

What Makes a State Competitive?

By Dr. Arthur B. Laffer

Thinking Conomically
Lesson 7

Thinking conomically

Key economic concepts at the foundation of our market-based economy, such as value, entrepreneurship and competition, often get lost in today's complex policy debates. Too often this results in unforeseen consequences that no one involved intended to bring about.

Thinking Economically is a project of the Texas Public Policy Foundation designed to provide a basic economic education for policymakers, the media, and the general public. In this way, the Foundation hopes to highlight the intersection of economics and public policy, and the importance of "thinking economically" when making policy decisions.

We are grateful to be able to undertake this project with the assistance of Dr. Arthur Laffer, who has throughout his distinguished career shaped the thinking of many world leaders by bringing sound economic thought into policy debates and the public's awareness.



Thinking Conomically

Part of what makes the financial analysis of Laffer Associates unique is that we analyze the differential impact of various state policies on business profitability. Plenty of analysts can tell you how government policies differ from country to country, but surprisingly few consider such differences domestically. I find this surprising, because tax and regulatory burdens can differ substantially among the states, which in some cases have total output (and customer bases) larger than most foreign countries. As we'll see in this chapter, the variations in business climate—coupled with the free mobility of capital and labor within the U.S.—yield striking differences in economic performance among the states. It is important for policymakers at the state level to understand just how potent their decisions can be, not just for their citizens but also for the state's revenues.

THE LAFFER STATE COMPETITIVE ENVIRONMENT: A SUPPLY-SIDE RANKING OF THE STATES

With people, products, and capital free to move from state to state, state governments are ultimately competitors. Pro-growth and anti-growth state economic policies influence decisions on whether, where, and how much to work, save, and invest. These policies influence the ability of a state to retain and attract residents and businesses. The evidence suggests that pro-growth policies result in higher after-tax returns, increased economic activity, and an eventual improvement in overall state fiscal health; anti-growth policies result in the opposite effects.

For more than two decades, Laffer Associates has specialized in the analysis of state and local economic policies. In fact, over the years, Laffer Associates' State Competitive Environment model has repeatedly demonstrated its ability to forecast changes in state competitiveness—and thereby economic health and asset values. The result is a supply-side ranking of the states' economic outlooks from best to worst.

Any ranking of the states can take on a multitude of forms and compare a wide spectrum of variables: measures of economic health such as production, employment and income; housing prices; education; even the quality of the weather. Of course, all of these variables influence the desirability of living and doing business in a particular city and state. However, we only study variables that state officials can directly influence. In particular, we focus on taxation (in its many forms) and changes in taxation.

THE STATE RANKINGS

Our overall state rankings, as of January 2008, are presented in Table 1. The rankings are obtained through a blend of 16 factors which quantify the following key aspects of a state's economic environment: 1) highest marginal personal income tax rate; 2) highest marginal corporate income tax rate; 3) progressivity of the personal income tax system; 4) property tax burden; 5) sales tax burden; 6) tax burden from all remaining taxes; 7) estate tax/inheritance tax (yes or no); 8) recent tax policy changes 2005-06; 9) debt service as a share of

tax revenue; 10) public employees per 10,000 residents; 11) quality of state legal system; 12) state minimum wage; 13) workers' compensation costs; 14) right-to-work state (yes or no); 15) tax/expenditure limit; and 16) education freedom index.

