Parameter Search

Parameter	value	interpretation	Moment
γ	0.6	Scale of GDP production	Labor share of GDP
ϵ	2	Elasticity of intertemporal substitution	From misallocation paper
J	910	number of firms	average GDP growth
I	500	number of inventors	guess?
η^L	0	reuse benefit	normalized

Table 1: Parameters matched before-hand.

Parameter	value	interpretation
η^H	0.2	New technology benefit
η^M	0.04	New combination benefit
τ	400	Shape parameter for idea distribution
ξ	75	$1/\xi$ is the fraction of viable combinations
λ	2.1	scale parameter of the cost distribution
κ	7	shape parameter of the cost distribution

Table 2: Parameters from patent type moment matching

	Moment	Data
new tech 1850	0.4	0.066824
new comb 1850	0.25	0.22234
reuse 1850	0.35	0.71084
new tech 1900	0.03	0.014449
new comb 1900	0.45	0.76952
reuse 1900	0.52	0.21603
new tech 1950	0.02	0.0071121
new comb 1950	0.75	0.86175
reuse 1950	0.33	0.13114
new tech 2000	0.01	0.0064671
new comb 2000	0.8	0.90255
reuse 2000	0.19	0.090982
reuse peak	0.55	0.82094
peak yaer	34	9

Table 3: Moments (the missing column numbers are the moments I dropped relative to the old specification). Obs.: column 8 is not included as an argument in the objective function $\Rightarrow$ still under-identified.
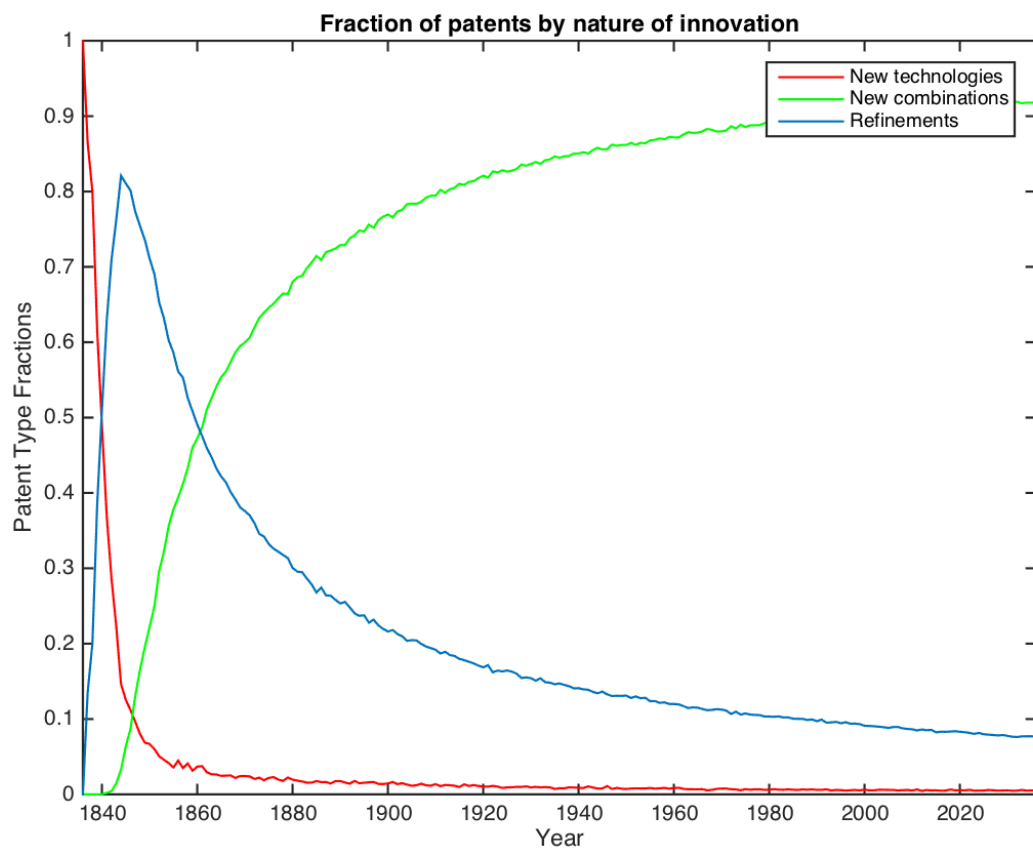
Figure 1: Fraction of patents by type