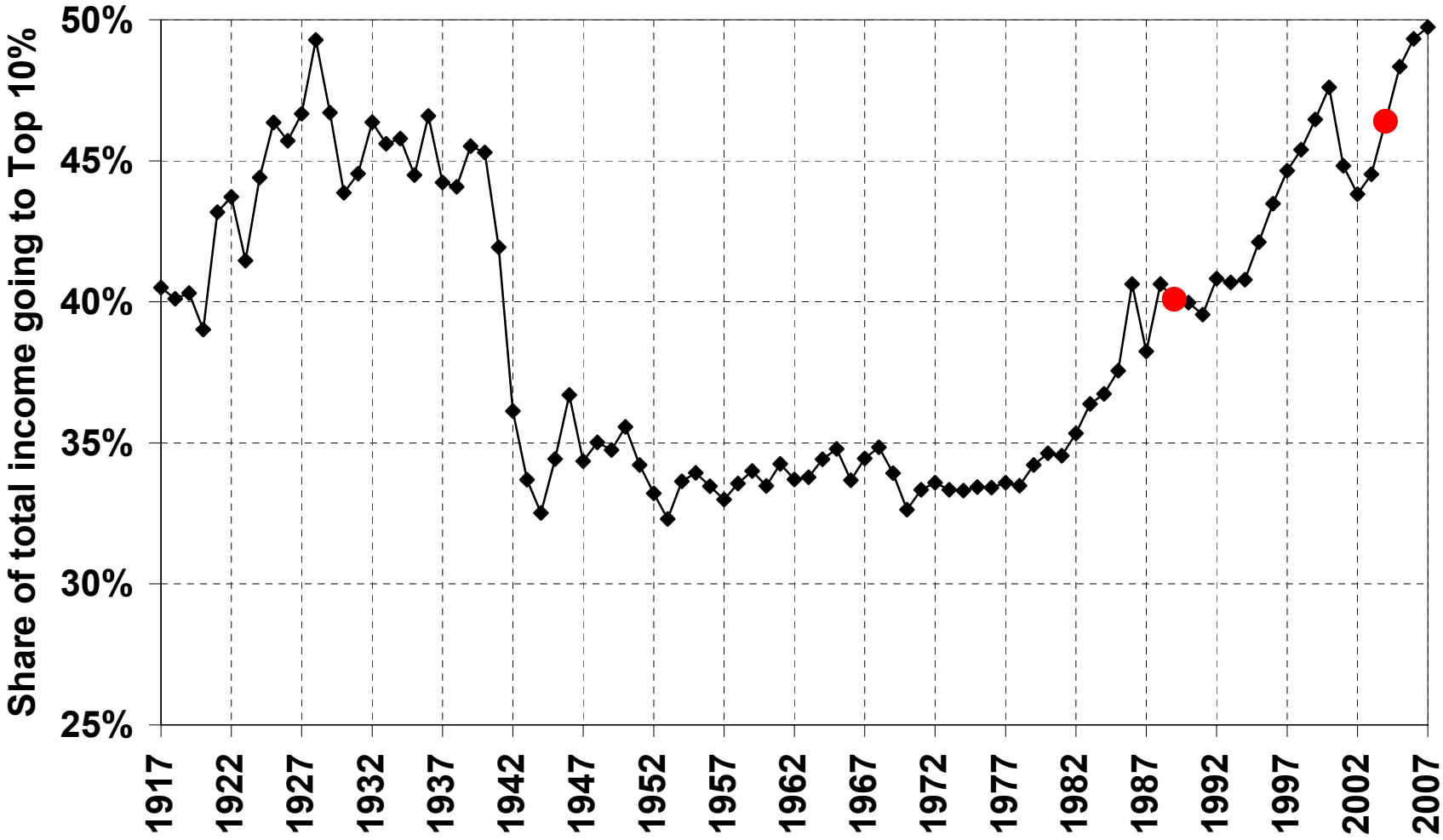
Pre-tax economic gains since 1970s have been very unevenly distributed (due to technology, institutions, social norms)

Progressive comprehensive income tax can help distribute economic gains more fairly

Distributing evenly economic gains since 1970s using progressive taxation would require tax rates above 80% at the top

More modest goal: Use progressive taxation to distribute evenly economic gains since 1989

1. US Top Decile Income Share, 1917-2007



Source: Piketty and Saez QJE'03, updated to 2007, pre-tax cash market income including capital gains