Table 1
Overall State Rankings and Performance by Economic Factor
(as of January 2008, 1=best, 50=worst)

1	Utah
2	Arizona
3	South Dakota
4	Wyoming
5	Tennessee
6	Virginia
7	Colorado
8	Georgia
9	Idaho
10	Texas
11	Nevada
12	Indiana
13	Oklahoma
14	Florida
15	Arkansas
16	Michigan
17	Missouri
18	Alabama
19	North Carolina
20	New Hampshire
21	Louisiana
22	Deleware
23	Mississippi
24	North Dakota
25	South Carolina

26	Massachusetts
27	lowa
28	New Mexico
29	Kansas
30	Wisconsin
31	Washington
32	Maryland
33	Montana
34	Nebraska
35	Minnesota
36	Oregon
37	Pennsylvania
38	Alaska
39	Connecticut
40	West Virginia
41	California
42	Illinois
43	New Jersey
44	Maine
45	Hawaii
46	Kentucky
47	Ohio
48	Rhode Island
49	New York
50	Vermont

THE RANKING PROCESS

 How frequently does the state legislature turn to higher taxes, or do they resist the spend-and-tax cycle?

- What after-tax incentive is there to earn or invest that next dollar?
- Is income taxed in a relatively efficient manner?
- How does the state tax burden compare to that of other states?
- And what about workers' compensation costs and other indirect taxes?

These questions are just a few of those we ask when evaluating each state through the lens of the State Competitive Environment model. The answers are quantified by our 16 factors, described below. Each factor assesses one component of the economic policy stance of each state and that state's chosen "focus city"—generally the largest city in each state. We then equally weight the ranking of each factor (i.e., how the state compares with its 49 peers in that particular category) to reach a composite overall rank.

In the following descriptions we use our analysis of the state of Texas for illustration purposes (see Table 2).

Economic Performance Rank: This measure is backward-looking, and ranks the states based on their performance in three (self-explanatory) categories. Texas ranks 1st overall on this measure because it did well according to all three criteria. In particular, the large influx of domestic (i.e., non-immigrant) migration into Texas during 2006 was both a sign of, and a contributor to, the state's economic strength.

<u>Economic Outlook Rank:</u> As with stocks, when it comes to states, past performance is no guarantee of future success. The economic *out-*

Table 2: Example of the Ranking Process: Texas (as of January 2008)

Texas Economic Performance Rank: 1st (best); Economic Outlook Rank: 10th (best)

Economic Performance Rank (1=best, 50=worst): a backwardlooking measure based on the state's performance (equal-weighted average) in the three important performance variables shown below. These variables are highly influenced by state policy.

1) Personal Income Per Capita

Cumulative Growth, 1996-2006: 55.0% Rank 12th



2) Absolute Domestic Migration Cumulative, 1997-2006: 667,810 Rank 3rd



3) Non-farm Payroll Employment

Cumulative Growth, 1996-2006: 21.7%



Economic Outlook Rank (1=best, 50=worst): A forward-looking forecast based on the state's standing (equal-weighted average) in the 16 important state policy variables shown below. Data reflect state+local rates and revenues and any effect of federal deductibility.

١١	Top Marginal Personal Income Tax Rate:	0.00%	Rank: 1st	

- Top Marginal Corporate Income Tax Rate: 4.50% Rank: 6th
- Personal Income Tax Progressivity (change in tax liability per \$1,000 income): Rank: 2nd
- Property Tax Burden (per \$1,000 of personal income): Rank: 42nd
- Sales Tax Burden (per \$1,000 of personal income): Rank: 34th
- Remaining Tax Burden (per \$1,000 of personal income):

\$20.36 Rank: 31st

- Estate/Inheritance Tax Levied? No Rank: 1st
- Recent Legislated Tax Changes (2005 and 2006, per \$1,000 of personal income): -\$4 35 Rank: 3rd
- Debt Service as a % of Total Tax Revenue: 10.7%
- 10) Public Employees Per 10,000 of Population (full-time equivalent):
- 11) State Liability System Survey (tort litigation treatment, judicial impartiality, etc.) Rank: 44th
- 12) State Minimum Wage (federal floor is \$5.85):\$5.85 Rank: 1st
- 13) Avg. Workers' Compensation Costs (per \$100 of payroll): \$2.84 Rank: 35th
- 14) Right-To-Work State? (optional joining or supporting of a union):
- 15) Number of Tax Expenditure Limits (0=least/worst, 3=most/best):
- 16) Education Freedom Index Score (vouchers, ease of private/home schooling, etc.): 2.32 Rank: 7th

look rank is forward-looking, and relies on our sixteen factors to predict the relative economic performance of the states. Texas ranked 10th overall in this measure. We now provide a brief description of the sixteen factors.

