**Online Appendix A:**

**Qualitative Evidence of Central Banks Reducing Borrowing Costs**

The favorable financing offered to sovereigns by a central bank is palpable. For instance, when Napoleon wrote his Minister of Finance Martin Gaudin that ``I wish you would have the governor of the Bank convene a meeting to put the rate [down to] 4 percent'' it was, quite unsurprisingly, promptly done.[[1]](#footnote-1) As for the United States, the Federal Reserve facilitated the financing of the allied war effort during World War I, not by directly purchasing government securities (in the form of the Liberty and Victory loans), but by lending to member banks, who, in turn, purchased the securities (though it, like direct purchases, still increased the monetary base).[[2]](#footnote-2) As Meltzer states in his history of the Federal Reserve system, ``The wartime policy achieved the Treasury's objective of marketing an extraordinary increase in debt at relatively low direct cost to the Treasury.''[[3]](#footnote-3)

Previous debt repudiations made the British government a poor credit risk in the early 1690s. When war with France required higher government expenditures, creditors were wary to lend.[[4]](#footnote-4) In a sense, the British government's difficulties illustrate Tomz's argument that a reputation for default can harm an government's ability to borrow.[[5]](#footnote-5) Creating the Bank of England overcame investor reluctance because it invited subscribers to incorporate as the Bank and made the Bank responsible for handling government debt.[[6]](#footnote-6) Thus, the government created ``an *additional*, private constraint on its future behavior by making it difficult to utilize funds of a current loan if it failed to honor its previous obligations.''[[7]](#footnote-7) As Broz asserts, ``as a consequence of the Bank's ability to enforce a credit boycott, the sanctity of government loan contracts improved markedly. And with creditors' rights more secure, the government was able to borrow to finance wars on a scale that the Stuarts could only dream of.''[[8]](#footnote-8)

Individuals at the time recognized how the Bank of England, by easing the government's ability to borrow, directly enhanced Britain's military prowess.[[9]](#footnote-9) In 1770, Fond Montyon, a senior civil servant in the French Finance Ministry, noted how the ease with which Britain could acquire finance through debt (as opposed to taxation), gave England a large military advantage relative to France. This led Montyon to recommend that France consider adopting the same institution:

``Great Britain finances by taxation neither all nor part of the costs of war, it finances them by loans and increases the annual tax burden only by the amount necessary to face the interest and redemption of the loan. That is the regime that France must adopt.''[[10]](#footnote-10)

1. Quoted in Bopp 1952, 229. [↑](#footnote-ref-1)
2. Meltzer 2003, 89. [↑](#footnote-ref-2)
3. Ibid. [↑](#footnote-ref-3)
4. In 1692, because a life annuity paying 10 percent brought in only 108,000 of an intended 1 million loan, the government raised the interest payment to 14 percent (Clapham 1944, 15). Despite this action, the offering remained undersubscribed. [↑](#footnote-ref-4)
5. Tomz 2007: 223. [↑](#footnote-ref-5)
6. Broz 1998, Hicks 1969, North and Weingast 1989. Moreover, the Bank could not lend the monarchy money without the explicit consent of Parliament. North and Weingast cite David Ogg, who explains "Thenceforth, the investor knew that, in lending money on a specified tax, he had parliamentary guarantee for the security of this investment, based not only on the particular fund, but on the whole of the national revenue" (David Ogg, England in the Reigns of James II and William III (Oxford, 1955), p. 413., cited in footnote 39 of North and Weingast 1989). However, as will be explained below, the effectiveness of a central bank is not conditioned by the existence of representative institutions. [↑](#footnote-ref-6)
7. North and Weingast 1989: 821. Emphasis added. [↑](#footnote-ref-7)
8. Broz 1998: 248. [↑](#footnote-ref-8)
9. Bordo and White 1991. [↑](#footnote-ref-9)
10. Quoted in Sargent and Velde 1995: 489. [↑](#footnote-ref-10)