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Colonial New Jersey's provincial fiscal structure, 1704–1775: spending obligations, revenue sources, and tax burdens during peace and war

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I reconstitute the spending obligations and revenue sources of colonial New Jersey's provincial government for the years 1704 through 1775 from primary sources using forensic accounting techniques. I identify and analyze the methods for raising revenue to meet normal peacetime and emergency wartime expenses. I calculate the provincial tax burdens imposed on New Jersey's citizens. I identify how Britain interfered with New Jersey's fiscal structure. I estimate what the revenues and tax burdens would have been without this interference. New Jersey paid for war expenses by issuing bills of credit, spreading the tax burden of redeeming these bills into the future. New Jersey paid its yearly administrative costs with current property taxes and with current interest earnings from loaning paper money. In the absence of British interference and wars, New Jersey could have driven tax burdens to zero by using interest earnings to pay for all its provincial administrative costs.

Keywords: bills of credit, interest income, land banks, paper money, property taxes

JEL classification: E42, E60, H20, H60, N11, N21, N41

New Jersey was an important colony situated in the middle of the North American British Empire. Its white population was 109,211 in 1770 (Carter *et al.* 2006, vol. 5, p. 652) – median size amongst these colonies. The British government expected its American colonies to fund their own administrative governments and their own participation in defending the empire. How each colony accomplished these feats was largely left up to them.

The public finances of individual British North American colonies have not been forensically reconstituted previously. In particular, the revenue sources marshaled to cover war and non-war expenses, and the ingenious methods colonial assemblies used

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to meet these expenses, have not been adequately documented. How colonial assemblies adapted over time to emergency war expenditures and British interference with their public finances, and how these adaptions affected tax burdens, has also not been adequately documented. What follows corrects this oversight for one colony, namely New Jersey.[1]

Section I presents the spending obligations of the provincial New Jersey government. Section II lays out how colonial budgets worked and presents the unique budgetary accounting categories and terminologies used. Section III documents the revenue sources tapped by New Jersey's provincial government. Section IV analyzes provincial taxes and shows how they differed from revenues. Section V shows how New Jersey balanced its budget in peace and in war. Section VI estimates New Jersey's provincial tax burdens per white capita. What these tax burdens would be in the absence of British interference with New Jersey's fiscal/monetary structure, and in the absence of wars, are also estimated. Section VII concludes. For the political history of New Jersey's provincial government, see Birkner, Linky and Mickulas (2014, pp. 48–99), Fisher (1911), Kemmerer (1940), Purvis (1986) and Tanner (1908).

I

Colonial New Jersey's legislature had two primary spending obligations (G_j). The first was to pay for the 'support of government', namely paying the salaries of provincial government officials and the other expenses incurred in running its administrative structure. The second was to pay for military expenses, i.e. soldiers' pay and military supplies, for the colony's participation in the wars of the British Empire.

Table 1 reports the yearly support-of-government expenses. These data are derived from a forensic accounting reconstruction of expenses listed in all surviving 'support of government' Acts passed by New Jersey's legislature. Support-of-government obligations were paid in other years, but Acts itemizing the obligations have not survived (Kemmerer 1940). Based on the evidence in Table 1, total non-war spending on the support of government from 1704 through 1775 was approximately 145,524.53$£_{NJ}$, or an average of 2,021.17$£_{NJ}$ per year. This estimate uses linear interpolated values between the nearest years with data.

The following adjustments were also incorporated into the above estimate: the governor's salary was not paid in 1744, 1745 and 1746, nor were these salary arrears ever paid. The governor's salary was also not paid in 1751; however, this arrear appears to have been paid soon thereafter and so no adjustment is made for this 1751 salary nonpayment

[1] The prior literature addresses the public finances of colonial New Jersey, but only in an unsystematic and less-than-thorough manner. For examples, see Brock (1975, pp. 84–95, 393–411); Ernst (1973, pp. 246–51, 260–4, 285–93, 316–18, 367); Fisher (1911, pp. 273–318); Kemmerer (1939, 1940, 1956); Purvis (1986, pp. 144–75); Tanner (1908, pp. 502–58); Wicker (1985). This literature too often confuses unvetted hearsay comments of contemporaries, proposed actions and errors in the prior secondary literature, for how public finances were actually executed.

Table 1. *Colonial New Jersey provincial 'support of government' itemized yearly expenses, 1709–75*

	1709	1710	1741–2	1743	1748–51	1752–9	1760–3	1764–5	1766–71	1772	1773	1774–5
Annual salaries	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$	$£_{NJ}$
Governor	685.76	685.76	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
governor's house rent			60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
Lt governor	171.44	171.44										
Chief justice	85.72	61.72	200.00	100.00	100.00[b]	0[d]	100.00	150.00	150.00	150.00		
Second justice		24.00	30.00	30.00	25.00	25.00	25.00	50.00	50.00	75.00	100.00	150.00
Third justice			30.00	30.00	25.00	25.00	25.00	50.00	50.00	50.00	100.00	150.00
Eastern treasurer	42.86	42.86	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Western treasurer			40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00
Attorney general			40.00	40.00	40.00[c]	30.00	30.00	30.00	30.00	30.00	30.00	40.00
First clerk	51.43	51.43	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Second clerk	34.88	34.88			20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Agent for the colony to the British court			80.00[a]	80.00	80.00	80.00	80.00	80.00	100.00	100.00	100.00	100.00
First doorkeeper	12.86	12.86	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Second doorkeeper	12.86	12.86										
Sergeant at arms	12.86	12.86										
Salary subtotal	1,110.67	1,110.67	1,560.00	1,460.00	1,470.00	1,360.00	1,460.00	1,760.00	1,780.00	1,805.00	1,730.00	1,840.00
Average incidental expenses	25.72	25.72	140.99	56.60	78.89	283.61	441.86	148.55	107.47	149.49	543.24	385.12
Estimated per diem expenses	330.72	330.72	727.46	727.46	727.46	727.46	727.46	727.46	727.46	727.46	727.46	727.46
Totals	1,467.11	1,467.11	2,428.45	2,244.06	2,276.35	2,371.07	2,629.32	2,636.01	2,614.93	2,681.95	3,000.07	2,952.58

Notes: $£_{NJ}$ = New Jersey bills of credit (New Jersey pounds). Post-1723, at face value, 1.3275$£_{NJ}$ = 1$£_S$ ($£_S$ = pounds sterling). Incidental expenses include items such as assembly printing costs. They exclude war costs. Estimated per diem payments are amounts paid to assemblymen for their attendance and to judges for every day the court sat. Because the incidents of these payments are unknown these values are estimated. For the 1741–75 estimate, see Grubb (2015). The 1709–10 estimate subtracts the salary and incidental expenses from the taxes authorized to pay these expenses and assumes the remainder was used to cover per diem expenses. The 1709–10 values are converted to post-1723 values; see Grubb (2015).

[a] No amount was paid in 1742. [b] Paid only 20.83$£_{NJ}$ in 1751. [c] Paid only 30.00$£_{NJ}$ in 1749. [d] Paid 150.00$£_{NJ}$ in 1757.

Sources: Bush (1977, pp. 45–9, 73–5, 541–5; 1980, pp. 65–70, 124–7, 168–72, 195–213, 234–51, 269–87, 327–44, 472–88, 581–97, 639–57; 1982, pp. 5–13, 107–11, 191–5, 273–6, 309–12, 427–31, 453–6, 505–8; 1986, pp. 25–8, 53–8, 115–21, 171–6, 301–6, 419–22); Grubb (2015).

(Kemmerer 1940, pp. 180, 185–6, 229–30). The assembly did not meet in 1712, 1715, 1717, 1720, 1724, 1726, 1729, 1731, 1732, 1734, 1735, 1736, 1737, 1739 and 1774 (McChesney 1851, pp. 20–3). In these years, most of the incidental and per diem obligations were not incurred. The courts met, thus some of the per diem obligations were incurred in these years. The incidental and per diem obligations were reduced by 75 percent (a best guess of the assembly's share) in the years the assembly did not meet from what their linear interpolated values would have been.

These adjustments are the fallout from New Jersey's political structure. New Jersey had a royal governor appointed by the British government, via the Board of Trade. This appointment typically involved patronage. The governor was to resist laws passed by the New Jersey assembly that the Board of Trade disliked. The assembly met at the call of the governor. He could prevent the passage of laws that were disliked by not calling the assembly into session and/or asking for a new election of assemblymen. However, the Acts needed to fund the government, including the governor's salary, had to be passed by that assembly.

As such, the governor was caught in the middle of a political power struggle between the Board of Trade and the assembly. The assembly would not vote the governor his salary unless he approved of their laws. Thus, in order not to jeopardize his salary, the governor would often assent to laws that the Board of Trade disliked and argue for their acceptance. To not jeopardize being dismissed by the Board of Trade for disobedience, the governor would sometimes not assent to laws passed by the assembly that the Board disliked, or not call the assembly into session. The years when the governor's salary was not paid, and the years when the assembly did not meet, identified above, are the fallout of this struggle.

