Herman Cain's 9-9-9 Tax Plan
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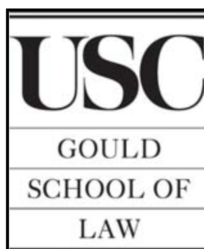

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Herman Cain's 999 Tax Plan

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Republican presidential candidate Herman Cain has proposed replacing current law's income, payroll, and estate taxes with his 999 plan — a 9 percent individual flat tax, a 9 percent business flat tax, and a 9 percent sales tax. This article analyzes the components of the 999 plan. Contrary to casual impressions, the plan could be expected to raise substantial amounts of revenue, but it would do so largely by skewing downwards the distribution of tax burdens when compared with current law.

The 999 plan functions as an effective 27 percent payroll tax on wage income. By imposing an effective 27 percent flat tax on wage income, the plan would materially raise the tax burden on many low- and middle-income taxpayers, who today face little or no tax under the income tax and a 15.3 percent effective payroll tax burden. The plan apparently offers lower tax rates (17.2 percent) for labor income attributable to owner-employees of firms because they can extract their labor earnings as returns to capital.

The plan operates as an ersatz variant on standard consumption taxes regarding capital income, exempting normal returns on equity from tax and imposing tax at an effective 17.2 percent rate on economic rents. Finally, the plan's sales tax acts as a one-time tax on existing wealth. The relative undesirability of that consequence depends on what one chooses as the current-law comparable.

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Overview

Herman Cain's 999 plan is a terrific example of fiscal hocus-pocus. It is presented as a low-tax panacea, but it actually would raise the tax bills of many Americans substantially. And ironically, it imposes a new one-time wealth tax on the rich that might surprise Cain and his adherents.

The first reaction of many readers will be that the plan's core components — a 9 percent individual flat tax, a 9 percent business flat tax, and a 9 percent sales tax — cannot possibly raise enough revenue to replace existing law's payroll tax, income tax and corporate income tax. I cannot promise that the plan is wholly revenue neutral compared with current law, but in fact it would raise a great deal of revenue — assuming it is implemented as first presented, without exceptions, exemptions, exclusions, deductions, or credits. It would do so, however, by drastically increasing taxes on the working poor and middle class and reducing income taxes for the rich.

This point can be seen intuitively by observing that the plan exempts from tax most income from capital (investments). At the same time, it substantially reduces the highest marginal tax rates on labor income (taking into account for this purpose all taxes that directly burden labor income). If the 999 plan is to raise as much revenue as does current law, without burdening capital income, and while lowering the tax rates on the very highest levels of labor income, it must significantly raise the tax burdens on the remaining levels of labor income, which is to say most Americans.

By way of two quick examples, consider a married couple with two children, with one spouse employed and the other not, and with no other sources of income.[1] Further assume that the couple today claims the standard deduction plus four exemptions and the child credit (and no other deductions).

If the family's wage income in 2010 were $120,000, the family would enjoy disposable income, after all payroll and individual income taxes, of $97,270. By contrast, had the 999 plan been in effect in 2010, under assumptions that I believe to be reasonable and that are detailed later in this essay, the family would have disposable income (after the present value of all three components of the 999 plan were considered) of $96,729, or $541 less.[2]

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[1]The detailed calculations are summarized in the appendix. Section C reviews some of the more important assumptions.

[2]These figures do not include any attempt to include in current law's tax burdens on the hypothetical family any

(Footnote continued on next page.)

If the family earned $50,000 in 2010 and no other facts changed, the 999 plan would have imposed a tax increase on that family of roughly $4,800 in present value terms. That is an extraordinarily large tax increase as a percentage of income.

Cain has suggested in recent public statements that this dramatic and regressive reallocation of tax liabilities would be offset by large-scale favorable macroeconomic responses, under which prices would fall, wages would rise, and the economy as a whole would grow much more quickly. Testing the reasonableness of these assertions would require sophisticated and robust econometric measures of the elasticities of a wide range of supply and demand responses to changes in tax law of magnitudes not ordinarily contemplated, combined with a comprehensive macroeconomic model of how U.S. consumer prices, wages and production would respond to the new tax regime, all in the context of the larger global economy.

Even in the absence of that modeling, however, it is not easy to identify in the abstract the market mechanisms by which prices for consumer goods would fall substantially by virtue of largely eliminating federal tax on capital income. For example, the corporate income tax is a tax in the first instance on the profits attributable to equity owners of a firm, not an excise tax on the price of goods. While in a macroeconomic model changes in income tax rates may have some indirect effect on prices (by virtue of wealth effects, for example), most economists view the ultimate incidence of the corporate income tax as falling primarily on some combination of capital and labor income — with substantial disagreement as to the relative burden borne by each of the latter two. And of course many consumer goods are manufactured outside the United States by non-U.S. firms without substantial stakes in the U.S. corporate tax system; as a result, it is not invariably the case that U.S. firms are today, or by virtue of the change in tax law would become, the marginal producers of those goods. Thus, one reasonably might anticipate that the 999 plan would not have significant first-order consequences for consumer prices.

On the other hand, it could be argued that in a model of a small open economy and perfect global competition, a substantial portion of the corporate income tax as an economic matter falls on the shoulders of workers in the form of lower wages. But the United States is not in fact a small economy, and it is plausible in any event to believe that in the current era of global competition, with its attendant introduction of millions of low-wage employees into the global economy, U.S. wages are set by reference to factors far more powerful than U.S. tax rates on capital income. At best, one can say that economists are likely to disagree on the positive wage impact of the 999 plan.

In short, it seems improbable that qualified macroeconomists (a group that does not include me) will reach a strong consensus in the immediate future that the 999 plan would in fact unleash favorable responses to consumer prices, wages, and economic activity of the scale required to undo the first-order regressive design of the plan. In those circumstances, to rely simply on the expectation that these market adjustments would materialize would be to engage in macroeconomic magical thinking, along the lines of the discredited belief that tax cuts invariably "pay for themselves."

