Do You Know How Much Money Is in Your Public Purse?

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In the fall of 1990, the City of Philadelphia almost fell into bankruptcy. In the summer of 1994, Orange County, California, lost approximately $2.5 billion because aggressive investments in financial derivatives turned sour. In January 1995, a Superior Court judge in California ruled that the state owed its public employee pension plan $900 million in past payments due, a burden that now sits atop the state's already estimated $5 billion deficit for fiscal year 1995-96. And after decades of declining, the ratio of the federal debt to national income has now risen to its highest level since 1955.

While we all know how our governments are doing when it comes to teaching our children, protecting our lives and property, removing our trash, maintaining our roads, and collecting our taxes, few of us know that local and state governments and the federal government also control an important share of our national savings and wealth. Do you know how much money is in your public purse? For a typical family of four in Philadelphia in 1990 my estimate is $41,696.

HOW DO GOVERNMENTS SAVE YOUR MONEY?

When calculating your family's financial net worth, your accountant will total all your family's assets and then subtract all liabilities.

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Assets will include all the money in your checking and savings accounts plus all the money in your retirement account plus the market value of your tangible assets such as your car, your home and property, and other possessions. Liabilities will include all the money your family owes for short-term loans on credit cards and cars and long-term loans for a home mortgage or college tuition. Your assets minus your liabilities defines your net worth. This will be the amount of money in your private purse. The more you save and the less you borrow, the more you have in the family's private purse. Your family's net worth—along with your future income—will be an important determinant of your family's future consumption; the higher your net worth today, the more you can consume tomorrow.

In calculating your net worth your accountant does not consider what's in your public purse. But a government's assets and liabilities—the contents of your public purse—are no less important to the average American family's economic future than its private net worth. Because Philadelphia allowed the city's short-term debt to become excessive, the average city resident has suffered sharp reductions in public services and a 1-percentage-point increase in the local sales tax. Residents of Orange County, California, are likely to face similar declines in their service levels over the next few years as they recover from an investment loss of $2.5 billion. The average Californian faces additional budget cuts as the state seeks to solve its current deficit problem, exacerbated by past underfundings of its public employee pension plan. Finally, paying interest on the federal debt and controlling its growing burden on private incomes will require reduced federal spending, higher federal taxes, or both.

Your share of your governments' net worth is your money, and it holds important consequences for your economic future.[1] When a government's net worth declines—possibly even becoming negative—you will see either higher taxes or lower services in the future. When a government's net worth increases, your future services can be increased or your taxes can be reduced. Either way, your family is better off.

Governments create net worth by adding savings and tangible assets to the public purse and by limiting those activities that take money from the purse, such as new debt or contractual liabilities. By definition, government *Net Worth* equals *Savings* in financial assets plus the value of *Tangible Assets* minus the present value of future *Government Debt* and future government contractual *Liabilities:*

Net Worth = Savings+Tangible Assets
-Government Debt-Liabilities.

Financial Savings and Tangible Assets. *State and local governments* save in five accounts: an unrestricted savings account, often called a "rainy day" fund; a bond fund, which holds the proceeds of government borrowings until they are spent on government investment projects; a sinking fund, which holds savings for future repayments of government debt; a state insurance trust fund, which holds private employers' tax contributions to cover state payments for unemployment benefits and workers' compensation; and a pension fund, which holds government and employee contributions to cover future pension payments to state and local employees. The *federal government* saves in three ways: a general cash savings account; various pension fund accounts, which hold government and employee contributions to cover future pension payments to federal employees and military personnel; and the Social Security trust fund, which holds

[1]Not every one gets an equal, per person share of a government's net worth. I will present estimates for the average resident. Your share will be determined by your use of public services and by your share of your governments' tax burdens. You may receive more or less than the average resident in your community.

payroll taxes to cover future payments to retirees. State and local governments typically invest their savings funds in stocks, corporate bonds, and U.S. Treasury bonds. Federal government pension funds and the Social Security Trust Fund invest their savings in U.S. Treasury bonds. When included in the public purse, such public savings should be valued at their current market prices.

