

Benefit-Cost Analysis of Selected R&D Support Programs

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**SR&ED and IRAP:
Subsidy Payments and Number of Clients**

	Subsidy Payments (\$ millions)	Number of Clients	Average Subsidy (\$000)
SR&ED (2007)	3256	21980	148.1
Regular Credit	1958	3909	500.9
Large firms	<i>1822</i>	<i>2599</i>	701.0
SMEs	<i>136</i>	<i>1310</i>	103.8
Refundable Credit ^{1,2}	1298	18071	71.8
IRAP (2006)	65	1373	47.3

1. Available to small and medium-sized Canadian-controlled private corporations.

2. Excludes 1735 claims by farmers resulting from contributions to research co-operatives.

The Net Benefit Framework

Net Welfare Gain=

Spillover Benefit

+ Resource Reallocation Effect

– Financing Cost

– Administration Expenses

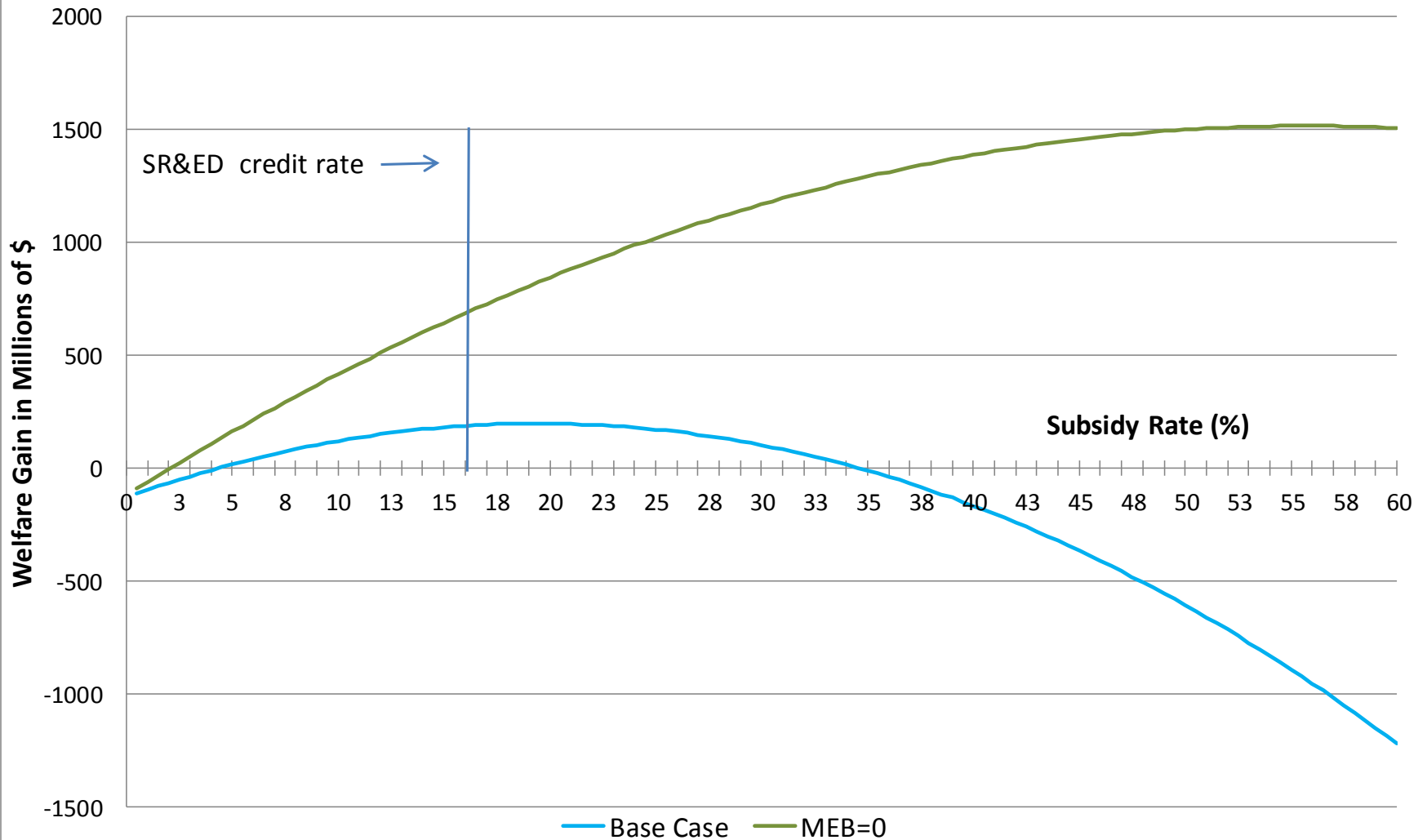
– Compliance Costs

Base Case Parameter Values			
	SR&ED		IRAP
	Regular Credit	Refundable Credit	
Spillover Rate	56%	56%	76%
Price Elasticity	-1	-1	-1
Marginal Excess Burden of Taxation (Cents per \$ of revenue raised)	0.28	0.28	0.28
Admin Expenses (% of subsidy)	1.2%	2.5%	24.6%
Compliance Costs (% of subsidy)	4.7%	14.2%	11.6%
Effective Subsidy Rate	16.0%	33.3%	23.9%

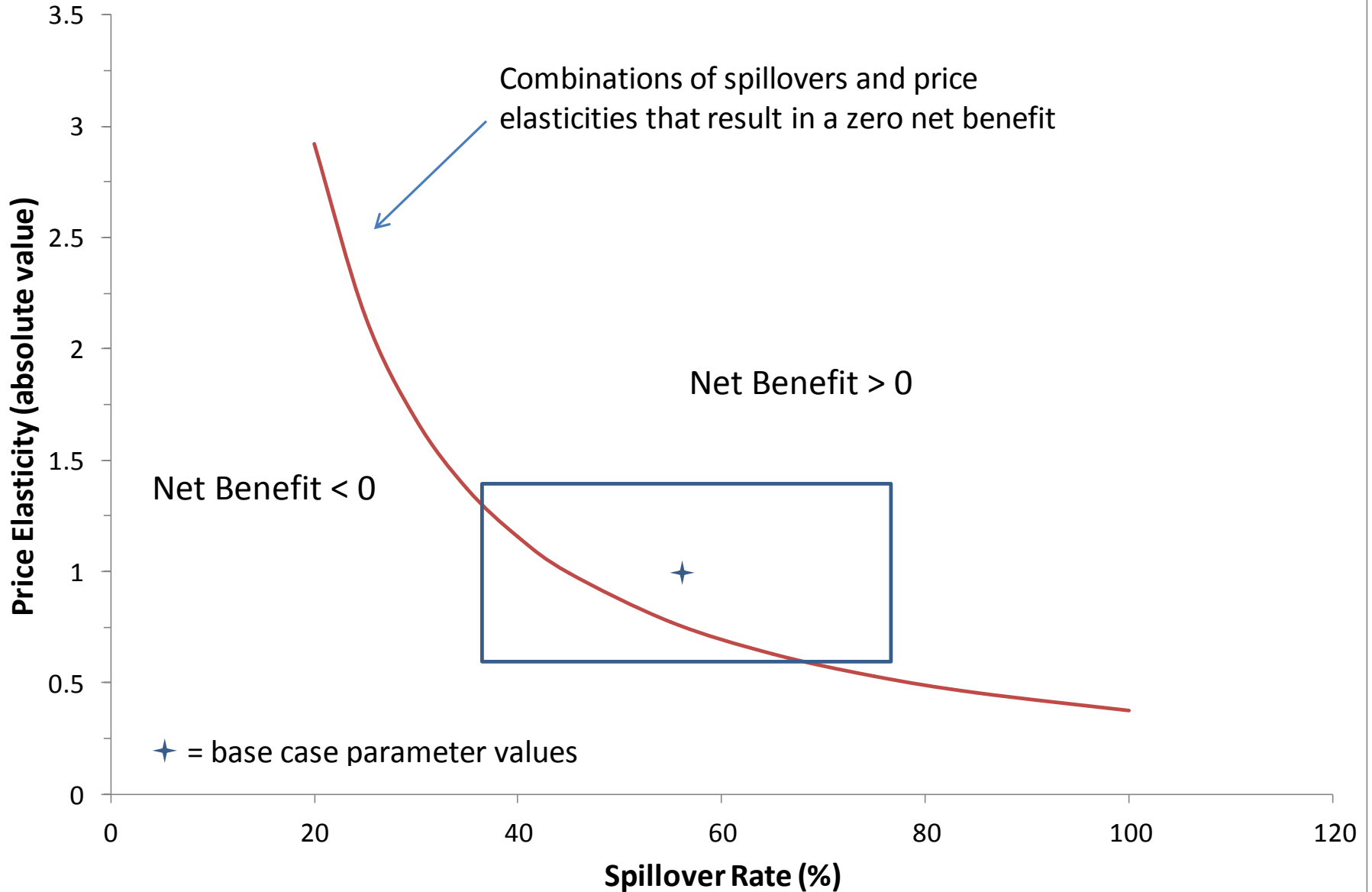
Benefit-Cost Base Case Results
(millions of \$, except as noted)

