

## the Tarzan

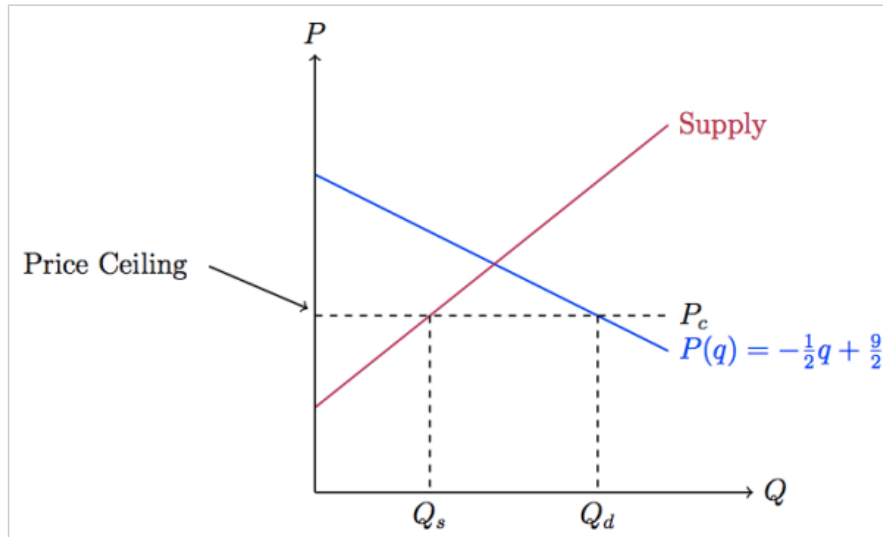
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## TikZ diagrams for economists: A price ceiling

I have been dabbling with the **TikZ package** to create some diagrams relevant to a first year microeconomics course. The following diagram of a price ceiling may be useful to others wishing to integrate similar diagrams into their LaTeX documents or Beamer presentations. To use, insert the following code anywhere you like within a .tex document (you must include `\usepackage{tikz}` in your header):



This diagram was created with the TikZ package in LaTeX.

INSERT INTO .TEX DOCUMENT

```

1 \begin{tikzpicture}[domain=0:5,scale=1,thick]
2 \usetikzlibrary{calc} %allows coordinate calculations.
3
4 %Define linear parameters for supply and demand
5 \def\dint{4.5} %Y-intercept for DEMAND.
6 \def\dslop{-0.5} %Slope for DEMAND.
7 \def\sint{1.2} %Y-intercept for SUPPLY.
8 \def\sslop{0.8} %Slope for SUPPLY.
9
10 \def\pfc{2.5} %Price floor or ceiling
11
12 \def\demand{\x,{\dslop*\x+\dint}}
13 \def\supply{\x,{\sslop*\x+\sint}}
14
15 % Define coordinates.
16 \coordinate (ints) at ({\sint/\dslop});
17 \coordinate (ep) at (0,{\sint});
18 \coordinate (eq) at ({\sint/\dslop});
19 \coordinate (dint) at (0,{\dint});
20 \coordinate (sint) at (0,{\sint});
21 \coordinate (pfq) at ({\pfc/\dslop});
22 \coordinate (pfp) at ({\pfc/\sslop});
23 \coordinate (sfq) at ({\pfc/\dslop});
24 \coordinate (sfp) at ({\pfc/\sslop});
25
26 % DEMAND
27 \draw[thick,color=blue] plot
28 \draw[thick,color=purple] p]
29
30 % SUPPLY
31
32 % Draw axes, and dotted equilibrium
33 \draw[->] (0,0) -- (6.2,0) r
34 \draw[->] (0,0) -- (0,6.2) node[above] {\$P\$};
35
36 %Price floor and ceiling lines
37 \draw[dashed,color=black] plot ({\x,{\pfc}}) node[right] {\$P_c\$};
38 \draw[dashed] (pfp) -- (pfq) node[below] {\$Q_d\$};
39 \draw[dashed] (sfp) -- (sfq) node[below] {\$Q_s\$};
40
41 \draw[->,baseline=5] ({\pfc},{\pfc}) node[above] {\$P_c\$};
42
43 \end{tikzpicture}

```

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