To summarize the 999 plan's operation, the labor (wage) income part of the plan claims to repeal the payroll tax and roll back the personal income tax, but what the plan really does is substitute for current law's payroll taxes (12.4 percent Old Age, Survivors, and Disability Insurance payroll tax, capped at about $107,000 of wage income, and the uncapped 2.9 percent Medicare payroll tax) a new 18.9 percent *uncapped* payroll tax, plus a 9 percent sales tax on an employee's after-tax income. The combination of the three actually operates as the economic equivalent of a 27 percent uncapped payroll tax.[3] In the case of self-employed taxpayers, however, the plan seems to countenance a discounted tax rate of 17.2 percent — that is, self-employed individuals can avoid the 9 percent

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component of the corporate income tax. In standard analyses of the distribution of federal tax burdens prepared by the staff of the Joint Committee on Taxation or the Congressional Budget Office, current law's corporate income tax is either ignored (by the former) or treated as burdening capital income (the latter). As described below, my calculations here include the 999 plan's business flat tax as burdening labor income, but this reflects that by design the business flat tax does not directly burden capital income at all and is imposed on the value of labor inputs to the firm. For this reason, it is appropriate to treat the proposed business flat tax like current law's employer half of payroll taxes, as burdening the wage income of the family described in the text.

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[3]Technically, the all-in rate is 27.08 percent of wages, when wages are held constant in the conversion to the new system, and the aggregate amounts paid by employers (that is, the sum of wages and payroll-type taxes imposed on those wages) increases slightly to compensate for the higher business flat tax rate. If one measures the all-in rate against pre-999-plan wage levels, the 999 plan's all-in rate is about 26.5 percent. *See* section C below.

employer tax (the business flat tax) by just paying themselves no salary and taking their profits out as dividends.[4]

The absence of current law's package of a standard deduction, personal exemptions, child credit, child care credit, and the earned income tax credit means a huge tax increase for the working poor and a substantial tax increase on the labor income of the middle class. At the same time, the all-in 27 percent tax on labor income (or less for the self-employed) would constitute a tax reduction for Americans with the very highest labor income.

The capital (investment) income part of the 999 plan is more confusing in its specifications, but a fair reading of the proposal would suggest that it would (1) exempt from tax "normal" (boring old time value of money) returns to equity capital (whether earned directly or extracted as capital gains), (2) tax supersized returns to capital (economic rents) at an effective 17.2 percent rate, and (3) (probably inadvertently) impose tax on interest income (capital invested in the form of loans). The first point is reflected in the 27 percent effective tax on labor income, above. (I generally ignore the tax on interest income as probably unintended.)

Importantly, the introduction of a 9 percent sales tax operates as the economic equivalent of a 9 percent one-time wealth tax on all existing wealth at the time of the new tax's introduction. On the other side of the ledger, existing wealth would presumably earn tax-free normal returns going forward (particularly if one assumes that the plan does not mean to tax the most straightforward way of earning those returns, namely interest income). Section D discusses this trade-off in more detail.

The rest of this article summarizes the 999 plan and my reasoning. Throughout the article I ignore all administrative issues, including the plan's susceptibility to evasion. I also restrict my focus to generally accepted first-order consequences of taxes like those contained in the 999 plan and do not speculate on indirect macroeconomic feedback mechanisms.

[4]Technically, current law imposes the self-employment tax on a wage-equivalent base. It does so by using the same tax rates as in the case of employment taxes on wages, applied to a base equal to [self-employment earnings - (self-employment earnings x ½ tax rate)]. Section 1402(a)(12). Thus, the self-employment tax on $100,000 of self-employment earnings is the same as the total employment tax burden on $92,894 of wages — $14,213.

Expressed as a percentage of total self-employment earnings rather than as a percentage of a wage-equivalent amount, current law's 15.3 percent self-employment tax rate works out to a 14.13 percent tax burden. It is this 14.13 percent rate that is directly comparable to the 17.2 percent rate referenced in the text that the 999 plan imposes on self-employment income.

The 999 Plan

The 999 plan is set out at http://www.hermancain.com/999plan. When this article was written, that description provided:

- It ends the Payroll Tax completely — a permanent holiday!
- Zero capital gains tax
- Ends the Death Tax
- Eliminates double taxation of dividends
- Business Flat Tax — 9 percent
- Gross income less all investments, all purchases from other businesses and all dividends paid to shareholders
- Empowerment Zones will offer additional deductions for payroll employed in the zone
- Individual Flat Tax — 9 percent
- Gross income less charitable deductions
- Empowerment Zones will offer additional deductions for those living and/or working in the zone
- National Sales Tax — 9 percent
- This gets the Fair Tax off the sidelines and into the game

Cain has stated in recent public appearances that "used goods" would not be subject to the new sales tax. That rule would create significant distortions in the relative prices of new and used goods when the two are reasonable substitutes — for example, in housing, where existing homes can substitute for new construction. Exceptions along these lines also quickly deplete the revenue base of any tax system. For that reason, and because this essay focuses primarily on the underlying concepts, I assume that each of the three taxes that together make up the 999 plan would be implemented without exceptions of any kind.[5]

One additional complication in discussing the plan that does have an immediate impact on the inevitable numerical comparisons with current law is that there are two ways of describing a sales tax. One — the specification used in state sales taxes today — is to apply the sales tax to a base equal to the purchase price for an item without taking the sales tax into account. This is known as a "tax-exclusive" base against which to apply the tax. The other method is to specify a price for the item that includes sales tax in the base. This is known as a "tax-inclusive" base against which to apply the tax.

[5]Thus, I also ignore the unspecified empowerment zone exception from the individual flat tax. Current law also has an empowerment zone concept, but its application is quite limited. *See* sections 1391-1397B.

Given that most of us are familiar with tax-exclusive state sales taxes, you can view the tax-inclusive base as imposing sales tax on your sales tax (as calculated from a tax-exclusive perspective).