The assembly's funding laws involving paper money were a persistent point of conflict with the Board, and hence the governor. The Board disliked paper money, and especially disliked using the interest earned from loaning out paper money as a resource to fund the support of government. They directed the governors to resist giving assent to such laws. Finally, the Board required the governors to insist on suspending clauses in such laws so that the Board could directly disallow them if they so desired. The primary avenue by which the Board interfered with New Jersey's public finances was in delaying the implementation of funding laws involving the loaning of paper money, and then, when the Board finally gained the power, directly disallowing such laws.[2]

Total non-war spending on the support of government from 1704 through 1775, based on how actual revenues were spent, was approximately 141,267.04$£_{NJ}$, or an average of 1,989.68$£_{NJ}$ per year (from Table 7 below). This estimate is biased low because of missing data on revenues from trade duties. The interpolation exercise using data from Table 1 most likely produces a biased high estimate. The two estimated amounts are relatively close. Given the opposing biases, this closeness gives

[2] See Birkner, Linky and Mickulas (2014, pp. 48–99); Brock (1975, pp. 393–411); Fisher (1911, pp. 274–304); Kemmerer (1939, pp. 872–3; 1940; 1956, pp. 119–26, 129–30, 140–3); Purvis (1986, pp. 50, 144, 154–75, 210–13); Tanner (1908, pp. 553–8).

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confidence that the true total spending on the support of government from 1704 through 1775 was between 141,300£$_{NJ}$ and 145,500£$_{NJ}$.

New Jersey participated in three major wars of the British Empire, namely Queen Anne's War (1702–13), the War of Jenkins' Ear and King George's War (1739–48), and the Seven Years / French and Indian War (1755–64). Britain expected New Jersey to participate in these wars and to pay for that participation. Participation entailed providing militia for expeditions against the enemy and providing war materials to support that militia as well as the regular British military. New Jersey spent 5,829£$_{NJ}$ on Queen Anne's War, 2,000£$_{NJ}$ in 1740 on the War of Jenkins' Ear, 17,850£$_{NJ}$ on King George's War and 312,500£$_{NJ}$ on the Seven Years War (from Table 7 below). Overall, New Jersey's provincial government spent 334,465£$_{NJ}$ on war between 1704 and 1775, or 2.3 times total non-war spending in this period.

War accounted for 70 percent, whereas support of government accounted for 30 percent, of total spending by New Jersey's provincial government between 1704 and 1775. War spending was highly concentrated compared with support-of-government spending. When war came, spending obligations rose 6 to 22 times that of normal peacetime spending. War required revenue sources that were beyond historically acceptable and feasible contemporaneous tax levels.

II

How New Jersey's provincial government covered these expenditures is rather complex. The budgetary accounting categories, terminologies and value instruments used do not map easily into modern or post-eighteenth-century practice (Rodriguez-Tejedo and Wallis 2012, pp. 15–19). Readers familiar with modern state budgetary practice must purge their minds of that knowledge and not carry that baggage into the analysis of colonial provincial budgeting. Table 2 and equations (1), (2) and (3) explicate the budget accounting categories, terminologies and value instruments used by colonial provincial governments, and how these budgets were ultimately balanced. I use this explication to clarify how the colonial world differed from modern practice so that my quantitative analysis that follows makes sense.

Colonial governments faced standard budget constraints. Current government spending (G_j) had to be less than or equal to the spendable resources currently in the colony's treasury. The current spendable resources in the treasury included annually collected revenue taxes (T_{Rj}), annually collected interest income from loans made to its citizens (E_j) and periodic cash transfers (C_j) from the British Crown. C_j was a rare occurrence and only given as partial compensation for past spending on wars. In practice, G_j was typically equal to these spendable resources as these resources did not accumulate in the treasury. Thus, no separate spendable 'savings' category is listed in the budgetary accounting categories in Table 2.

When G_j was larger than ($T_{Rj} + E_j + C_j$), say due to new sudden expenses caused by the outbreak of war, colonial governments had to balance their current budgets by adjusting their borrowing and asset positions. For the most part, colonial governments

Table 2. *Budgetary categories and accounting conventions for colonial New Jersey's provincial government*

I. Current-year budgetary categories

Expenditures (G_j) =	Spendable resources in the colony's treasury		Taxes (T_j) ($T_j = T_{Rj} + T_{Bj}$)	Debt liabilities $\neq G_j$
1. On support-of-government	1. *Revenue* taxes (T_{Rj})	=	1. *Revenue* taxes (T_{Rj})	1. Interest liability on M_P debt = 0
2. On war	2. Bills of credit (M_{Pj}) directly spent out of the treasury	$\leq$ $\geq$	2. *Bill (M_P) redemption* $\approx$ (T_{Bj}) taxes	2. Legislated proportion of prior bills of credit directly spent out of the treasury (extinguishing M_P debt principal)
	3. Interest income (E_j) on prior bills of credit loaned out (M_L)			
	4. Cash transfers from the British Crown (C_j) to cover some war costs			

II. Multi-year budgetary compositions and budget balancing

While ($G_j = T_{Rj} + M_{Pj} + E_j + C_j$) can be either $\geq$ or $\leq$ ($T_j = T_{Rj} + T_{Bj}$), over time, budgets must balance such that:

$$\sum_{t=0}^{N} [(T_{Rt} + T_{Bt} + E_t + C_t) - G_t] = \sum_{t=0}^{N} M_{Pt}$$

In practice, the legislature typically set: $\sum_{t=0}^{N} (T_{Bt} + C_t) = \sum_{t=0}^{N} M_{Pt}$

Therefore, the multi-year budget constraint is typically balanced as:

$$\sum_{t=0}^{N} (T_{Rt} + E_t + T_{Bt} + C_t) = \sum_{t=0}^{N} G_t$$

Typically, the G_j that is spent on the support-of-government = $T_{Rj} + E_j$; and the G_j that is spent on war = M_{pj}.
C_j is a rare occurrence and is typically used to substitute for T_{Bj} in the redemption of M_{Pj}.
This also implies that the face-value quantity of bills of credit (paper money) in circulation in year 'j' (M_j) equals:

$$M_j = \sum_{t=0}^{j} [(M_{Lt} - L_t) + (M_{Pt} - T_{Bt} - C_t)]$$

Notes: L_t = loan principal (M_L) repaid (retired from circulation) each year.

did not have assets that they could sell, such as stocks of gold and land. External markets where colonial governments could borrow were not adequately developed or accessible. Thus, when war demanded more expenditures than the spendable resources in the treasury, colonial governments had to move tax receipts through time to balance current budgets.

The New Jersey legislature did this by creating paper *bills of credit* (M_P), also called paper money; see equation (1). When war spending in year 'j' threw the budget into deficit, M_{Pj} was issued to make up for deficient ($T_{Rj} + E_j$). M_{Pj} was the flexible item in the current-year spendable resource budgetary category. It was used to forcibly balance current-year budgets. Paper money creation was a credit–debt mechanism that matched budget deficits with budget surpluses over a multi-year horizon. The balanced budget requirement was cut loose from a strict time unit as laid out in equation (1). It still had to be balanced, but now it was balanced over a multi-year horizon.

$$0 < \left(G_j - T_{Rj} - E_j - C_j\right) = M_{Pj} = \sum_{t=j+1}^{N} \left(\left(T_{Rt} + T_{Bt} = T_t\right) + E_t + C_j - G_t\right) > 0 \tag{1}$$

M_P = face value of new emissions of bills of credit (paper money) spent directly out of the treasury
T_R = spendable tax receipts
T_B = tax receipts paid in M_P or its specie equivalent at face value explicitly to extinguish M_p
T = total taxes = $T_R + T_B$
E = interest income earned by the government each year on outstanding loans made by the government
C = cash transfers from the British Crown
G = government expenditures

Bills of credit functioned like zero-coupon bonds. They also served as a legal-tender paper money in the local economy (Grubb 2014, 2015). As such, government *bills, bonds* and *paper money* are terminologically interchangeable in the colonial world. They, however, differ in practice terminologically from modern usage. For example, colonial paper money is not what we typically use as paper money today. It is not a fiat currency, nor is it paper banknotes exchangeable on demand for specie or *real* money. A bill of credit is exactly what is says. It is a specific credit to some future value claim, and so it is an asset, and an asset that is easily used as a barter medium of exchange in the local economy, and so it also functions as a type of local paper money. New Jersey's paper money Acts included explicitly legislated maturity structures where the government would redeem and extinguish this credit at designated future dates (Grubb 2015).

