CAN INCREASING INEQUALITY BE A STEADY STATE?

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Then: Economic Inequality in Canada in the old days

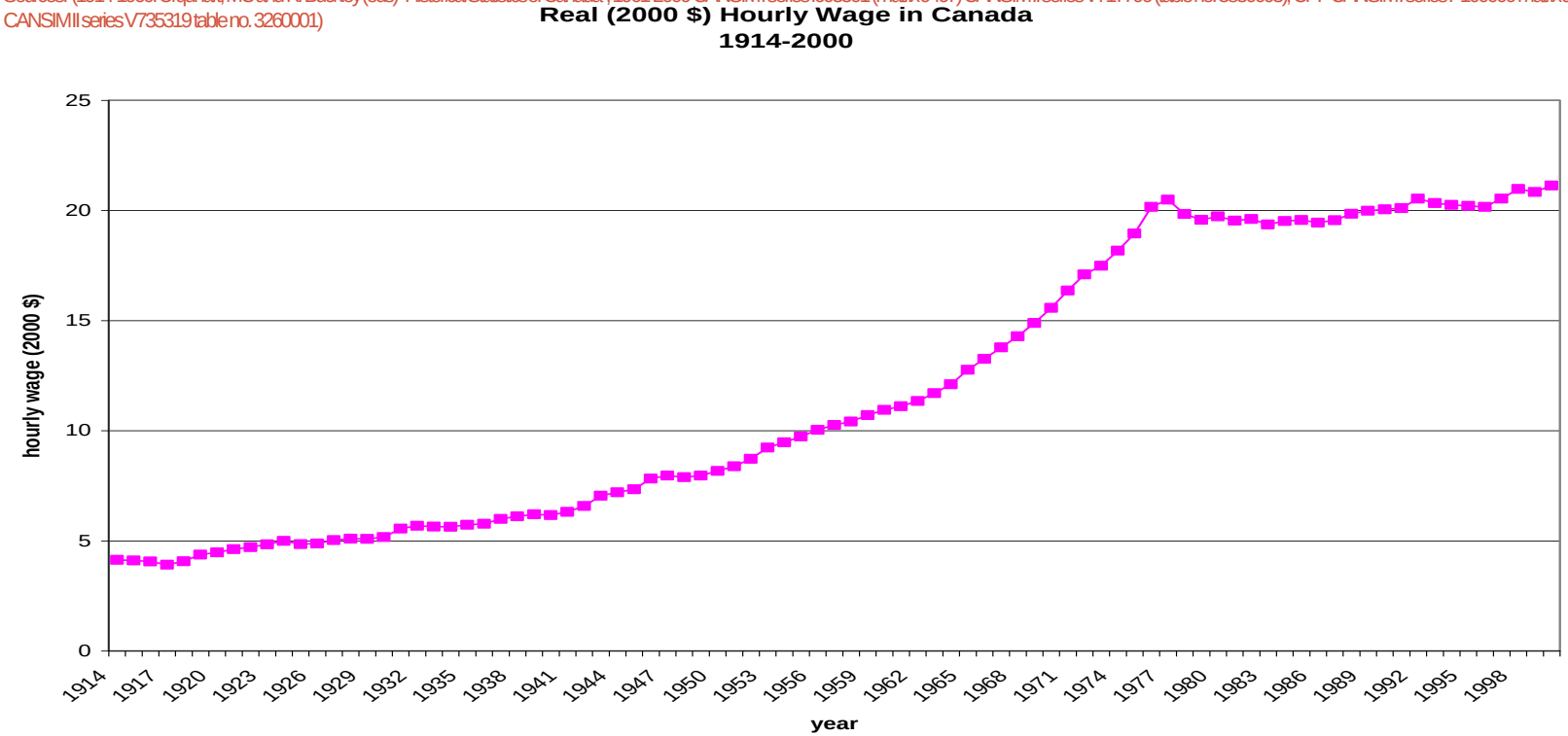
- “economic inequality has remained roughly constant since the Second World War”

  (Osberg, 1981:205)

	1951	1961	1971	1981
Bottom 20% (poorest)	4.4	4.2	3.6	4.6
Second 20%	11.2	11.9	10.6	11
Middle 20%	18.3	18.3	17.6	17.7
Fourth 20%	23.3	24.5	24.9	25.1
Top 20% (richest)	42.8	41.1	43.3	41.6

Then: Inequality – the price ‘we’ pay for growth?
BUT 1980 – 2014: a ‘new normal’ in Canada

Sources: (1914-1960: Urquhart, MC and K. Buckley (eds) "Historical Statistics of Canada"; 1961-2000 CANSIM I series I603501 (matrix 9467) CANSIM II series V717706 (table no. 3830003), CPI - CANSIM I series P100000 matrix 9940, CANSIM II series V735319 table no. 3260001)



Then: Meaning of "More Inequality"

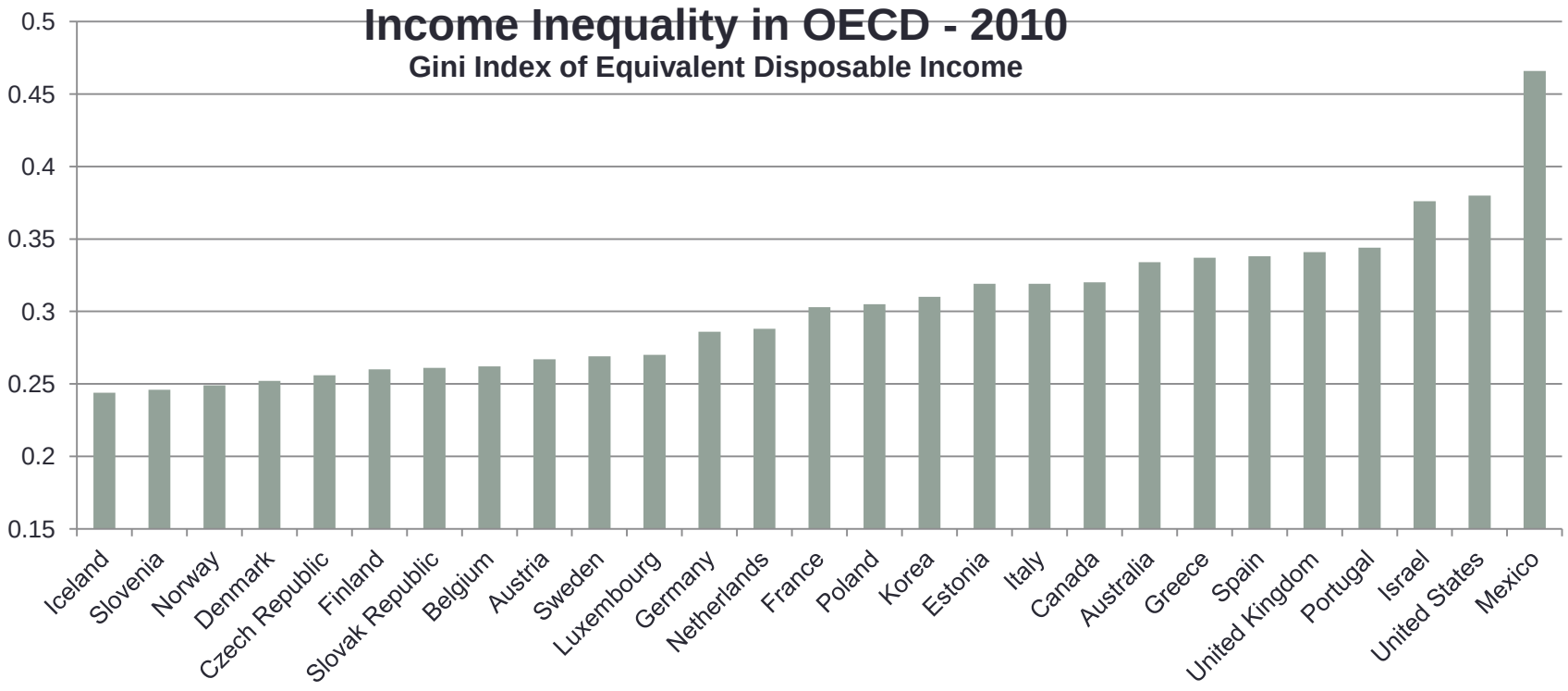
- Cross-country level comparisons @ point in time
- $U.S.A._{1980}$ > $CANADA_{1980}$ > $SWEDEN_{1980}$
  - Implied menu of social choices?
    - Implications of higher level of inequality?
      - More Inequality =>Δ health, happiness, crime, social mobility?
    - Important Implicit Question: "What sort of society would you prefer to live in?"

- Stability necessary – reasonable assumption 1950-80

steady state inequality $\Leftrightarrow$ Equal Income Growth rate @ all income percentiles

- **In Australia, Canada & USA, this is NOT our current problem**

A menu of social choices?



What can be learned from cross – national comparisons of levels of inequality?

- Reliable cross-national data on inequality only since 1970s
  - Now a large literature on income measurement, equivalence scales, etc.

Socially important “Possibility Proof”

- Market Economies have widely varying levels of income inequality while competing successfully in global markets.
  - i.e. There Are Alternatives – different choices in different places

Now: “More” Inequality means “Increasing”

- Over-time for same society – e.g. $US_{2013} > US_{1983}$
  - U.S., Australia, Canada – approx. 30 years of Unbalanced Growth
    - Increasing Inequality ⇔ Differential in growth rates: Top 1% >> Bottom 99%
    - Key Issue:
      - Why would one expect a big slowing of top 1% income growth ?
      - Why would one expect a big acceleration of bottom 99% income growth?
        - Continued differential in income growth rates compounds to ever larger gaps
  - Question:
  - What sort of society are we becoming ?