One method is not superior to another, and each easily can be converted to the other. They are simply arithmetically alternative ways of describing the same tax burden.

For example, a 9 percent state sales tax, as commonly understood, implies that if you had $100 to spend on purchases, including tax, you could buy goods adding up to $91.74 before sales tax (9 percent of $91.74 is $8.26; the sum of the two is $100). Conversely, if you lived in a 9 percent tax-inclusive jurisdiction (like most European VAT systems), you would buy goods having total sticker prices of $100, but those goods would bear tax of $9, which means that the 9 percent sales tax would have reduced your consumption to $91 before the sales tax. From a tax-exclusive tax perspective, the $0.74 difference can be seen as the equivalent of paying 9 percent sales tax on your $8.26 tax-exclusive sales tax. Conversely, you could just say that a 9 percent tax-inclusive sales tax is the same as a 9.89 percent tax-exclusive sales tax.

This article assumes that the 999 plan specifies a 9 percent sales tax on a tax-inclusive base. It does so because Cain ultimately wishes to move to the FairTax, and it is my understanding that the FairTax ordinarily is presented by quoting a tax-inclusive rate. If in fact the plan means to apply a 9 percent sales tax on a tax-exclusive base, its total tax burdens would be somewhat lower than those calculated here. For example, the all-in tax on wages would drop from 27 to 26.4 percent.

Labor Income Under the 999 Plan

Obviously the 999 plan is not a fully specified new tax system. Nonetheless, a fair reading of its description leads to some surprising conclusions. The right way to see the 999 plan, as it is applied to wage earners (more generally, to labor income), is as a 27 percent payroll tax on wage income (and a 17.2 percent tax on self-employment income).[6]

How so? The first part, of course, is the 9 percent individual flat tax on wages or other labor income. As described in section D, it turns out that the individual flat tax is imposed effectively only on labor income, with the result that it can be described in a shorthand fashion as just a wage tax.

The second part is baked into the business flat tax's denial of a deduction to employers for wages they pay. As a result, wages cost the employer 9.9 percent of the wages paid. Again as described in section D, the 999 plan's business flat tax operates in such a manner that ordinary investment returns are not taxed. (As noted in section D, the proposal seems confused about interest income, but I am assuming that this was an inadvertent error.) Since the business flat tax is designed not to burden capital income, and to impose tax directly proportionate to wages paid, it operates in a manner that is conceptually indistinguishable from current law's employer share of payroll taxes. Economists in turn are unanimous that an employer-level payroll tax economically is borne by the employee (or in economists' lingo, the incidence of the tax falls on the employee). As a result, the business flat tax also operates in economic substance as just another wage tax.

One mechanical difference between the 999 plan's business flat tax and current law's employer share of payroll taxes is that the business flat tax is measured on pre-payroll-tax wages, not after-payroll-tax wages actually paid out to employees. (That's why it's a 9.9 percent rate as measured against wages paid.) This has no conceptual significance but is relevant in comparing tax costs under current law and the 999 plan.

The third part of the puzzle is the sales tax, which operates as an economic matter as a 9 percent tax on post-individual-flat-tax labor income. A sales tax is a tax on consumption, and it conceptually has the same economic consequences regarding labor income as do the two flat taxes considered so far.

Imagine, for example, that an employee has $500 in her pocket after the two flat tax liabilities described above — she has $500 available to spend on consumption goods. When she spends that, she will incur a sales tax bill on her purchases. If the sales tax rate is 9 percent, expressed on a tax-inclusive basis (for the reasons described in section B), and the employee spends her $500 immediately, she will incur a sales tax bill of $45 — another 9 percent tax, measured on her post-individual-flat-tax income.

But what if she doesn't spend all the money today?

One way of seeing what happens in the deferred consumption case is to imagine that the employee sets aside $45 today into a little fund to pay her eventual sales tax bills attributable to spending $500. If the employee spends all her available money ($455) on consumption goods tomorrow, the money immediately goes out of the little set-aside fund. If, by contrast, the employee defers consumption for a few years, her budget for consumption (her $455 of cash, net of her mental sales tax

[6]As described below, these rates assume a wage rate that is reduced somewhat to reflect the higher payroll-tax equivalent business flat tax that employers will be required to pay. For taxpayers whose wages are below the OASDI maximum (about $107,000), the 999 plan's all-in tax burden, measured against wages set under current law, would be about 26.5 percent.

set-aside fund) goes up by the time value of money (which in turn is exempt from tax under an ideal form of the individual flat tax), but so does her $45 set-aside fund. When she does consume, she will consume more in absolute terms but the same in original present value terms, and meanwhile she will have enough in her set-aside fund to cover her future sales tax bills (because the fund grows at the same pretax rate as her consumption fund grows).

The net consequence is that the sales tax is equivalent to another 9 percent payroll tax, albeit measured on the employee's post-personal-flat-tax base, because it reduces the employee's income by the same amount on a present value basis.

Now let's put the three taxes together in one example.

Imagine that an employee generates $100 in added value to her employer, after all relevant expenses but before any taxes are considered, and that markets are efficient, so that the employee extracts her full value from the firm. Then the firm will have $100 of gross income attributable to the value added by the employee, and it will pay out to the employee all of that income, less the employer-level payroll taxes attributable to those wages. I refer to the $100 available to pay both wages and employer-level taxes on those wages as the ''wage pool.''

If the 999 plan operated mechanically like current law's payroll tax except using a 9 percent rate, the employer would be able to pay out $91.74 in salary, because current law's payroll tax is measured against wages paid, not the employer's income dedicated to paying wages. (Nine percent of $91.74 is $8.26, so the wages paid plus employer-level taxes on those wages would equal the employer's $100 of gross income attributable to the employee's added value.)