Bills of credit typically paid no interest and were tradable in the marketplace. As such, given that they also had a maturity payoff structure, they can be characterized as zero-coupon bearer bonds. Bills of credit as zero-coupon bonds functioned differently in a budgetary accounting sense than government bonds in the modern era. In the modern era, state governments printed bonds (which typically paid interest) and sold them for real money and then spent the real money. They retired the bonds by taxing in real money and then used that money to buy back the bonds. They also taxed in real money to pay the annual interest on their bonds. Thus, the convention in modern public finance accounting is not to count borrowed funds as revenue, but instead as just debt, because principal repayments are counted as expenditure.

An opposite accounting convention is used in the colonial world. M_P is a direct contemporaneous expenditure out of the treasury, whereas the future redemption (principal repayment) of M_P involves no direct expenditure and so is not counted as such. Bills of credit (bonds) were not sold for real money. Colonial governments printed bills (bonds), placed them in the treasury, and then directly spent them out of the treasury as though they were real money. These bills (bonds) were used to directly pay soldiers' salaries and for war supplies. The closest analogy in the modern world would be *if* the US government was allowed to use US savings bonds to directly pay government salaries, and government employees were legally allowed to trade their savings bonds in the marketplace as a barter asset for goods and services, and people could use them to pay their future tax obligations – thus causing savings bonds to function like a local paper money. While bills of credit were commonly used pre-1787, the US Constitution made state and federal use of bills of credit unconstitutional thereafter (Grubb 2006).

The zero-coupon bond structure of the bills meant that budget surpluses in future years had to be legislatively designed to retire M_P from circulation – see equation (1) and Table 2. New Jersey typically included new provincial taxes (T_B) in paper money Acts that could be paid in these bills, or their specie equivalence, at face value. New Jersey printed this specie equivalence for tax purposes on the face of each bill (Newman 2008, pp. 249–59). The new taxes (T_B) were typically designed to redeem all the bills emitted from that Act at their designated future redemption dates. Bills so redeemed were destroyed. To maintain fiscal credibility and feasible annual tax levels, these new taxes (T_B) were spread over many years into the future. While the spendable resources in Table 2 and equation (1) are fungible so that T_R and E could be used to retire M_p, in practice the legislature designed T_B, and used any expected C, to retire M_P. The forensic accounting exercise that follows takes into account and identifies the rare cases when spendable resources were used in a fungible fashion to cover M_P retirement obligations.

Initially, spending obligations for the support of government were met each year exclusively out of current revenue taxes (T_R). New Jersey's legislature, however, discovered another way to meet these support-of-government spending obligations. New Jersey citizens demanded New Jersey government bills of credit (M) as a preferred local medium of exchange. When war expenses were insufficient to support the legislature directly spending bills into circulation, the excess public demand for bills meant the legislature could loan them at interest to their citizens. This was done through a land-bank mechanism. The legislature had bills printed (M_L) and placed in the colony's treasury. Citizens could borrow them by pledging their lands as collateral. The annual interest rate borrowers were charged on these loans was a percentage point or two below the market rate. This incentivized citizens to borrow the bills and put them into circulation. Land-bank emissions were always fully loaned out (Grubb 2015; Kemmerer 1939).

Land-bank loans generated annual interest income (E_t) that the provincial government could use as a spendable resource; see equations (1) and (2), and Table 2. Citizens paid their yearly interest either in bills or the bills' face-value specie equivalent. By spending E_t as revenue, the government kept the bills in circulation. This interest income could be used to reduce tax revenues, i.e. by substituting E_t for T_{Rt} in equation (1).[3] Loan principals were paid to the treasury on a legislatively fixed schedule, thus removing the bills from circulation; see equation (3). Bills received as principal repayment were reloaned when legislatively allowed or destroyed when not allowed to be reloaned (Grubb 2015). They could not be used by the government as a direct spending resource like M_P.

$$E_t = i * \left[M_{Lj} - \sum_{t=j+1}^{N} L_t \right] \tag{2}$$

$$M_{Lj} = \sum_{t=j+1}^{N} L_t \tag{3}$$

L = loan principal (M_L) repaid (retired from circulation) each year
E = interest earned by the government each year on loans of M_L
i = yearly interest charged on loans of M_L
M_L = bills of credit loaned to citizens

The two uses of legislatively created bills of credit, namely as direct spending and as loanable funds, and the two uses of property taxes, namely as direct spending and as a bill redemption mechanism, require segregation in the budgetary accounting process. Bills of credit directly spent by the legislature (M_P) and bills of credit loaned out to subject (M_L) were indistinguishable in circulation, fungible in use and fungible in redemption. The budgetary accounting process, however, treats them as separate categories in terms of where and when to account for their respective designated total values.

M_P is a directly spendable resource currently in the treasury, whereas M_L is not. The paper money Acts that created land-bank loans designated an amount of bills for that purpose only. The legislature could not directly spend that designated amount on current expenses. They could only directly spend the interest earned (E) on past loans of M_L. Thus, the amount of bills created as M_P shows up as a current-year spendable resource, whereas the amount of bills created as M_L does not show up in the current-year budgetary categories; see Table 2. In addition, when M_P is redeemed by the government at its legislatively designated future dates, via future taxes (T_B), it is destroyed. As such, M_P and T_B have to balance over time. The spending and the taxing to pay for it occur at different times in the budget accounting process.

[3] See Brock (1975, p. 95); Kemmerer (1940, pp. 126, 131, 145, 214, 237); Purvis (1986, pp. 152, 167–8); Tanner (1908, p. 557).

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The amount of bills designated for M_L does not show up in the budgetary process, except indirectly as interest income. When bills are paid back to the government as principal repayments on the loans of M_L, the government cannot turn around and spend those bills. They are not a spendable resource or a sellable asset. The government can only either reloan them if legislatively allowed or destroy them if the bills so received are not allowed to be reloaned.

Segregated budgetary categories are also required when accounting for property taxes. Property taxes created as *revenue* taxes (T_R) that the government could turn around and directly spend to cover current expenditure obligations were structurally the same as the property taxes created as *bills redemption* taxes (T_B) that could not be so used by the government, and so cannot be counted as expenditures. While the property taxes flowing into the treasury look the same, the amounts are segregated into separate accounting categories. *Revenue* tax amounts (T_R) are current tax burdens and current spending resources. The tax burden and the spending obligations are contemporaneous. *Bill redemption* tax amounts (T_B), however, are a current tax burden, but represent 'credit' spending that is counted in a prior period. The timing of spending and the imposition of the tax burden to pay for it are not contemporaneous.

In summary, New Jersey's provincial government met its war-spending obligations mostly by printing and directly spending bills of credit as paper money (M_P). These bills were redeemed by specifically designated future taxes (T_B) over a lengthy span of years. The government met its normal yearly support-of-government spending obligations mostly with current revenue taxes (T_R) and interest income earnings (E) from loans of paper money (M_L).

Fiscal policy and monetary policy were intertwined in that monetary policy was part of fiscal policy. The legislature issued some bills of credit (M_P) to directly pay for expenditures. Thus, in the budgetary accounting process, bills of credit must be segregated into spent bills (M_P) and loaned bills (M_L), and property taxes must be segregated into *revenue* taxes (T_R) and *bill redemption* taxes (T_B), in order to track the timing of tax burdens relative to resource spending. British interference with New Jersey's provincial fiscal structure was largely through delaying or disallowing land-bank paper-money Acts, thus altering the province's flow of E_t revenue.

III

Table 3 shows New Jersey's provincial government yearly spendable resources by source category. The amounts are adjusted for tax arrears and when those arrears were paid (Grubb 2015). There are five revenue sources: newly printed non-land-bank bills of credit (M_P), revenue property taxes (T_R), interest income earned on loans of paper money (E), duties on imports and exports (additional T_R), and cash transfers from the Crown (C). The Crown transfers only came near the end of the Seven Years War.