FAIR INCOME TAXATION

Why choose 1989? 1989 is just after Reagan administrations

1) Inequality by 1989 was already quite high [higher than any year 1942-1985]

2) Tax structure in 1989, just after major Tax Reform Act of 1986, is broad based with fairly flat rates [top tax rate was 28%]

$\Rightarrow$ Restoring the post-tax income distribution of 1989 is a moderate goal

I assume that 2010 income distribution is the same as 2004 [substantially less unequal than 2007]

2. Fair Tax Rates to Spread Evenly Economic Gains from 1989 to 2010

	Actual 1989		Actual 2010 (= 2004)		Fair tax rates 2010	
	Pre-tax income share	Average income tax rate	Pre-tax income share	Average income tax rate	Revenue neutral	Raising +3 pts of GDP
All	100.0%	13.1%	100.0%	12.1%	**12.1%**	**17.1%**
Top 10%	40.1%	18.8%	46.4%	18.6%	**29.0%**	**33.0%**
Top 1%	14.5%	23.3%	19.8%	23.5%	**43.1%**	**46.4%**
Top .1%	6.0%	24.1%	9.5%	22.9%	**51.4%**	**54.1%**
Bottom 90%	59.9%	9.3%	53.6%	6.5%	**-2.5%**	**3.3%**
Top 10-1%	25.6%	16.2%	26.6%	15.0%	**18.5%**	**23.2%**
Top 1-.1%	8.5%	22.8%	10.3%	24.1%	**35.5%**	**39.2%**
Top .1%	6.0%	24.1%	9.5%	22.9%	**51.4%**	**54.1%**

Computations based on family adjusted gross income including realized capital gains
Computations assume that the 2010 pre-tax income shares and average tax rates are the same as in 2004.
Taxes include only individual income taxes (and do not take into account refundable tax credits)
Fair tax rates for 2010 are computed so that post-tax income shares are the same as in 1989

PERSPECTIVES FOR TAX PROGRESSIVITY

1) Public awareness of growing income concentration started before current recession

2) 2008-2009 recession:

(a) has discredited the trickle-down view

(b) necessary bailout of financial sector perceived as govt support toward the top

(c) 2009 stock market and financial sector recovery $\Rightarrow$ top incomes will recover faster than bottom 90% incomes

(d) US deficit and debt has grown substantially

$\Rightarrow$ Public likely to support more progressive tax system

OPTIMAL TOP INCOME TAX RATE

Consider the top marginal tax rate bracket (above income z^*) with marginal tax rate τ

For ordinary labor income in the US in 2010:

(a) Federal Individual Income Tax: top rate 35%

(b) Medicare payroll taxes: 2.9%

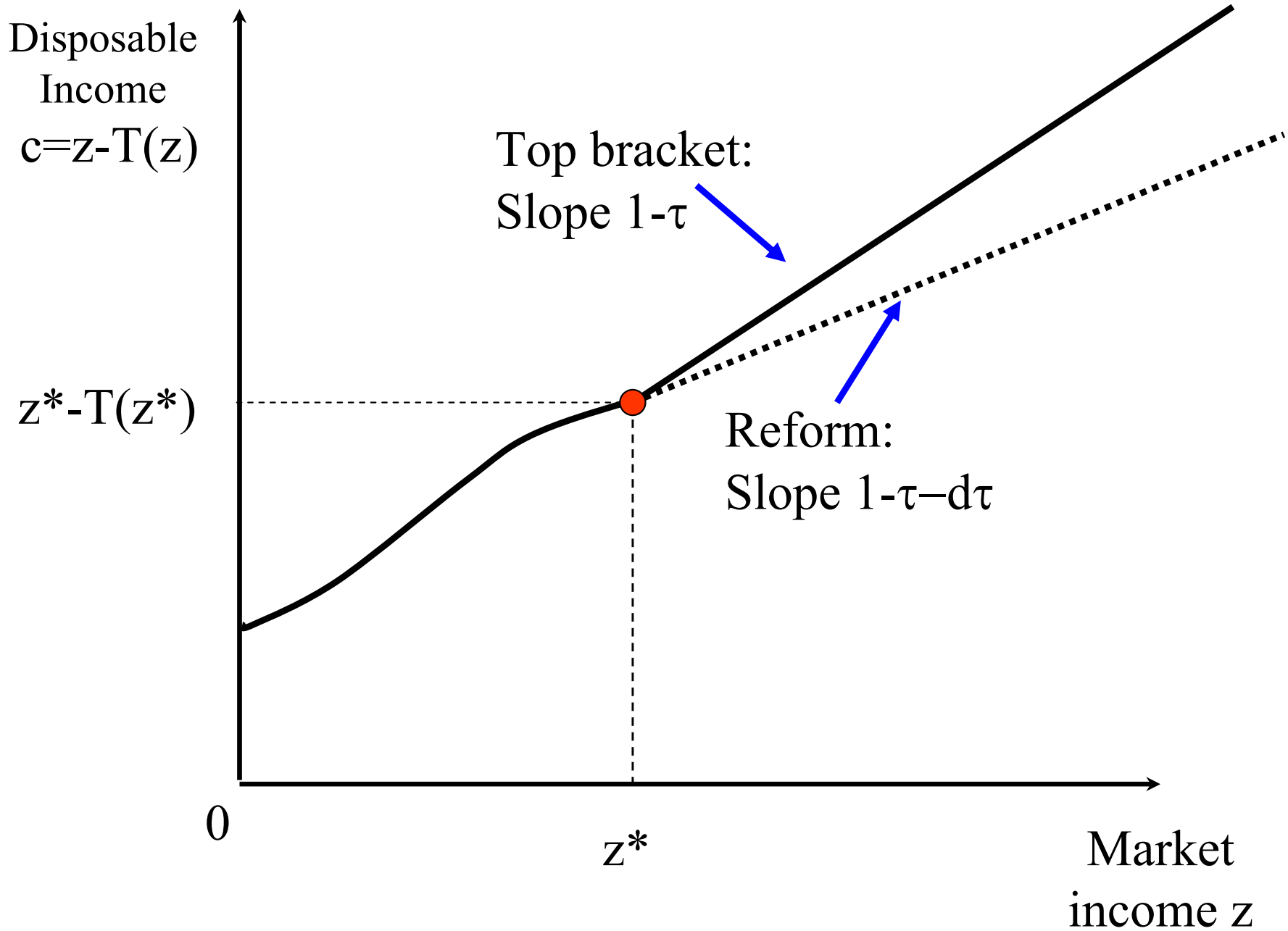
(c) Average state tax top rate $\simeq$ 5%

$\Rightarrow$ Top marginal tax rate: $\tau = 40\%$

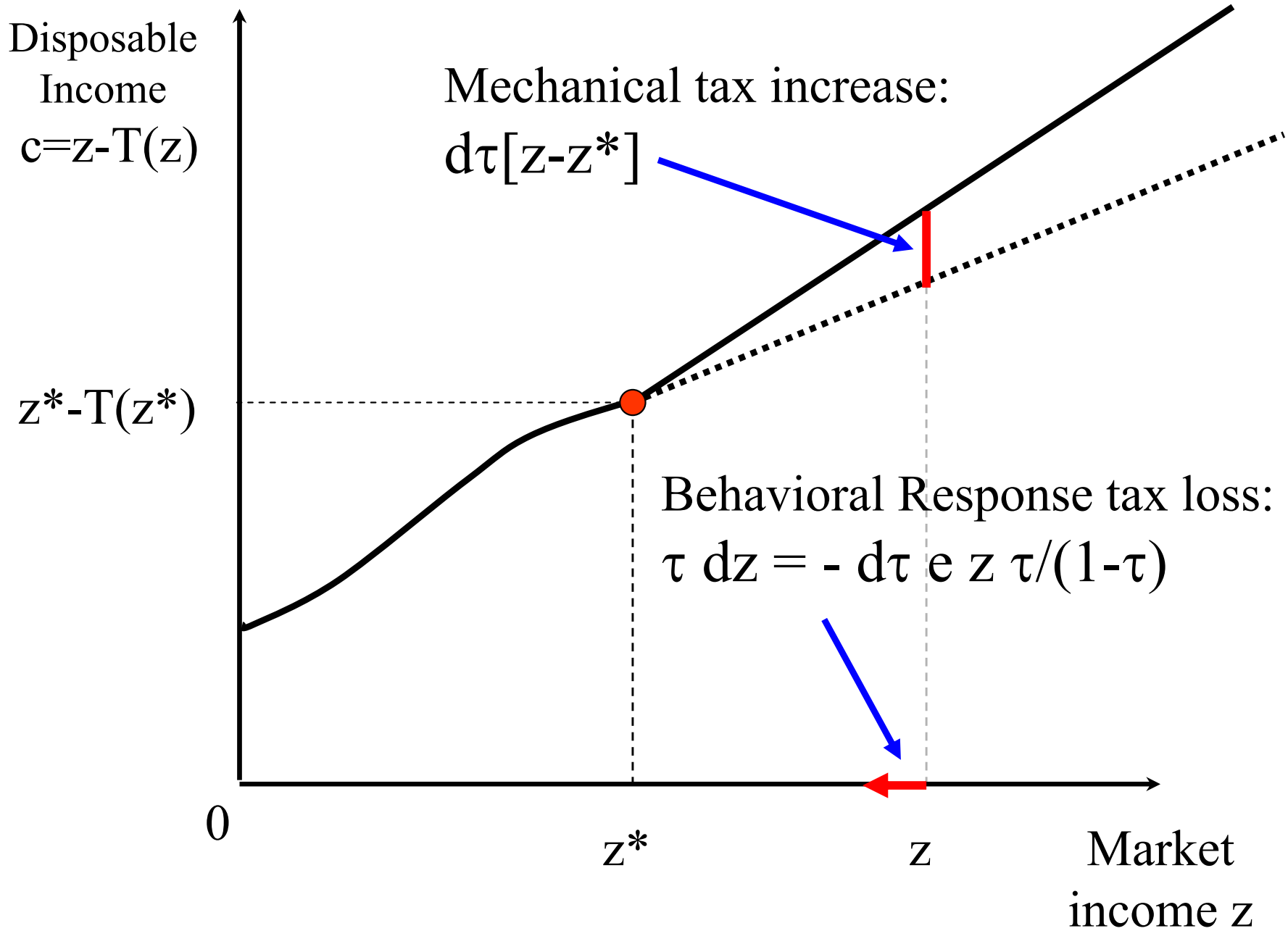
Top marginal tax rate lower if labor income partly converted into capital gains