Increasing Inequality ⇔ Unbalanced Growth

- Ever Increasing Inequality cannot be a steady state
  - Unbalanced Growth => Ever-growing Income Gaps => Interacting Instabilities
  - Income = Consume + Save:
    - ↑ Save: ↑ Financial Assets => ↑ Financial Liabilities =>↑ Debt Fragility => unstable
    - ↑ Spend: => ↑ Extravagance; ↑ Advertising Luxuries; ↑ political & social stresses
  - Is there a plausible market auto-equilibration process ?
  - Can Political Economy achieve stability when markets cannot?

Cross-National Comparisons – Stability of Inequality level is assumed

- **THEN**:
- Steady State Inequality ⇔ Equal Growth rate @ all %
  - Happy Accident of 1953 -1980
  - Perception Legacy: Literature compares Levels of Inequality

- **NOW**:
- "More Inequality" = ↑ Inequality over time ⇔ Unbalanced Growth

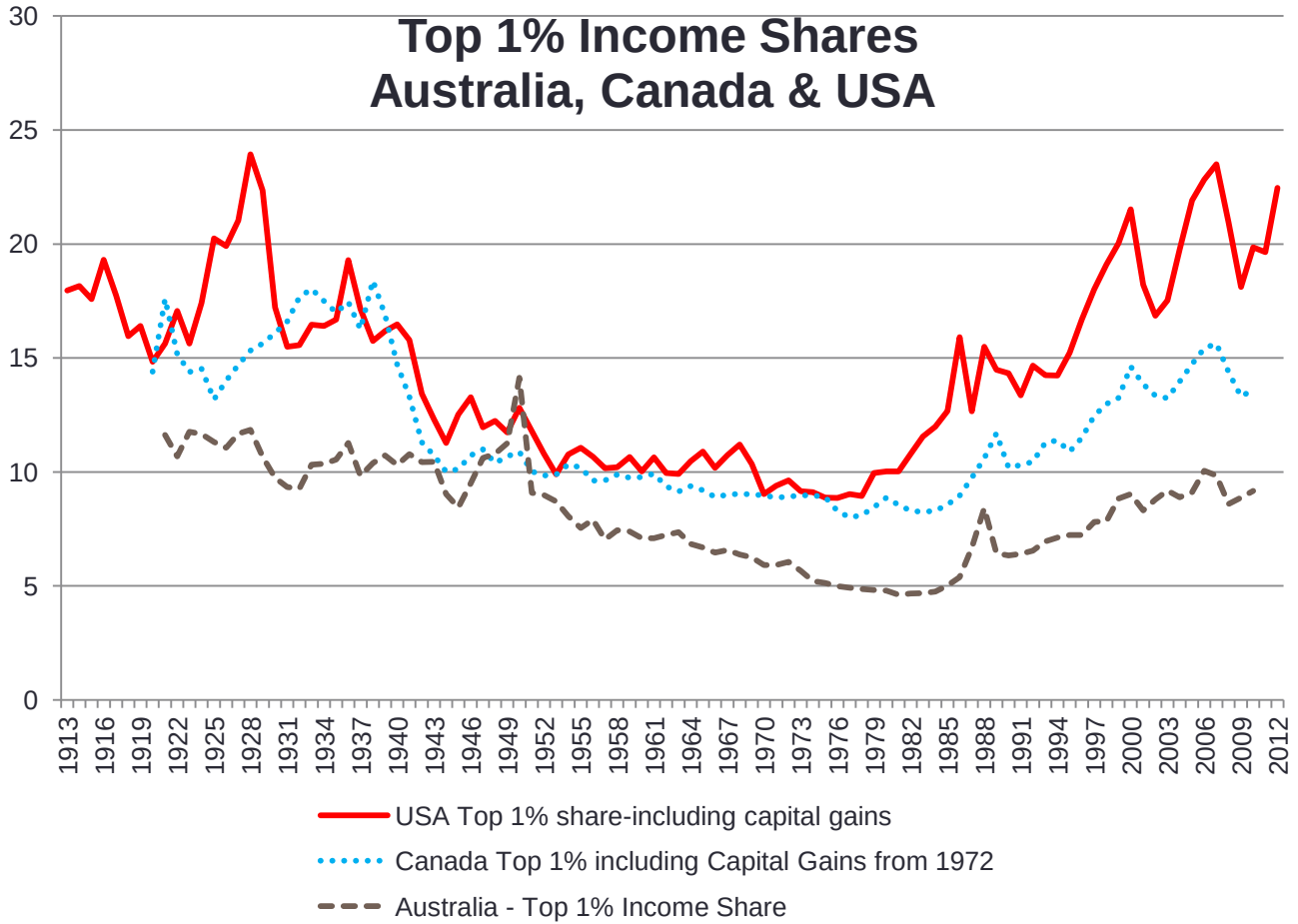
- **Social Issue: Before** deciding on socially optimal level of inequality, have to stabilize inequality – i.e. stop inequality increasing
  - Equal income growth rates required to stabilize distribution of income – (f(y)).

Alvaredo, Atkinson, Piketty, Saez (2013)

"most of the action has been at the very top"

U.S. & Canada – lower percentiles show little change in real income 1980 -2012

Australia: resource boom => ↑ earnings => change in bottom 99%



Income Inequality: why focus on top 1% ?

(1) Summary indices (Gini, Theil, CV, etc.) do not indicate *which parts* of the income distribution have changed

- U.S. & Canada: little change in other real market incomes post 1980
  - Canada: offsetting trends can appear to "stabilize" Gini
    - ↓ middle class => less inequality among bottom 80% + ↑ inequality among top 20% = stable Gini

(2) Absolute size of changes in share of top 1% dwarfs other shifts

U.S.: Top 1% share = 10.8% in 1982 → 22.5% in 2012

(3) Unequal Income Growth rates imply:

- higher growth rates at top compound on ever-higher base
- absolute dollar income gaps widen increasingly

- which imply ever increasing macro-economic & social implications

Question: "Where is increasing inequality taking us?"

Income Share = Ratio

- Income Share of Top 1% = $\frac{\text{Incomes of Top 1\%}}{\text{Incomes of 99\% + Incomes top 1\%}}$
  - Shares only change when income growth rates are different
- So where has the action been in Income Shares?
  - Numerator (Real Income Growth of top 1%) ?
  - Denominator (Real Income Growth of Bottom 99%) ?

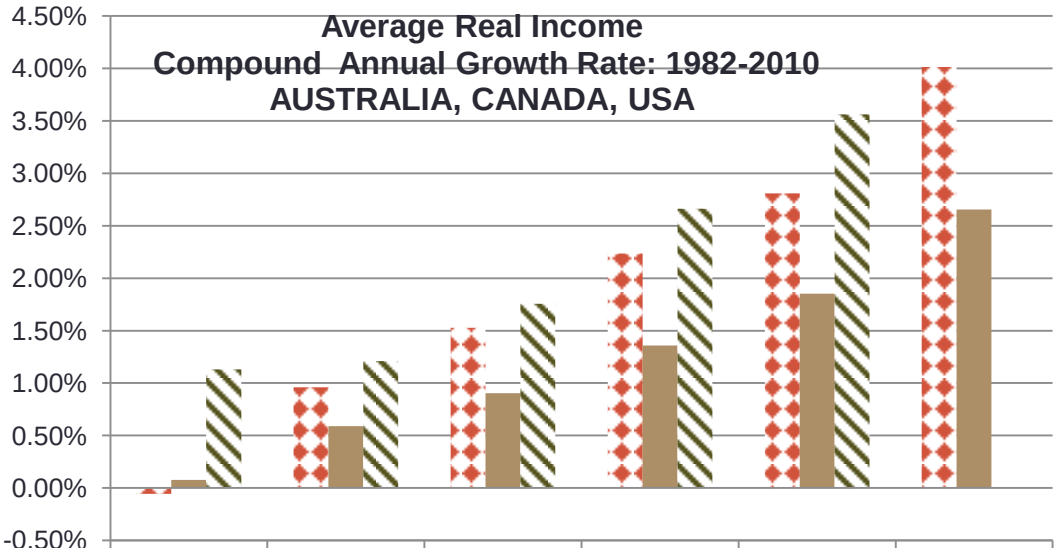
Increasingly higher long-run growth rates at top

