

The Economics of Urban Land Use Regulation

by

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Let's start with the Grimes *et al* study

- Found significant differences in land prices on either side of the MUL (Metropolitan Urban Limits)

So the question is:

What do we make of that?

- “Planner”: *Good, the MUL is working as it is supposed to*
- “Economist”: *Bad, the MUL is wasting resources*

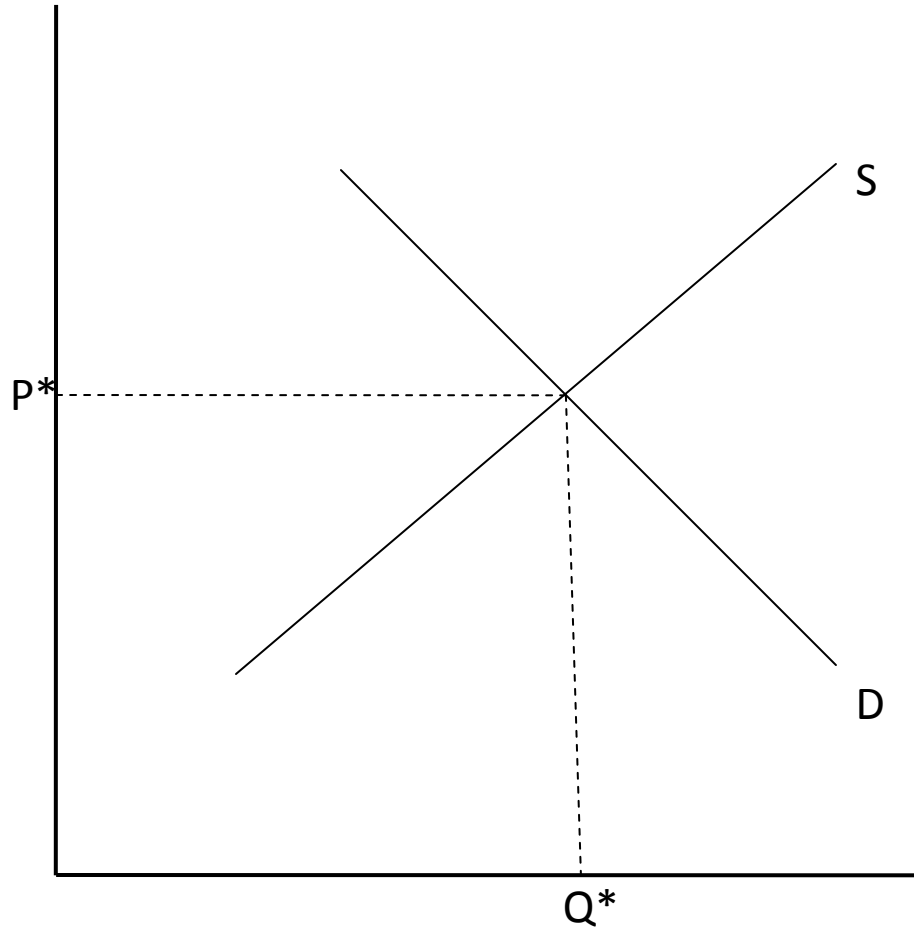
We will explore the “economist” take on this

- *Use “...” because this is a rather simplistic model of the situation*
- *Nevertheless, one notable economist has gone so far as to equate the MUL with the economists’ universal bête-noire:*