Suppose government increases τ by $d\tau$ above z^* (Saez, 2001)

Optimal Top Income Tax Rate (Mirrlees '71 model)



Optimal Top Income Tax Rate (Mirrlees '71 model)



OPTIMAL TOP INCOME TAX RATE

Revenue maximizing top **marginal tax rate** (above z^*):

$$\tau^* = \frac{1}{1 + a \cdot e}$$

where e the **elasticity** of top incomes with respect to $1 - \tau$

and $a = b/(b-1)$ is **Pareto** parameter with $b =$ average income above z^* divided by z^*

More income concentration $\Rightarrow$ Higher b (lower a) $\Rightarrow$ Higher τ^*

US today: $b \simeq 3 \Rightarrow a \simeq 1.5$

Example $e \simeq 0.25 \Rightarrow \tau^* = 73\%$

Mirrlees '71 optimal tax model: If social marginal utility converges to zero $\Rightarrow$ optimal asymptotic tax rate is $\tau^* = 1/(1+a \cdot e)$

OPTIMAL TOP INCOME TAX RATE

Behavioral elasticity e is sum of three components $e_1 + e_2 + e_3$:

(1) Real Economic Responses: Labor supply, business creation, migration decisions: $e_1 \leq 0.25$ likely but hard to measure

(2) Tax Avoidance or Evasion Opportunities: Income shifting toward tax favored forms: e_2 sometimes very large

(3) Compensation Bargaining: Top earners can extract higher pay when τ is small: e_3 possibly large but should not be included in $\tau = 1/(1 + a \cdot e)$

Tax policy should be set to minimize second component e_2 through (a) base broadening and tax neutrality across income forms, (b) tax enforcement

$\Rightarrow$ reduces wasteful shifting, increases efficiency, and govt taxing capacity $\tau^* = 1/(1 + a \cdot (e_1 + e_2))$

PROPOSED COMPREHENSIVE INCOME TAX BASE

Required 1st step to $\downarrow$ tax avoidance and $\uparrow$ horizontal equity:

1) **Neutrality** across income forms

(a) Corporate tax **integration** with dividend tax credit for corporate taxes paid [$\Rightarrow$ Corp tax becomes withholding tax]

(b) Realized capital gains taxed at ordinary rates to discourage wasteful shifting [with income tax on step-up of basis at death]

2) **Broader base** with fewer deductions

(a) Add back tax exempt items (local bonds and life insurance exempt interest, "Cadillac" health care premia, etc.)

