

The impact of the capital gains tax discount on capital gains realisations: Evidence from Australia

John Minas (Griffith University)

Youngdeok Lim (UNSW)

Professor Chris Evans (UNSW)



Purpose of the paper

- The paper estimates the capital gains realisations response for Australian individual taxpayers
- The paper is motivated by the lack of previous empirical research on this topic
- The rate change of interest is the (effective) reduction of CGT rates for 'discount capital gains' following the enactment of the CGT discount in the 1999-2000 fiscal year

Context and literature

- Australia introduced CGT at full marginal tax rates in the 198-86 income tax year
- In 1999-2000, the '50% CGT Discount' was introduced – where an asset is held for 12 months prior to disposal, 50% of the net capital gain is included in assessable income.

Context and literature

- Most previous research on the capital gains realisation response is from the United States
- An elasticity point estimate is used to quantify the capital gains realisation response
- Recent U.S. empirical studies imply that a CGT rate cut is unlikely to be self-financing

Hypotheses

- H1 – The 50% CGT discount for personal taxpayers, introduced in the 1999-2000 tax year is likely to have caused a decrease in CGT revenue over the long run.
- H1alt – The 50% CGT discount for personal taxpayers, introduced in the 1999-2000 tax year is likely to have caused an increase in CGT revenue over the long run.

Research design

- The time series study is for the years 1988-1989 to 2014-2015

Variables in the main equation:

The dependent variable is:

- Discount capital gains

The independent variables are:

- The Top marginal CGT rate
- The ASX 200 index
- Gross Domestic Product (GDP)
- GDP deflator

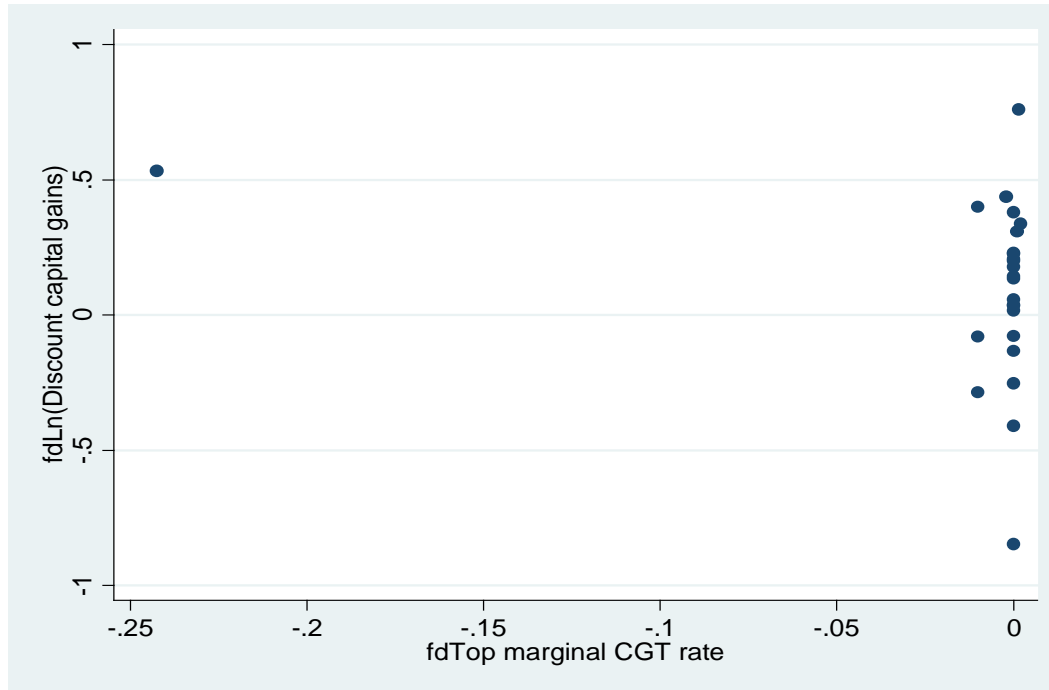
Research design

The choice of variables is guided by theory on the determinants of capital gains realisation, without replicating a particular equation from a single previous study