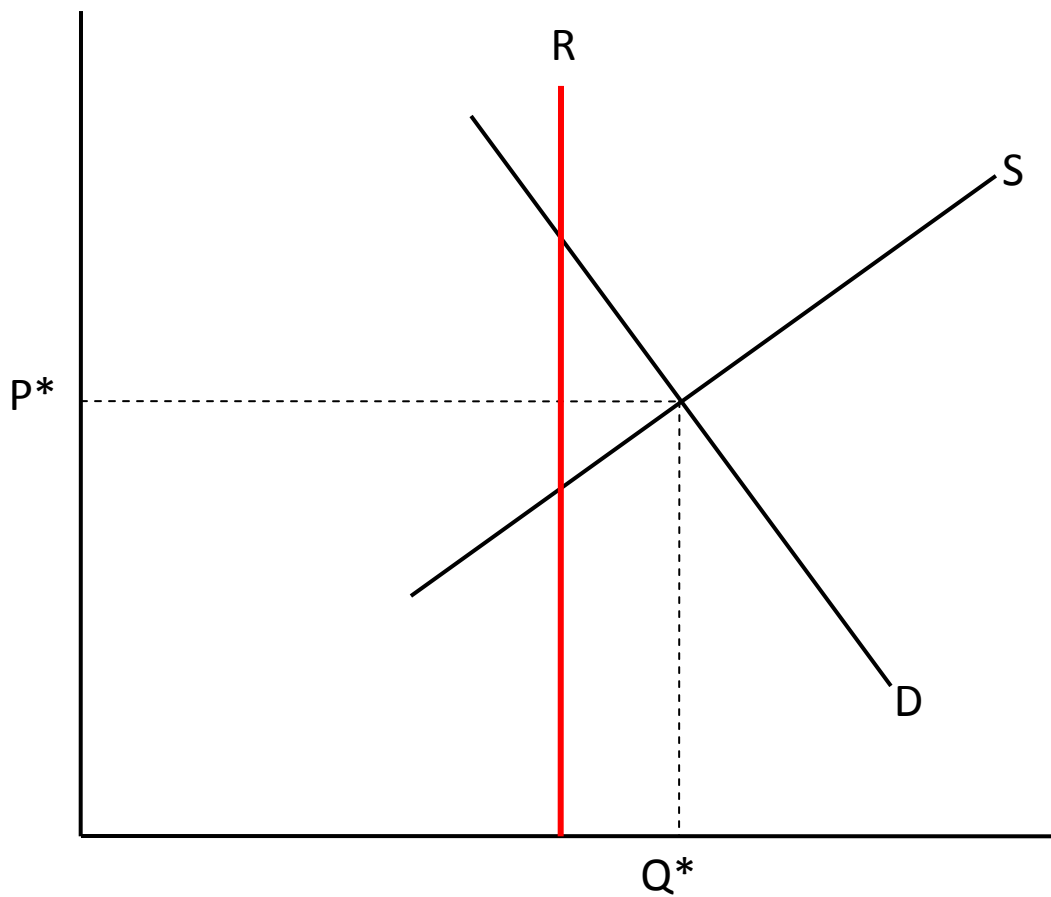
--- import controls !

So, we draw the standard supply/demand diagram:

LAND MARKET



LAND MARKET

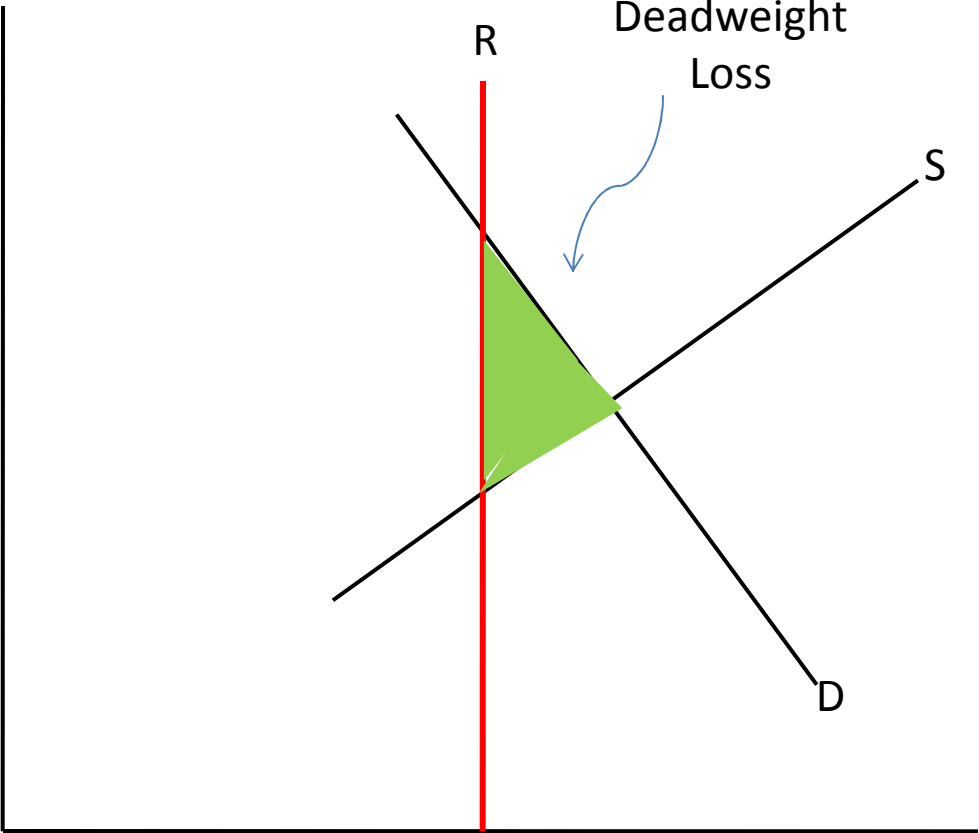


Here we have “free market” demand and supply curves for housing land, with an imposed regulation (R) restricting supply to below its “equilibrium” level

And therefore driving land prices up above their free market level

This results in a waste of resources – a “deadweight loss” due to the restriction of trade in land between willing private buyers and sellers

LAND MARKET



Now, quite a lot of people have learnt how to understand this simple model

Unfortunately, it seems that most of them haven't learnt any more economics than this!