Governments' investments in public schools, public hospitals, roads, bridges, public lands, and military equipment add to the tangible assets in the public purse. These tangible public assets create economic wealth in much the same way that private tangible assets create wealth: by contributing to the production of valuable goods and services. Schools provide education, and hospitals provide health care. Roads and bridges facilitate transportation. Public lands provide mineral resources and scenic beauty. Tanks, planes, and ships protect our economic wealth from foreign expropriation. Each of these public assets should be valued in the public purse for the stream of economic benefits it creates.

Government Debt and Contractual Liabilities. Offsetting the value of government financial and tangible assets are the future obligations on the government from previous borrowing and other contractual promises. Debt liabilities equal the future stream of interest and principal repayments required to service the government debt. This stream of payments needs to be expressed in today's dollars, however. In effect, the present value of the debt measures what the government would have to pay current bondholders in the open market to buy back—or "defease"—the government's debt obligation. Alternatively, this lump sum payment equals what current holders of the government's debt would have to put out today for an identically risky alternative investment that provided the same stream of future payments.

In addition to the promise of debt repayment, local and state governments and the federal government promise other future payments as well. Those promises can take either of two forms: contractual or political. Contractual promises are enforceable in court; political promises are not. For this analysis, only contractual promises are included as a government liability.

At the state and local levels, the important contractual obligation of government is the promise of a pension for public employees. The discounted present value of these promised pension payments measures the government's pension liability. Again, this is equal to what the government would have to pay the beneficiaries of these promises—current and future retirees—so they could invest and earn an identical stream of future payments.

At the federal level, the important contractual liabilities include promised pension payments to government employees, including military personnel, and the promised payments to depositors of failed banks and savings and loan institutions whose accounts are insured by the federal government.

MEASURING GOVERNMENT NET WORTH

Government savings is the market value of the cash and security holdings of the government. Annual surveys of city and state government finances provide estimates of their cash and security holdings.[2] The financial assets held in state and local governments' rainy day funds, bond funds, sinking funds, and insur-

[2]The surveys are part of the *U.S. Census of Government*. There is an important question as to whether the reporting state and local governments provide "market value" or "book value" estimates of their cash and security holdings. Even if the governments report only book value, however, city and state governments turn over assets in their accounts every year or two. Thus, book values will closely approximate true market values, and the difference from market value in the survey reports is likely to be small.

ance trust funds are combined into a single savings account for these governments.[3] Table 1 reports estimates of the average real (1990 dollars) per capita savings for all 50 states and a sample of local governments in each of the fiscal years, 1972-90. Savings were estimated for all states but for only 41 of the largest U.S. cities.[4] The estimated state and local savings reported in Table 1 represent the per capita state savings plus the per capita city savings of the sample of 41 large cities.[5]

The value of tangible assets held by state and local governments is estimated by the replacement value of all publicly owned capital in all U.S. states and in 36 of our largest cities.[6] The replacement value of the public asset—a bridge, a road, or a public building—is an estimate of what it would cost in real (1990) dollars to replace the asset at its current quality if it were destroyed. The replacement value of a public asset adjusts for the depreciation over time in the stock of that asset.[7] Thus, an old bridge or roadway has a lower replacement value than a new bridge or road. The replacement value of state and local government assets is not the same as the assets' market value—that is, the value that a purchaser of an asset would offer for its use. Market values are the preferred measure of the true worth of any asset, but unfortunately, public capital is not bought and sold in an open market. Thus, published measures of the market value of state and local public assets do not now exist.[8] Like all previous estimates of the value of government assets, the estimates in Table 1 rely on the replacement cost measure.[9]

[3]Financial assets held by state and local governments for their public employee pensions are deducted from pension liabilities and reported separately as the state or local government's unfunded pension liability; see footnote 11.

[4]While savings, assets, debt, and pension liabilities could be estimated for all state governments, only a sample of local governments could be included in the analysis. Large U.S. cities for which full financial data could be obtained from the *U.S. Census of Government* surveys constitute the local government sample. Table 1 lists the 41 included cities. These cities represent approximately 15 percent of the U.S. population in 1990. Of the $12,539 per resident in total state and city net worth in 1990, the average city contributed $8626 per resident (69 percent) and the average state contributed $3913 (31 percent). At the time this study was done, the *U.S. Census of Government* surveys were complete only to 1990.