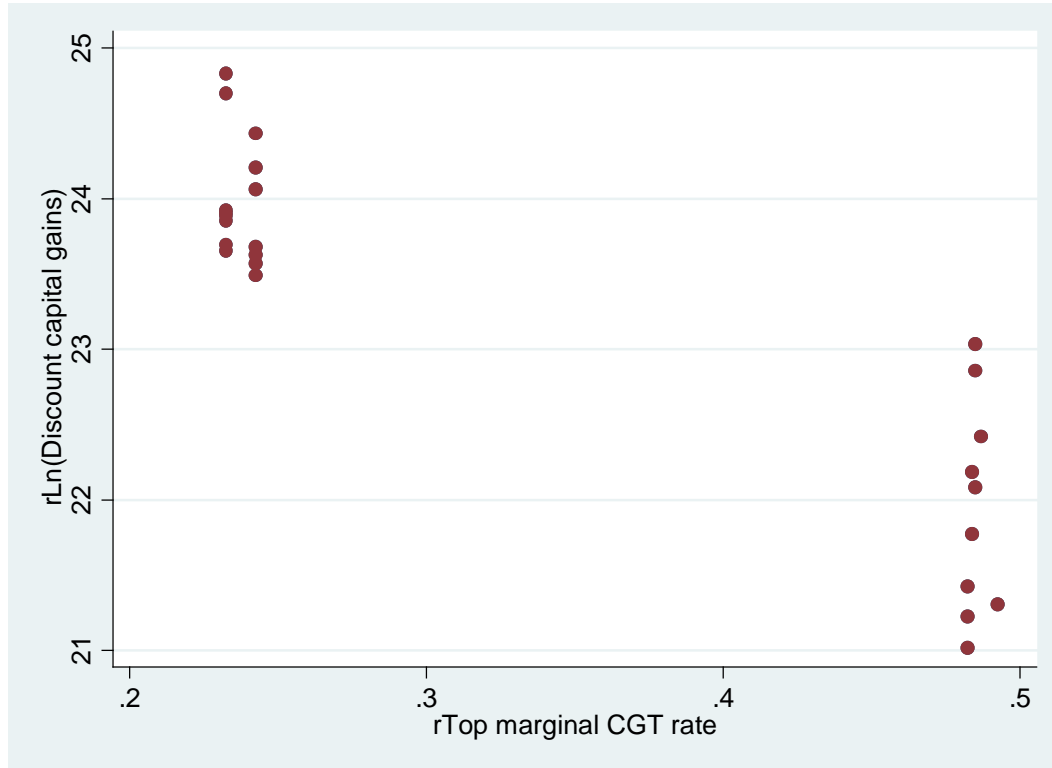
We report elasticities at two tax rates:

- * 33.9% (the average rate for all years in the time series) and
- * 36.75% (the midpoint between the top 'CGT rate' and the top statutory marginal tax rate)