In fact, the 999 plan denies a deduction for wages paid and applies its 9 percent business flat tax rate to the firm's pre-wage income, not to the wages paid. As a result, the employer would incur a business flat tax liability of $9 and could afford to pay the employee only $91.[7] To make the comparison to current-law payroll taxes clearer, as measured against the wages received by an employee, the business flat tax thus operates as a 9.9 percent tax on wages ($9/$91).

The employee would pay a 9 percent individual flat tax on the $91 of wage income she receives. That would add another $8.19 in tax. At this point, the $100 of the employer's wage pool attributable to the employee would have borne $17.19 of total tax, and she would have $82.81 in her hands available to spend.

Finally, on the assumption that the 999 plan's sales tax operates on a tax-inclusive base, the employee must set aside $7.45 to fund the future sales tax she will incur when she spends her post-flat-tax income on consumption goods (9 percent of $82.81). As a result, the employee will have $75.36 after all federal taxes to invest or spend, and the $100 of income that the employer was willing to pay in compensation will have been burdened by a total of $24.64 in tax.

Many readers are interested in comparing the hypothetical tax burdens imposed by the 999 plan with current law — including for this purpose both current-law payroll and income taxes. One convenient way to organize those comparisons is to convert the $24.64 of aggregate taxes paid under the 999 plan on a $100 wage pool (pre-business-flat-tax firm income dedicated to paying wages) into a rate applied to an employee's gross wages received, because that is the base used under current law for measuring OASDI and Medicare payroll tax liabilities.

Converting the $24.64 in total tax on a $100 wage pool to a rate imposed on a payroll-tax-equivalent base — that is, as a percentage of wages — requires that we compare the aggregate tax burden ($24.64) to the $91 in wages the employee receives. Doing so yields a payroll-tax-equivalent rate of 27.08 percent ($24.64/$91), which for convenience this article rounds down to 27 percent.[8]

That is, under the 999 plan every $100 of wages received by the employee will be burdened by about $27 of tax, some imposed in the first instance on the employer and some on the employee. The portion borne in the first instance by the employer (the business flat tax) is invisible to the employee in that it does not appear on the employee's wage statement, but nonetheless economically burdens the employee's income. The same concept (but of course with different numbers) applies today when one looks at both the employer and the employee sides of payroll taxes, along with the personal income tax.

This 27 percent payroll-tax-equivalent rate calculated above was determined by reference to wages received after the implementation of the 999 plan. If

[7]This point is developed in more detail a few paragraphs below.

[8]Relying on the assumptions identified in the text as to the operation of the 999 plan, a tax system identical to the plan and having a tax rate T (expressed as a percentage) will impose a total tax burden of $100\ (3T - 3T^2 + T^3)$.

instead we begin with wages received under current law and wish to calculate tax liabilities under the 999 plan, one final adjustment is needed.

As described above, the business flat tax operates as a hidden wage tax collected directly from the employer. The business flat tax rate is greater than current law's employer share of payroll taxes (9 percent, versus 7.65 percent up to about $107,000 of income, and 1.45 percent thereafter) and is applied to pre-payroll-tax-equivalent income, not after-payroll-tax wages.

If an employer today pays $100 of wages to an employee, then under current law the employer in fact has set aside a wage pool of $107.65 from which to pay both wages and payroll taxes. In turn, if one accepts the usual economic assumptions that markets are efficient and wages are freely negotiated between employer and employee, and that the incidence of the business flat tax falls on employees, then the aggregate amount paid by an employer for the services of an employee (including employer taxes directly measured by wages) — that is, the wage pool — should remain constant when moving from current law to the 999 plan.

If the wage pool remains constant, gross wages must go down a little under the 999 plan to reflect the higher wage tax rate imposed by the business flat tax than the rate imposed on employers today under current law's payroll tax, which also comes out of the wage pool. The amount of the decrease in gross wages received by an employee would not be very great, at least when observing employees whose compensation is less than current law's payroll tax cap (about $107,000), but it may be relevant for readers attempting highly refined calculations of tax liabilities arising from this completely underspecified plan.

Assuming that current law's payroll tax cap is binding, then, as described above, $100 of wages received by an employee under current law implies an employer wage pool of $107.65. The 999 plan's 24.64 percent tax rate on this wage pool (pre-business-flat-tax income) translates into a 26.53 percent rate on the current-law payroll tax wage base.[9]

This modest adjustment probably is most fairly described as a first-order direct consequence of the move to the 999 plan, not an elaborate indirect second-order effect, because it follows ineluctably from keeping the wage pool constant. Nonetheless, the amount at stake is not terribly large for most wage earners, and different assumptions would not change this article's fundamental analysis at all.

In sum, the 999 plan operates on wage earners as an effective 27 percent uncapped payroll tax applied from the first dollar of post-plan wage income — not an elimination of the payroll tax at all! (Alternatively, if one's starting point is an employee's current-law wage income, one might think of the 999 plan as having an effective tax rate of 26.53 percent, because gross wage income should be a little higher under current law than under the plan.) Moreover, it turns out that (as described below) self-employed individuals can avoid the business flat tax component entirely by paying themselves through dividends rather than salaries. Their all-in tax on $100 of gross income therefore works out to be $17.19, rather than $24.64 for an employee. Expressed as a payroll-tax-equivalent rate, that is a 17.2 percent effective rate on the owner/employee's labor income, because the owner/employee pays himself $100, not $91, after the business flat tax but before the other two taxes.

The 999 plan thus replaces current law's payroll tax and income tax with a new system that is the economic equivalent of a 27 percent payroll tax on employees. An uncapped 27 percent payroll tax in fact raises a great deal of money, but does not do so in a distributionally neutral manner when compared with current law's allocations of burdens.

In one direction, the fact that the new 27 percent payroll-tax-equivalent system is uncapped means the rate applies to high incomes as well as low. Of course, that must be balanced against current law's income tax, whose marginal and effective tax rates on high labor incomes exceed that rate, particularly if the 2001 and 2003 temporary tax discounts are allowed to expire. It also must be balanced against the substantial discount in rates afforded self-employed individuals.