(b) Eliminate mortgage interest and state+local taxes deductions. Replace charitable contributions by flat rate govt matching

TREATMENT OF FAMILIES

Marriage: Adopt a **individualized** (instead of family based) income tax

(1) Simplifies administration

(2) Neutral with respect to marriage decisions

(3) Reduces tax rates on secondary earners

BUT increases taxes on married couples with single earner

Children: Substitute current exemptions and credits for dependents with $2,000 Universal Child Benefit supplemented with means-tested family benefits for low income families

PROPOSED TAX RATE STRUCTURE

(a) Flat rate tax 15% above modest exemption per adult [$7,250] for bottom 90% (incomes below $80K)

First $7,250 of earnings also exempt from payroll taxes (employee+employer)

(b) Surtax for top decile **individual** incomes: Marginal tax rates of

- 30% for top 10%-top 1% ($80K-$280K)
- 45% for top 1%-top .1% ($280K-$1325K)
- 60% for top .1% $\Rightarrow$ ($1325K+)

PROPOSED TAX STRUCTURE

Approximately restores the 1989 post-tax distribution

1) Roughly revenue and distributionally neutral relative to current 2010 income tax for bottom 90%

2) Raises about 2.9 pts of GDP more tax revenue than current 2010 income tax from top 10% if $e = 0$ [+2.2 GDP pts if $e = 0.25$]

3) Only top .1% faces substantially higher **marginal tax rates** on ordinary income than under Clinton [below tax revenue maximizing rate iff $e \leq .35$]

4) Only top .05% (110,000 top income individuals) face **average** tax rate above 50%

Comprehensive scoring in progress with Tax Policy Center simulator

CURRENT INCOME TAX ADMINISTRATION

Current system requires everybody to file because:

1) Slow flow of information returns [W2s, 1099s] from employers and payers to government [individuals get info by end of January but IRS only after April]

2) Many filers have to self-report information [children, deductions, credits] $\Rightarrow$ High error rates

3) Family based taxation makes exact tax withholding the exception rather than the rule

4) Tax preparation lobby has strong incentive to keep status quo

PROPOSED INCOME TAX ADMINISTRATION

1) Accelerated flow of information returns [W2s, 1099s] from employers and other payers to IRS

2) Withholding expanded to most forms of income subject to information reporting

3) Exact withholding much easier because of individualization, flat rate structure, and elimination of deductions

$\Rightarrow$ No filing needed for vast majority of individuals $\Rightarrow$ Reduces time, monetary, and psychological costs for taxpayers

All tax credits should be designed to preserve simplicity

States financially encouraged to use same income tax structure to avoid duplicating admin costs