U.S.& Canada – little growth in bottom deciles

Australia – significant earnings growth for 90%

Top /Bottom Differential In income growth rates was similar in all 3

Focus on Top 1% - approximation – even bigger differentials for top 0.1%

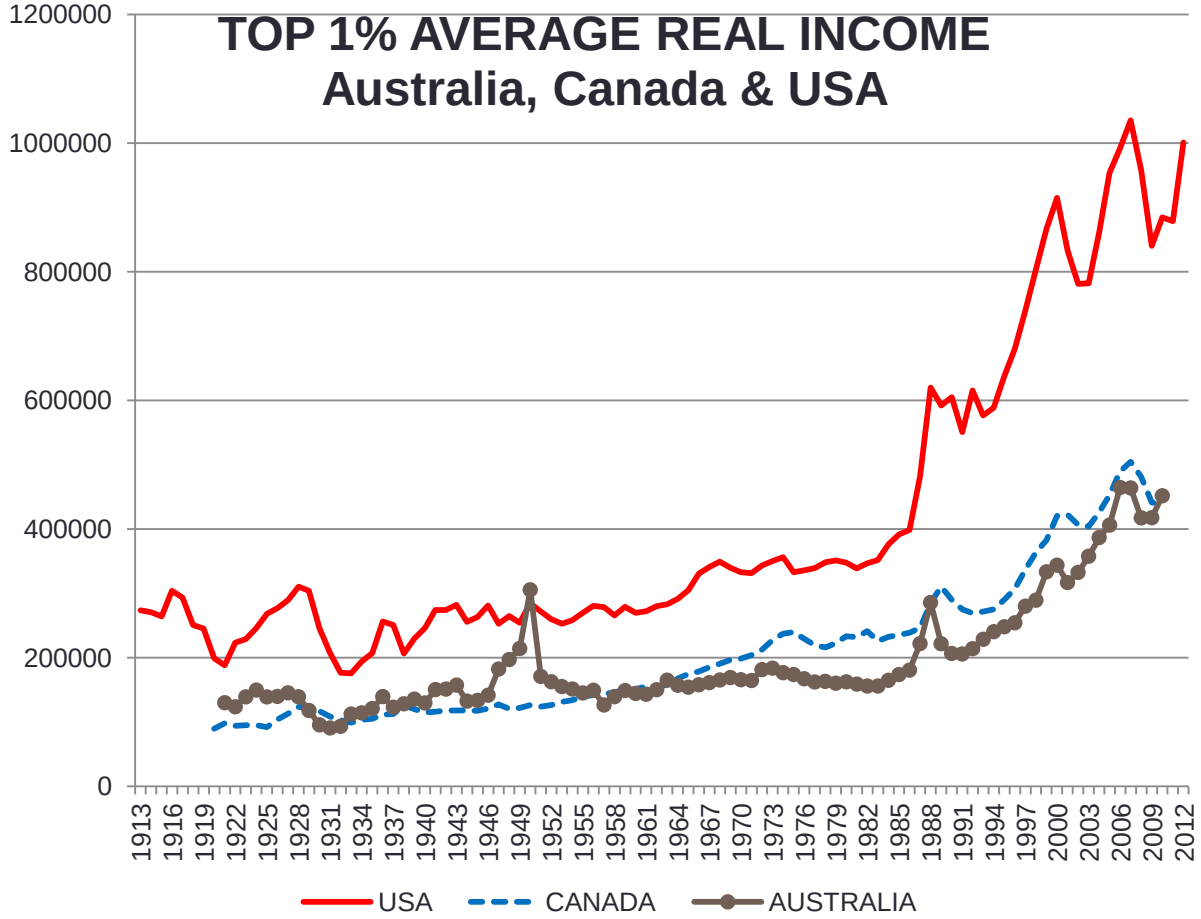


	Bottom 90% average income	Top 10-5% average income	Top 5-1% average income	Top 1-0.5% average income	Top 0.5-0.1% average income	Top 0.1-0.01% average income
USA	-0.06%	0.96%	1.53%	2.23%	2.81%	4.01%
CANADA	0.08%	0.59%	0.90%	1.36%	1.85%	2.66%
AUSTRALIA	1.13%	1.21%	1.76%	2.66%	3.56%	

Top 1% Income - No Natural Upper Bound

Real Average Income Top 1%
- Cyclical Fluctuations
- Upward trend
  - -slow 1935-1980
  - - accelerates 1985+

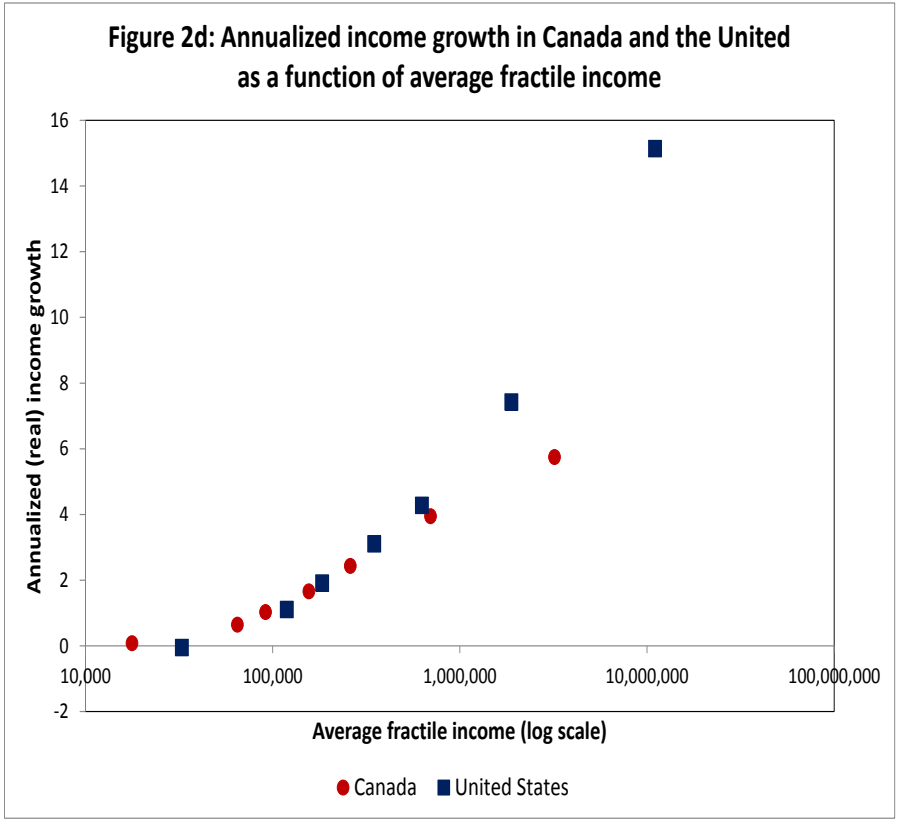
CCPC income not included in Canadian data



U.S. & CANADA: DIFFERENT TOP 1% ?

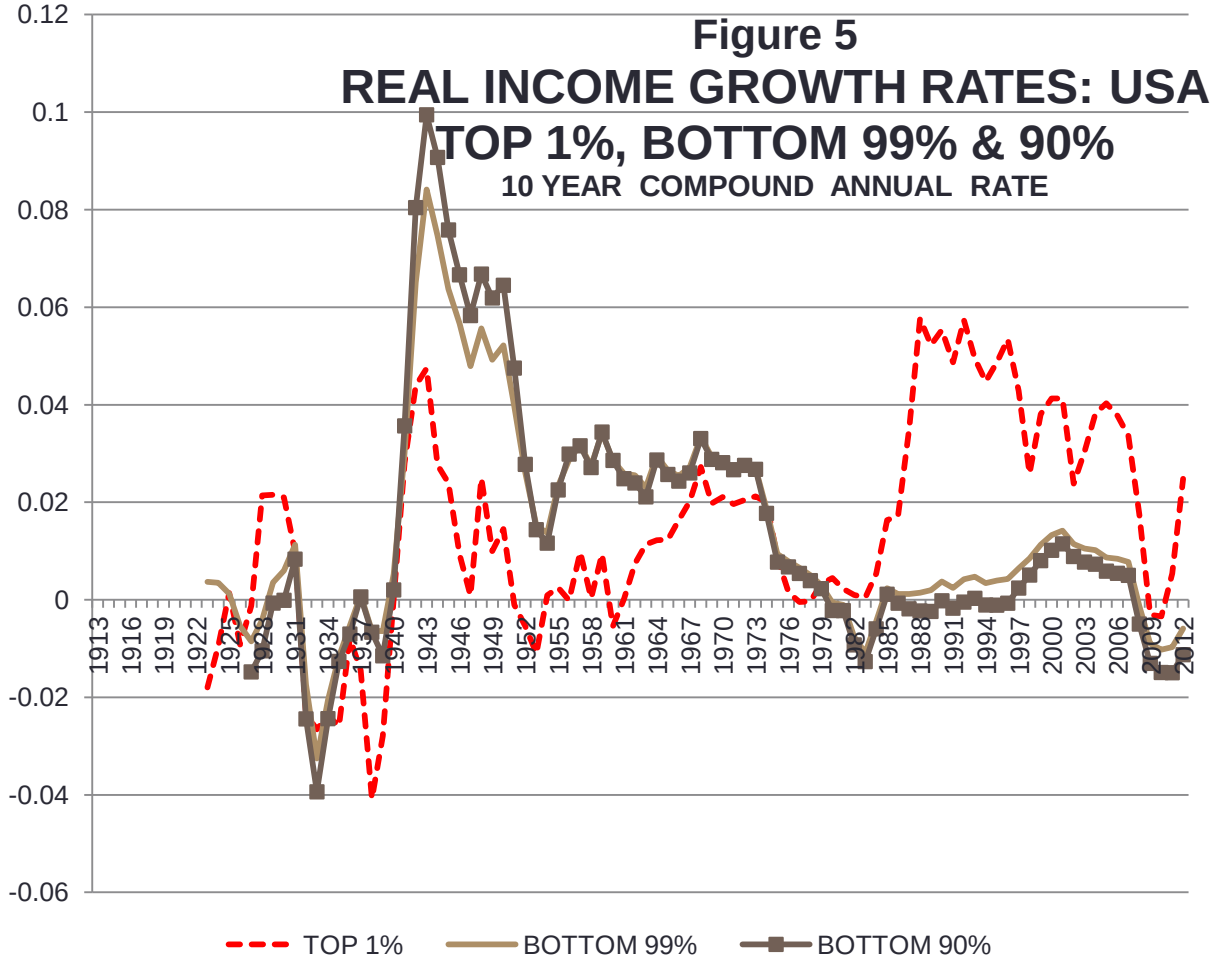
1. Tax Planning implies CCPC income not reported for top 1%
   - > 1/3 increase in top 1% income share
     - Wolfson, Veall & Brooks (2014)