Note first, that

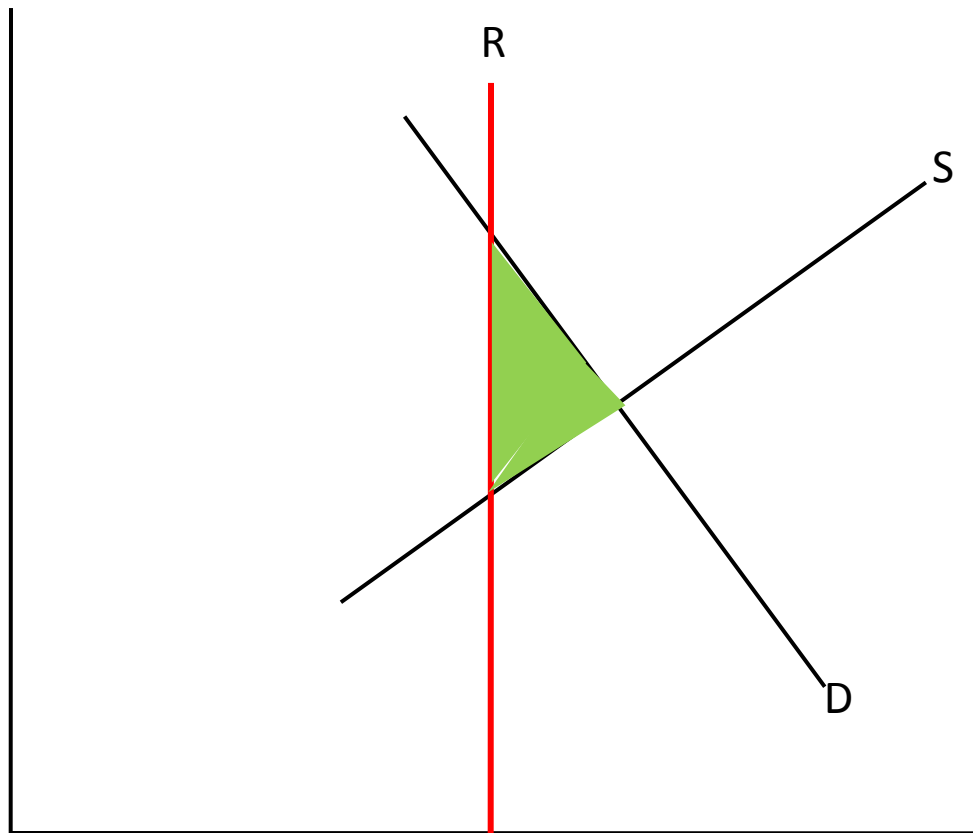
These deadweight triangles are in fact usually rather small

- For example, a restriction that reduced building land by 10% would generate just around 1% in deadweight losses, as a proportion of total land value.