OPTIMAL PROFILE OF TRANSFERS

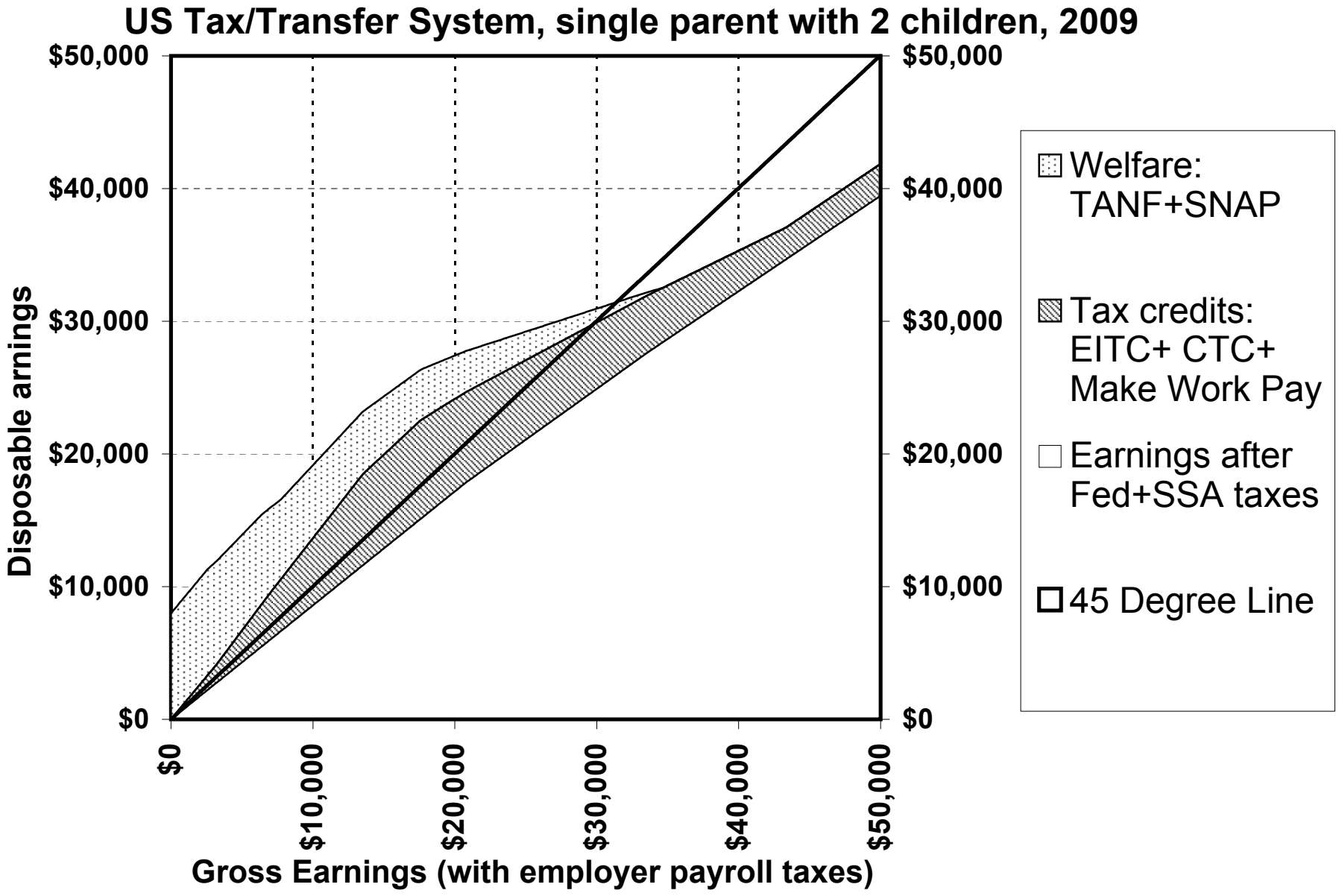
In practice: two types of means-tested transfers are observed

1) Traditional transfers: administered by welfare agencies [e.g., TANF, SNAP, SSI, Medicaid, Public Housing]

Maximum benefit when no earnings, benefit is phased-out at high rates $\Rightarrow$ Redistributive but discourages labor force participation

2) In-Work Benefits: refundable tax credits administered by IRS [e.g., EITC, Child Tax Credit, Make Work Pay Credit]

No benefit when no earnings, benefit is phased-in and then phased-out with earnings $\Rightarrow$ Less redistributive but encourages labor force participation


US Tax/Transfer System, single parent with 2 children, 2009
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Disposable arnings
$0
$10,000
$20,000
$30,000
$40,000
$50,000
Gross Earnings (with employer payroll taxes)
Welfare: TANF+SNAP
Tax credits: EITC+ CTC+ Make Work Pay
Earnings after Fed+SSA taxes
45 Degree Line

LABOR SUPPLY AND OPTIMAL TRANSFERS

(a) Extensive responses: Many empirical studies show that transfers have large effects on labor force participation:

(b) Intensive responses: Empirical work has not shown compelling effects of marginal tax rates on hours of work conditional on working

$\Rightarrow$ Optimal transfer should have no (or even negative) phase-out rate at the bottom to encourage work (Saez, 2002)

Development of refundable tax credits (EITC) has shifted the US profile close to optimal profile

PROPOSED FAMILY BENEFITS

Goal is to reproduce actual 2010 profile with simpler structure

1) **Universal Child Benefit:** fixed amount $2,000 per child paid to custodial parents

2) **Means-Tested Benefits:** Base benefit depends on family structure (single $2,400, head $3,400, married $4,400) and number of children ($2,000 for 1st child + $1,500 for 2nd child + $1,000 for each additional child) and is phased-out with **family** income

First $7,250 of annual **earnings** for each adult do not reduce benefits

Earnings above $7,250 reduce benefits at 30% rate

Other family income [e.g., UI, SSDI, SSI, pensions] reduce benefits at much higher rate of 85% and with no exemption

CURRENT TRANSFERS ADMINISTRATION

(a) Traditional Transfers: Patchwork of programs (TANF, SNAP, Housing, Medicaid, UI, etc.) with cumbersome application and reporting requirements $\Rightarrow$ Hassle and stigma lead to incomplete take-up

Key issue: govt cannot observe income and family situation in real time and hence has to rely on self-reports $\Rightarrow$ Cross checks are made ex-post $\Rightarrow$ System cannot handle frequent changes in earnings