2. Canada's Top 1% - Local Elites in a Global System
   - Global Hierarchy of Financial Centers implies Canada's top 1% does not include as many really high incomes
   - US & Canada: Very similar income growth rates @ given $ income
     - Lemieux & Riddell (2014)
   - **INCOME GROWTH RATE IS MAIN EVENT**



U.S. Balanced Growth = atypical episode

- 1965-1980
- equal growth rates for top 1% & bottom 99%
  - birth of representative agent macro-economics
- - 1940 – 1964
- higher growth rates at bottom – especially 1940s
- - 1980 +
- Much higher growth rates for top 1%



Canada: Longer balanced growth period

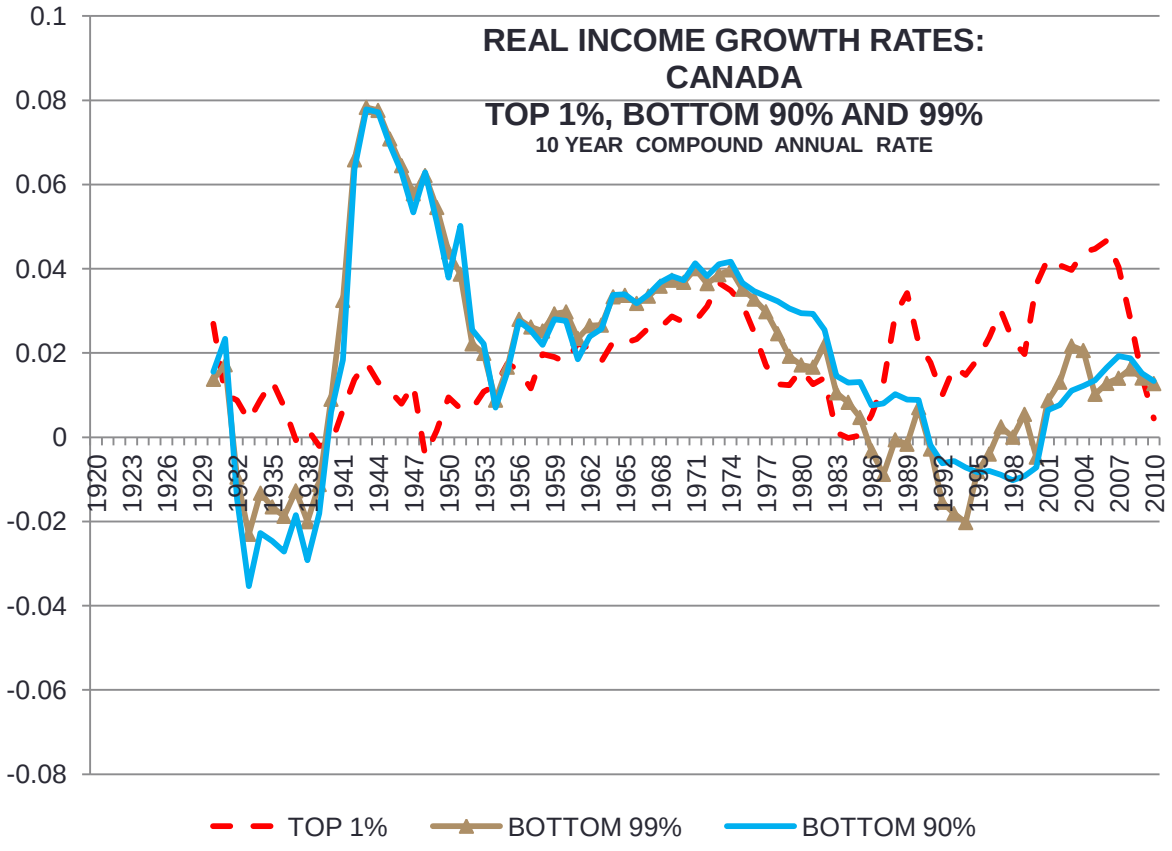
Mid 1950s-mid 1980s:

- bottom 90% growth rate slightly higher than top 1% (but roughly balanced)

Pre-1950s & post 1985:

- Significant differences in income growth rates

- Pre-1950 – compression
- Post 1986 – top-end growth much faster



“Once-only” & Income Growth 1940-1970

- Recovery from Mass Unemployment of Depression + WWII controls
- Structural Changes with Major Income Impacts for Market Inequality
  1. High % agriculture => rural out-migration => big wage gains
  2. Low % complete post-secondary => high marginal HK returns
  3. Capital deepening => increased MP_L post WWII
  4. “Baby Boom” => demographic bulge
  5. **Unionization; increased bargaining power until late 1950s**

+ impact of ↑ female LFPR on Household Disposable Income

+ Political economy of social policy

  Credible ‘hard left’ political option => “threat effect” for elites => transfers

If Past 30 Year Trends Continue – e.g. in U.S. ?

1984-2012: Annual growth

= 0.28% Median Household
= 3.5% Top 1% Average

- No Big Deal if 2-3 years

Compounds to very large $ differentials & ratios over 20+ years

- Too Large to Believe?

Why expect change in income growth rates ?

	Median Household Income	Top 1% Average Income	Dollar Gap	Top 1% /Median Ratio
1984	**47,181**	**383,919**	**336,739**	**8:1**
2012	**51,017**	**1,021,761**	**970,744**	**20:1**
2032	***53,943***	***2,031,476***	***1,977,533***	***38:1***
Annual Growth Rate	0.28%	3.50%		
1984-2012				($2012)

Framing the question:

- **Increasing Level** of Income Inequality ? **OR** **Differential** in long term income **growth rates** ?
  - Top 1% income growth rate (3.5%) >> Bottom 99% growth rate (0.3%)

- Differential Growth Rates perspective suggests the questions:
  - Why did growth rates differ ?
  - Why would growth rates equalize ?
    - Substantial Slowing of Top 1% ?
    - Big Acceleration of 99% ?

  - Level changes cannot explain growth differential
    - E.g. need series of tax cuts & continual ↑ labour supply

Auto-equilibrating Market Mechanisms ?

- Top 1% Income: Not a Capital / Labour Factor Shares story
  - Most of income of top 1% = Labour compensation

- Why might top 1% growth slow?
  - Labour Market Story needed

  - Could it be that Top1% will hit maximum possible labour supply?
    - "Effort" = (Hours per year)*(Work Intensity per hour)
      - Max (Annual Hours) = 6,000 ?? (16*365=5,840) ; Intensity has some upper bound
      - BUT were the elite of 1982 really that slack ? [top 0.1% $_{1982}$ = 0.222 top 0.1%$_{2011)}$]
        + timing does not fit + Labour/leisure choice is levels model & => backward-bending SS_L at some wage

H_0: Segmented Labour Markets ?

- "Globals and their peers"
  - Top corporate teams share in monopolistically competitive profits
    - Rents to hierarchical rank increase with rank
  - Profits = f (firm size: size depends on scale of market)
  - Post 1980 – ↓trade barriers, ↑ firm growth rate <= global market growth;
  - Sets benchmark for top positions in national firms, non-profits & government
    - U.S. leads Anglo wage contours, with slow filter to other national top ends

- "Locals"
  - Long run growth rate hourly wage ≤ labour productivity growth

    PLUS: Share of Resource sector rents if unions or rapid resource development;

    MINUS: Slower wage growth if monetary policy implies labour market slack

- Implication: Differential in Income growth rates persists

What plausible alternative model implies likely:

- substantial slowing of top 1% or
- big acceleration of 99% ?

- Could more education sufficiently accelerate the long-run growth rate of average 99% income?
  - U.S., Canada, Australia – already well educated
    - Diminishing returns at successively smaller margin, bottom tail of ability
  - Equalization within 99% does not imply acceleration of average 99%
  - Educational reform – long lags to any pay off; > ½ LF @ 2050+
  - 25-64 Tertiary Education : 51% Canada > 42% U.S. > 38% Australia
    - No evidence of convergent middle class incomes in Canada

Stable Inequality ⇔ Balanced Growth

IFF Same Rate Income Increase @ all income percentiles

- What are the chances that the 99% can accelerate income growth from 0.3% to 3.5%?
  - Unions weak; Low-wage competition strong; slack labour demand;
- Why would Income Setting Behaviour @ Top change ?
- **What plausible model predicts growth rate convergence?**
- **What are implications of continued Unbalanced Growth ?**

Income = Savings + Consumption

- *Income Increases @ top => Increase Savings*
  => Increase Loanable Funds

In total, Income = Expenditures

Macro Equilibrium:
If one agent spends less than income, somebody else has to spend more than income

- *Macro Real Expenditure Balance requires:*
  Increased Savings of top 1% = Increased Debt/Spending rest

- ↑ Income =>↑Savings => ↑ *purchase of financial asset*
  - *UNLESS 100% savings directly held in real assets or <u>all</u> incremental income is consumed*

Unbalanced Flows accumulate to Unstable Stocks

- Financial Assets = Financial Liabilities
  - *Financial Instrument: Asset for Holder = Liability for Issuer*

- ↑ Net Savings @ top imply ↑ Debts elsewhere
  - Savings & debts grow @ r_1 but median income grows @ r_m => ↑ leverage
  - Financial Fragility => Financial Crises => Real Recessions (Kumhof & Ranciere)
  - Recessions => Counter-cyclical stimulus => ↑ Public Debt / GDP => unpleasant choices for continued monetization or austerity / contraction

Debt Stability

$$D_t = (1 + r_t)* D_{t-1} - PB_t$$

D_t = Debt in period t

r_t = average rate of interest in period t

PB_t = Primary Balance in period t

= ($Receipts_t$ – $Expenditures_t$)

$$\Delta (D/Y)_t = (r_t - g_t)*(D_{t-1}/Y_t) - (PB_t / Y_t)$$

Y_t = GDP for nation; Household Income for families

g_t = growth rate

$\Delta (D/Y)_t$ = change in Debt/Income ratio

Will $r_t < g_t$ forever?