	SR&ED		IRAP
	Regular Credit	Refundable Credit	
Spillover Benefit	932.2	525.3	54.9
Resource Reallocation Effect	-170.3	-222.3	-20.3
Marginal Excess Burden of Taxation	498.5	350.1	30.0
Administration Expenses	15.5	21.4	15.4
Compliance Costs	60.7	121.6	3.8
Net Benefit	187.1	-190.2	-14.5
As a % of program spending	9.4%	-14.3%	-12.5%
As a % of induced R&D	11.2%	-20.3%	-20.1%

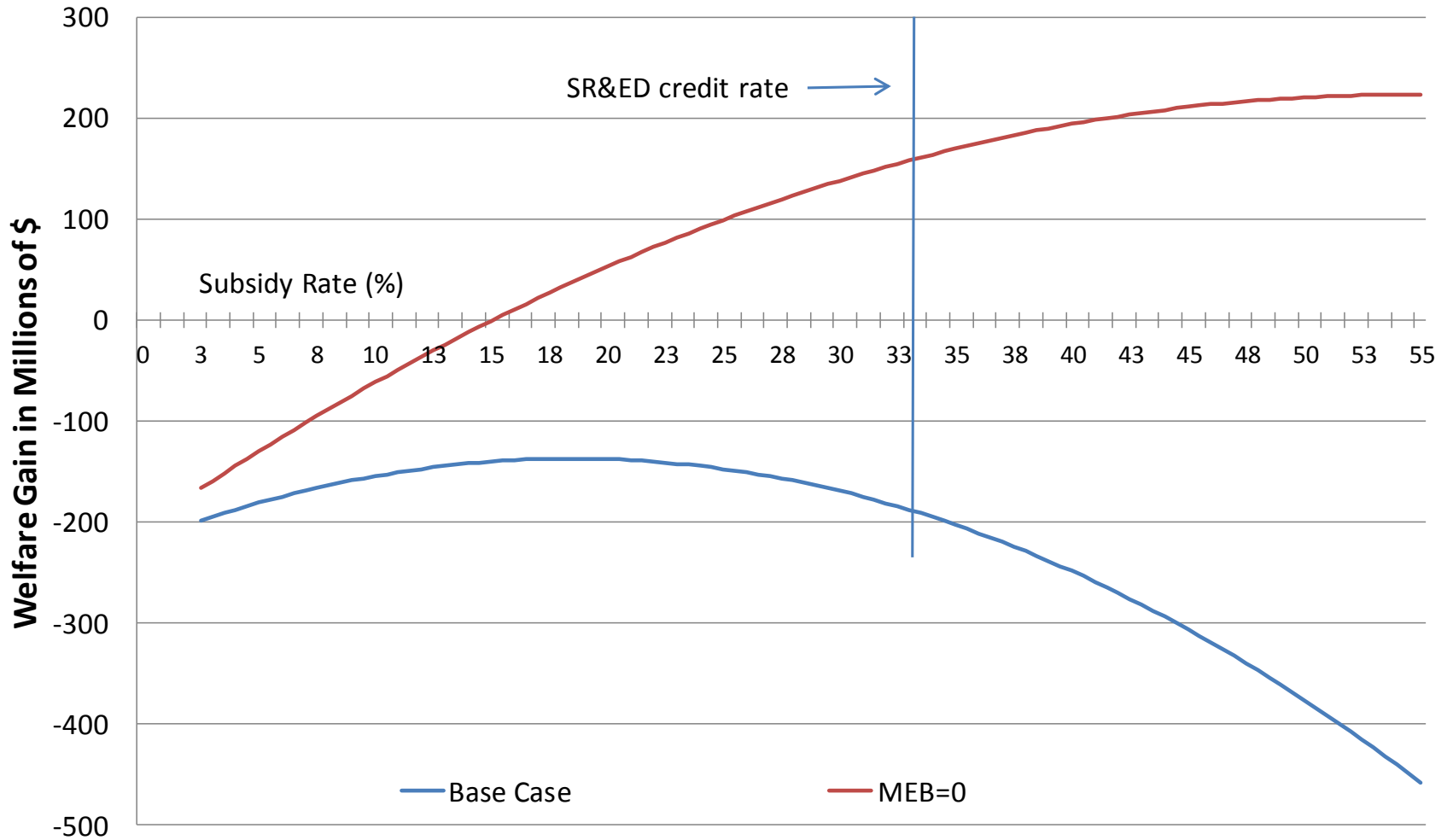
Optimal Value for the Regular SR&ED Tax Credit Base Case and Non-Distortionary Financing