Factors #1-#8: Tax Measures Changes in tax rates and tax burdens unleash dynamic effects affecting after-tax returns, factor relocation, incentives, and economic growth. For more than two decades, the Laffer Associates State Competitive Environment model has ranked the states from the biggest tax cutters to the biggest tax raisers based upon close inspection of legislated state tax actions. This thorough and timetested approach uses static revenue estimates of tax changes to calculate changes in the tax burden in each state (measured as tax revenues per \$1,000 of state personal income). We do, however, remove from our calculations any "tax cuts" that have no effect on future incentives to work, produce, and invest, such as those in the form of taxpayer rebates.

Following this same process, the tax change factor calculates each state's relative change in tax burden over the current and previous year combined. This timeframe ensures that tax changes will impact a state's ranking long enough to overcome any lags in the tax revenue data.

As Table 2 makes clear, Texas scored very well because of its lack of personal income and estate taxes, its recent tax reductions, and its low top corporate tax rate. On the other hand, its property tax burden of \$42.13 per \$1,000 of personal income was the 42nd worst in the country.

Factor #9: Debt Service as a Percentage of Total Tax Revenues State and local governments can finance their spending through taxes

or by issuing debt, which is nothing more than an obligation to collect taxes later. So if we want to capture the full impact of the taxing and spending going on in a state, we need to measure the debt that has accumulated.

Factor #10: Public Employees Per 10,000 Population States and localities have been on a hiring binge of late. States with high government payrolls have a hard time downsizing because of the power of the bureaucracy and the unions behind them. States with big public sector payrolls are often the most inefficient in their spending, and so this variable provides for us a government efficiency measure.

Factor #11: State Liability System Survey

When the legal system becomes a system of jackpot justice with huge awards not related to the negligence or misbehavior of the company being sued, the biggest winners are trial lawyers. Firms move out of such states. States that have enacted commonsense reforms—such as malpractice insurance limits and loser pays rules—have had better economic success. This is why we include the state legal environment in our state ranking system.

Factor #12: State Minimum Wage Study after study shows that states with minimum wage or living wage requirements have fewer employment opportunities for those at the lower rungs of the economic ladder. Minimum wage increases hurt the low-skilled and low-educated workers the most.

Factor #13: Average Workers' Compensation Costs These costs vary widely among states. Workers' compensation is a quasi-tax on businesses for hiring workers. Those states that have reformed their workers' compensation

system have much lower employer costs, which allows businesses to pay workers more. These states are generally more economically healthy and independent of union control and trial lawyer control.

Factor #14: Right-to-Work State? States are either right-to-work, which means workers have the right not to join a union, or they are non-right-to-work, which means that workers are forced to join a union and pay dues if they work in a unionized industry. The evidence points overwhelmingly to the fact that right-to-work states have much greater growth of employment than non-right-to-work states.

Factor #15: Number of Tax Expenditure

<u>Limits</u> One successful strategy employed by some states to prevent squandering budget surpluses during times of economic expansion is a state Tax or Expenditure Limitation (TEL). A popular form of a TEL is to cap taxes at some predetermined rate of growth. The most famous TEL was Proposition 13 in California, which capped property taxes in the state and ignited a nationwide tax revolt. Proposition 13 ushered in a second California gold rush in the decade following its enactment.

Factor #16: Education Freedom Index

Score Schools are one of the largest expenditure items in state and local budgets. Yet study after study shows that spending is only tangentially related to school performance. Many states are experimenting with market-based school reforms. These include vouchers, charter schools, tuition credits, and corporate tax-deductible scholarship programs. Because the quality of education is one factor businesses and families examine when deciding on where to move, educational freedom can enhance the desirability of one state over another.