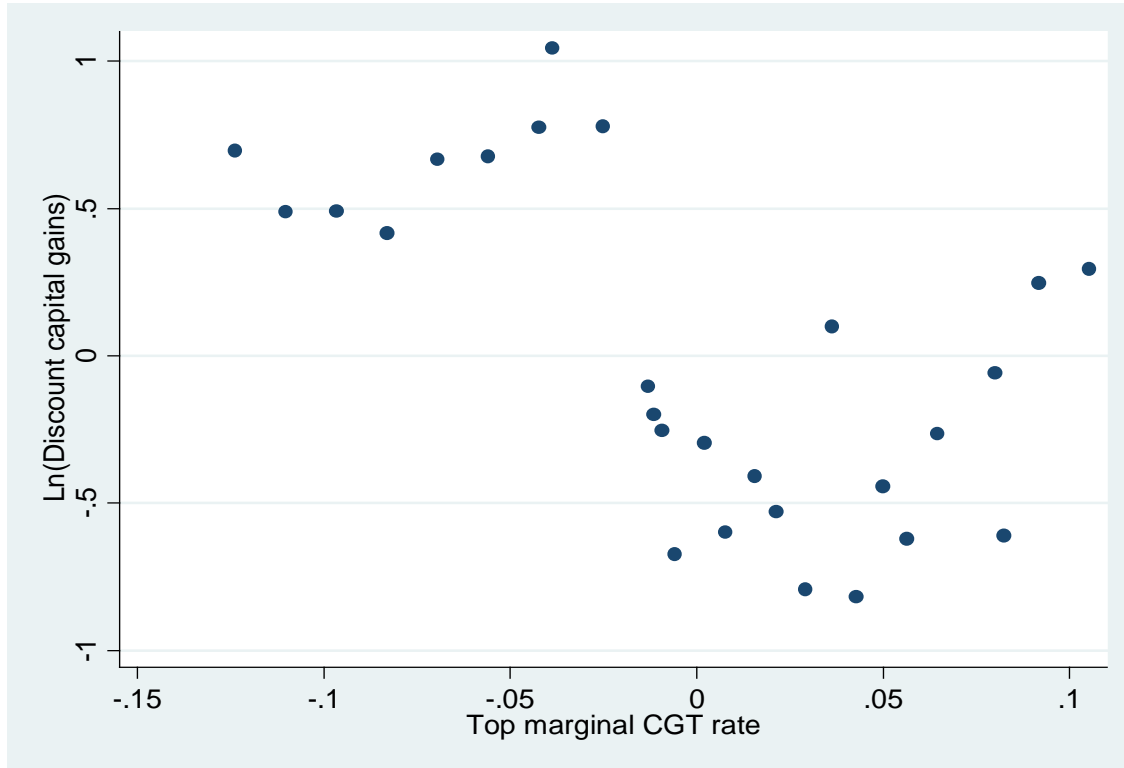
Ln(Discount capital gains) plotted against the Top marginal CGT rate (both in first differences)



Ln(discount capital gains) plotted against the Top marginal CGT rate



Ln(discount capital gains) plotted against the Top marginal CGT rate (both detrended)



Capital gains realisations elasticity 1988-1989 to 2014-2015

Variable		Coefficient	t-statistic
Top marginal CGT		-2.15***	-3.19
CG realisations elasticity	(at 33.9%) -0.73 (at 36.75%) -0.79		
Ln(ASX200)		2.08***	6.66
Ln(Real GDP)		3.25**	2.61
Ln(GDP deflator)		-3.13**	-2.48
Adjusted R^2	0.93		
F statistic (4,22)	87.18***		
Durbin-Watson	1.44		

Capital gains realisations elasticity 1988-1989 to 2014-2015 - bootstrapping 100 replications

		Coefficient	z-statistic
Top marginal CGT		-2.15***	-2.71
CG realisations elasticity	(at 33.9%) -0.73 (at 36.75%) -0.79		
Ln(ASX200)		2.08***	4.94
Ln(Real GDP)		3.25*	1.89
Ln(GDP deflator)		-3.16**	-2.13
Adjusted R^2	0.94		
Wald chi2 (4)	323.32***		
Durbin-Watson	1.44		

Capital gains realisations elasticity 1988-1989 to 2014-2015 (main table), Prais-Winsten

		Coefficient	t-statistic
Top marginal CGT		-1.75**	-2.24
CG realisations elasticity	(at 33.9%) -0.59 (at 36.75%) -0.64		
Ln(ASX200)		1.89***	5.53
Ln(Real GDP)		4.19***	2.96
Ln(GDP deflator)		-3.74**	-2.63
Adjusted R^2	0.87		
F statistic (4,22)	45.52***		
Durbin-Watson	1.99		