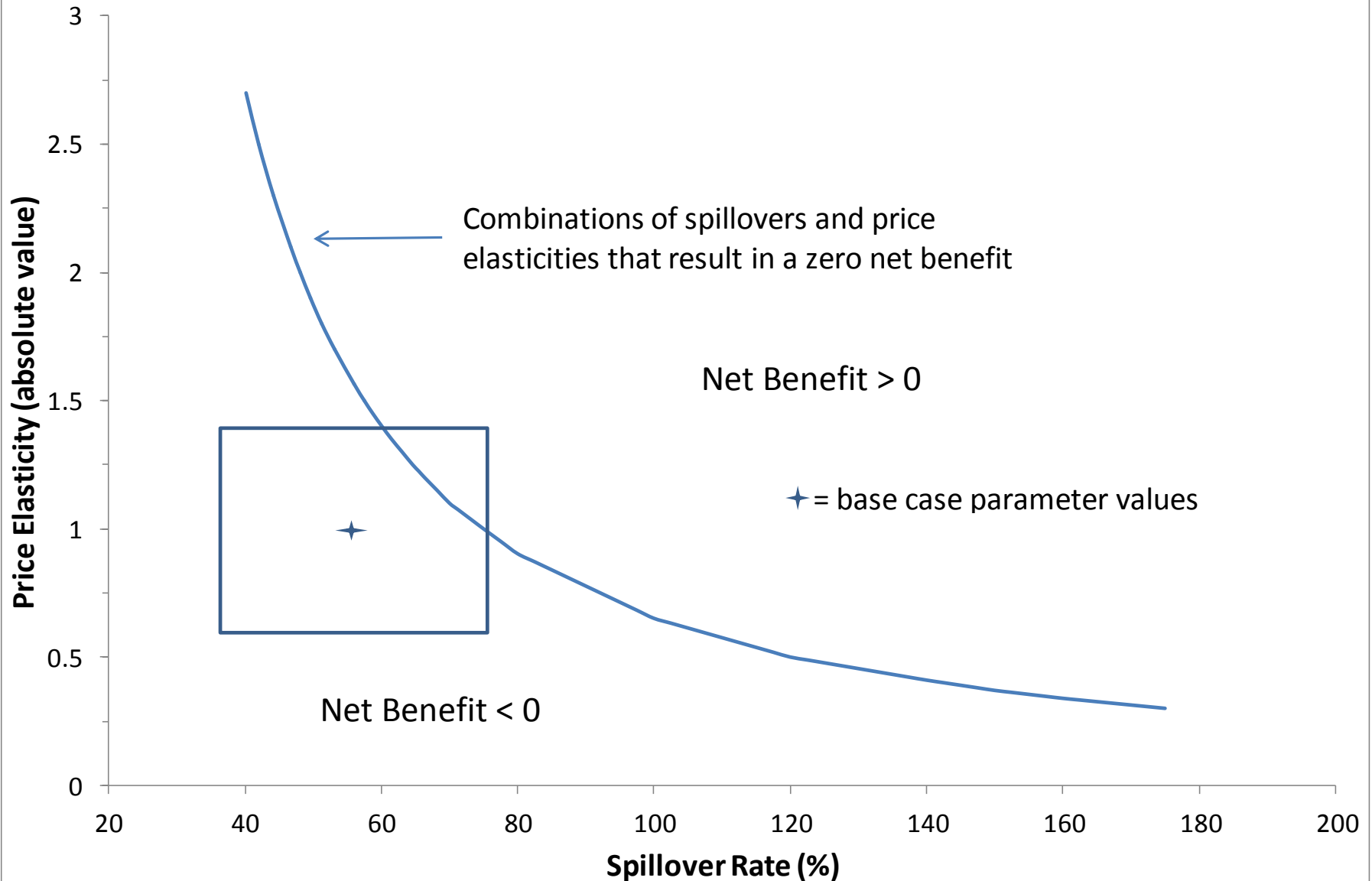
Regular SR&ED Tax Credit -- Sensitivity Analysis