(b) Refundable Tax Credits: EITC, Child Tax Credit paid out as annual tax refund, low stigma and take-up cost $\Rightarrow$ high take-up rates

$\Rightarrow$ Handle income changes automatically

Key issue: benefits paid out 1 year late and in a single lumpsum

FAMILY BENEFITS ADMINISTRATION

To achieve ideal administration, govt needs to obtain family and income information in **real time** through **institutional** channels

1) Family Database: Marriages, divorces, births, deaths, child custody from official records are transmitted to IRS in real-time

2) Income Database: Wage earnings, and other government transfers payments are transmitted to IRS in real time

This information is processed to compute and pay-out means-tested family benefits at high frequency [starting using quarterly UI earnings reports]

ADDITIONAL POLICY USES OF NEW SYSTEM

1) Administration of other means-tested programs

2) Fiscal Stimulus

3) Immigration Enforcement

4) Research

ADMINISTERING OTHER PROGRAMS

A vast array of other government programs are means-tested:

Health care benefits (Medicaid, SCHIP, new health care reform), Education subsidies, housing benefits, child care benefits, school lunches

Private institutions [such as educational institutions] also provide means-tested benefits

All such programs would be much easier to administer with the unified family and income databases

Govt could provide access subject to individual authorization

FISCAL STIMULUS DURING DEEP RECESSIONS

Fiscal stimulus to increase disposable can be currently delivered in two ways:

1) **Tax rebates** based on last year income (Bush 2008)

Disadvantages: based on prior-year income, costly to reach non-filers, onetime payment

2) **Temporary Transfers Increases**: Unemployment benefits extensions, Food Stamps benefits increases,

Disadvantages: UI and SNAP have partial take-up $\Rightarrow$ Stimulus not fairly distributed and bottleneck in how much can be distributed

With universal and real-time family benefits system: fiscal stimulus can be distributed across modest income families (a) in real-time on monthly basis, (b) broadly, (c) fairly

IMMIGRATION ENFORCEMENT

Comprehensive immigration reform politically difficult because public unconvinced that enforcement would improve after mass regularization

Current SSA earnings database unsuited for immigration enforcement because (a) many errors, (b) long-lag before no-matches are noticed

Family and income database would have fewer errors and be real-time $\Rightarrow$ Employers can know instantly at time of hiring whether employee is documented

Allows softer enforcement through monetary penalties rather than deportation: e.g., no exemption for withholding of payroll and flat tax if SSN invalid

RESEARCH

1) Real-time data could be extremely useful to follow business cycle on monthly basis: **richer** statistics can current DOL monthly reports and **timely** distributional statistics

⇒ Could re-balance focus away from aggregate statistics (GDP, # jobs) toward distributional statistics

2) Govt administrative data with secure access is the future for frontier empirical economic research [huge sample size, longitudinal, accuracy]

Current US administrative data is scattered and under-used for research relative to many other OECD countries

Family and income database could constitute a data core that could later be expanded with matches to other admin data

Summary Table: Baseline versus Proposal

Baseline (2010 Budget)	Proposal
Taxable Income Definition	
Adjusted Gross Income [includes earnings after employer (but not employee) payroll taxes]. Major exclusions from AGI are pension and health insurance contributions, and interest from state and local bonds.	Add currently exempt interest income from state and local bonds in taxable income (exclusion is replaced by direct federal grants to local governments) Income tax system becomes individualized
Personal exemptions and standard deduction (with 2001 marriage penalty relief) that apply only to the income tax and are subtracted from income, not earnings. Food stamps standard deduction and earnings deduction (only 80% of earnings count toward net income).	$7,250 per adult exemption that applies to the income tax, social security payroll taxes (OASDI+HI), and means-tested family benefits. For income tax purposes, the $7,250 applies to income, while for means-tested benefits (discussed below), it applies to earnings only.
Itemized deductions: Currently include charitable contributions, mortgage interest payments, state and local income taxes, and other deductions (health care expenses above 7.5% of AGI, casualty and theft losses, etc.)	The charitable contribution deduction is replaced by a direct government match to charitable institutions equal to a flat 17.65% of contributions received from individuals (equivalent to a 15% refundable tax credit). The home mortgage interest deduction will be phased-out. Deductions for state and local taxes are eliminated. All other itemized deductions are eliminated.
Tax Rates	
Graduated marginal tax rates based on family income: 10%, 15%, 25%, 28%, 36% (above $250,000 joint and $200,000 single), 39.6% (i.e. two top rates revert); also Pease and PEP restored (above $250,000 joint and $200,000 single).	Flat tax and surtax based on individual income Basic flat rate: 15% (above $7,250 adult exemption) Surtax on top incomes: 15% for top decile ($80K+) 30% for top 1% ($280K+) 45% for top 0.1% ($1.325m+) Generates graduated marginal tax rates: 15%,30%,40%,50%,60%