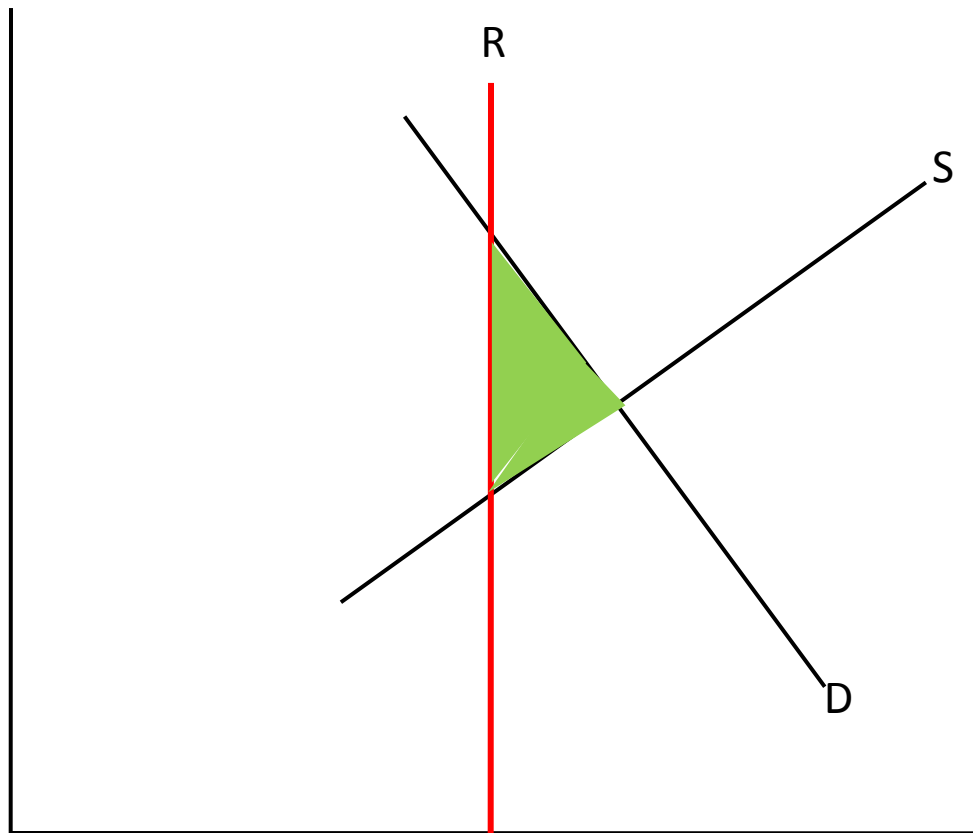
But there are other considerations too

Look at a specific case:

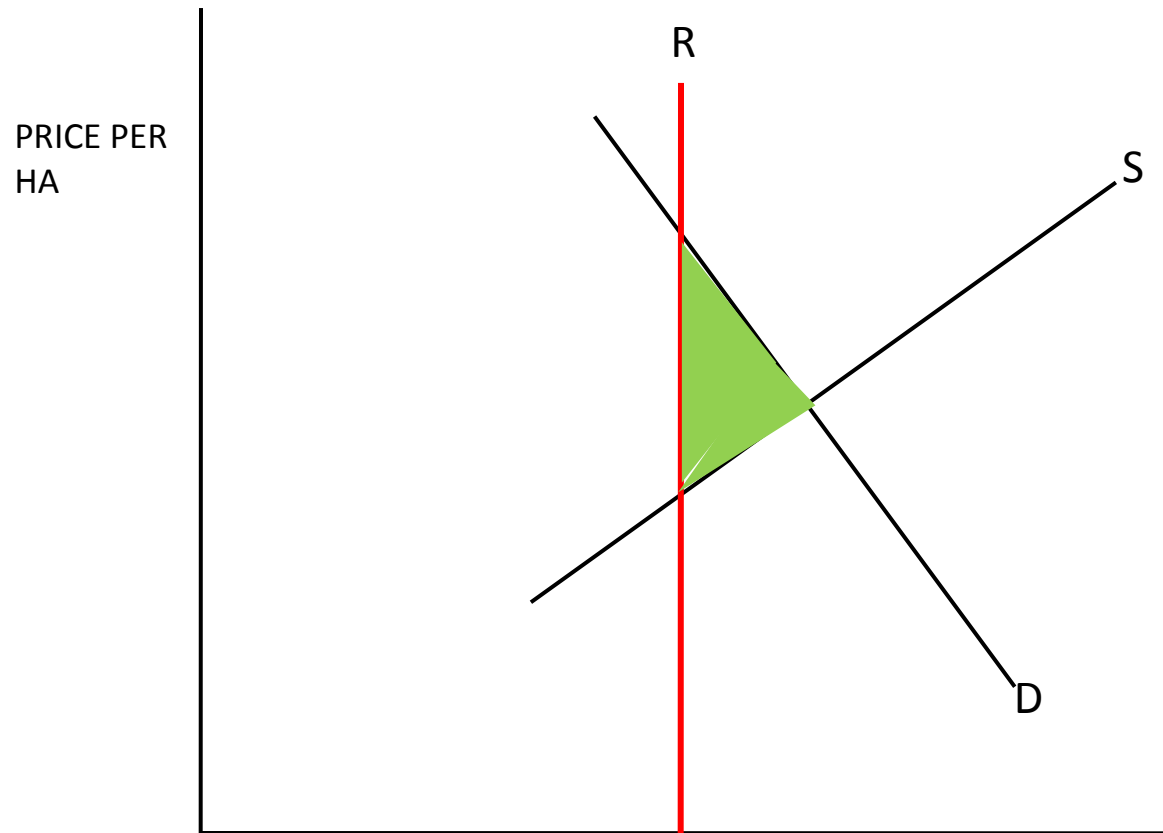
Let's put in some labels.....