In the other direction, as described at the outset of this article, the 999 plan would mean a huge tax hike for low- and middle-income taxpayers. For those taxpayers, the income tax is irrelevant or a relatively small component of their total federal tax liabilities, by virtue of current law's package of a standard deduction, personal exemptions, child credit, child care credit, and the EITC. Taking those tax-reducing features out of the tax system and jumping from a flat 15.3 percent payroll tax rate (on the first $107,000 of wages) to the equivalent of a 27 (or 26.53) percent flat rate payroll tax rate applied from the first dollar of income thus would represent a large increase in tax liability for many millions of households.

The appendix offers sample tax calculations for two hypothetical families under current law and the 999 plan. Those calculations follow the analysis presented in this section of the article. To be as explicit as possible, the calculations include as a tax

[9]$107.65 x 0.2464 = $26.53.

burden on wage earners the 999 plan's business flat tax, because it functions as a payroll tax equivalent. Conversely, the calculations do not include any attempt to allocate current law's corporate income tax. The corporate income tax does not as a first-order matter burden wage income, because wages are deductible for that purpose. Therefore, putting to one side the question of the incidence of the corporate income tax on profits (whose incidence as a formal matter falls on shareholders, but whose incidence as an economic matter is disputed), the corporate income tax can be ignored in these simple calculations.[10]

Capital Income Under the 999 Plan

A straightforward reading of the 999 plan's few words leads to some odd results when applied to capital (investment) income. Basically, the business flat tax replaces current law's corporate income tax with a cash flow consumption tax, which means that ''normal'' (time value of money, or if you prefer, marginal) returns on investment are exempt from tax.[11] But then the business flat tax appears to tax income from loans to businesses either once or twice, depending on what you read into the plan's brief description. It seems highly improbable that the plan intends a zero tax on normal returns to equity but two (or even one) levels of tax on returns to loans; for that reason, I generally assume that the plan's apparent treatment of interest income was an error.

Separately, the sales tax would operate as a disguised one-time 9 percent tax on existing wealth — no doubt much to the surprise of Cain and his followers. Of course, the one-time cost would be offset by the prospect of earning tax-free normal returns on one's remaining capital from that point forward. I will revisit that issue at the end of this article.

To understand how the 999 plan's business flat tax operates, begin with the basic idea of a consumption tax, which can be implemented as a sales tax, a VAT, or one of various forms of ''cash flow'' taxes. The idea in every case is the same — the tax system should not encourage current consumption over future consumption by taxing ''the return to waiting.'' All consumption taxes implement this theme by in one fashion or another offering taxpayers the opportunity to compound their returns from waiting at a tax-free rate of return.

A sales tax reaches that result directly, by taxing consumption when it occurs rather than when the income to fund that consumption is earned. (Sales taxes, of course, are notoriously easy to evade, which is why most countries have adopted a VAT, but this essay ignores those practical issues.) For example, if the return to waiting (the marginal return on investment) is 6 percent per annum, that means that the world values $106 of consumption next year as equivalent in value to $100 of consumption right now. If we wish to preserve that relationship so that the tax law does not distort a taxpayer's decision to spend today or to wait and spend tomorrow, we theoretically can get there through a sales tax alone; because there is no income tax in this hypothetical world, interest earned on the taxpayer's bank account (at a compounding rate of 6 percent) while he waits to consume is not itself taxed (that is, it accumulates at a tax-free return) until it is withdrawn from the account and consumed.

By deferring tax until consumption, a sales tax (or any other consumption tax) permits capital income to compound at a tax-free rate of return rather than an after-tax rate of return. If I earn $100 and want to spend it now, I pay sales tax on that consumption. (As discussed earlier, this means that if the sales tax rate is 9 percent, in fact I have only $91 available for consumption on a tax-inclusive basis.) If I put that $100 in a bank account that compounds tax-free interest at 6 percent per annum, the account will grow to $133.82 at the end of five years. When I spend that $133.82, I pay sales tax on the entirety of that sum (which means I have only $121.78 to spend for consumption). The point is not that I escape tax in perpetuity on any of my capital income returns, but that by deferring tax I am preserving the present value of consumption at different points in time. In other words, I am indifferent between spending $91 today and $121.78 five years from now, because the two amounts have identical present values to me, at a discount rate of 6 percent per annum.

A cash flow tax is another way of implementing a consumption tax. A cash flow tax is usually described as an ''R'' (real) or ''R+F'' (real + financial) system. An R-based cash flow tax simply ignores all financial flows and gives an immediate deduction for investments in real (greasy) investments, like machines and buildings. An R+F system does the

[10]This assumption is consistent with the tax burden distribution tables prepared by the JCT staff and by the CBO. The two organizations treat the corporate income tax differently, but neither assigns its burden to labor income.

[11]For slightly longer discussions of the underlying economics, see, *e.g.*, JCT, ''Present Law and Analysis Relating to Individual Retirement Arrangements,'' JCX-53-08 (June 24, 2008), at 3-7, *Doc 2008-14045*, *2008 TNT 123-15* (and articles cited therein); JCT, ''Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interests and Related Issues, Part II,'' JCX-63-07 (Sept. 4, 2007), at 6-7, *Doc 2007-20256*, *2007 TNT 172-13*; Daniel Shaviro, ''Replacing the Income Tax With a Progressive Consumption Tax,'' *Tax Notes*, Apr. 5, 2004, p. 91, *Doc 2004-6003*, or *2004 TNT 66-48*.

same, except that financial flows are all counted. So borrowing $100 is treated as $100 of ''income,'' but investing that $100 gives you an immediate offsetting deduction.