Bills of credit loaned out through the land-bank mechanism are not counted as revenue as the legislature could not directly spend those bills. Land-bank emissions were 36,000£$_{NJ}$ in 1724, 20,000£$_{NJ}$ in 1733 and 40,000£$_{NJ}$ in 1737. The legislature

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Table 3. *New Jersey provincial government spendable resources, 1704–75*

Year	Newly spendable bills of credit[a] (M_P) £NJ	Interest income (E) £NJ	Property tax collection[e] (T_R) £NJ	Estimated duty on imported slaves[d] (T_R) £NJ	Crown cash transfers (C) £NJ	Total yearly resources in hand £NJ	Counterfactuals[c]: Interest income £NJ	Counterfactuals[c]: Property tax collection £NJ	Counterfactuals[c]: Total yearly resources in hand £NJ
1704		0	0	0		0	0	0	0
1705		0	1,714.40	0		1,714.40	0	1,714.40	1,714.40
1706		0	1,714.40	0		1,714.40	0	1,714.40	1,714.40
1707		0	0	0		0	0	0	0
1708		0	0	0		0	0	0	0
1709	2,542.52	0	1,476.54	0		4,019.06	0	1,476.54	4,019.06
1710		0	0	0		0	0	0	0
1711	4,286.00	0	1,295.83	0		5,581.83	0	1,295.83	5,581.83
1712		0	1,525.31	0		1,525.31	0	1,525.31	1,525.31
1713		0	35.72	0		35.72	0	35.72	35.72
1714		0	1,765.72	0		1,765.72	0	1,765.72	1,765.72
1715		0	855.72	0		855.72	0	855.72	855.72
1716		0	35.72	0		35.72	0	35.72	35.72
1717	2,464.38	0	0	1,050		3,514.38	0	0	3,514.38
1718		0	0	1,050		1,050.00	0	0	1,050.00
1719		0	1,650.00	1,050		2,700.00	0	1,650.00	2,700.00
1720		0	836.00	1,050		1,886.00	0	836.00	1,886.00
1721		0	300.00	620		920.00	0	300.00	920.00
1722		0	1,392.08	620		2,012.08	0	1,392.08	2,012.08

Continued

Table 3. *Continued*

Year	Newly spendable bills of credit[a] (M_P) £NJ	Interest income (E) £NJ	Property tax collection[e] (T_R) £NJ	Estimated duty on imported slaves[d] (T_R) £NJ	Crown cash transfers (C) £NJ	Total yearly resources in hand £NJ	Counterfactuals[c]: Interest income £NJ	Counterfactuals[c]: Property tax collection £NJ	Counterfactuals[c]: Total yearly resources in hand £NJ
1723		0	1,042.50	620		1,662.50	0	1,042.50	1,662.50
1724	3,886.80	0	695.00	0		4,581.80	0	695.00	4,581.80
1725		1,319.77	695.00	0		2,014.77	1,319.77	695.00	2,014.77
1726		1,166.77	1,089.35	0		2,256.12	1,166.77	1,089.35	2,256.12
1727		1,013.77	970.00	0		1,983.77	1,013.77	970.00	1,983.77
1728		1,100.27	970.00	0		2,070.27	1,100.27	970.00	2,070.27
1729		947.27	1,000.00	0		1,947.27	947.27	1,000.00	1,947.27
1730		794.27	968.85	0		1,763.12	794.27	968.85	1,763.12
1731		641.27	993.85	0		1,635.12	641.27	993.85	1,635.12
1732		488.27	993.85	0		1,482.12	1,427.43	0	1,427.43
1733		314.64	1,000.00	0		1,314.64	1,253.80	0	1,253.80
1734		1,100.80	1,000.00	0		2,100.80	1,100.80	0	1,100.80
1735		947.80	1,000.00	0		1,947.80	2,708.30	0	2,708.30
1736		812.80	0	0		812.80	2,573.30	0	2,573.30
1737		830.07	0	0		830.07	2,590.57	0	2,590.57
1738		2,590.57	0	0		2,590.57	2,590.57	0	2,590.57
1739		2,606.37	0	0		2,606.37	2,606.37	0	2,606.37
1740	2,000.00	2,606.37	0	0		4,606.37	2,606.37	0	4,606.37
1741		2,611.20	0	0		2,611.20	2,486.20	0	2,486.20
1742		2,611.20	0	0		2,611.20	2,361.20	0	2,361.20
1743		2,486.42	0	0		2,486.42	2,236.20	0	2,236.20

1744		2,361.20	0	0		2,361.20	1,861.20	0	1,861.20
1745		2,236.20	0	0		2,236.20	1,486.20	0	1,486.20
1746	16,850.00	2,111.20	0	0		18,961.20	1,111.20	0	17,961.20
1747	1,000.00	1,736.20	0	0		2,736.20	736.20	0	1,736.20
1748		1,361.20	0	0		1,361.20	510.39	0	510.39
1749		986.20	0	0		986.20	1,863.89	0	1,863.89
1750		760.39	0	0		760.39	1,761.89	0	1,761.89
1751		510.39	0	0		510.39	1,751.39	0	1,751.39
1752		260.39	7,994.00	0		8,254.39	1,751.39	4,942.97	6,694.36
1753		8.70	2,800.71	0		2,809.41	1,749.70	1,059.71	2,809.41
1754		0	2,197.70	0		2,197.70	1,751.50	446.20	2,197.70
1755	30,000.00	0	3,000.00	0		33,000.00	1,751.50	1,248.50	33,000.00
1756	27,500.00	0	3,000.00	0		30,500.00	1,751.50	1,248.50	30,500.00
1757	45,000.00	0	3,000.00	0		48,000.00	1,751.50	1,248.50	48,000.00
1758	60,000.00	0	3,000.00	0		63,000.00	1,501.50	739.50	62,241.00
1759	50,000.00	0	3,000.00	0		53,000.00	1,251.50	0	51,251.50
1760	45,000.00	0	0	0	63,046[b]	108,046.00	1,001.50	0	109,047.50
1761	25,000.00	0	0	0		25,000.00	751.50	0	25,751.50
1762	30,000.00	0	0	0		30,000.00	501.50	0	30,501.50
1763	10,000.00	0	0	416		10,416.00	251.50	0	10,667.50
1764	25,000.00	0	0	416		25,416.00	1.50	0	25,417.50
1765		0	0	416		416.00	0	0	416.00
1766		0	0	416		416.00	0	0	416.00
1767		0	0	1,040		1,040.00	0	0	1,040.00
1768		0	0	1,040		1,040.00	0	0	1,040.00
1769		0	0	1,040		1,040.00	0	0	1,040.00
1770		0	0	1,560		1,560.00	0	0	1,560.00
1771		0	0	2,070		2,070.00	4,360.50	0	6,430.50
1772		0	0	2,070		2,070.00	4,560.50	0	6,630.50
1773		151.76	3,569.96	2,070		5,791.72	4,712.26	0	6,782.26

Continued

Table 3. *Continued*

Year	Newly spendable bills of credit[a]	Interest income	Property tax collection[e]	Estimated duty on imported slaves[d]	Crown cash transfers	Total yearly resources in hand	Counterfactuals[c] Interest income	Counterfactuals[c] Property tax collection	Counterfactuals[c] Total yearly resources in hand
	(M_P)	(E)	(T_R)	(T_R)	(C)				
	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ
1774		0	3,500.00	2,070		5,570.00	4,560.50	0	6,630.50
1775		0	3,500.00	2,070		5,570.00	4,560.50	0	6,630.50
1704–75 Totals	380,529.70	39,473.73	65,578.21	22,754	63,046	571,381.64	83,128.71	33,955.87	583,414.28

[a] Bills are counted when they were available in the treasury to spend. Bills loaned to citizens are not counted.

[b] 51,321£S was received in installments from 1760 through 1765. Fees and exchange costs reduced the spendable portion to 63,046£NJ (Bush 1982, pp. 10–13, 315–16). See Table 6 note c.

[c] The counterfactual tax collection takes the difference between the counterfactual interest income and the actual interest income and reduces the property revenue tax collection by that amount for that year. Any positive counterfactual interest income remaining is applied to prior or successive years. The excess counterfactual interest income during 1771–5, after reducing the property tax collection to zero, is assumed to be applied to reducing tax collection after 1775.

[d] The estimate takes the black population for New Jersey from Carter *et al.* (2006, vol. 5, p. 653) as New Jersey's slave population. For the years 1716 through 1723, the rate of natural increase of New Jersey's black population is assumed to be zero, thus all the growth in the black population was through slave imports. For the years 1763 through 1775, the rate of natural increase is assumed to be 1 percent, with the residual growth in the black population being slave imports. The rate of natural increase is lower than the average reported for North America in Fogel (1989, p. 124) because of less frequent slave family groupings in New Jersey, see Carter *et al.* (2006, vol. 5, p. 662). The duty per slave was multiplied by these estimated numbers of slave imports for each year that the duty was operative.

[e] Includes only property and excise tax revenues not designated for bill redemption.

Sources: Tables 2 and 4; Bush (1977, 1980, 1982, 1986); Greene (1980, p. 98); Grubb (2015).

earned interest income on loaning these bills, but they could not spend the principal because it was loaned out. All land-bank loans paid 5 percent interest annually on the outstanding principal. The rest of the new emissions of bills were a resource that the legislature could directly spend (Grubb 2015).

The tax revenues in Table 3 count only taxes that yield monies the legislature could spend. Taxes collected to redeem and retire non-land-bank bills of credit (M_P) are not counted as a spendable resource. The legislature could not turn around and spend those proceeds. Bill-redemption taxes are, in effect, counted as a spendable resource in the newly spendable bills-of-credit (M_P) column.

The data in Table 3 come from a forensic reconstitution of accounts using primary sources. Grubb (2015) lays out the data reconstruction exercise used to identify the newly spendable bills that could be used like current revenues by the legislature. Table 4 shows how the data on interest income (E) and counterfactual interest income were reconstituted from primary sources. Subtracting the interest income designated to pay for loan administration and interest payment arrears yields the net interest income available to the legislature for paying current government expenses.