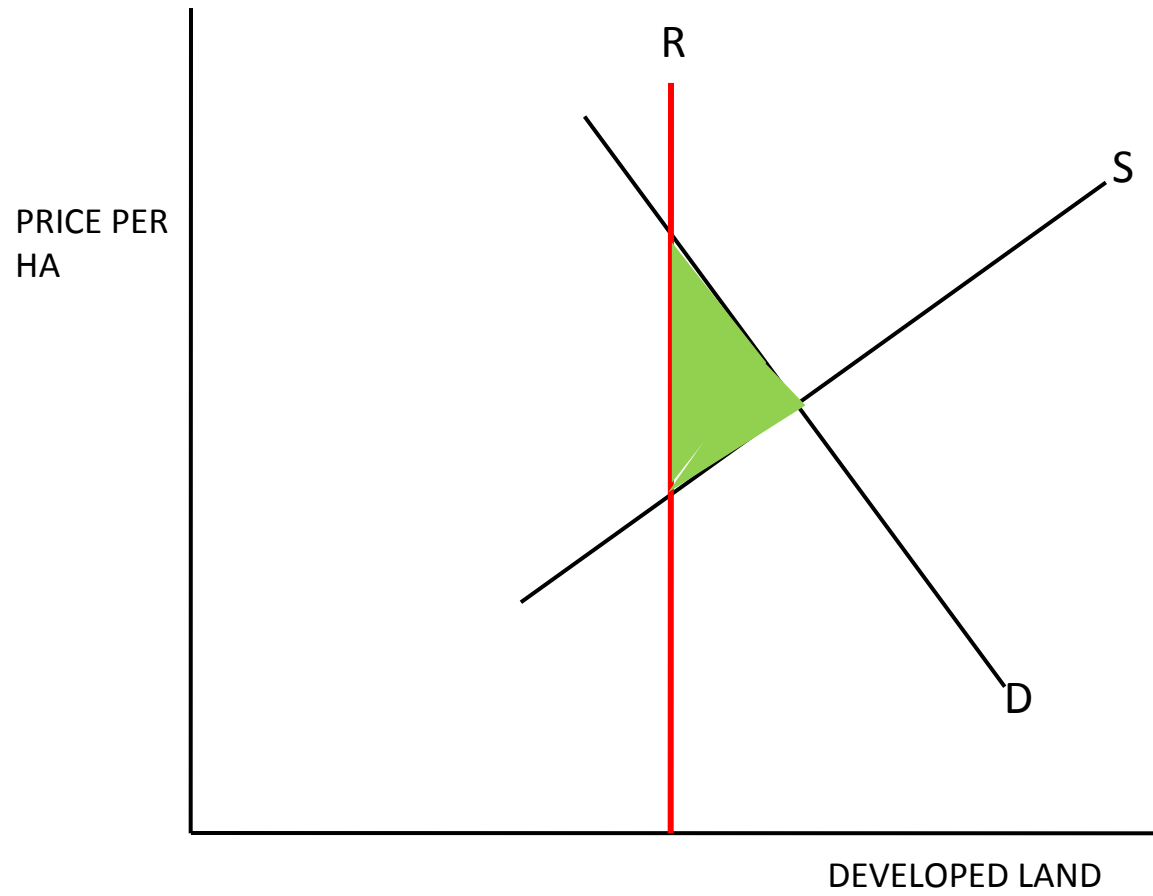
LAND MARKET: AUCKLAND CBD



LAND MARKET: AUCKLAND CBD