[5]We do not know how representative the large city estimates of savings, assets, debts, and pension liabilities will be for all U.S. cities and towns. Furthermore, county government assets and liabilities have been excluded from the analysis. It is likely that each of the components of net worth is larger in our sample cities than for an average U.S. community, but the difference between assets and liabilities—the net worth estimate—may reasonably approximate net worth in the average community. Until a full analysis is done, however, the conclusions from Table 1 must be limited to the states and the large cities in our sample.

[6]A complete series of investment data for the years 1902-90 needed to estimate assets could not be obtained for five of the sample's 41 cities: Birmingham, Louisville, Norfolk, Rochester, and St. Paul.

[7]Replacement values of the public infrastructure in our sample cities and states were estimated using the perpetual inventory method, which defines the capital stock at time t as: $K_t = K_{t-1} - \delta K_{t-1} + I_t$, where K_t is the replacement value estimate of the capital stock in period t, K_{t-1} is the replacement value of the capital stock in the previous period, δK_{t-1} is the depreciation in that capital stock over the previous period, and I_t is the level of gross investment made by the city or state in period t. K_t, K_{t-1}, and I_t are all measured in constant (1990) capital goods prices. The capital stock series reported in Table 1 is the aggregate of state and city investments in construction, equipment, and land. See Boskin et al. (1989) for a discussion of this approach to public capital stock measurement.

[8]In a creative study of the effects of public capital stocks on local land prices using the database summarized in Table 1, Haughwout (1994) has estimated the marginal benefit of an additional dollar of public capital spending. He finds that new public capital investment has a positive rate of return in growing cities and a negative rate of return in declining cities.

The reported estimates of assets in Table 1 are therefore the average replacement values of state and city public assets per resident for the residents of the largest U.S. cities.

Debt liabilities of state and local governments are measured as the discounted present value of all future interest and principal repayments owed to the holders of the governments' debt. The present value measures the current worth of the future stream of promised interest and principal repayments. If the government were to buy back—or defease—its debt, it would have to pay bondholders this current value. This current market value, therefore, measures the financial liability of the governments' debt. As current interest rates rise, the market value of existing debt falls because bond buyers could purchase newly issued bonds with the same total interest payments for a lower price. Conversely, as cur-

[9]Important previous studies using the replacement cost methodology include Musgrave's (1986) ongoing work estimating the national stock of public capital and Boskin et al.'s (1989) study of government assets and liabilities.

TABLE 1

Average State and City Government Assets and Liabilities*

Year	Savings	+ Tangible Assets	- Government Debt	- Unfunded Pension Liabilities	≅ Net Worth
1972	$2576	$13,720	$3302	$3341	$9651
1973	2714	13,915	3401	4021	9166
1974	2826	14,113	3502	4477	8902
1975	2815	14,320	3221	4381	9479
1976	2755	14,478	3280	4250	9649
1977	2561	14,573	3179	4568	9391
1978	2765	14,552	3138	4627	9558
1979	2785	14,612	2680	4979	9727
1980	2897	14,750	2456	5119	10,079
1981	2708	14,851	2038	4785	10,740
1982	2717	14,880	1837	4567	11,214
1983	2979	14,902	2345	4093	11,469
1984	3148	14,926	2474	4537	11,096
1985	3296	14,975	2532	4113	11,664
1986	3749	15,050	3148	3862	11,840
1987	4114	15,169	3638	4261	11,458
1988	4395	15,319	3448	4121	12,235
1989	4451	15,463	3571	3727	12,701
1990	4537	15,621	3710	3989	12,539

* The Savings, Government Debt, and Unfunded Pension Liabilities columns are based on all 50 states and a sample of 41 cities: Atlanta, Baltimore, Birmingham, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Columbus (Ohio), Dallas, Denver, Detroit, Ft. Worth, Houston, Indianapolis, Kansas City (Missouri), Long Beach, Los Angeles, Louisville, Memphis, Milwaukee, Minneapolis, Newark, New Orleans, New York City, Norfolk, Oakland, Oklahoma City, Omaha, Philadelphia, Phoenix, Pittsburgh, Portland, Rochester, San Antonio, San Diego, San Francisco, Seattle, St. Louis, St. Paul, and Toledo. Unfortunately, the Tangible Assets and final Net Worth columns could only be estimated for a restricted sample of 36 cities; see footnote 6 in text. Because of the differences in column samples, the Net Worth column will not exactly equal the sum of Savings and Tangible Assets minus Government Debt and Unfunded Pension Liabilities.