British interference with New Jersey's fiscal structure came in the form of delaying the implementation of the second and third land-bank emissions, from 1730 to 1733 and from 1733 to 1737, respectively. British interference then took the form of disallowing the implementation of new land-bank Acts passed in 1748 and 1769 (the fourth and fifth land-bank emissions). The counterfactual calculation assumes these Acts went into effect when passed, rather than when delayed by British oversight or cancelled by Crown disallowance. The exception is the land-bank Act of 1774. This Act was a resubmission of the disallowed Act of 1769. The 1774 Act was also disallowed. If the 1769 Act had not been disallowed, then the 1774 Act would not have been resubmitted (Grubb 2015).

The property and head tax Acts to retire bills of credit spent by the legislature (T_B) and to pay support-of-government expenses (T_R) had the same structure. These Acts began with a statement of the amount to be raised each year covered by the Act. The Acts listed the items to be taxed and their tax amounts per unit measured (the rateables). Taxed items typically included land; servants and slaves; cattle, horses and sheep; coaches and wheel chaises; merchant, shopkeeper, ferry, boat-haulage, mill, furnace and forge, distiller and public-house (tavern) businesses; single men who worked for hire; the non-propertied poor; and nonresident peddlers. These Acts placed taxes on most real and personal property, along with a head tax.[4]

[4] See Bush (1977, pp. 11–15, 45–9, 63–6, 73–5, 89–96, 103–13, 117–25, 213–43, 277–84, 301–19, 340–50, 403–7, 453–7, 498–502, 541–5, 581–5; 1980, pp. 65–70, 124–7, 168–72, 195–213, 219–33, 234–51, 269–87, 307–19, 327–44, 345–55, 373–82, 393–409, 413–25, 455–71, 472–88, 495–502, 517–29, 539–55, 563–78, 581–97, 621–57, 663–79; 1982, pp. 5–13, 73–89, 107–11, 125–40, 191–5, 207–21, 273–6, 289–306, 309–12, 385–8, 427–31, 453–6, 505–8; 1986, pp. 25–8, 53–8, 115–19, 171–6, 301–6, 328–31, 379–81, 385–8, 419–22); Grubb (2015).

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Table 4. *Interest income (spendable resource) from land-bank loans of paper money, 1704–75*

Year	(A) Interest income from land-bank loans as executed	(B) Minus pay to loan office commissioners as executed	(C) Minus interest payment arrears	(D) Available for the general support of government	Counterfactual outcomes: without British government interference		
					(A)	(B + C)	(D)
	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ
1704–24	0	0	0	0	0	0	0
1725	1,800	479.00	1.23	1,319.77	1,800	480.23	1,319.77
1726	1,647	479.00	1.23	1,166.77	1,647	480.23	1,166.77
1727	1,494	479.00	1.23	1,013.77	1,494	480.23	1,013.77
1728	1,341	239.50	1.23	1,100.27	1,341	240.73	1,100.27
1729	1,188	239.50	1.23	947.27	1,188	240.73	947.27
1730	1,035	239.50	1.23	794.27	1,035	240.73	794.27
1731	882	239.50	1.23	641.27	882	240.73	641.27
1732	729	239.50	1.23	488.27	1,729	301.57	1,427.43
1733	576	239.50	21.86	314.64	1,576	322.20	1,253.80
1734	1,423	300.34	21.86	1,100.80	1,423	322.20	1,100.80
1735	1,270	300.34	21.86	947.80	3,270	561.70	2,708.30
1736	1,135	300.34	21.86	812.80	3,135	561.70	2,573.30
1737	1,000	149.19	20.74	830.07	3,000	409.43	2,590.57
1738	3,000	388.69	20.74	2,590.57	3,000	409.43	2,590.57
1739	3,000	388.69	4.94	2,606.37	3,000	393.63	2,606.37
1740	3,000	388.69	4.94	2,606.37	3,000	393.63	2,606.37
1741	3,000	388.69	0.11	2,611.20	2,875	388.80	2,486.20
1742	3,000	388.69	0.11	2,611.20	2,750	388.80	2,361.20
1743	2,875	388.69	0.11	2,486.42	2,625	388.80	2,236.20
1744	2,750	388.69	0.11	2,361.20	2,250	388.80	1,861.20

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1745	2,625	388.69	0.11	2,236.20	1,875	388.80	1,486.20
1746	2,500	388.69	0.11	2,111.20	1,500	388.80	1,111.20
1747	2,125	388.69	0.11	1,736.20	1,125	388.80	736.20
1748	1,750	388.69	0.11	1,361.20	750	239.61	510.39
1749	1,375	388.69	0.11	986.20	2,500	636.11	1,863.89
1750	1,000	239.50	0.11	760.39	2,250	488.11	1,761.89
1751	750	239.50	0.11	510.39	2,000	248.61	1,751.39
1752	500	239.50	0.11	260.39	2,000	248.61	1,751.39
1753	250	239.50	1.80	8.70	2,000	250.30	1,749.70
1754					2,000	248.50	1,751.50
1755					2,000	248.50	1,751.50
1756					2,000	248.50	1,751.50
1757					2,000	248.50	1,751.50
1758					1,750	248.50	1,501.50
1759					1,500	248.50	1,251.50
1760					1,250	248.50	1,001.50
1761					1,000	248.50	751.50
1762					750	248.50	501.50
1763					500	248.50	251.50
1764					250	248.50	1.50
1765							
1766							
1767							
1768							
1769							
1770							
1771					5,000	639.50	4,360.50
1772					5,000	439.50	4,560.50

Continued

Table 4. *Continued*

Year	(A) Interest income from land-bank loans as executed	(B) Minus pay to loan office commissioners as executed	(C) Minus interest payment arrears	(D) Available for the general support of government	Counterfactual outcomes: without British government interference		
					(A)	(B + C)	(D)
	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ	£NJ
1773			+151.76[a]	151.76[a]	5,000	287.74	4,712.26
1774					5,000	439.50	4,560.50
1775					5,000	439.50	4,560.50
Totals	49,020	9,546.49	0	39,473.51	99,020	15,891.29	83,128.71

[a] Year when the interest arrears were paid.

Sources: Bush (1977, 1980, 1982, 1986); Grubb (2015).

The Acts apportioned total taxes among the counties. Assessors and collectors for townships, districts and counties were appointed. Every citizen was required to give a list of their estates rateable by the Acts to their local assessor, typically by early May. The county assessors met, typically between mid August and early October, to compute the tax on each rateable item to raise the sum assigned to their county. Citizens had to pay their assessed tax to their local collectors, typically by mid October. The collectors had to deliver their taxes to the county collector who then had to deliver the county's taxes to the colony's treasury, typically between late November and early January. These Acts also listed the penalties for non-performance of each stage.

Additional taxes were periodically imposed to raise spendable resources at the provincial level. I can estimate a few, but not all, of these taxes. A five-year excise tax on liquor from 1718 through 1722 was farmed out for 350£$_{NJ}$ per year (Bush 1977, pp. 193–5; Grubb 2015). These sums are included in the Property Tax Collection (T_R) column in Table 3. The other taxes are reported in Table 5. Most of these taxes are trivial, given the small tax rate, the list of exceptions to their application, the short number of years covered and the lack of evidence in the treasury reports on their collection.[5] These taxes were primarily on goods exported to, or imported from, neighboring colonies. Given that New Jersey had long uncontrolled borders with Pennsylvania and New York, and given that it was hard to tell whether the types of goods taxed actually originated in New Jersey as opposed to in Pennsylvania or in New York, wholesale tax evasion seems likely (Levitt 1981, pp. 18–20, 34–51).

The exception is the import tax on slaves. Its revenue is estimated in Tables 2 and 4. The non-slave taxes in Table 5 are ignored. The surviving treasury reports do not itemize revenues by the item taxed. They only itemize revenues by county, with rare exceptions noting revenues received for a specific activity (*Documents Relating to the Colonial History of the State of New Jersey*, vol. 14, pp. 120, 380, 440–1; vol. 18, pp. 61, 494–7).

The counterfactual revenues in Table 3 are from the counterfactual interest income in Table 4. Holding total revenue constant, this counterfactual entails adjusting revenues extracted from other sources. The assumption here is that property taxes collected for the support of government (T_R) would be reduced by the counterfactual interest income (E) received.

Figure 1 illustrates the tradeoff between property tax (T_R) and interest income (E) revenues. With the first land bank in 1724, the legislature initially thought they had to use the interest to retire the paper money. They soon learned that repayment of the principal was enough to retire all the bills loaned, and so the interest could be spent on other obligations. By the late 1730s this realization allowed a full substitution of

[5] See *Documents Relating to the Colonial History of the State of New Jersey* (vol. 14, pp. 51–3, 119–27, 303–7, 375–81, 439–49, 491–7; vol. 15, pp. 68–78, 122–3, 173–82, 258–63, 305–7, 361–7, 621–6; vol. 16, pp. 35–6, 420–6, 469–73; vol. 17, pp. 257–65, 398–403; vol. 18, pp. 57–62, 77–82, 207–9, 222–5, 319–21, 409–11, 493–9, 553–7).