What's the theory of cash flow taxes? Remember that the idea of consumption taxes is to exempt from tax the return to waiting — that is, low-risk ''normal'' returns on investment — so that future consumption has the same present value as current consumption. The theory of cash flow taxes is that you can get to the same point as exempting normal returns from tax simply by deducting currently all your investments. That is, deducting the cost of an investment has the same economic consequences as exempting from tax the normal yield on the investment. How so? If you can deduct the cost of the investment, you get (in this theoretical world) an immediate tax benefit, which the government hypothetically instantaneously refunds to you. You can use that refund check to buy more of the same investment, and get another (smaller) check, and reinvest that, and so on. The end result is that you get enough in tax savings to ''scale up'' your investment to the point where, after tax, your yield is the same as the tax exempting the yield on your original investment.

For example, imagine that tax rates are 50 percent, normal returns are 6 percent, and you buy for $100 a perpetual machine yielding normal returns. An ideal income tax system would provide that you could not claim any depreciation deductions on this machine that never wears out; as a result, your returns from the machine (and more mini-machines that you buy each year with your after-tax earnings) would compound at a rate of 3 percent per annum (the 6 percent pretax rate less tax of 50 percent). By contrast, a ''yield exemption'' approach to a consumption tax would give you a 6 percent after-tax compounded return (by imposing zero tax on normal returns to capital); those returns would remain tax exempt until they were spent on consumption goods.

Finally, the deduct-now, include-later model — that is, a cash flow tax — would provide that the returns on that $100 machine are fully taxable but that you get an instant write-off when you make the investment. Then in theory you could spend $200 on two of the machines, which would cost you only $100 after tax (the same as the first case). You would now earn $12/year and pay tax at the 50 percent rate, which would yield you $6/year after tax.

A cash flow tax can be analogized to a regular IRA; a pure wage tax can be analogized to a Roth IRA. The two have identical economic payoffs (for the same after-tax contributions), as long as one is talking about normal returns on investment. The two differ, however, in how supersized returns (economic rents) are taxed. A cash flow tax is generally thought to tax economic rents on a current basis, because the scale-up hypothesis doesn't work here — by definition, economic rents aren't infinitely scalable, because if they were, everyone would have done so already. By contrast, a pure wage tax (investment yield exemption) system effectively exempts economic rents from tax.

Imagine, for example, that you sort through the coins in your pocket and discover you received as change for your last purchase a magic penny that has the unique property of throwing off $100 per year in income. Under a cash flow tax, that $100 would be taxable on a current basis. (You would get a tax deduction for your $0.01 investment, but that has no meaningful consequence.) In a wage tax (yield exemption) system, the full $100 of income would escape tax permanently as a return on capital (albeit an enormous return) and therefore would be outside the scope of the wage tax. (For this reason, readers should hold their magic pennies in a Roth IRA rather than a regular IRA.)

The 999 plan seems to contemplate an ersatz sort of R-based cash flow tax, with twists and confusions. It applies to all businesses, so presumably passthrough entities would be taxed the same as corporations. The plan expenses capital investment (that's a cash flow tax) and does not treat borrowings as income (which sounds like it's R-based). As a result, normal returns on capital invested by firms effectively compound tax free at the firm level.

An R-based tax normally ignores all financial flows, including dividends and interest income or expense. But the 999 plan provides a deduction for dividends paid by a firm (which presumably would now include distributions to investors in what today are passthrough entities). At the same time, the plan provides that the dividend income received by shareholders is taxed at the same rate as the firm's deduction. There is no particular reason to give a deduction for dividends paid if shareholders just include the dividends in their individual flat tax base and pay tax at the same rate as does the firm — other than perhaps to preserve the tax advantages of tax-exempt institutions that are shareholders.[12] The dividends paid deduction thus operates as a seeming variant on the Hall-Rabushka flat tax or David Bradford's X tax, which both were cash flow taxes that created deductions for wages paid and included those wages in employees' incomes. Those earlier proposals did so to introduce

[12]The 999 plan is silent as to how tax-exempt institutions will be treated.

progressive tax rates on labor income, but here of course there is no rate difference.[13]

The plan's individual flat tax actually is not a flat tax in the same sense that the business flat tax is, in that there is no provision for directly exempting investment returns or deducting investments made by individuals. Even though normal returns held outside a business are not expressly addressed, if one assumes that investors always could contribute savings to firms as new equity, the firms in turn could write off their investments in greasy machinery funded by those contributions, and finally the firms could complete the circle by remitting the returns on those investments to shareholders via (deductible) dividends. Through that pathway, normal returns on individual savings also would compound at a tax-free rate of return. (An individual investor would pay tax on her dividend income, but that income in turn would represent the scaled-up return attributable to the firm's ability to immediately write off its investment in the greasy machinery that the individual's capital contribution financed. The individual would be left with an after-tax return equal to the normal return.)

The plan does not permit a deduction under the business flat tax for wages paid, which as described earlier means that taxes on labor income are to that extent imposed at a flat rate and collected from the firm (although economically borne by employees).[14] Then the individual flat tax imposes a second 9 percent tax (on a slightly different base) on that same labor income.

The division of taxes on labor into a firm-level cash flow tax, and an employee-level individual flat tax, and a sales tax appears to be driven entirely by the rhetorical appeal of the 999 formulation. If all returns on investment were normal returns, the plan could have obtained the same result through a single higher cash flow business tax rate, again without a deduction for wages.

Perhaps wholly serendipitously, however, the plan's division of taxes means that economic rents are burdened by a single 9 percent flat tax, while wages face both 9 percent flat taxes. Economic rents and wages alike also are burdened by the 9 percent sales tax, so the net effect is that economic rents are taxed like labor earnings of an owner-employee, at two levels rather than three. This would mean that economic rents would be taxed at an all-in effective 17.2 percent rate.

For example, if a business held the magic penny described above, the business could distribute the $100 of income that the penny generated as a dividend to shareholders; the firm would obtain a $100 dividends paid deduction, thereby offsetting its income from the penny, and investors would pay a single 9 percent flat tax on the $100. (They then would reinvest their after-tax dividends in the firm if they wished to continue to enjoy exemption from tax of compounding normal returns on those amounts.) If, by contrast, both flat taxes were instead captured in a single firm-level cash flow tax (so that the 999 plan instead were an ''18-9'' tax), economic rents would be burdened by both halves of the flat tax. In either case, when an individual shareholder consumed the after-tax returns from her interest in the firm, she would at that time pay another 9 percent tax on the economic rents attributable to the magic penny.