Optimal Value of the Refundable SR&ED Tax Credit Base Case and the Cost of Financing

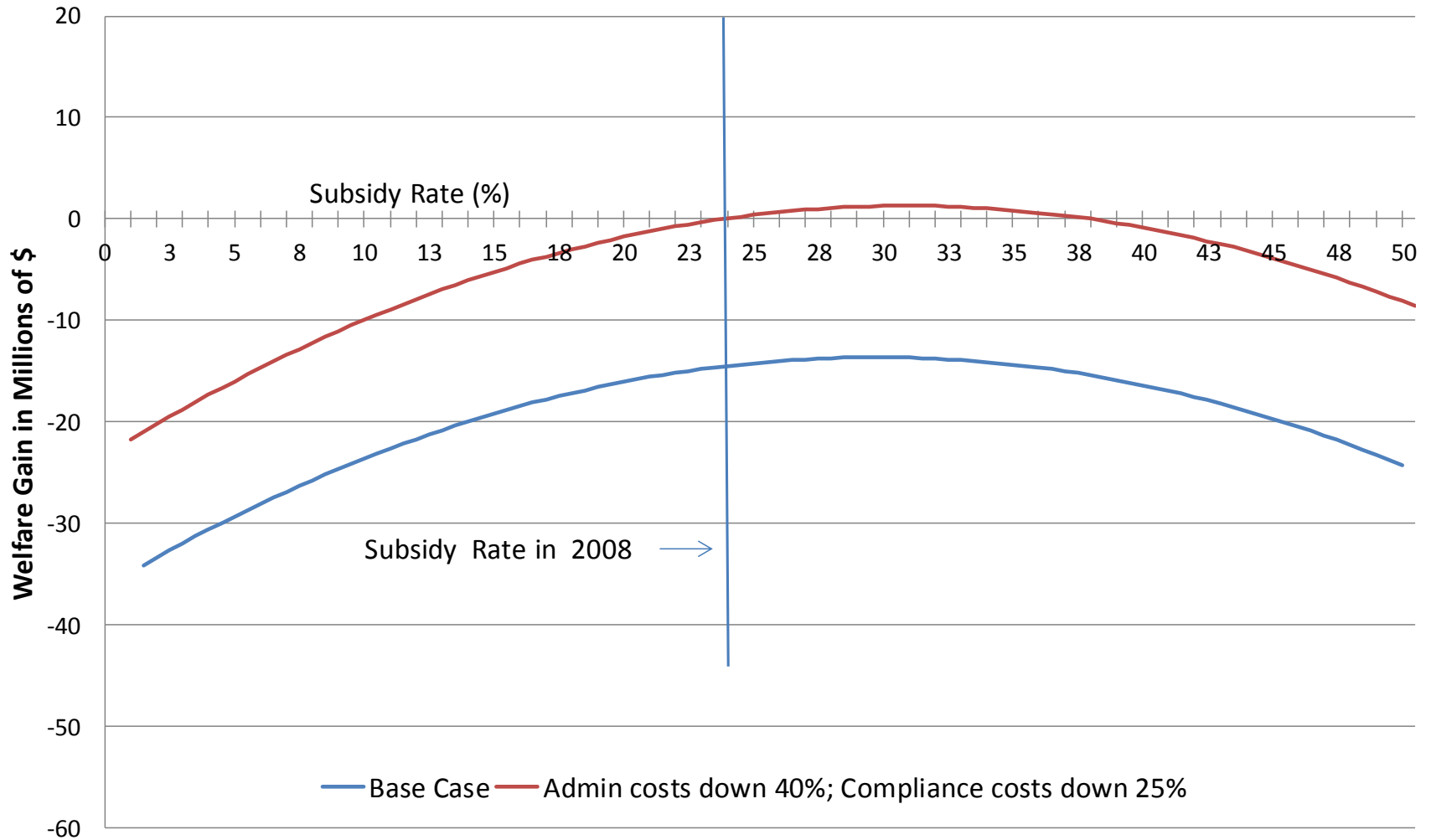


Refundable SR&ED Tax Credit -- Sensitivity Analysis

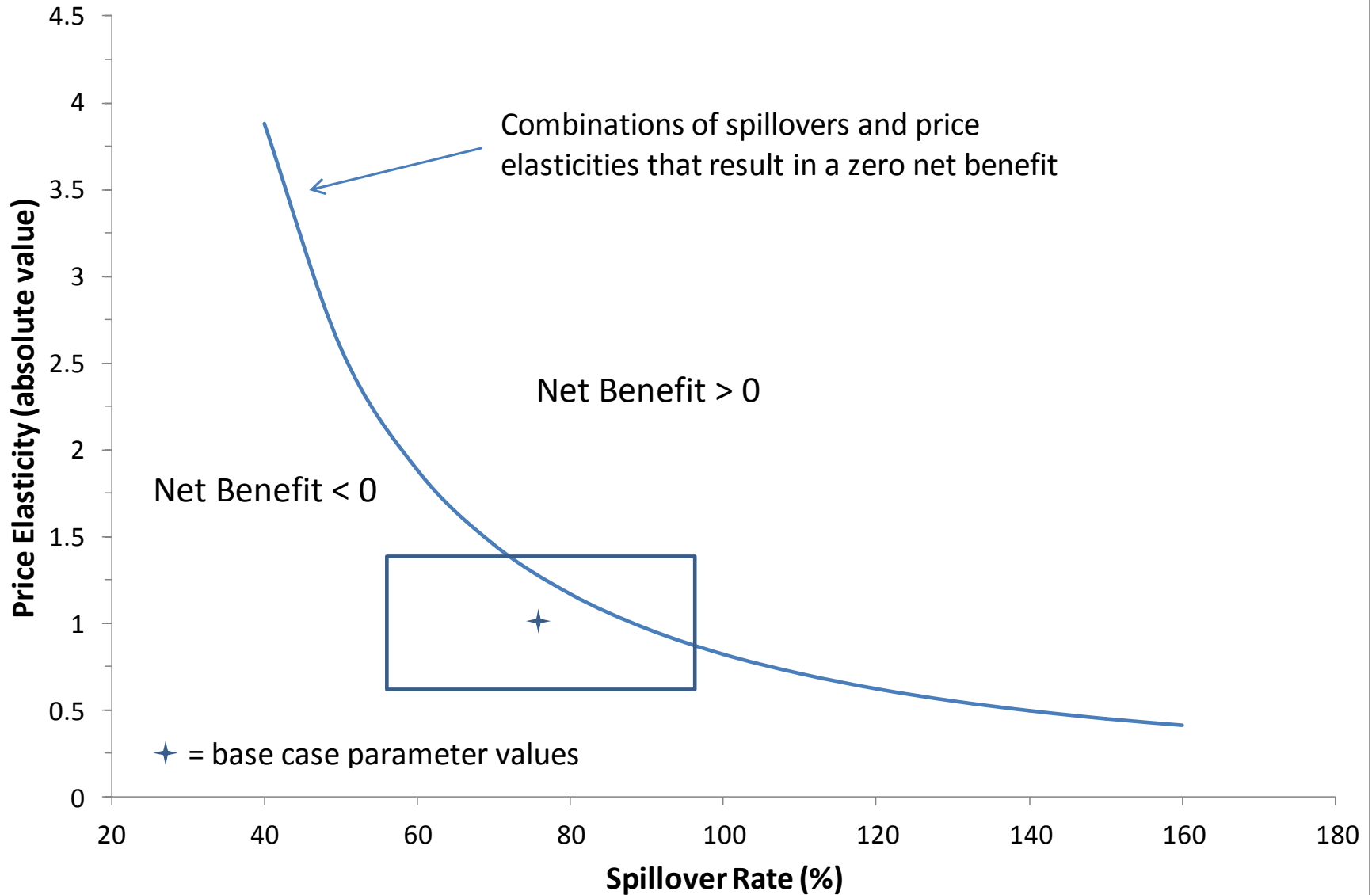


Optimizing IRAP

Base Case and Lower Admin and Compliance Costs



IRAP-- Sensitivity Analysis



Benefit-Cost Base Case Results and Illustrative Extensions
(millions of \$, except as noted)

	SR&ED		IRAP
	Large firms	Small firms	
Net Benefit	187.1	-190.2	-14.5
As a % of program spending	9.4%	-14.3%	-12.5%
As a % of induced R&D	11.2%	-20.3%	-20.1%
Additional Elements:			
Transfers to and from foreigners			
Lower export prices	-50.7	-33.6	-2.4
Profit outflows	-86.2	0.0	0.0
Royalty and licensing income	34.2	26.7	1.9
Acting on other market failures			
Pollution Abatement	17.9	11.8	0.9
Others?			
Improved capacity to absorb R&D			
Impact on productivity <i>growth</i>			
Sum of quantified elements	-84.9	5.0	0.4