Source: Author's calculations.

rent interest rates fall, the market value of existing debt rises. The Debt column of Table 1 reports estimates of the real (1990) market value per resident of outstanding short- and long-term state and local government debt for residents of the largest U.S. cities for the period 1972-90.[10]

The other important contractual liability of state and local governments is their promise to pay *pension annuities* to their current and retired workers.[11] The discounted present value of all promised annuities to current and retired government employees is the total pension liability of the governments, where future annuities are discounted at the rate of return available to government investment. Offsetting this total pension liability are all the assets currently held by the government in its pension account and the required contributions of the employers and employees eligible for the promised benefits. The difference between total pension liabilities and total pension assets is called the unfunded liability of the government's pension plan.[12] The column entitled Unfunded Pension Liability in Table 1 provides estimates of the real (1990) dollar value of unfunded state and local pension liabilities per resident in the sample 41 largest cities, again for the period 1972-90.

Together, the Savings, Assets, Debt, and Unfunded Pension Liability columns of Table 1 provide an estimate of the per capita net worth held by state and local governments for residents in the average large city in the United States for the years 1972-90 (see Net Worth in Table 1). Real government net worth for our sample states and large U.S. cities has been rising modestly since 1972, at a rate of about 1.9 percent per year. Importantly, state and city governments make a significant positive contribution to family net worth. For an average family of four, the public purse was richer by about $50,156 in 1990 (= $12,539 x 4) because of past and current fiscal policies of state and city governments. (For how Philadelphia and the Third District states compare with other cities and states, see *How Much Money Is in A Philadelphian's Public Purse?* and *How Much Is in the Public Purse of Delaware, New Jersey, and Pennsylvania?* in the Appendix.)

What has the federal government contributed to the public purse? Table 2 summarizes Bohn's (1992) estimates of federal government assets and liabilities for the sample period 1972-89. While our nation's states and cities were putting money into our public purse over the sample period, the federal government was taking money out. Federal government net worth has been consistently negative because federal government liabilities exceeded federal government assets over the sample period.[13]

Included in federal government savings (Table 2, Column 1) is the market value of all government cash and deposits, gold and official foreign exchange, and credit market instruments held by the government. Included in federal government tangible assets (Table 2, Column 2) are estimates of the replacement value of all physical assets, including military equipment, the market value of government

[10]The estimates of the market value of state and local government debt use the methodology described in Butkiewicz (1983).

[11]Not included as a contractual obligation of state governments are possible liabilities within the state unemployment insurance trust fund and the state's workers' compensation trust fund. These funds are best seen as political rather than contractual liabilities. For a careful analysis of state unemployment systems from the perspective of the public purse, however, see Vroman (1986).

[12]The methodology used to estimate state and city unfunded pension liabilities is described in Inman (1986).

[13]Croushore's article was based on estimates by Robert Eisner and Paul Pieper, who did not consider unfunded federal pensions. Hence, that analysis showed a positive federal net worth in some periods.

TABLE 2

Federal Government Assets and Liabilities[a]

Year	Savings	+ Tangible Assets	- Gov't Debt	- Pension Liabilities	- Other Liabilities	= Net Worth
1972	$1516	$6073	$5027	$4657	$289	-$2384
1973	1631	6233	4756	4964	329	-2185
1974	1803	6830	4408	5074	402	-1251
1975	1651	6733	4994	5151	364	-2125
1976	1761	6861	5527	5290	426	- 2621
1977	1776	7062	5583	5391	399	-2535
1978	1955	7285	5487	5420	504	-2171
1979	2461	7598	5117	5354	659	-1071
1980	2520	8194	4914	5292	799	-291
1981	2152	8881	4964	5119	1011	-61
1982	2177	8787	5946	5209	873	-1064
1983	2138	8637	6599	5464	729	-2017
1984	2135	8401	7448	5429	687	-3028
1985	2310	8218	8672	5253	774	-4171
1986	2424	7488	9784	5204	922	-5998
1987	2352	7464	9666	5070	905	-5825
1988	2078	7177	9752	5072	1081	-6650
1989	1937	7244	10,179	5168	1003	-7169
1990	-	-	-	-	-	-7307[b]

[a]Source: Bohn (1992) adjusted to real (1990) dollars per capita. Bohn's data do not contain estimates for 1990.