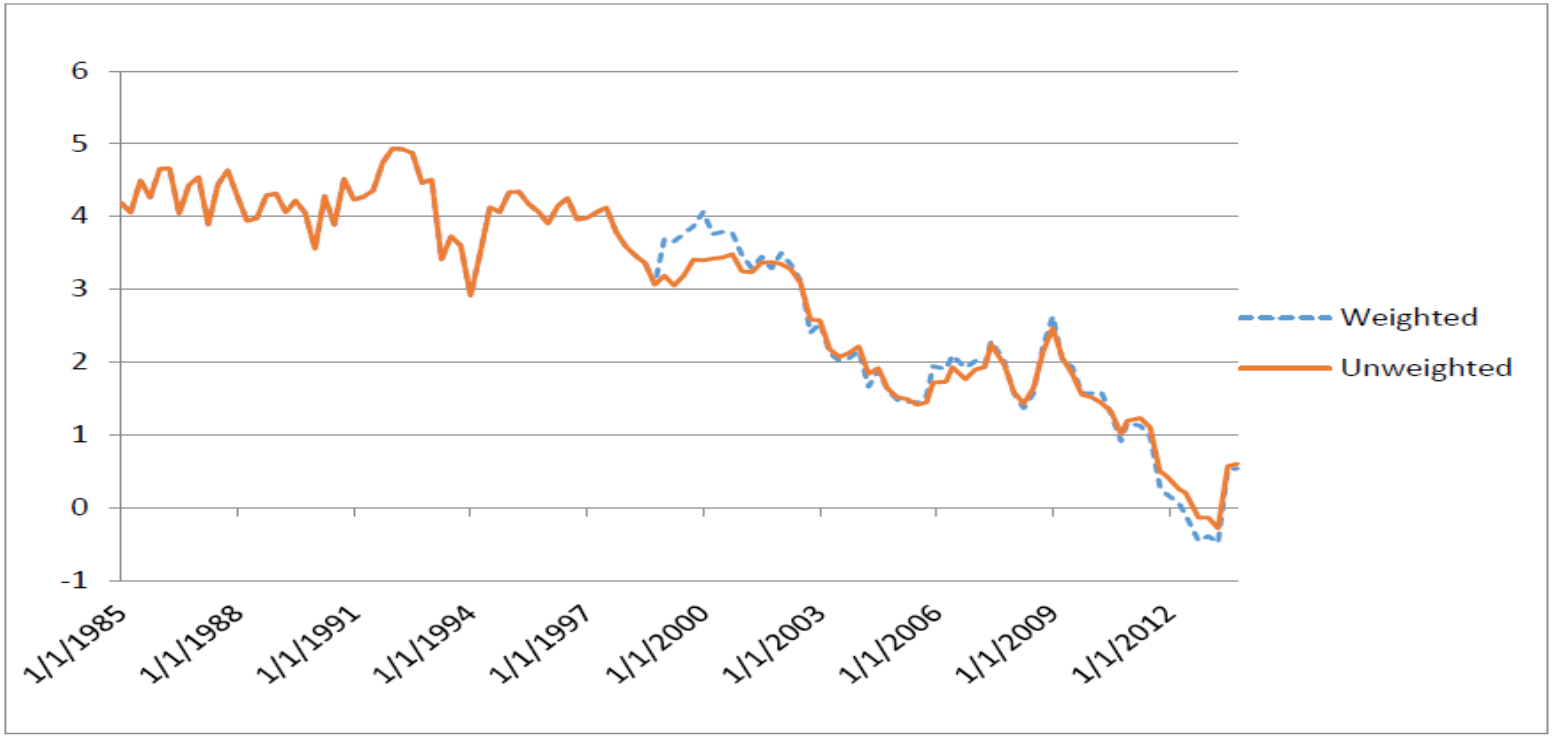
Debt Instability – not just a Public Sector Problem !

- Debt overhang compounds if / when: $r_t > g_t$
  - Currently low interest rates but household leverage (D/Y) = 163%
    - What likelihood of:
      - Faster income growth for the 99%?
      - Forever low interest rates?

- Unpalatable Choices:
  - Anti-Inflation Monetary Policy increases gap ($r_t - g_t$) at both ends
    - Can $r_t \approx 0$ forever? How to unwind rising household leverage?

Secular Stagnation? If Top End Savings are not borrowed, Excess Savings Implies Downward pressure on Interest Rates

King and Low (2014) **Spot Yields on 10 Year Bonds – G7 excluding Italy, Quarterly, 1985-2013**

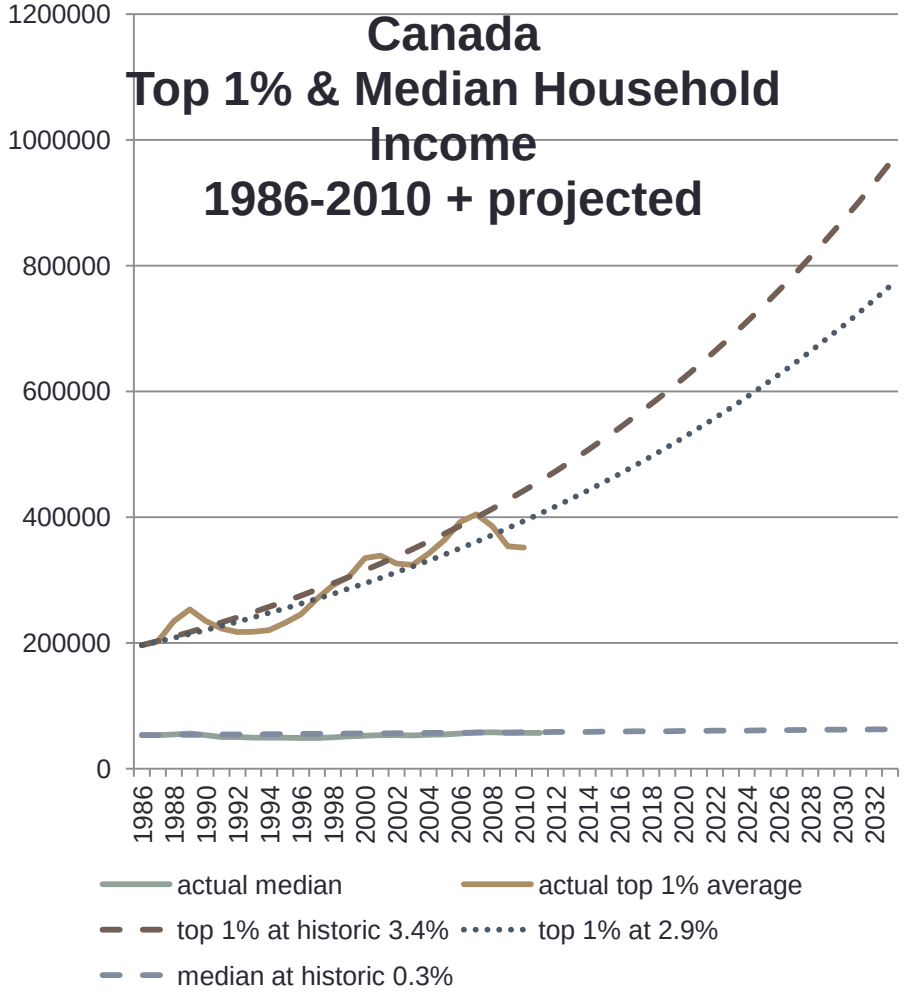


Increasing Inequality of Consumption?

- Extravagant Elite Consumption does recycle Income
  - "Downton Abbey" or Versailles or Mughal India: spending creates jobs
    – very high consumption inequality, but stable for centuries

- Consumption & Deference norms built up over many decades
  - Time + habit + theology → "natural order of things"
    for both servants & served;
    + strongly reinforced by 1800s church & state

NOT our current situation



Can consumption recycle top incomes ?

- *Ever Increasing* gaps => *Increasingly* Extravagant Elite Consumption required for Macro Economic Balance
  - norms of luxury → increasingly distant from median
  - Veblen: "conspicuous consumption" = the main point of great wealth
    - "if you've got it, flaunt it" lifestyles are resented by some
    - $ Gaps Increase over time
      - $r_1 > r_m$ and r_1 compounds on large base => ever more to flaunt

Externalities of top 1% spending ?

- Increasingly distant top incomes imply:
  - Increasing market for infrastructure of exclusivity
    - Separate world of resorts, gated communities, ***** restaurants, etc.
  - Increasingly difficult to socialize across income classes
    - Implies Increasingly Separated Worlds of Lived Reality

  - BUT, for the 99%: Why not just ignore (& tax) the top 1% ?