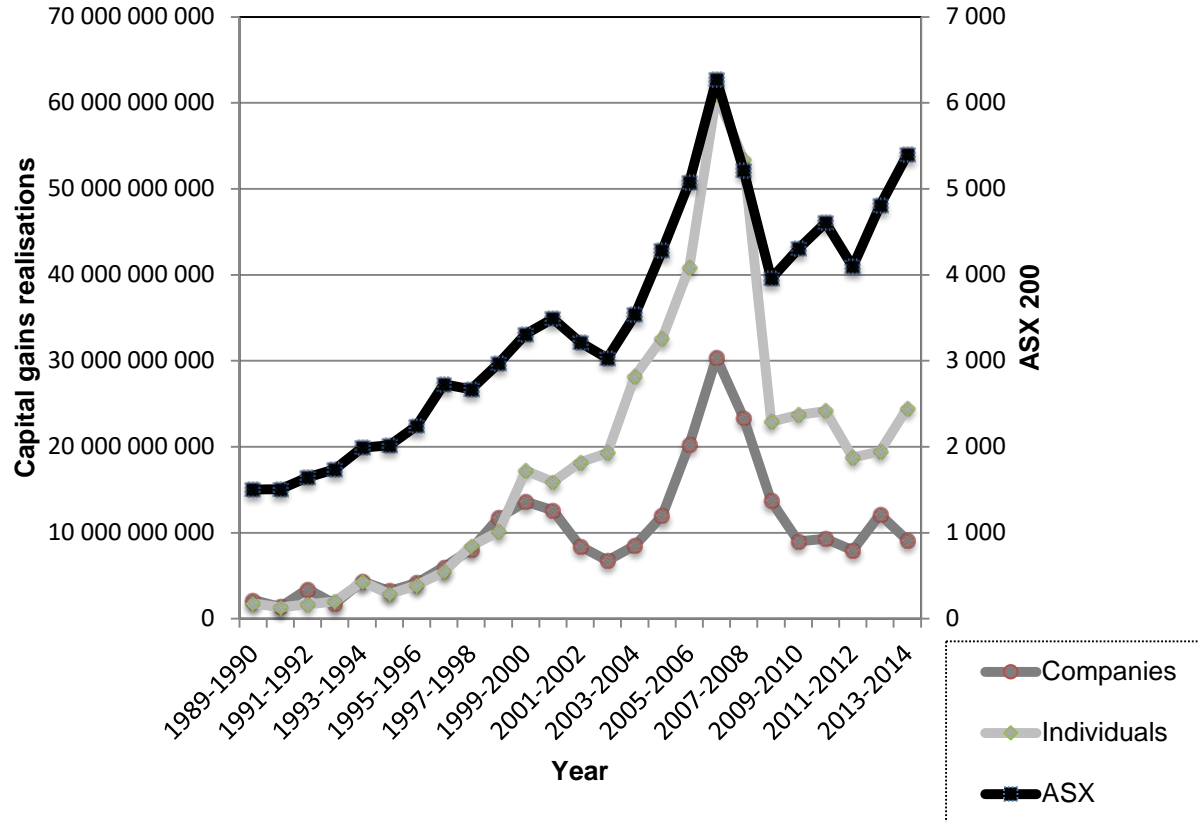
Capital gains realisations elasticity 1990-1991 to 2014-2015, as per main equation, Prais-Winsten

		Coefficient	t-statistic
Top marginal CGT rate		-1.71**	-2.10
CG realisations elasticity	(at 33.9%): -0.58 (at 36.75%): -0.63		
Ln(ASX200)		1.95***	5.31
Ln(Real GDP)		4.15***	2.83
Ln(GDP deflator)		3.57**	-2.30
Adjusted R^2	0.87		
F statistic (4,20)	39.65***		
Durbin-Watson	1.97		