[b]Author's calculation. See footnote 16.

land, and the market value of government-owned mineral rights. The replacement value of the federal government's physical assets is calculated by the same methods used to estimate replacement values for state and city governments. Federal government debt (Table 2, Column 3) is an estimate of the market value of government debt, using the same methodology employed for the state and city estimates. Federal government liabilities are divided into its two components: aggregate pension liabilities (Table 2, Column 4[14]) and "other" contractual liabilities (Table 2, Column 5), the largest of which, over our sample period, is deposit insurance guarantees.[15] All assets and liabilities are reported in real (1990) dollars per U.S. resident.

Federal government net worth (Table 2, Column 6) is the sum of Savings and Tangible Assets minus Government Debt minus Pension Liabilities minus Other Liabilities.

[14]The pension liability estimates in Table 1 are state and city aggregate liabilities less state and city pension fund assets. These net liabilities are reported in Table 1 as the unfunded pension liability. Bohn's accounts of federal assets and liabilities, however, report only the aggregate pension liability; pension fund assets are included as part of aggregate Savings in Table 2. Importantly, since the net worth calculation does subtract all liabilities from all savings, the final estimates of Net Worth in the federal sector are unaffected.

[15]Excluded from other liabilities are future federal Social Security payments to current and future retirees. Boskin et al. (1989) argue that because the promise is politically uncertain and benefits can be adjusted at any time, Social Security liabilities should not be counted within the same ledger as other government assets or government debt. On the other hand, Feldstein (1974) and Bohn (1992) have argued that Social Security should now be a promise as binding as any legal contract. Unfortunately, compelling estimates of the true value of this liability are not available. Bohn (1992) provides one estimate that effectively doubles the 1990 liabilities of the federal government!

Over the sample period, federal net worth has been consistently negative. The net worth of the federal government did improve over the 1970s, largely because of increases in government savings and nonmilitary tangible assets. The 1980s, however, saw a major decline in net worth, and the central cause was the large increase in federal government debt. Averaged over the entire two decades, federal net worth has been declining at the rate of 6.7 percent a year.[16]

Together, state and city government net worth plus federal government net worth defines all the money in an average family's public purse. For residents of our largest cities, total public net worth (= Net Worth from Table 1 plus Net Worth from Table 2) is always positive, equaling $7267 per resident in 1972 (= $9651 - $2384), rising to a peak of $10,679 per resident in 1981 (= $10,740 - $61), and then falling to a low of $5232 by 1990 (= $12,539 - $7307).[17] Table 2 reveals clearly that the last decade's large increase in the federal government's debt liabilities is the cause of this large decline in our public wealth.

SHOULD WE BE WORRIED?

Should we as a society be concerned about the decline in our public wealth over the past decade? If these large federal government borrowings of recent years had been allocated to increase public-sector capital stocks at the local, state, and federal levels or if they had been placed in a government savings account, there would be little reason for concern. As Tables 1 and 2 make clear, however, this was not the case. Since 1980, federal tangible assets have declined with the shrinking of the defense budget while the stock of public capital at the state and city level has grown only slightly. Federal cash and security holdings have also fallen. The only recent good news in Tables 1 and 2 is the growth of state and city savings, both generally (Table 1, Savings) and in the pension fund (Table 1, Unfunded Pension Liabilities).[18] On balance, however, these state and local savings gains do not offset federal borrowings. There are three practical reasons to be worried about these trends: government bankruptcy, future fiscal inefficiencies, and intergenerational inequities.[19]

Government bankruptcy occurs when the

[16]There is no reason to think federal net worth has improved since Bohn finished his study. On the contrary, government debt has only gotten larger since 1989, and federal tangible assets have only gotten smaller because of the reductions in military spending. (Even though military assets have declined, we are surely better off now that the old Soviet nuclear threat has been reduced.) Aggregate pension liabilities and other liabilities are probably unchanged. If we assume all other columns except Government Debt have remained constant in real terms from 1989 to 1990 and then subtract 1990's actual real (1990) level of government debt per capita of $10,317, we obtain a preliminary estimate of federal government net worth in 1990 of -$7307.

[17]See footnote 15.

[18]Metcalf (1990) and Gramlich (1991) provide two alternative studies of state and local government savings behavior.