  - E1: *Escalating Consumption Norms? – set @ top & ripple down ?* *(Frank)*
    - *=> Increased middle class debts & increased financial fragility*
    - *Loss of well-being – what used to be 'good enough' no longer is*

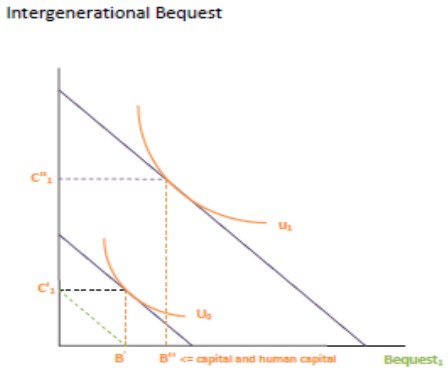
E2: Ever Increasing Advertising of Envy

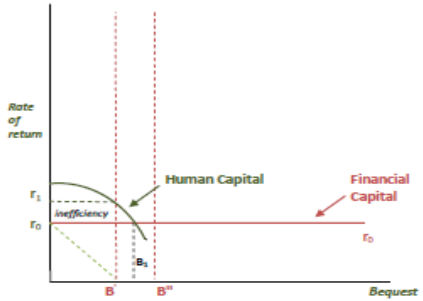
- Increasing top 1% share = Increasing market for luxury goods
  - U.S. - Top 1% share = 8.4% in 1982; 22.5% in 2012; → 30% % by 2025 ?
  - Discretionary/Luxury goods – advertising essential to motivate consumption
  - Implies Increasing % of advertising for luxury / status goods

- Status goods – a pointless purchase if nobody else thinks/knows "special / desirable / exclusive" – ad spillover is essential for sales

  - "Aspirational" advertising increasingly emphasizes exclusivity/luxury/privilege
    - Increasingly reminds 99% of what they cannot possibly afford
- Ever Increasing Inequality increases Market Incentives to market status goods – i.e. to manufacture envy
  - Happiness Implications of ↑ media saturation by ads for unaffordable items?

E3: Inequality of Outcome & Opportunity





- Parents choose Human Capital Investment for own Children subject to own Lifetime Income Constraint
  - Becker/Tomes (1979) : parental altruism model
  - Max $U_0 = u_0(C_0, u_1(C_1, U_2))$
    - s.t. $Y_i = C_i + HKB_i + K_i$
    - $Y_i = W_i + r_{hi} HKB_{i-1} + r_k K_{i-1}$.
    - Parental Income <= Bequest of Grand-parents <= Bequest Great Grand-parents <=

Market Society Implies:

- Inequality of Outcome in one generation begets Inequality of Opportunity in next generation
  - Not a new insight – Marshall & many others

- Pure Market Economy is Dynastic Society
  - (random variation in r_{hi} and r_k => long run mean reversion)
    - **Not** a consolation to poor children in any given generation

E3: Declining Mobility

- Increasingly affluent families will buy increasingly more advantages for their children, implying poorer chances for rest
  - "Income effect" of rising real incomes (Normal good) PLUS
  - Increasing "drop from top" for affluent implies ever greater incentives to prevent downward social mobility for own children
    - Top 1% / Median ratio increasing over time => ↑ cost of mobility from top to median
  - When top 1% avoid downward mobility of their own kids, decreases the chances of upward mobility for 99%
  - Maintaining belief in "equality of opportunity" becomes ever harder

- Human Capital Model assumes no rationing of access to top slots
  - Harvard admits all applicants who can pay; All hard-working MBAs can become CEO

  - By Assumption: There is nothing competitive about life.
    - success by others **never** affects own probability of success

  - BUT in a competitive race, only the top few can win
    - "rat-race" model → over-investment in effort to increase own Prob (promotion)
    - Social Rank: Intergenerational Mobility => trading ranks
      - when some go up, others must go down
    - Scarcity of top slots => own prob (success) ↓ when others prob (success) ↑

- Implications of an increasing payoff to top slots?
  - Increasing stakes in early school success => more pressurized childhood / Kid's rat race
  - Real "Equality of Opportunity" has increasing costs to affluent parents (i.e. for own kids)
    - **Greater "drop from top" for own children reduces support by affluent for equal opportunity public spending**

E4: Political Influence

- Top 1% refuse to be ignored politically
  - U.S. evidence is clear:
    - political & social preferences of top 1% quite different from 99%
    - Top 1% much more active politically than the 99%
    - campaign funding depends heavily on major donors
    - legislation heavily influenced by the policy priorities of top 1%

- Political influence: **More for 1% implies less for 99%**

- **“Deeper Pockets” & Meaningful Democracy ?**

If markets do not auto-equilibrate, what can stabilize inequality?

- 1930s: FDR & “New Deal”
- U.S. Policy Innovation Stabilized Growth & Inequality
  - Multiple Interlocking Parts: Cyclical Stimulus + Regulation Reforms + Progressive Taxation + Social Security
    - Restraint top end income growth + fiscal recycling + financial market regulation + unions => ↓ level of inequality & long period of balanced growth

U.S. global dominance enabled “Stabilization in One Country”

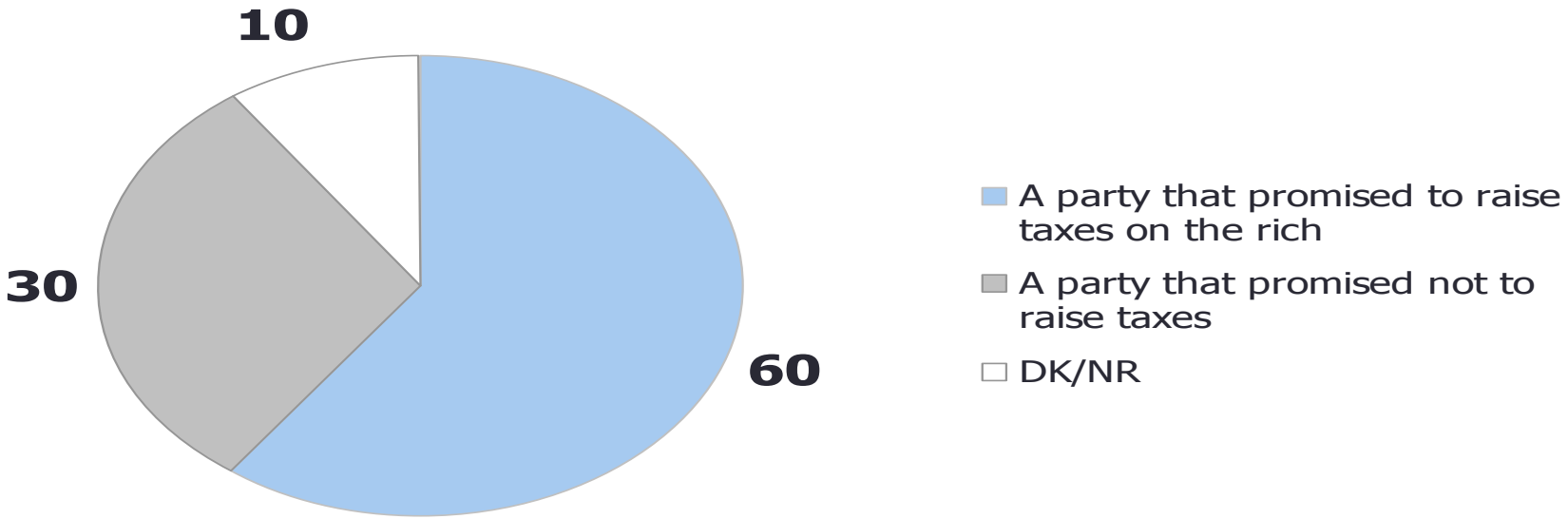
2014: Are national governments powerless?

- In principle, a solvable set of problems:
  - “Tax & Spend” can stabilize the distribution of after-tax income for any given trend in market incomes.
  - Regulation can reduce risk of financial crises

- BUT Fear can paralyze policy: flight of capital & top end labour?
  - E.g. Australia, Canada

  - 2012 California voted13.3% state tax@ top; MTR = 51.9%; NYC = 51.5%
    - State + Federal + Municipal tax in U.S. now higher in most states than in Canada
    - Texas has no state income tax but Silicon Valley & Wall Street still thrive

Q. *In the next federal election, would you be more likely to support a party that promised to NOT raise taxes or a party that promised to raise taxes on the rich?*

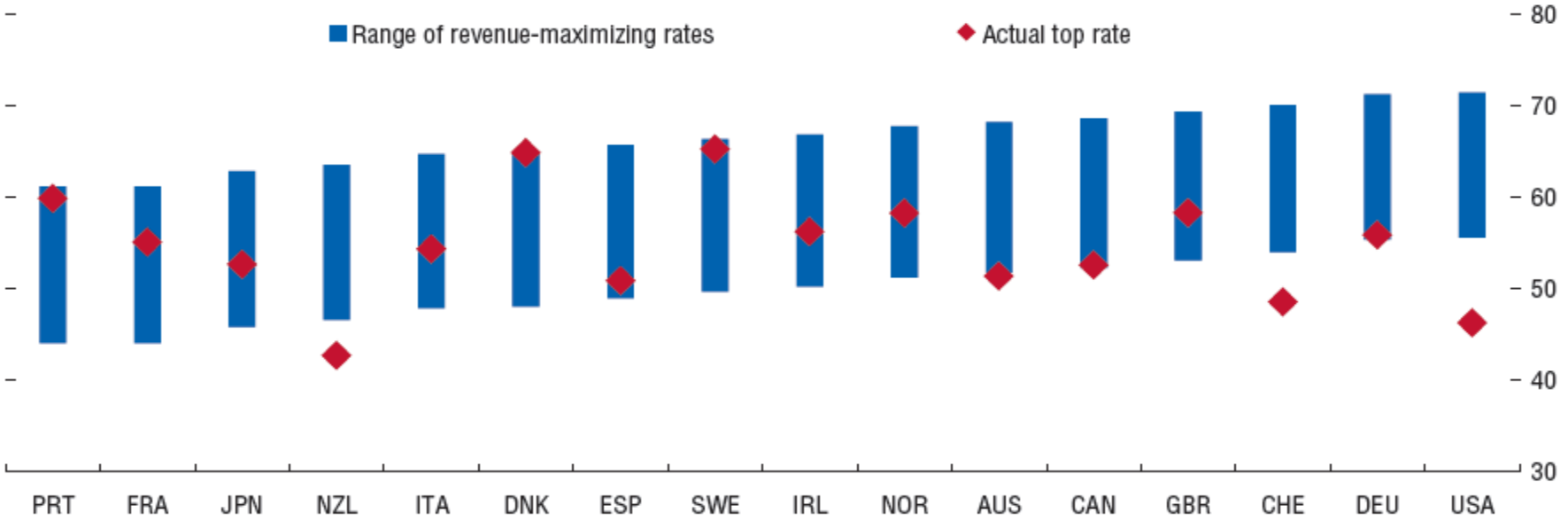


BASE: Canadians; February 21-28, 2012 (n=3,699)

Room for raising top tax rates

IMF FISCAL MONITOR October 2013 http://www.imf.org/external/pubs/ft/fm/2013/02/pdf/fm1302.pdf

Figure 17. Top Marginal Rates and Revenue-Maximizing Rates, Late 2000s
(Percent)



Will Canadian inequality stop increasing?