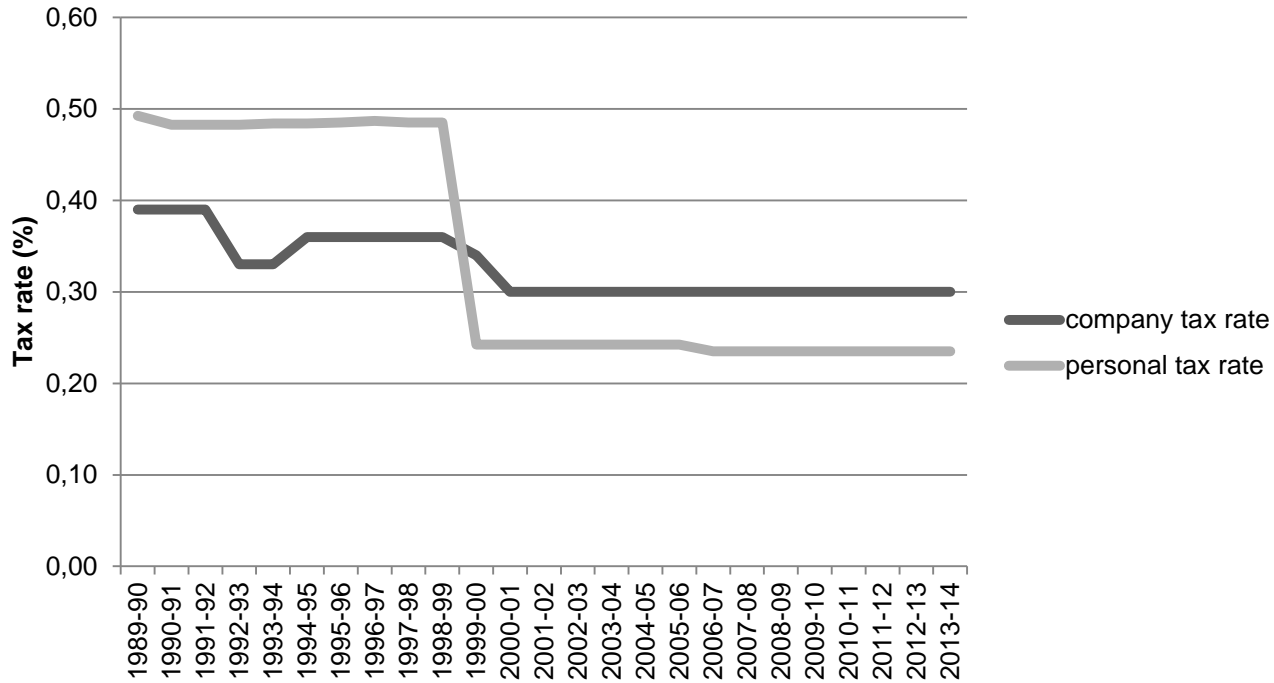
Capital gains realisations elasticity 1989-1990 to 2012-2013, as per main equation, Prais-Winsten

		Coefficient	t-statistic
Top marginal CGT rate		-1.37*	-2.06
CG realisations elasticity	(at 33.9%): -0.47 (at 36.75%): -0.51		
Ln(ASX200)		1.55***	4.45
Ln(Real GDP)		4.04***	3.59
Ln(GDP deflator)		-0.08***	-3.59
Adjusted R^2	0.94		
F statistic (4,20)	99.67***		
Durbin-Watson	1.80		

Individual and company capital gains realisations 1989-1990 to 2013-2014 (in 2014 Australian dollars)



Company and personal (top marginal CGT) tax rates



Corporate capital gains (1989-1990 to 2014-2015), Prais-Winsten

		Coefficient	t-statistic
Company tax rate		2.09	0.87
Ln(ASX200)		2.48***	6.98
Ln(Real GDP)		4.53*	1.77
Ln(GDP deflator)		-1.77	-1.47
Adjusted R^2	0.85		
F statistic F (4,21)	36.64***		
Durbin-Watson	1.97		

Corporate capital gains (1989-1990 to 2014-2015), corporate tax rate replaced with the personal tax rate, Prais-Winsten

		Coefficient	t-statistic
Top marginal (personal) CGT rate		0.57	0.71
Ln(ASX200)		2.43***	6.94
Ln(real GDP)		5.40*	1.82
Ln(GDP deflator)		-1.60	-1.37
Adjusted R^2	0.86		
F statistic F (4,21)	37.93***		
Durbin-Watson	1.97		

Conclusions

- As reported in Table 12 (main table), our elasticity point estimates are: -0.59 at a 33.9% tax rate and -0.64 at a 36.75% tax rate.
- These estimates indicate a moderate capital gains realisations response and they imply that the CGT discount has not been self-financing
- Main limitation of the study is the small number of observations (n=27)