[19]And there's one theoretical argument why not to worry. Under the economic theory of "Ricardian equivalence," it does not matter whether government net worth is large or small. The Ricardian view of public finance, developed in Barro (1974), assumes:(1) taxpayers anticipate fully the economic implications of a richer or poorer public purse; (2) there are no fiscal inefficiencies in moving dollars between the public and private sectors (i.e., governments use "lump-sum" taxes); and (3) parents care as much about their children's economic fortunes as they care about their own. In the Ricardian economy, taxpayers fully understand that increased government net wealth means more public services and/or lower taxes in the future and rationally adjust their savings and private wealth downward to share in some of those benefits today. Taxpayers also understand that reduced public wealth means less public or private consumption in the future and thus rationally adjust their savings and private wealth holdings upward. Thus, private wealth adjusts dollar for dollar to changes in public wealth. The current empirical evidence goes against the strict Ricardian view of public finance; see Bernheim (1989).

contractual obligations of the government to bondholders and pensioners exceed the ability of the government to raise taxes to pay for these obligations. A useful first indicator of how close a government is to falling into bankruptcy is the ratio of the government's debt to its tax base. When that ratio is too high, the government can no longer service its debt and must default. While the estimates summarized in Tables 1 and 2 allow us to conclude that government bankruptcy is not now a threat to the U.S. public sector, this does not mean that individual local or state governments cannot fall into trouble. Philadelphia's recent fiscal crisis is a case in point.[20,21]

Of greater concern are the fiscal inefficiencies forced upon us today by yesterday's decisions to reduce our public net worth. When government net worth declines—either because of large increases in debt or large reductions in savings and tangible assets—meeting current service needs and contractual debt and pension obligations will require potentially significant tax increases. To maintain public services at their 1980 levels yet meet governments' new contractual obligations in 1990, the combined average local, state, and federal tax rate would have to rise from an average rate of 19.1 percent to an average rate of 20.6 percent.[22] Such tax increases, if continued over many years, can have significant adverse effects on private-sector investment, new business formation, and work effort. Again, Philadelphia offers a telling example. In the 1980s, 19 tax increases pushed the city to the point where any additional increase in property or wage tax rates would generate virtually no new revenues.[23]

Perhaps the largest worry, however, is what our declining public net worth means for future generations of taxpayers. Increased public debt and reduced public savings and investment today means more consumption for today's taxpayers but less consumption for tomorrow's taxpayers. If the recent declines in government net worth continue for one or two more decades, our children will face not only higher taxes because of larger public debts and lower public savings but also lower incomes because productive public capital per worker has been reduced.[24] Taking dollars from the public purse to increase the consumption of today's adults lowers government net worth without increasing private net worth and, if continued, will mean fewer dollars in the purse and lower consumption for our children when they are adults tomorrow. Thus, a declining public net worth signals a potential intergenerational redistribution.[25] What goes into the pockets of today's taxpayers comes directly from the public purse we might pass on to our children. Unless replaced, the decline in the public net worth during the 1980s has cost our heirs approximately $5400 per person in future consumption.[26]

[20]See Abel (1992).

[21]See Inman (1995).

[22]The tax rate of .191 was calculated as that tax rate on 1990 income needed to buy the 1980 bundle of local, state, and federal governments' services and transfers and to service the *1980* level of local, state, and federal Net Debt (= Debt + Contractual Liabilities - Savings) at the 1990 10-year Treasury interest rate of .071. The tax rate of .206 was calculated as that tax rate on 1990 income needed to buy the 1980 bundle of local, state, and federal services and transfers and to service the *1990* level of local, state, and federal Net Debt (= Debt + Contractual Liabilities - Savings) at the 1990 10-year Treasury interest rate of .071.

[23]See Inman (1992).

[24]What is relevant for the production of private income is the ratio of public capital to labor, and this ratio has been declining steadily over the past two decades.

[25]See Auerbach, Gokhale, and Kotlikoff (1991).

[26]This approximation is based on the decline in public net worth from $10,679 in 1981 to $5232 in 1990, a loss to the public purse of $5447 per citizen. If public capital earns

CONCLUSION: WHAT SHOULD WE DO?