Table 5. *Specialty New Jersey provincial taxes used as revenue for the support of government*

Tax	Time coverage	Tax rate	Exceptions	Estimate revenue
Duty on imported slaves	1716–23	10£NJ per slave	slaves accompanying new immigrant settlers are exempt in all years 1716–75	6,060£NJ
	1763–6	2£NJ per slave for Eastern Counties; 6£NJ per slave for Western Counties		1,664£NJ
	1767–9	10£NJ per slave		3,120£NJ
	1770–5	15£NJ per slave		11,910£NJ
Tax on wheat exports	1714–17	0.05£NJ per bushel	only on exports to other North American colonies	??
	1726–35	0.05£NJ per bushel		??
Tax on timber or staves exports	1714–25	1.5–1£NJ per 1,000 staves	only for export from eastern counties to other North American colonies; western counties included after 1744	??
	1726–35	2–1£NJ per 1,000 staves		??
	1744–8			??
	1751-????			??
Duty on imported convicts	1732	Disallowed by the Crown in 1732		??
Tax on copper ore exports	1734–8	2£NJ per ton of ore	only on exports to other North American colonies	??
Duty on liquor & rum imports	1744–8		only on drink not directly imported from the British West Indies	??
	1751-?			
Subsidy on flax, hemp and mulberry production	1766–72	money spent on subsidies		??

Notes: The revenues from the tax on peddlers and on dogs, while province-wide, were used at the county level, and were not available to the provincial legislature to spend.
Sources: Table 3; Bush (1977, pp. 130–1, 131–3, 163–4, 207, 331–2, 423–7, 453–7, 524–6, 575–8, 579–8; 1980, pp. 75–6; 1982, pp. 171–5, 323–6, 336–8, 435–6, 479, 510–2; 1986, pp. 38–41).

interest income for revenue property taxes (Brock 1975, p. 95; Bush 1977, pp. 341–20, 379–81, 498–502, 541–5, 581–5; 1980, pp. 65–70, 124–7; 1986, pp. 419–22; Kemmerer 1940, pp. 126, 131, 145, 214, 237; Purvis 1986, pp. 152, 167–8; Tanner 1908, p. 557).

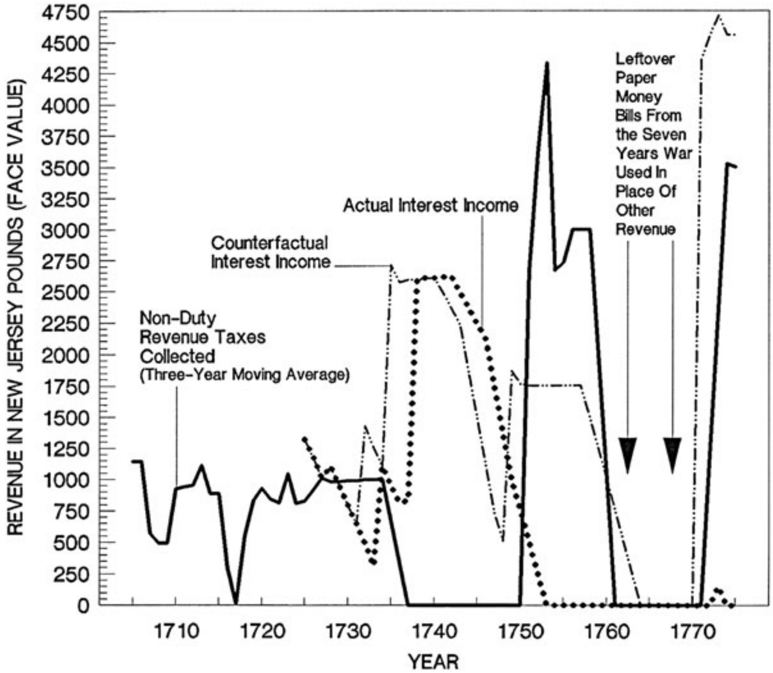

Figure 1. *New Jersey Provincial revenue sources: tradeoffs between property tax revenues and interest income, 1704–75*
Sources: Table 3; Grubb (2015).

As the interest income from the third land bank waned by 1750, New Jersey enacted a fourth land bank in 1748. The Crown disallowed it in 1749. Thus, after 1749, New Jersey had to revert to revenue property taxes to cover support-of-government expenses. In the half-decade after the Seven Years War, New Jersey used leftover bills (M_P) printed in the last two years of that war, bills that with the end of the war were not needed to cover further military expenses, to pay for the support of government. When that spendable resource was exhausted in 1771, the legislature wanted to use interest income from a new land bank to cover support-of-government expenses. This Act, passed at the end of 1769, was disallowed by the Crown (Grubb 2015). Thus, after 1771, New Jersey had to shift once again to revenue property taxes to cover support-of-government expenses.

IV

Total provincial taxes imposed on New Jersey citizens are different from taxes collected as a revenue source for the legislature to spend. This is caused by provincial monetary policy's effect on fiscal policy. Taxes collected for supporting current spending on the support of government (T_R) are the same as shown in Table 3. The duties in Tables 3 and 5 are not counted as part of provincial tax burdens. Besides their amounts being largely unknown, they were also escapable, i.e. a subject did not have to import a slave. Monetary policy, however, imposed additional taxes that were not a current spendable resource for the legislature.

Paper money emitted as direct spending by the legislature was in the form of zero-coupon bonds that had legislated maturity dates when the bonds would be redeemed at face value and retired from circulation. They were redeemed through property taxes (T_B) imposed explicitly for this purpose. These tax laws were embedded in the paper money Acts or in contemporaneous ancillary revenue Acts passed by the legislature. Citizens had to pay these taxes in bills or in their face value equivalent in specie (Grubb 2015). The tax structure was the same for taxes (T_B) to redeem bills and taxes (T_R) to pay for the support of government. Table 6 shows the yearly tax take from these two taxing sources, as well as the total tax burden per white capita converted into Spanish silver dollars.

Not included in Table 6 are the provincial militia Acts which imposed an in-kind tax on men between the ages of 16 and 50 in New Jersey (Bush 1977, pp. 15–21, 49–51, 96, 133–5, 289–93, 410–13, 509–10; 1980, pp. 5–12, 48–9, 141–2, 161, 254–5, 412–13, 502–7; 1982, pp. 232, 341–2, 395–6; 1986, pp. 5, 58–9, 459). These men were required to muster fully equipped with personal military gear at their expense two or three times a year. In addition, some provincial government expenses were funded on a fee-for-service basis, e.g. filing a deed, and not a tax basis, and so are not counted as part of the tax burden in Table 6 (Bush 1977, pp. 168–77, 203–7, 458–74; 1980, pp. 83–94; 1982, pp. 28–34, 468, 564–70; 1986, pp. 63, 90–3, 311–12, 336–7, 425–34).

Finally, only provincial-level taxes are considered. Taxes were imposed at the township and county level, with the revenues generated spent at those levels.[6] Thus, the total tax burden, considering all levels of New Jersey government, is understated by looking only at the provincial-level tax burden. Comparisons of tax burdens, e.g. residents of New Jersey versus residents of Britain, must keep the differential in these missing lower-level political unit tax burdens in mind.

V

Table 7 shows how spendable resources from each source were applied to cover war versus non-war spending obligations during both periods of war and periods of peace. It shows the dominance of using newly spendable bills of credit (M_P) to pay for war, and property revenue taxes (T_R) and interest income (E) to pay for non-war expenses.

[6] Bush (1977, pp. 23–6, 55–6, 57–9, 149–51, 196–201, 260–1, 381–5, 413–15, 504–5, 533–6, 550–2, 586–8; 1980, pp. 55–8, 130–6, 142–6, 178–80, 255–8, 288–92, 599–615; 1982, pp. 19–24, 36–49, 60–6, 113–14, 146–9, 166–71, 230–1, 238–43, 350–69, 389–93, 401–23, 440–2, 484–93, 515–22, 590–9; 1986, pp. 19–22, 87–96, 158–62, 178–95, 252–93, 314–20, 340–5).