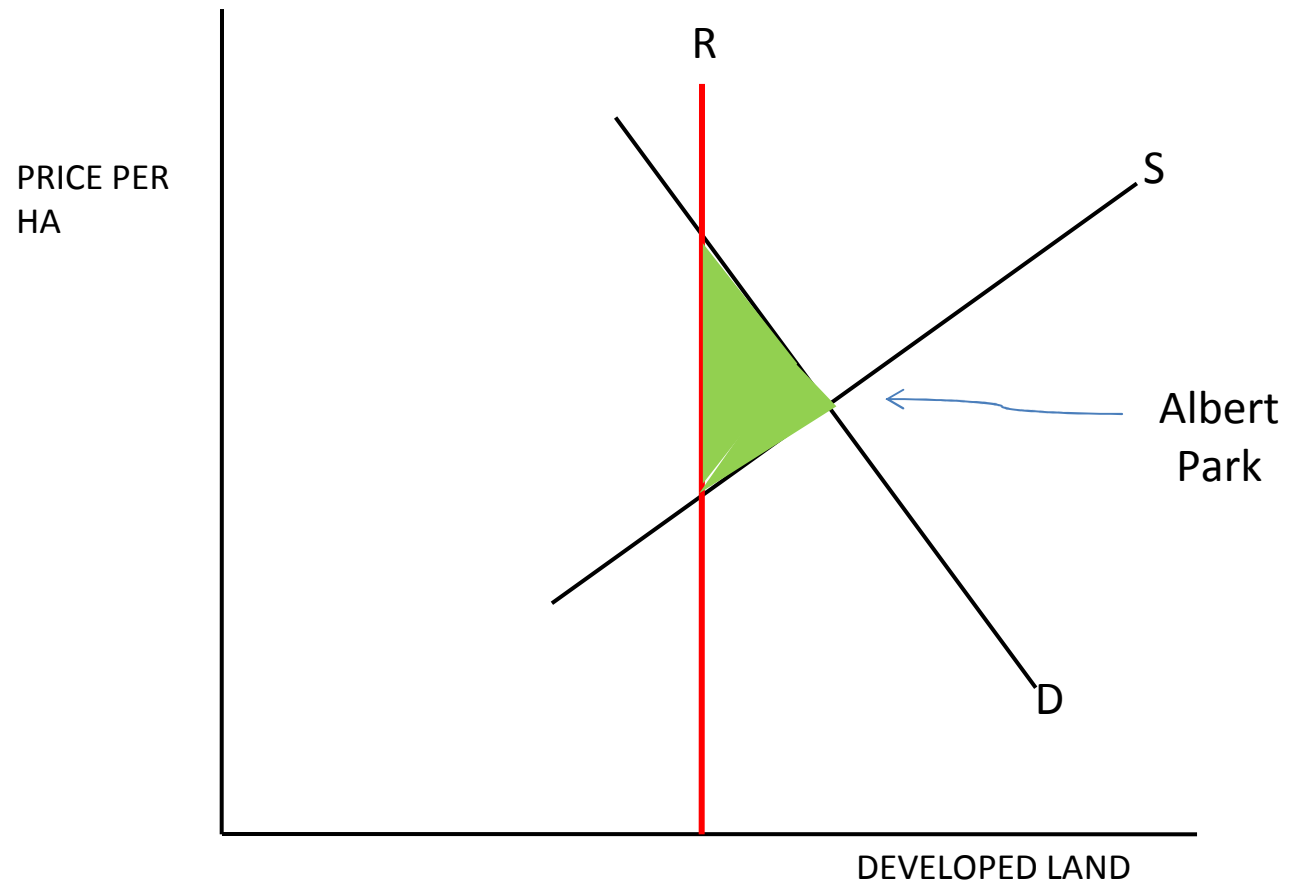
LAND MARKET: AUCKLAND CBD



Why have I coloured the triangle in green?

-- because it is green!