The public purse holds a significant share of every family's total savings. The estimates in Table 1 show that in the average U.S. city for the average family of four, state and city governments in 1990 held $50,156 per family (= $12,539/resident x 4) in net wealth. The estimates in Table 2, updated to 1990, show that the federal government imposed a net liability on this same family of $29,228 (= - $7307 x 4). Together, all governments in the United States have accumulated a public-sector net worth of $20,928 per family. Hence, public net worth is significant.[27]

What should we do if we want to increase the size of our public purse? Clearly, the state and local sectors have been the main public savers in our economy, and the federal government the main public borrower. Why? There are two possible explanations. First, we may want the federal government to run deficits and the state and local sector to save. The economic theory of federalism assigns the federal government the responsibility to use deficit policy for the management of cycles in our macro economy. Furthermore, to the extent that there are significant economic spillovers across state lines from the provision of public capital, the federal government should borrow and use the proceeds to subsidize the formation of state and local capital. However, sound fiscal policy requires the federal budget to be balanced over the business cycle, and this clearly has not happened. Nor is there any compelling economic evidence that state government investments create significant economic spillovers across state lines.[28] Alternatively, state and local governments simply may be more fiscally responsible, perhaps because they are constitutionally required to run balanced budgets. Yet Vermont, one of the states with the highest level of per capita net worth, is also the only state without a balanced-budget requirement.

There is no easy answer to why some governments save and others borrow, and thus no easy solution for how we might act to increase funds in our public purse. Ultimately, whether a government saves or borrows turns on what its citizens want. If we want a more rational and considered public policy toward our economic futures, a good place to start is for each of us to know what's in his or her public purse.

the competitive rate of return and there is no population growth, this lost public net worth would have generated a future consumption stream whose present value just equals $5447 per future resident.

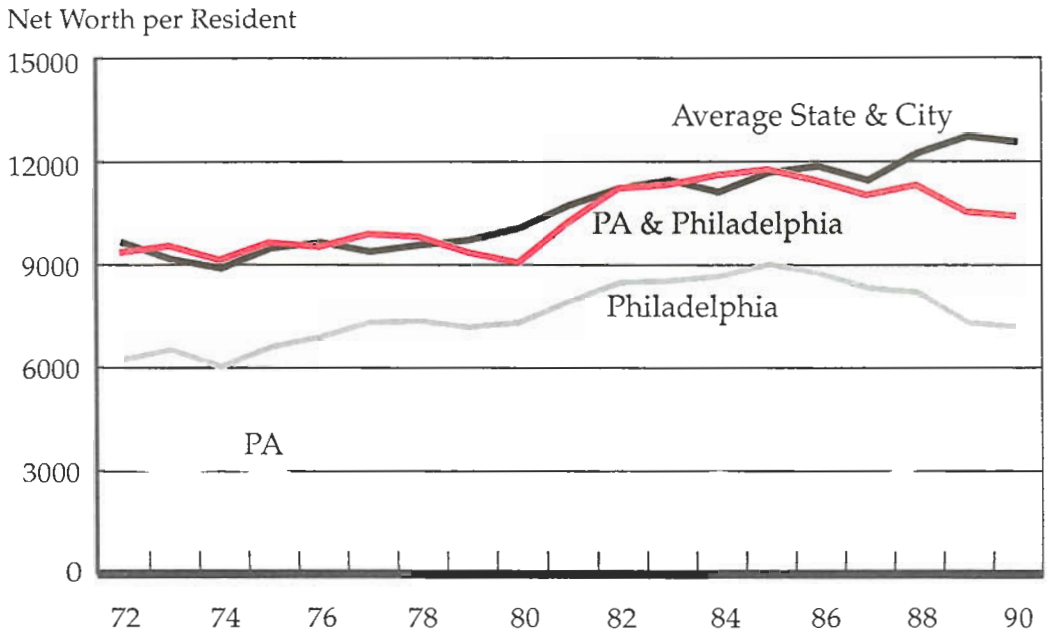
[27]For comparison, by 1989 a typical (median) U.S. family had accumulated a private net worth of $47,800 (in 1990 dollars); see Kennickell and Starr-McCluer (1994; Table 3). The average U.S. family, which includes the very wealthy, had a private net worth of $183,800 in 1989. These estimates do not include expected Social Security receipts.