The 999 plan does not tax capital gains as such. This preserves the tax exemption of normal returns to capital, whether earned annually or accumulated within a firm and recognized by selling one's equity investment in the firm.

Capital gains derived from the sale of equity in a firm that were attributable to economic rents earned and accumulated within the firm would suffer only one explicit level of tax (the 9 percent sales tax, when those gains were consumed), but theoretically, if all investors were subject to taxation (that is, there were no tax-exempt investors), one would expect a buyer to discount the value of that equity interest by the tax cost required to extract earnings from the firm. This mechanism would lead to a market-based implicit tax on capital gains attributable to economic rents, for the same 17.2 percent total burden as described above. Of course, there are many reasons to doubt whether this implicit tax mechanism would apply perfectly in practice, any more than it does today for tax-exempt municipal bonds.

The plan's brief specifications are unclear about whether expensing ''investments'' means a firm can write off the cost of buying financial instruments. The reading most favorable to the plan is that it means to provide expensing only for ''real'' investments. If the plan in fact means to give a deduction for financial investments, the whole system would collapse, because taxpayers would just borrow at year-end and buy a Treasury bill, thereby wiping out their tax base for the current year. Then the next year, they would repeat the same ''T-bill roll.''

To this point the business flat tax and the individual flat tax together operate as a complex sort of R-based tax, with some shifting around of who nominally pays which portion of tax. Real investments earn tax-exempt normal returns at the firm

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[13]My ''inside baseball'' joke is that this combination of an R tax with a dividends paid deduction will hereinafter be known as the Rx tax.

[14]This actually was the norm for R-based cash flow tax proposals before the Hall-Rabushka flat tax or David Bradford's X tax.

level, dividends actually are not taxed at all, and individual capital owners presumably reinvest dividends that they do not currently wish to consume to preserve the continuing exemption of normal returns from tax. But then the 999 plan does something strange, by apparently providing that interest income *is* taxed. More specifically, the plan appears to contemplate that interest expense is not deductible at the firm level and yet is includable in an investor's individual flat tax base (because it is a part of gross income).

Imagine that the 999 plan is implemented and that normal returns again are 6 percent per annum. Investor (an individual) lends $100 to Firm, which buys a perpetual machine costing $109.89 (that is, having a $100 after-tax cost, as we went through above).[15] The machine produces $6.59/year in pretax income and $6/year after tax. Under a consumption tax, we want to preserve that $6 of after-tax yield indefinitely, until the money is withdrawn for consumption.

As suggested above, the 999 plan does so when Firm is entirely equity funded. In that case, Firm can buy more perpetual machines each year to reinvest its after-tax profits, thereby earning a compound after-tax rate of return of 6 percent. Conversely, if Firm declares a $6.59 dividend, it obtains a deduction of that amount and hence incurs no tax liability. A shareholder receiving the $6.59 incurs an individual flat tax liability of $0.59 and has the same $6 available after tax to consume or to reinvest in Firm (or another business).

In the debt-funded case, however, Firm apparently does not obtain a deduction for paying interest to Investor, and Investor apparently has taxable income (because interest income is subsumed in ordinary understandings of gross income). Firm can pay only $6 in interest income (after $0.59 of business flat tax expense), and in turn Investor must pay tax of $0.54 on that interest income. We're back into an income tax, not a consumption tax, for loans only, at a 9 percent rate on the normal returns earned on Investor's $100 loan. (In this example there is no double tax, because Firm still gets the benefit of deducting its investment in the perpetual machine.) In turn, if Firm uses the $100 from Investor to buy a bond or other financial instrument, and the business flat tax permits Firm to write off only investments in ''real'' assets, then there is a full double tax on interest income.

[15]You can assume that the government instantly refunded the tax savings attributable to the deduction claimed on purchasing the machine of $9.89, which amount is assigned to the vendor to pay the remainder of the purchase price.

Well, that's wrong, if what you want is a consumption tax. It's also wrong if what you want is an income tax, because we don't go around double taxing interest. And why would you want zero tax on returns to equity, but two (or even one) level of tax on returns to loans? For that reason I believe the plan's tax treatment of interest income is an inadvertent error.

Finally, the sales tax component of the 999 plan has a direct impact on capital as well, for the simple reason that, like any other consumption tax without transition relief, the sales tax will apply to consumption funded out of existing wealth as of the date the plan is adopted. (The sales tax of course also will burden newly created wealth, but to the extent that new wealth comes from saving part of a taxpayer's labor income, I already have accounted for that in my 27 percent payroll-tax-equivalence story.) So the 999 plan actually contains a significant tax on existing wealth — which may come as a big surprise to Cain and his followers. At the same time, of course, owners of preexisting wealth would enjoy the prospect of earning tax-free normal returns on their remaining capital from that point forward.

In fairness, the impact of this one-time tax on existing wealth, as the price of moving to a new consumption tax regime, can be interpreted in different ways. To an economist, the exemption of future returns from tax means only that the 9 percent sales tax would operate in fact as a one-time 9 percent haircut on existing wealth. The prospect of earning tax-free normal returns going forward is simply another way of saying that the present value of the consumption prospects afforded by that (reduced) wealth will thereafter remain constant, regardless of when the wealth is spent. By contrast, the 999 plan's burdens on newly created capital (from savings from future wages, for example) would consist only of the effective tax rate on labor income, rather than a double tax, first under the former income tax and then on the implementation of the plan's sales tax.