- Conservatives & Liberals presided over rising inequality & cuts to top marginal rates – no change is likely

- Fairness, Economic Justice & Greater Equality used to be NDP themes
  - Classic themes of social democracy world wide
    - PLUS Increasing Top 1% Income share implies larger potential revenues to fund public services

– so where is NDP policy now ?
  - Mulcair: “no increase in personal tax”
  - Locks in all past cuts to top end income tax rates

  Implication for meaningful policy on inequality : NDP_{2014} = **N**o **D**ifference **P**arty

- Canada again waits, as in 1930s, for the U.S. to lead

The unsustainable does not last – but what follows?

- Unbalanced Income Growth ⇔ Ever Increasing Inequality
  - Cannot be a steady state equilibrium
    - Produces Interacting Instabilities – with cumulative impacts
- Parallels with 1930s but many structural changes since

- No automatic economic self-correction tendency is apparent
- Political Economy of Adaptation to Systemic Instability:
  - Europe in 1930s: both disastrous choices and enduring successes
    - Political choices and policy co-ordination matter a lot

Download OECD working paper version:

http://www.oecd-ilibrary.org/economics/can-increasing-inequality-be-a-steady-state_5jz2bxc80xq6-en

OR

http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=std/doc%282014%291&doclanguage=en

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Implications of stable, low inequality?

- E.g. Wilkinson & Pickett: *The Spirit Level: Why Equality is Better for Everyone*
  (+ many articles)

- More Equality causes more
  - health
  - life expectancy
  - trust
  - social mobility
  - educational performance

  AND LESS
  - infant mortality
  - Violence
  - obesity
  - mental illness
  - teen births
  - homicides
  - Imprisonment

- Is Inequality Guilty of all this?
- Can Inequality be proved Guilty?

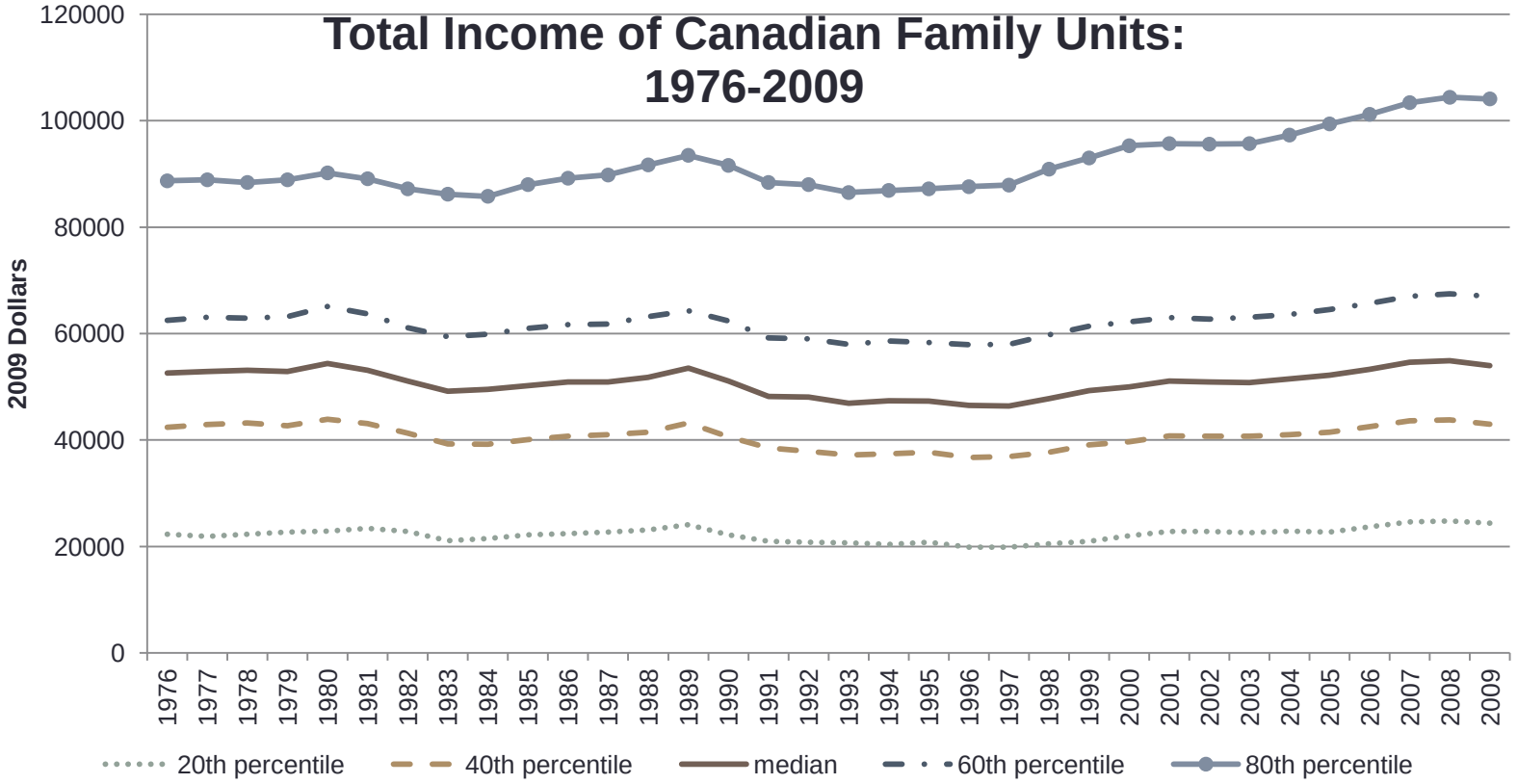
- "too many theories for the number of available data points"

- Inconclusive "Regression Wars" continue
  - Multiple Plausible Indicators of Complex Concepts
    - e.g. "Health" & "Inequality"; => ambiguity of estimates
  - Causation or Correlation? formal econometrics not feasible
  - Outliers – weird or very informative ?
  - Onus of proof – required proof: "harmful" or "harmless" ?
    - "Balance of Probabilities" or "Beyond Any Doubt" ?

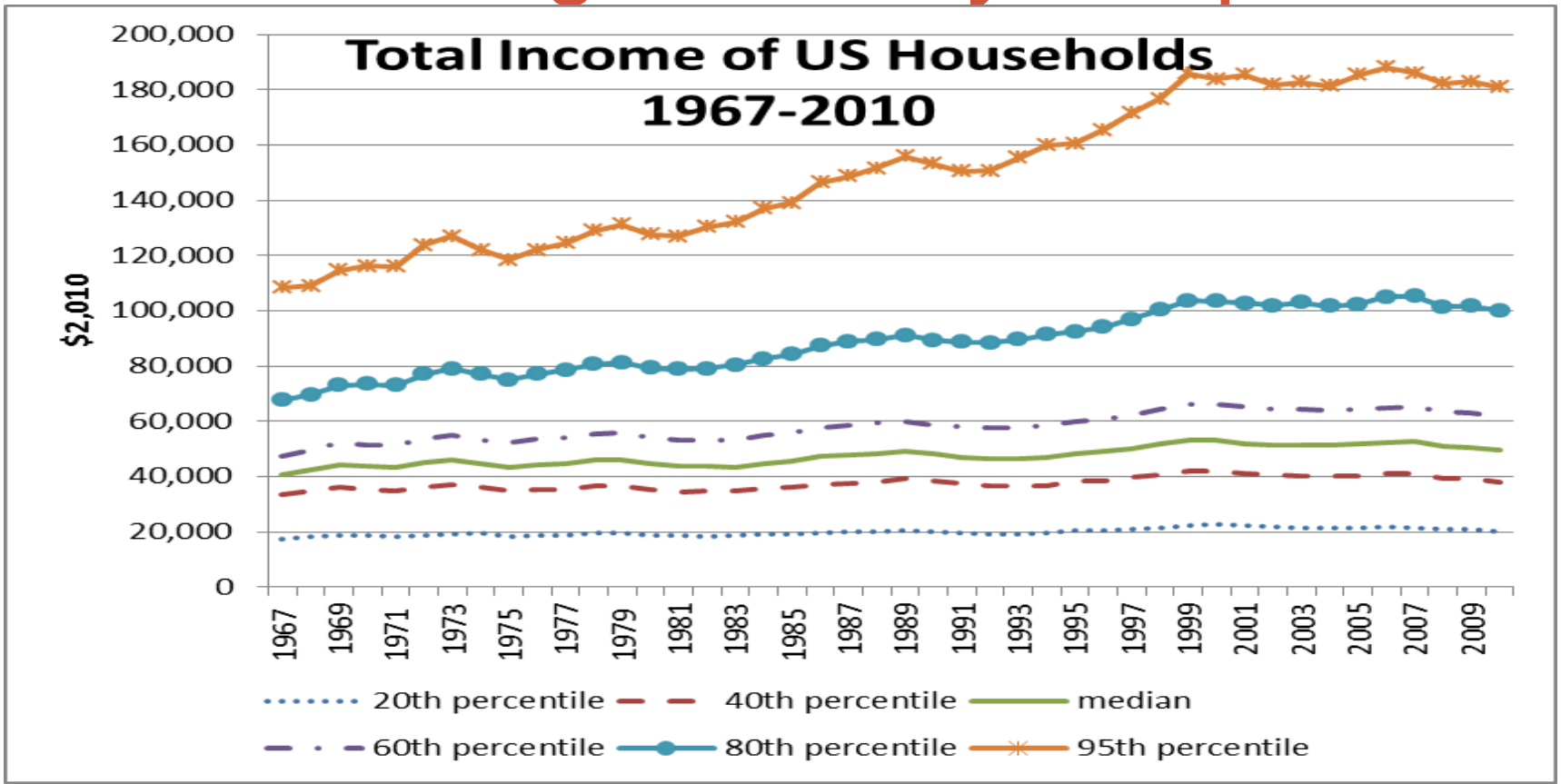
- **Most Convincing evidence:**
  - **Intergenerational Social Mobility & Inequality of Opportunity**
- Intergenerational
  - Correlation Education
  - Earnings elasticity
  - Income Decile transitions