STATE COMPETITIVE Environment Theory

The remainder of this chapter develops more fully the framework of the State Competitive Environment model, including the impact state and local taxes have on output, employment, population growth and other measures. We start by illustrating these principles with a broad look at the empirical results over a 10-year period for those states with the highest marginal personal income tax rates and those with the lowest (or none). As policymakers can see quite clearly, our approach isn't just theory—government policies really *matter* when it comes to a state's relative economic performance.

ECONOMIC PERFORMANCE: THE MOST AND LEAST TAXED STATES

Many states have benefited from the enactment of pro-growth, supply-side tax cuts, while other states have lagged behind and their performance has suffered. While there are many ways to demonstrate these effects, in this instance we prefer one of the simplest. The results in Table 3 demonstrate how the highest tax and lowest tax states—in terms of personal income tax rates—have fared over a 10-year period in terms of output growth, income growth, population growth and migration, and job creation and unemployment rates.

The results are impressive: the average performance of the "Top 9" (the nine states without a personal income tax) outperformed the average performance of the "Bottom 9" (the nine states with the highest top marginal personal income tax rates) in each broad category examined. Relative to the Bottom 9 states, the Top 9 states experienced: higher levels of gross state product growth (85.8% vs. 65.0%); greater per-

Table 3 — Lower Taxes, Higher Growth: Personal Income Tax Rates (PIT) vs. 10-Year Economic Performance, 1995 to 2005 (current tax rate vs. performance between 1995 and 2005, unless otherwise noted)

	Top PIT Rate*	Gross State Product Growth	Personal Income Growth	Personal Income Per Capita Growth	Population Growth	Net Domestic In-Migration as a % of Population	Non-Farm Payroll Employment Growth	Unemployment Rate, 2005
Alaska	0.00%	72.7%	53.3%	39.6%	9.8%	-3.9%	18.2%	6.8%
Florida	0.00%	94.2%	79.1%	46.4%	22.4%	8.9%	30.2%	3.8%
Nevada	0.00%	122.1%	120.8%	44.6%	52.7%	20.5%	55.7%	4.1%
New Hampshire	0.00%	75.9%	75.6%	55.2%	13.2%	6.0%	17.7%	3.6%
South Dakota	0.00%	71.8%	70.5%	62.1%	5.2%	-1.8%	13.5%	3.9%
Tennessee	0.00%	64.4%	64.4%	46.9%	11.9%	4.3%	9.8%	5.6%
Texas	0.00%	95.5%	86.4%	54.6%	20.6%	2.1%	21.3%	5.3%
Washington	0.00%	73.5%	71.5%	49.5%	14.7%	3.1%	18.4%	5.5%
Wyoming	0.00%	102.6%	83.5%	74.8%	5.0%	-2.0%	19.9%	3.6%
9 States with No PIT*	0.00%	85.8%	78.3%	52.6%	17.3%	4.1%	22.7%	4.7%
9 States with Highest Marginal PIT Rate**	9.45%	65.0%	61.2%	50.0%	7.4%	-2.2%	12.4%	4.8%
Hawaii	8.25%	48.3%	47.2%	38.1%	6.5%	-6.5%	13.0%	2.8%
Maine	8.50%	58.1%	64.9%	55.2%	6.3%	3.7%	13.6%	4.8%
Ohio	8.88%	47.8%	47.7%	44.4%	2.3%	-2.8%	4.0%	5.9%
New Jersey	8.97%	59.0%	63.1%	51.2%	7.9%	-4.2%	12.3%	4.4%
Vermont	9.50%	69.7%	67.9%	58.7%	5.8%	1.0%	13.0%	3.5%
Rhode Island	9.90%	73.3%	64.7%	55.7%	5.8%	-1.9%	11.7%	5.0%
Oregon	10.25%	83.2%	64.7%	44.0%	14.3%	4.7%	17.0%	6.2%
California	10.30%	80.1%	74.7%	53.3%	14.0%	-3.5%	19.0%	5.4%
New York	10.50%	65.4%	55.5%	49.6%	3.9%	-10.1%	8.1%	5.0%