If, however, the comparison is to existing law, in which capital income held outside tax-favored accounts like IRAs is subject to annual tax, the tradeoff can be seen as working in favor of patient capital, even taking into account the previous income tax borne in accumulating that capital. Imagine, for example, that a taxpayer has $100 in preexisting after-tax wealth, normal returns are 5 percent, and the income tax rate is 40 percent. The 999 plan is introduced, current law's income tax is repealed, and the introduction of the sales tax operates as an effective immediate 9 percent tax on the taxpayer's wealth. The taxpayer now has available for consumption $91, which sum, if unspent,

compounds at 5 percent per annum. Had the 999 plan not been introduced, the taxpayer would have $100 in wealth, which if unspent would compound at 3 percent per annum. The two lines cross in a little less than seven years, after which time the taxpayer is better off under the 999 plan. Of course, if one takes into account the ability of taxpayers to defer taxation under current law by not recognizing gain currently, the 999 plan's implicit tradeoff between its one-time tax on preexisting wealth and its future tax exemption of normal returns becomes somewhat less favorable to current wealth holders.

Appendix

Sample Tax Rate Calculations

Common Facts. Married couple filing a joint return, one wage earner, two children eligible for the child credit, no other sources of gross income beyond wages, standard deduction, four personal exemptions, no other deductions or credits. Tax year is 2010. Assumptions and analysis as specified in section C.

Family AB — $120,000 Gross Income

Current Law

Employer share of payroll tax = $8,362 [$6,622 OASDI + $1,740 Medicare]

Employee share of payroll tax = $8,362

Pre-employer share of payroll tax wage pool = $128,362

Family AB gross income = $120,000

Family AB taxable income = $120,000 - [$11,400 + $14,600] = $94,000

Tentative federal income tax (from tables) = $15,869

Child credit = $2,000, subject to 5 percent reduction for adjusted gross income in excess of $110,000 (= $10,000 x 5 percent = $500) = $1,500 child credit

Total federal income tax = $14,369

Total federal payroll taxes (both employer and employee ''halves'') = $16,723

Grand total tax burden on employee (all payroll and individual income taxes) = $31,092

Total take-home pay of employee, beginning from $128,362 of wage pool:

$128,362 - $31,092 = $97,270 after-tax disposable income

999 Plan

Business flat tax = $128,362 x 9 percent = $11,553 (Business flat tax comes out of constant $128,362 wage pool and thus functionally reduces cash available to pay wages)

Wages received by employee = $128,362 - $11,553 = $116,809 [not $120,000]

Individual flat tax = $116,809 x 9 percent = $10,513

Amount available for consumption = $116,809 - $10,513 = $106,296

2010 present value of sales tax (regardless of when spent) on tax-inclusive basis = $106,296 x 9 percent = $9,567

$106,296 - $9567 = $96,729 after-tax disposable income

Effect of 999 Plan = $541 decrease in after-tax disposable income

Family CD — $50,000 Wage Income

Current Law

Employer share of payroll tax = $3,825

Employee share of payroll tax = $3,825

Pre-employer share of payroll tax wage pool = $53,825

Family AB gross income = $50,000

Family AB taxable income = $50,000 - [$11,400 + $14,600] = $24,000

Tentative federal income tax (from tables) = $2,766

Child credit = $2,000

Total federal income tax = $766

Total federal payroll taxes (both employer and employee ''halves'') = $7,650

Grand total tax burden on employee (all payroll and individual income taxes) = $8,416

Total take-home pay of employee, beginning from $53,825 of wage pool:

$53,825 - $8,416 = $45,409 after-tax disposable income

999 Plan

Business flat tax = $53,825 x 9 percent = $4,844 (Business flat tax comes out of constant $53,825 wage pool and thus functionally reduces cash available to pay wages)

Wages received by employee = $53,825 - $4,844 = $48,981 (not $50,000)

Individual flat tax = $48,981 x 9 percent = $4,408

Amount available for consumption = $48,981 - $4,408 = $44,573

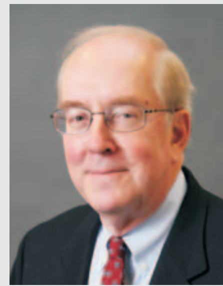
2010 present value of sales tax (regardless of when spent) on tax-inclusive basis = $44,573 x 9 percent = $4,012

$44,573 - $4,012 = $40,561 after-tax disposable income

Effect of 999 Plan = $4,848 decrease in after-tax disposable income

The Home Bathroom Deduction

By Erik M. Jensen


Erik M. Jensen

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Jensen criticizes the recent Tax Court decision in *Bulas*, which denied an accountant deductions associated with a bathroom used almost exclusively by clients visiting the accountant's home office. Employing no bathroom jokes — *Tax Notes* has standards — the author argues that the court interpreted the requirement in section 280A(c) that the bathroom be used ''exclusively'' for business purposes in a way that was (1) unrealistically narrow; (2) inconsistent with standards imposed on business-related deductions generally; and (3) inconsistent with the standards the judge applied to the taxpayer's home office across the hall, a former bedroom for which deductions were available.

On August 17 Tax Court Judge Harry A. Haines handed down his decision in *Bulas v. Commissioner*.[1] Because the case involved the question whether a bathroom was eligible for the home office deduction — answer: no, on the facts — *Bulas* became the subject of bathroom humor within a matter of days. *Tax Notes* is a serious publication, however, and this is a serious article. Let's get our minds out of the sewer and evaluate *Bulas* on the merits.

Bulas is a self-employed accountant, primarily a return preparer, who works out of a home office, a room that had been a bedroom. Section 280A(a) generally precludes deductions associated with ''the use of a dwelling unit which is used by the taxpayer during the taxable year as a residence.'' But section 280A(c)(1) provides an exception (the home office deduction) to that general rule:

> Subsection (a) shall not apply to any item to the extent such unit is allocable to a portion of the dwelling unit which is exclusively used on a regular basis —
>
> (A) As the principal place of business for any trade or business of the taxpayer, [or]
>
> (B) As a place of business which is used by patients, clients, or customers in meeting or

[1] T.C. Memo. 2011-201, *Doc 2011-17762*, *2011 TNT 160-9*.