One must be careful not to simply add together estimates of public and private net worth, however. There is the possibility of significant double counting. State and local government net worth—$50,156 per average family—constitute assets that households potentially buy and sell when they relocate from one community or state to another. *If markets work perfectly*—possibly a big "if"—market competition will force households and businesses moving into a new location to pay the current owners of homes and businesses for the value of the city's and the state's public net worth. In this case, private land prices will fully reflect the value of state and local government net worth, and adding together private and public net worth would be double-counting.

[28]See Holtz-Eakin (1994).

APPENDIX

How Much Money Is in a Philadelphian's Public Purse?

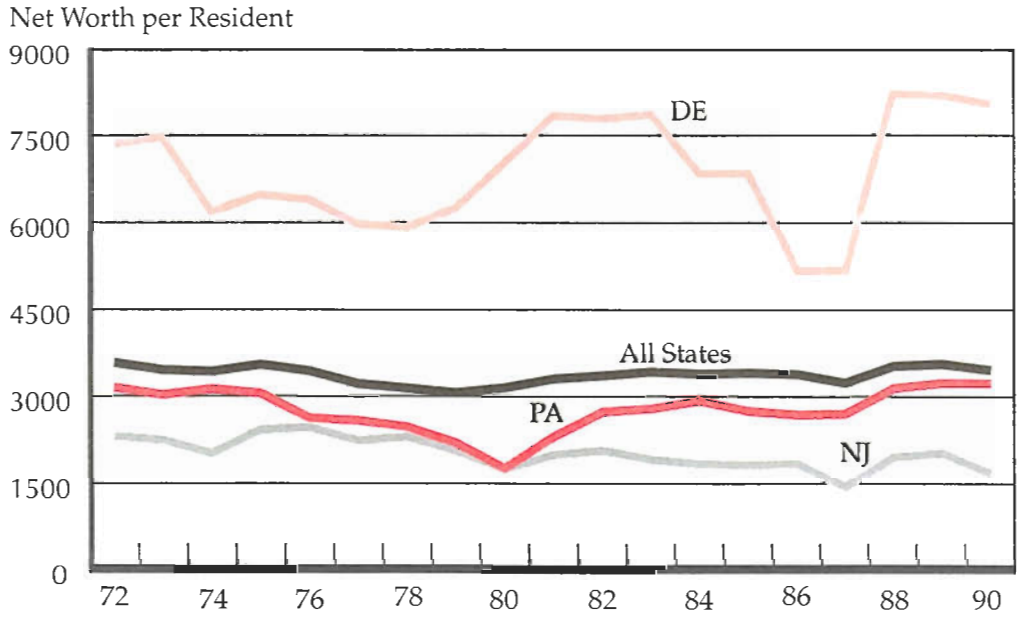


This figure illustrates the levels and time paths of the estimated net worth of Philadelphia and Pennsylvania compared with the level and time path of the net worth of all state and large city governments over our sample period, 1972-90. Philadelphians followed the national average rate of accumulation over most of this period until 1985. By 1990, residents in other states and cities had accumulated $12,539 per resident in public wealth (see Table 1, page 23), while Philadelphians had collected $10,424 per resident, about 20 percent less than the national average. *For a typical family of four living in Philadelphia, the family's public purse contained an estimated $41,696.*

But what caused the sharp decline in the value of the public purse since 1985? The answer is the fall in the net worth of Philadelphia. From a peak of $9013 per resident in 1985, cash and security savings were systematically reduced and government borrowing and unfunded pension liabilities were systematically increased so that, by 1990, net worth had been reduced to $7201 per resident, a 20 percent decline over the intervening five budget years. In hindsight, this run on city savings and buildup of public debt were clear indicators of the city's 1990 fiscal crisis.

APPENDIX

How Much Money Is in the Public Purse of Delaware, New Jersey, and Pennsylvania?



This figure illustrates the levels and time paths of the estimated net worth of the three state governments of the Third District compared with the per capita net worth of all state governments. Pennsylvania follows closely the average net worth of all other state governments while Delaware is significantly above the average for all states and New Jersey is significantly below. New Jersey falls below the average for all states because of its larger-than-average levels of government debt and pension underfundings. Delaware exceeds that average because of its significantly larger-than-average level of tangible public assets per resident. Pennsylvania resembles averages for all states in all its accounts—savings, tangible assets, debt, and pension underfunding.