LAND MARKET: AUCKLAND CBD

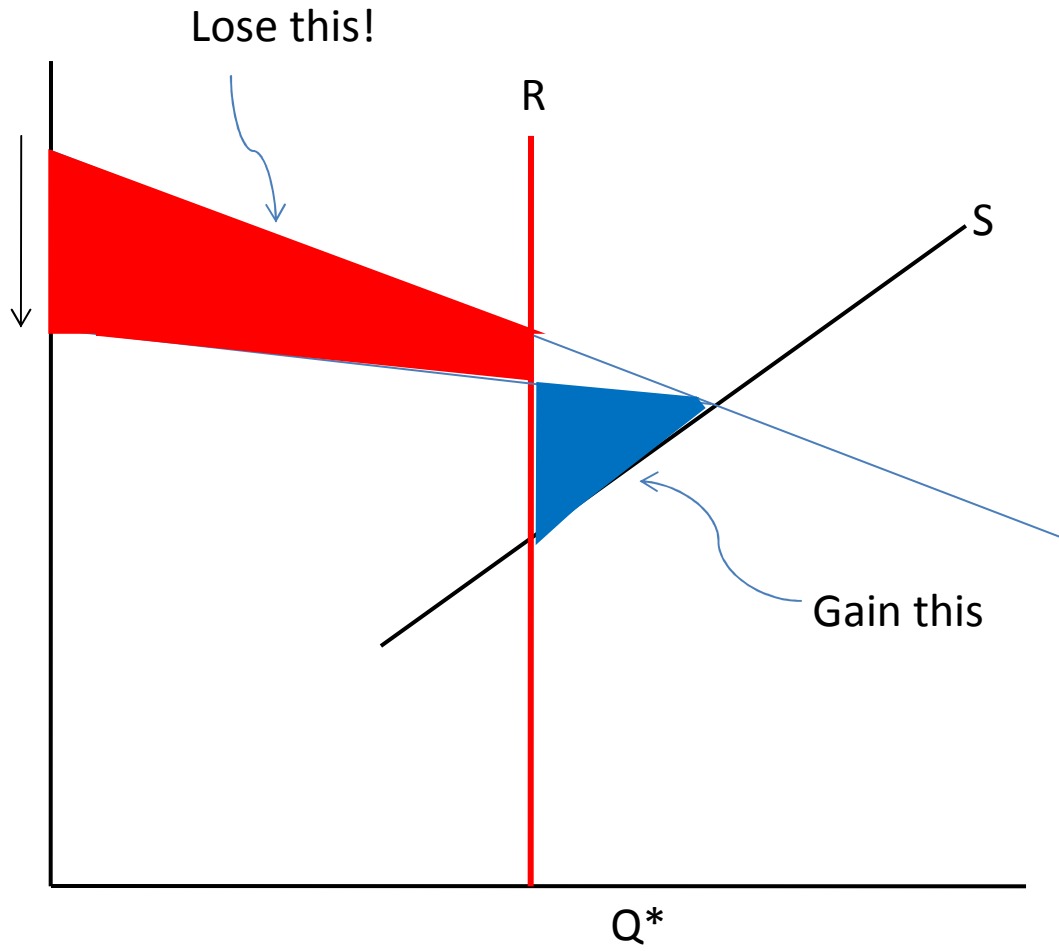


The only substantial undeveloped public space in the Auckland City CBD is Albert Park

Any local politician suggesting selling off Albert Park for development to reduce the rates would be laughed out of office... wouldn't they?

So what's the (economic) problem here?

AUCKLAND CBD WITHOUT ALBERT PARK



Concreting Albert Park would destroy a lot of value for neighbouring real estate

Not to mention the amenity losses to all other users of the park (negative externalities)

Positive externalities from MUL-type restrictions include more efficient supply of many amenities, including social, physical and transportation infrastructure

Planning can also help resolve “strategic” problems not covered in simple S/D analysis

-- go to Game Theory:

Suppose we have a situation of two developers, owning adjacent large blocks of land, and each preparing a plan for developing housing or apartments on their land

The issue is: how much public space to provide (ie how much site left undeveloped)?

Because public space adds value to housing, there is an optimal amount (trade-off between site coverage and value per house)