Mobility is lower where inequality of income is greater

Canada – nil real growth for most



U.S. – real growth only at top

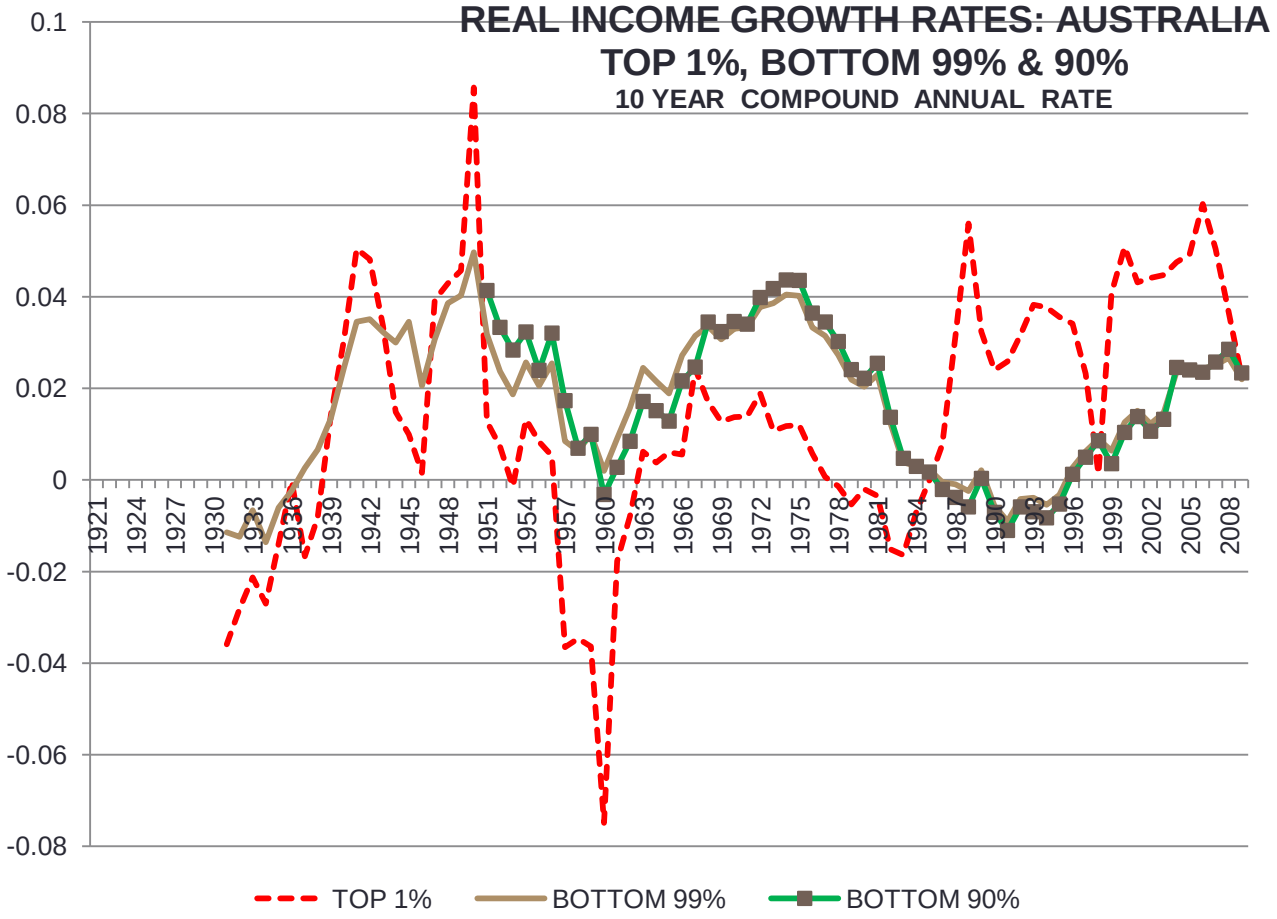


Australia Unequal growth – normal event

Not same pattern as U.S. & Canada pre 1980s

35 years of compression 1951-1986

1986 + similar differential in growth rates



No stable level of Gini Index

Canada

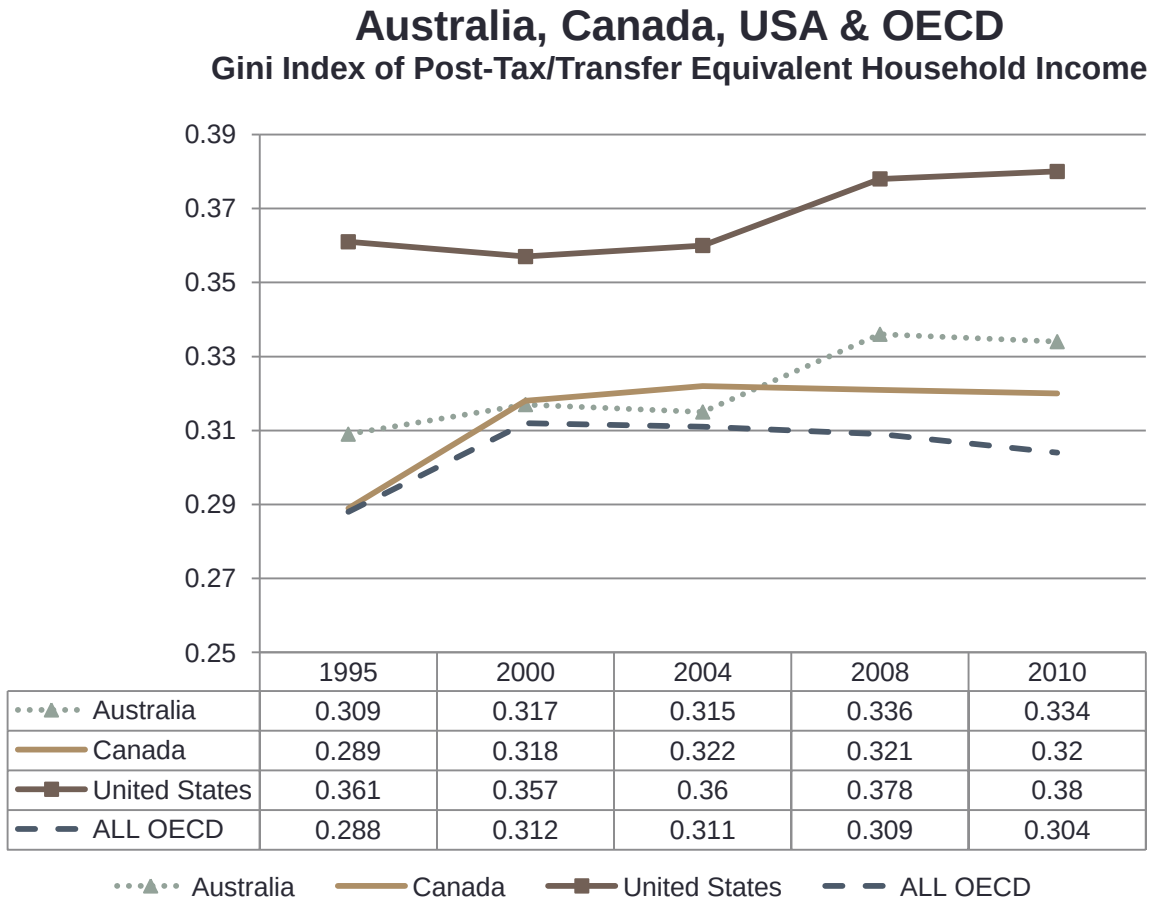
- Rising – esp. since 1990s
- 2000+
  - ↓ middle offset ↑ top
  - Top-coding survey data

USA

Rising since early 1980s

Australia

Trending up



	1995	2000	2004	2008	2010
Australia	0.309	0.317	0.315	0.336	0.334
Canada	0.289	0.318	0.322	0.321	0.32
United States	0.361	0.357	0.36	0.378	0.38
ALL OECD	0.288	0.312	0.311	0.309	0.304