^{*}Highest marginal state and local personal income tax rate imposed as of 1/1/06 using the tax rate of each state's largest city as a proxy for the local tax. The effect of the deductibility of federal taxes from state tax liability is included where applicable. New Hampshire and Tennessee tax dividend and interest income only. While Hawaii and North Carolina both impose the same top rate, Hawaii is included in the "nine highest" category due to a much lower top bracket.

**Equal-weighted averages.

sonal income growth (78.3% vs. 61.2%); higher personal income per capita growth (52.6% vs. 50.0%); higher population growth (17.3% vs. 7.4%); greater domestic in-migration as a share of population (4.1% vs. -2.2%); greater job creation (22.7% vs. 12.4%); and, despite the massive population inflows to the Top 9 states, a lower average unemployment rate (4.7% vs. 4.8%). Wow! These are exactly the results one would expect to see out of states making progrowth, incentive-based policy decisions.

THE EFFECTS OF STATE AND LOCAL ECONOMIC POLICY

Each state within the U.S. is analogous to a country with open borders. Just as the U.S. competes with other countries for the location of economic activity, states compete with each other for the location of factories, offices and jobs within the U.S. Competition of this type can be seen through tax-cutting battles between neighboring states and targeted tax incentives

to encourage corporate relocation. As states seek to hold companies and workers within their borders and attract new ones, the winners and the losers will be separated by their ability to understand the competitive environment in which they exist and take steps to enhance their own state's appeal. Since monetary policy and federal fiscal policy are basically the same for all of the states, and inherent state advantages and disadvantages (such as climate, natural resources, distances to desirable areas, etc.) remain fairly constant over time, state and local fiscal policies are far and away the most important factors determining changes in the competitiveness and, hence, relative economic growth rates among the states.

While the discussion here focuses on changes in taxation, the overall level of taxation in a state is also critical: Overtaxed states per se restrain growth, while states that raise taxes—even if they currently aren't overtaxed—inhibit growth.

Due to the connection between economic performance and state and local tax policy, asset values will fluctuate in predictable directions by state. If one state raises tax rates while another lowers tax rates, there will be increased incentives to move to the now lower tax rate state from the now higher tax rate state. As a result, asset values will tend to fall in the now higher tax rate state relative to asset values in the now lower tax rate state. All sorts of other economic responses will also follow tax rate changes, further enhancing business in the relatively favored tax state and retarding business in the relatively disadvantaged tax state.

Every state that raises its relative tax burden will find it difficult to retain existing facilities and to attract new businesses and workers. In tax-raising states, new business starts will decline and business failures will increase. Mobile capital and labor will emigrate to seek higher after-tax returns in other states, and immobile factors of production will be left behind to bear the burden of the state and local taxes.

Symmetrically, a reduction in tax rates reduces the cost of doing business in a state. This increases demand for the now-less-expensive goods and services produced within the state. The higher demand for the state's goods and services will result in increased profitability for businesses located within the state. Business failures will decrease in states with declining relative tax burdens, and business starts will rise. If all else remains the same, a reduction in tax rates increases the return to capital and work effort, leading to increases in the supplies of capital and labor within the state. Higher returns to labor and capital will also encourage the immigration of mobile factors from other states.