PAYOFF MATRIX

Developer A

Developer B

PAYOFF MATRIX

Developer A

No Public Space

Public Space

Developer B

No Public Space

Public Space

PAYOFF MATRIX

Developer A

No Public Space

Public Space

Developer B

No Public Space

Public Space

	100,100

PAYOFF MATRIX

Developer A

No Public Space

Public Space

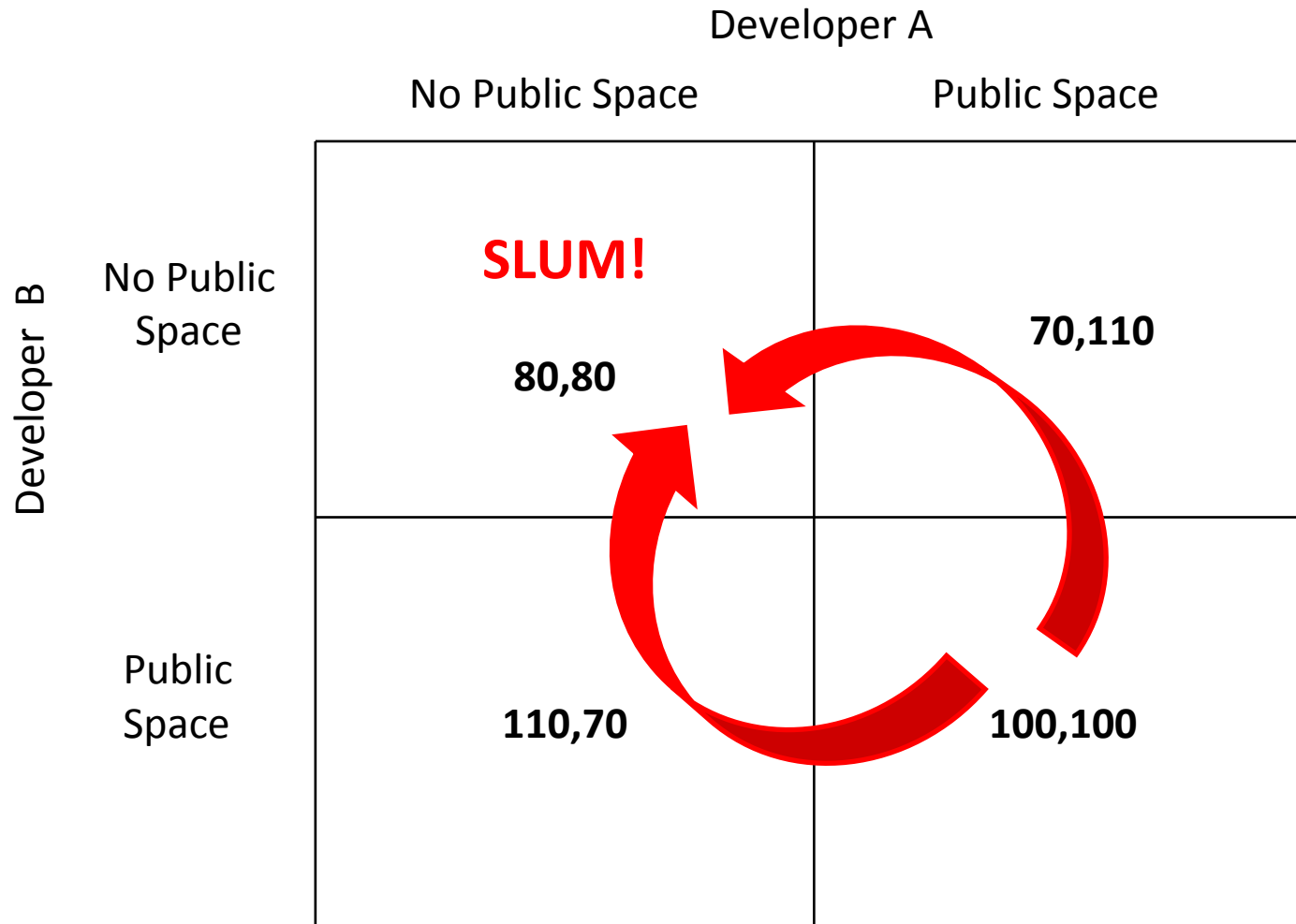
Developer B

No Public Space

Public Space

110,70	

Figure 4: PAYOFF MATRIX



“PRISONERS’ DILEMMA”

Figure 5: PAYOFFS WITH REGULATION

		Developer A	
		Public Space	Public Space
Developer B	Public Space		
	Public Space		100,100

PLANNING RULES
LOCK-IN BEST OUTCOME!

Now look in more detail at the “housing affordability” issue

As set out in the *Demographia* “International Housing Affordability Survey 2009”

- Impressive piece of empirical research
- But usefulness marred by simplistic data interpretations and a strong whiff of anti-regulation pro-developer zealotry

Start with their title

-- both words are misleading

“Housing” means shelter – having a sound roof over your head.

That is, must take into account apartments and other land-extensive housing

And must take into account rental costs, not just capital values

Demographia just look at house prices

As for “affordability” -- this means nothing unless comparisons are quality adjusted.

Such is almost comically not the case in the *Demographia* rankings

- “Top” of their affordability list is Youngstown, Ohio -- *aka “Murder City USA”*
- Bottom of their list are various desirable sun-belt settlements, plus just about all the most liveable cities in the English-speaking world!

So it’s about location, location, location...

Ok, so we are talking about House Values, not housing affordability here

Interesting list, but so what?

Well, *Demographia* do link differences in house values to differences in regulatory regime

Under what they call “responsive land use regulation” houses are worth less than under “prescriptive land use regulation”

Demographia of course make a specific, single factor inference about causality here

- *They assume that restrictions on building land supply have driven up prices*

Well, that's likely part of the picture, but consider also:

- Successful regulation adds value
- And remember the “demand” side of regulation – citizens in attractive locales *choose* their regulators through the political process

OK, but regulation is not a panacea and it is not easy. There's lots of bad public intervention in housing and land use:

- Rent controls
- “Subsidised” means-tested houses
- Minimum-parking requirements on developers

And never forget the potential for rent-seeking