AMT patch extended.	No AMT.
Corporate and Individual Interface: Dividends and Realized Capital Gains	
No direct integration between individual and corporate income taxes Dividends: Preferential rates with 20% rate above $250,000 joint and $200,000 single	Integration of corporate and individual income taxes using a shareholder credit mechanism (corporate income tax becomes a withholding tax): Dividends are grossed-up by the corresponding amount of corporate taxes, and then taxed at ordinary individual rates, and a refundable credit is received for corporate taxes paid. Foreign dividends will also receive credit for foreign corporate income tax paid (based on foreign corporate tax rates). Corporations with no corporate taxes will withhold taxes at the corporate tax rate on dividends they pay (so that the gross-up on individual returns is uniform).
Realized capital gains: Distinction between short and long-term realized capital gains Preferential rates for long-term gains with 20% rate above $250,000 joint and $200,000 single. Losses only up to $3,000 are allowed against other income and can be carried forward indefinitely Basis step-up at death with no additional tax	No preferential rates for realized capital gains. No distinction between short and long-term gains necessary. Losses only up to $3,000 are allowed against other income and can be carried forward indefinitely. Realized losses can be offset against other income if the individual has no unrealized capital gains in his/her portfolio. This provision will only apply for large losses (losses-unrealized gains over $100,000 to keep the administration simpler). Retained earnings can be qualified as “constructive dividends” (equivalent to dividends distributed and taxed and automatically re-invested in the corporation) Income taxation of all unrealized capital gains at death (using a five year averaging method). Generous exemptions for family farms and (small) family businesses.
Family Benefits and Work Incentives	
EITC (with marriage penalty relief and third tier for families with 3 or more children)	**Universal child benefits:** $2,000 per child. **Integrated means-tested family benefits:** $2,400 for singles, $4,400 for married couples, $3,400 for heads of household $2,000 (1st child) + $1,500 for 2nd child + $1,000 for each additional child. Phase-out rates based on family income: 30% on earnings above the per-adult
Child Tax Credit (refundable up to 15% of earnings above $3,000).	
TANF (Temporary Aid to Needy Families)	

and **SNAP** (Food Stamps)	$7,250 earnings exemption, 85% and from the first-dollar on unearned income. Earnings exemption is doubled to $14,500 for heads of household. **Work Incentives:** Social security taxes (OASDI+HI) do not apply to workers on first $7,250 of annual earnings (Federal government refunds Social Security for short-fall, no impact on SSA benefits calculations)
Administration: Reporting Rules, Filing, Withholding, and Payments	
Withholding on wage and salary income and pensions; reporting on most forms of payments	Withholding for all forms of income that currently require reporting and independent contractors. Information about earnings payments would be transmitted to the IRS more frequently using the quarterly unemployment insurance system first, and eventually in real-time.
Everyone with tax liability or eligible for EITC files (90-95% of US families file tax returns). Reconciliations are made on tax returns.	Third-party reported income and family situation would be transmitted automatically to IRS through institutional channels. IRS would compute taxes and benefits and automatically send benefits or tax bills to tax filers. Individuals would file only to report additional income not subject to third-party reporting (on an annual base). Initially, individuals would inform the IRS of family status changes (when such a change occurs). Initially, individuals with multiple jobs would initially need to notify their employers that they should be withheld from the first dollar on income and payroll taxes.
Tax assessed on annual income; refunds paid out as an annual lump-sum during and after tax filing season. SNAP and TANF: self-reported income from previous month determines benefits over the next 6 months. Beneficiaries need to self report income changes (some exemptions). Verification is made with a long-lag ex-post using UI, SSA, or IRS data.	Eligibility for means-tested benefits would be based initially on quarterly income (annual parameters/4) with benefits paid out monthly over subsequent quarter using EBT (electronic benefit transfer) systems. Income with no stated period would be annualized and divided equally across quarters for family benefits computation (with retrospective adjustments after annual income tax filing). Overpayments would be recouped out of future benefits or future taxes [no out-of-pocket repayments].