"Voting With Their Feet": A Hypothetical Example

Competition among the many states results, in large part, from the ability of mobile factors of production to "vote with their feet" and relocate to political jurisdictions pursuing more favorable economic policies. Changes in tax rates have the greatest impact on the supplies of factors of production that are highly mobile. For example, a worker who is prepared to relocate to achieve a higher standard of living will be extremely sensitive to a change in his state's tax rates. By contrast, the supplies of immobile factors of production and/or real estate will be affected only slightly by tax rate changes. For example, capital in the form of a new manufacturing plant, as in the case of the example below, is highly immobile. Its operating level initially will be relatively unaffected by an increase in a state's tax rates. The major impact of state tax rate changes will be on the plant's after-tax profits and, ultimately, whether to close down or to remain open. The implication of this analysis is that taxes levied on mobile factors will be passed on to the immobile factors located within the state. Thus, the burden of state and local taxes may very well be different from its initial incidence.

Consider two hypothetical manufacturing companies with production plants located within just miles of each other. One is located in California; the other, virtually identical to the first, is located just across the border in Arizona. Since we assume both companies sell virtually identical products in the U.S. market, competition will force them to sell their products at approximately the same price. Because each company's plant is separated by just a thin and invisible state line, both have to pay the same interest cost on borrowings, the same after-tax wages to their employees, and the same prices to their suppliers.

Now, consider what would happen if California were to put through a large corporate income tax increase, while Arizona held constant or lowered its income tax rate. Because the market for the companies' product is highly competitive, the California company would not be able to pass the tax hike forward to its customers in the form of higher prices. Likewise, the California company would not be able to pass the tax hike backward onto its suppliers or employees. The California firm would have to absorb the tax increase through lower after-tax profits. This drop in profits would be reflected by a fall in the California company's stock price. Clearly, the identical competitor in Arizona would benefit.

Whether the price of a commodity or factor of production is equilibrated across states on a pre-tax or after-tax basis depends on each item's mobility. This means that changes in tax rates will have two general effects: they will change the quantity and pretax price of mobile factors within the state and leave their after-tax rates of return unchanged; and they will change the rate of return of factors of production that cannot leave the state and leave the quantity within the state unchanged.

As time horizons lengthen following tax increases or tax cuts, the process of adjustment will incorporate the movement of capital and labor into or out of the state. This migration of factors of production will continue until after-tax returns for mobile factors within the state are equalized with after-tax returns for their counterparts elsewhere in the economy. The returns of state-specific immobile factors will reap the benefit or bear the burden of the result of the tax change.

Conclusion: State Policies Matter!

Workers and investors are legally free to relocate within the 50 states in order to increase their after-tax earnings. This engenders competition for these individuals—and the tax base they provide—among the state legislatures. Economic theory suggests that a pro-growth, business-friendly state environment attracts talented workers, entrepreneurs, and investment, spurring job creation and booming tax receipts to boot. The empirical evidence backs up this intuitive analysis: on every important criterion, pro-growth states outperform those with hostile business climates. In conclusion, state policies matter! •

Thinking Conomically ABOUT THE AUTHOR



Arthur B. Laffer is the founder and chairman of Laffer Associates, an economic research and consulting firm that provides global investment-research services to institutional asset managers, pension funds, financial institutions, and corporations. Since its inception in 1979, the firm's research has focused on the interconnecting macroeconomic, political, and demographic changes affecting global financial markets.

Dr. Laffer has been widely acknowledged for his economic achievements. His economic acumen and influence in triggering a world-wide tax-cutting movement in the 1980s have earned him the distinction as the "Father of Supply-Side Economics." He was also noted in *TIME's* 1999 cover story on the "Century's Greatest Minds" for inventing the Laffer Curve, which it deemed one of "a few of the advances that powered this extraordinary century." His creation of the Laffer Curve was deemed a "memorable event" in financial history by the *Institutional Investor* in its July 1992 Silver Anniversary issue, "The Heroes, Villains, Triumphs, Failures and Other Memorable Events."

Dr. Laffer was a member of President Reagan's Economic Policy Advisory Board for both of his two terms (1981-1989).

Texas Public Policy

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