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Table 6. *New Jersey provincial taxes imposed on New Jersey citizens, 1704–75*

Year	Taxes collected for the purpose of bill retirement (T_B) £NJ	Taxes collected for current spending on the support of government (T_R) £NJ	Total tax burden per white capita ($T = (T_B + T_R)$ / white population) $	Year	Taxes collected for the purpose of bill retirement (T_B) £NJ	Taxes collected for current spending on the support of government (T_R) £NJ	Total tax burden per white capita ($T = (T_B + T_R)$ / white population) $
1704	0	0	0.0000	1740	0	0	0.0000
1705	0	1,714.40	0.3701	1741	0	0	0.0000
1706	0	1,714.40	0.3581	1742	0	0	0.0000
1707	0	0	0.0000	1743	0	0	0.0000
1708	0	0	0.0000	1744	0	0	0.0000
1709	0	1,476.54	0.2807	1745	0	0	0.0000
1710	307.00	0	0.0568	1746	0	0	0.0000
1711	559.88	1,295.83	0.3269	1747	0	0	0.0000
1712	1,110.08	1,525.31	0.4440	1748	0	0	0.0000
1713	857.20	35.72	0.1441	1749	0	0	0.0000
1714	741.80	1,765.72	0.3886	1750	0	0	0.0000
1715	857.20	855.72	0.2551	1751	0	0[a]	0.0000
1716	857.20	35.72	0.1280	1752	0	7,994.00[ad]	0.3893
1717	1,423.84	0	0.1969	1753	0	2,800.71[ad]	0.1325
1718	1,608.46	0	0.2147	1754	1,530.20	2,197.70[a]	0.1712
1719	891.53	1,650.00	0.3276	1755	1,530.20	3,000.00[a]	0.2023
1720	0	836.00	0.1044	1756	1,530.20	3,000.00[a]	0.1969
1721	0	300.00	0.0366	1757	6,530.20	3,000.00[a]	0.4033
1722	0	1,392.08[d]	0.1654	1758	11,530.20	3,000.00[a]	0.5995
1723	0	1,042.50	0.1208	1759	11,530.20	3,000.00[a]	0.5844
1724	0	695.00	0.0787	1760	16,530.20	0[b]	0.6488
1725	1,000.00	695.00	0.1873	1761	2,770.64[c]	0[b]	0.1061
1726	1,000.00	1,089.35	0.2260	1762	0[c]	0[b]	0.0000
1727	1,000.00	970.00	0.2081	1763	0[c]	0[b]	0.0000

Continued

Table 6. *Continued*

Year	Taxes collected for the purpose of bill retirement (T_B) £NJ	Taxes collected for current spending on the support of government (T_R) £NJ	Total tax burden per white capita ($T = (T_B + T_R)$ / white population) $	Year	Taxes collected for the purpose of bill retirement (T_B) £NJ	Taxes collected for current spending on the support of government (T_R) £NJ	Total tax burden per white capita ($T = (T_B + T_R)$ / white population) $
1728	1,000.00	970.00	0.2037	1764	0[c]	0[b]	0.0000
1729	0	1,000.00	0.1013	1765	6,273.73[c]	0[b]	0.2187
1730	0	968.85[d]	0.0962	1766	12,500.00	0[b]	0.4262
1731	0	993.85[d]	0.0952	1767	12,500.00	0[b]	0.4170
1732	0	993.85[d]	0.0921	1768	12,500.00	0[b]	0.4084
1733	0	1,000.00	0.0894	1769	12,500.00	0[b]	0.3999
1734	0	1,000.00	0.0866	1770	12,500.00	0[b]	0.3920
1735	0	1,000.00	0.0839	1771	12,500.00	0[b]	0.3848
1736	0	0	0.0000	1772	12,500.00	0	0.3780
1737	0	0	0.0000	1773	13,006.03	3,569.96[d]	0.4926
1738	0	0	0.0000	1774	15,000.00	3,500.00	0.5406
1739	0	0	0.0000	1775	15,000.00	3,500.00	0.5313

Notes: $ = Spanish silver dollars. Post-1723, $1 = 0.22£S = 0.2921£NJ at face value (McCusker 1978, p. 10). Thus, 1£NJ = $3.4235.

[a] Expenses were priced in £NJ 'as it now passes in the Western part of the colony', but taxes were listed in £NJ at face value, see Grubb (2015). Bergen County was required to pay 197.70£NJ of tax arrears owed for 1753 in 1754.

[b] Salaries for the support of government were paid with leftover war-spending bills in the treasury.

[c] The 1761 bill redemption tax of 14,030.20£NJ was reduced by the amount of sterling received in 1760 from the Crown as war-spending compensation for 1758, and applied to the following year's bill redemption taxes. The amount received was 8,481.78£S = 11,259.56£NJ. This sum was exchanged for New Jersey bills at the colony's treasuries in 1761 with the bills received being destroyed and the redemption taxes imposed on the colony's citizens reduced by that amount for that year (Bush 1982, pp. 10–13, 315–16; Greene 1980, pp. 98, 104–5). The rest of the Crown's reimbursements were received from 1761 into 1765. They were used to reduce bill redemption taxes and are spread over the years 1762 through 1765.

[d] In 1771, county tax accounts were audited and tax arrears assessed (Bush 1986, pp. 64–8). Tax arrears were 18.92£NJ in 1722, 31.15£NJ in 1730, 6.15£NJ in 1731 and again in 1732, 6£NJ in 1752, and 1.59£NJ in 1753. These amounts were subtracted from the taxes imposed in those years. These arrears were to be paid in 1773. These amounts were added to the taxes imposed in 1773.

Sources: Table 2; Bush (1977, 1980, 1982, 1986); Carter *et al.* (2006, vol. 5, p. 652); Greene (1980, pp. 98, 104–5); Grubb (2015).

Table 7. *New Jersey provincial revenue and spending: war years versus peace years*

	Spendable resources (revenue sources)							
	Newly spendable bills of credit (M_P)		Property tax collection[a] (T_R)		Interest income (E)		Crown cash transfers (C)	
How revenues were spent	Amount £NJ	Row %	Amount £NJ	Row %	Amount £NJ	Row %	Amount £NJ	Row %
War: 1704–13								
War spending	5,828.52	100.00	0	0.00	0	0.00	0	0.00
Non-war spending	0	0.00	7,762.20	100.00	0	0.00	0	0.00
Peace: 1714–38	7,351.18	18.07	19,253.65	47.34	14,068.34	34.59	0	0.00
War: 1739–48								
War spending	8,746.22	54.20	0	0.00	7,389.87	45.80	0	0.00
Non-war spending	1,253.78	6.91	0	0.00	16,877.56	93.09	0	0.00
Peace: 1749–54	0	0.00	12,992.41	92.94	986.20	7.06	0	0.00
War: 1755–64								
War spending	312,500.00	83.21	0	0.00	0	0.00	63,046.23	16.79
Non-war spending	7,312.66	32.77	15,000.00	67.23	0	0.00	0	0.00
Peace: 1765–75	27,687.34	72.09	10,569.96	27.52	151.76	0.40	0	0.00
Overall								
War spending	327,074.74	82.28	0	0.00	7,389.87	1.86	63,046.23	15.86
Non-war spending	43,604.96	30.87	65,578.22	46.42	32,083.86	22.71	0	0.00

Notes: Peace years involve only non-war spending. Revenues from trade duties are excluded.
[a] Includes only property and excise tax revenues not slated for bill redemption (excludes T_B).
Sources: Tables 3 and 4; Bush (1977, 1980, 1982, 1986); Grubb (2015).

The yearly expenses for the support of government shown in Table 1 were largely met with property revenue taxes, slave import duties and interest income. Support-of-government revenue deficiencies were covered by bills of credit (M_P) in only two periods, i.e. in the 1710s with bills issued in the mid 1720s and in the 1760s with left-over unspent bills from the Seven-Years-War allocations. Property revenue taxes and interest income were current revenues used to cover current spending. Non-land-bank bills of credit (M_P), however, were current spending that would be balanced in the budget against future tax revenues (T_B). This pattern created a timing difference in budget balancing between peace-year spending and war-year spending.

The taxes for redeeming bills issued to pay for wars were spread over future post-war years. Table 6 shows these war-expense taxes lasting some six years after Queen Anne's War, and some 12 years after King George's War. Taxes to redeem bills issued to pay for the Seven Years War ran through 1783 (Grubb 2015). Balancing the budget to meet war expenses involved an inter-temporal exercise of balancing deficits against surpluses over a multi-year horizon. This process is shown in Table 8. Tax burdens rose in the first five years after each war.

The relatively small bill-of-credit (M_P) issuances in support of Queen Anne's War were paid soon after that war. The bill-of-credit issuances in support of King George's War were more substantial and were spread well into the next war period. This caused a small tax burden in the 1740s and early 1750s, but a high tax burden in the late 1750s. The bill-of-credit issuances in support of the Seven Years War were large and its tax burdens were spread over the years 1765 to 1783. It caused tax burdens to remain high from 1765 to the Revolution.[7]

VI

I use the evidence in Table 3 to calculate counterfactual yearly provincial tax burdens per white capita in the absence of British interference with New Jersey provincial monetary policy. Removing British interference increased, as well as altered the timing of, the interest income (E) earned by the legislature from loaning paper

[7] On the magnitude and importance of the Seven Years War, see Anderson (2000) and Greene (1980), and on New Jersey's participation in that war, see Anderson (2000, pp. 225, 320–1, 389, 473, 519); Fisher (1911, pp. 319–59); Purvis (1986, pp. 43–6). Regarding the cost of the Seven Years War, among the 13 mainland British colonies, New Jersey ranked fifth in total expenditures incurred as debt, and fourth in terms of per white-capita expenditures incurred as debt. In terms of net debt, namely after subtracting Crown reimbursements, New Jersey ranked third both in terms of total net debt and per white-capita net debt incurred. At the end of the war, New Jersey ranked first both in total and in per white-capita war debt still outstanding. This implies that New Jersey spread its tax burden to redeem its war debt further into the future than did most other colonies. Thus, New Jersey's tax burden per white-capita per year in the 1760s was probably lower than in other colonies. This tax burden comparison is tentative, because the forensic accounting reconstruction of public finances done here for New Jersey has yet to be done for other colonies. I derived these rankings using the data in Carter *et al.* (2006, vol. 5, p. 652); Greene (1980, p. 98); Wicker (1985, pp. 874, 877).

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Table 8. *Average yearly New Jersey provincial tax burden per white capita (in Spanish silver dollars): war years versus peace years*

	Actual burden $	Counterfactual burden A $	Row reduction from actual %	Counterfactual burden B $	Row reduction from actual %
Queen Anne's War (1705–1713)	0.2201	0.2201	0.00	0.1667	24.26
Post-war peace					
1714–18 (next 5 years)	0.2367	0.2367	0.00	0.1551	34.47
1714–38 (until the next war)	0.1395	0.1254	10.11	0.1087	22.08
King George's War (1739–1748)	0.0000	0.0000	0.00	0.0000	0.00
Post-war peace					
1749–53 (next 5 years)	0.1044	0.0582	44.25	0.0000	100.00
1749–54 (until the next war)	0.1155	0.0636	44.94	0.0024	97.92
Seven Years War (1755–1764)	0.2741	0.2299	16.13	0.0476	82.63
Post-war peace					
1765–70 (next 5 years)	0.3740	0.3739	0.03	0.0000	100.00
1765–75 (until the next war)	0.4172	0.3891	6.74	0.0000	100.00
Average increase between war years and the next 5 peace years	0.0736	0.0729	0.95	−0.0197	------

Notes: King George's War includes the War of Jenkins' Ear; Seven Years War includes the French and Indian War. Burden A assumes no British interference with New Jersey's monetary policy. Burden B assumes both no British interference with New Jersey's monetary policy and no New Jersey involvement in wars.

Sources: See text; Tables 3 and 6.

money (M_L). The added interest income (E) substituted in place of revenue property taxes (T_R) lowers the tax burden, because interest income is not a tax.

The counterfactual adjustments to the actual tax burdens in Table 6 occur in three periods. First, the altered timing of the counterfactual interest income (E) from the second and third land banks eliminated the need for revenue property taxes (T_R) between 1732 and 1735. Second, from 1752 through 1759, new counterfactual interest income (E) from the fourth land bank reduced the amount of revenue property taxes (T_R) required. Finally, the new counterfactual interest income (E) earned after 1770 from the fifth land bank reduced revenue property taxes (T_R) collected for the support of government to zero from 1770 through 1775.

Table 8 groups this counterfactual tax burden (Counterfactual Burden A) by war versus immediate post-war years and compares them with the actual tax burdens so grouped. Annual tax burdens per white capita would have been 10 percent lower from 1714 through 1738, 45 percent lower from 1749 through 1754, 16 percent lower from 1755 through 1764 and 7 percent lower from 1765 through 1775 with no British interference with New Jersey's provincial monetary policy. These are not trivial reductions from the viewpoint of New Jersey taxpayers.

Assumptions about revenue adjustments when war spending was not required are necessary to construct the counterfactual tax burden when there is no British interference with New Jersey provincial monetary policy and no participation in British colonial wars. Table 8 reports this construction as Counterfactual Burden B. The construction starts from Counterfactual Burden A and then removes the bills (M_P) spent on war. This adjustment also removes all the property taxes (T_B) imposed to retire these war-spending bills. Second, the interest income (E) used to retire war-spending bills emitted in 1740 and 1746–7 is assumed to now be free to cover non-war expenses. This income, 7,389.87£$_{NJ}$, is assumed to be used to retire the 1,253.78£$_{NJ}$ of new bills (M_P) used in 1748 for non-war expenditures, and then used to reduce the revenue property taxes (T_R) collected for the support of government in 1752, 1753 and into 1754.

Third, the Crown cash transfer (C) in 1760 is removed. Thus, revenue property tax collection (T_R) is increased in 1758 through 1762 to augment the interest income (E) earned to meet peacetime expenditure requirements. Fourth, the new bills emitted in 1763 and 1764 (M_P) used to cover non-war expenditures are assumed to still be emitted. Taxes to retire these bills (T_B) were to be collected in 1782 and 1783. It is assumed that this remained true. The extra 754.50£$_{NJ}$ counterfactual interest income in 1762 through 1764 is assumed to be used to reduce the revenue property taxes (T_R) needed for the support of government in 1762.

Table 8 reports this counterfactual (Counterfactual Burden B) by war versus immediate post-war years and compares them with the actual tax burdens so grouped. Annual tax burdens per white capita would have been 22 to 34 percent lower from 1714 through 1738, and 83 to 100 percent lower from 1749 through 1775 without British interference with New Jersey's provincial monetary policy and with no participation in the wars of the British Empire. War costs, especially after 1748, overwhelmed everything else.

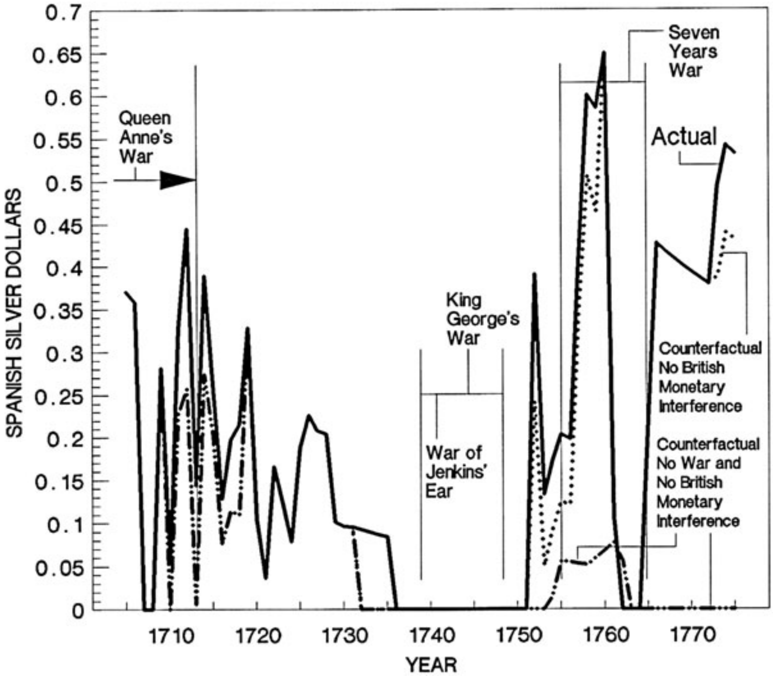

Figure 2. *New Jersey provincial tax burden per white capita, 1705–75: actual versus counterfactual in Spanish silver dollars*
Sources: See text; Table 8.

The actual and the two counterfactual tax burdens are shown in Figure 2. Annual tax burdens were relatively large and highly variable before 1720. Most of these taxes were for support-of-government obligations. Queen Anne's War expenses added little to tax burdens in these years. After 1725, New Jersey learned how to fund support-of-government obligations out of interest income from land-bank loans of paper money. This allowed New Jersey to substantially reduce its tax burdens from pre-1725 levels to zero by 1736 through 1751. Post-1751, paying the cost of colonial wars swamped everything and drove New Jersey tax burdens to unprecedented heights. The prospect of the British adding new imperial taxes to these unprecedentedly high provincial tax burdens after 1764 most likely raised serious concerns.

VII

New Jersey's provincial legislature developed innovative and efficient ways to fund its non-war spending obligations. They were able to drive tax burdens to zero by funding these expenses with interest income earned by creating and loaning out government paper money. This paper money provided a needed local medium of

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exchange and so made local transacting more efficient. In the absence of British interference with New Jersey's monetary policy and New Jersey's participation in the wars of the British Empire, New Jersey could have funded its provincial government largely without taxing its citizens.

New Jersey's legislature also engaged in innovative ways to fund its war-spending obligations. It issued bills of credit that functioned as zero-coupon bonds. This allowed tax burdens to be spread over multiple years into the future, and so allowed more spending on wars than what could be sustained with current tax revenues alone. Spending on King George's War and the Seven Years War swamped all other considerations. Provincial tax burdens per white capita peaked in the late 1750s and the early 1770s. British interference with New Jersey's provincial fiscal/monetary structure, and the required participation in the wars of the British Empire, were costly to New Jersey citizens in the quarter century before the Revolution. Such costs probably contributed to revolutionary sentiments.

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