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Sovereign Debt Restructuring in Conditions of Extreme Uncertainty: Several Lessons from History

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On March 1, 1781, when the final signature was affixed to the Articles of Confederation and the United States was officially established[1], the country was already beset by financial difficulties. In the previous year, the *ad interim* congress[2] moved to stabilize the Continental (the scrip used to pay federal claims such as soldiers' wages) at a 97.5% discount to its original value.[3] In a letter dated August 22, 1780, the Treasury Office reported, "[T]here is no money in the Treasury . . . ."[4]

Under Article 8 of the Articles of Confederation, the federal government could spend but had to rely on the States to pay. The States largely failed to do so. Alexander Hamilton, appointed receiver of continental taxes for the State of New York in 1782, witnessed the problem first-hand. As a Hamilton biographer noted, "States regarded their payments to Congress, in effect, as voluntary and often siphoned off funds for local purposes before making any transfers."[5] "In the fall of 1781, for example, Congress asked the states for a total of $8 million to be paid during 1782. By early 1783, only $420,000 had been remitted, or a little more than 5%."[6]

The Treaty of Paris of September 3, 1783 (the Peace of Paris), concluded the Revolutionary War. There followed riots by soldiers unpaid in their wages and fearing debtor's prison. Congress was forced to flee its seat in Philadelphia.

[1] Article I of the Articles of Confederation provides that "The stile [sic] of this Confederacy shall be 'The United States of America.' "
[2] The Second Continental Congress. As of the effective date of the Articles of Confederation, it became known as the Confederation Congress (technically, "United States in Congress assembled").
[3] Calomiris, Charles W., *Institutional Failure, Monetary Scarcity, and the Depreciation of the Continental*, The Journal of Economic History, Vol. 48, No. 1 (Mar., 1988), Cambridge University Press on behalf of the Economic History Association, p. 59.
[4] Journals of the Continental Congress, Aug. 26, 1780, p. 781.
[5] Chernow, Ron, Alexander Hamilton, The Penguin Press, 2004, p. 171.
[6] McCraw, Thomas K., The Founders and Finance, The Belknap Press of Harvard University Press; 2012, at p. 70.

The sovereignty of the States was so deeply embedded that there were a number that believed the federal government, after the Treaty of Paris had brought the Revolutionary War to an end, should simply disappear. They pursued their own interests, erecting trade barriers with other States, issuing their own financial instruments and maintaining their own militias.

At the federal level, there was no president or cabinet. For fiscal matters, there was a Superintendent of Finance. Robert Morris accepted this post in 1781 when "the country had been functionally bankrupt for a number of years" and Morris aimed to deal with the future rather than the past.[7] Morris tried valiantly to persuade the States to honor their federal financial obligations. But after three years of frustration, he resigned in despair.[8]

As one financial historian summarized: "By the mid-1780's, . . .state governments refused to adhere to the terms of the peace treaty with Britain; Britain refused to give up military posts on U.S. territory; public creditors went unpaid, . . .Spain closed the Mississippi to American commerce; Britain banned U.S. vessels from trading with the West Indies; France refused to open its markets to American merchants; and the Mediterranean trade was brought to a standstill because of depredations by the Barbary powers."[9]

The period was plagued by a heterodox currency profile. Over 50 forms of money were in circulation[10], among them Spanish dollars, British pounds, Dutch guilders, warehouse receipts and paper issued by the States.

As the decade limped to close, the nation was not servicing interest payments on substantial amounts of its debts.[11] In 1790, the ratio of debts to receipts was 46 to 1.[12]

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[7] *Id.*, p. 66.
[8] *Id.*, p. 72
[9] Edling, Max M., A Hercules in the Cradle: War, Money, and the American State, 1783-1867, The University of Chicago Press 2014, p. 26.
[10] McCraw, p. 93.
[11] Chernow, p. 280.
[12] McCraw, p. 100.

The Dawes Committee was appointed by the Reparations Commission under the Versailles Treaty[13] on November 30, 1923 to seek solutions to the vexing problems of the German financial system, and began its meetings in January 1924.[14] Viewed through their eyes at the moment they began their work, they were confronted with the twin problems of a extremely unstable currency, which had become untethered to gold in the war, and the related inability to form assumptions on which a workable budget could be devised to pay debts.

The Versailles Treaty resulted in four main categories of German indebtedness:

a. Issuances of stipulated amounts of short-term Gold Mark-denominated bearer bonds to compensate, for example, for the borrowings undertaken by Belgium in the war.

b. In-kind transfers of specific amounts of commodities such as steel, coal, timber and live animals.

c. Other reparations to be paid in foreign currency or gold and to be determined by the Reparations Commission.

d. The existing German debt, which had swollen during the war, particularly in connection with the 1916 armaments buildup (Hindenburg Program).[15]

The Reparations Commission, after two years of deliberations, entered its verdict in 1921 that Germany should pay approximately $32 billion, to be represented by three classes of bonds, A, B and C. Only A and B had actually to be paid[16], for a total of $12.5 billion. Germany could pay in kind (commodities, machinery, livestock and other assets) or in cash (hard currency or gold). The bonds were to bear interest at 5% per

[13] Articled 233 of the Treaty of Peace with Germany (Treaty of Versailles); Treaty and protocol signed at Versailles June 28, 1919; protocol signed by Germany at Paris January 20, 2020.
[14] Dawes, Charles M., A Journal of Reparations, Macmillan and Co., Limited, 1939, p. 292 The Committee was composed of 10 participants, led by Charles Dawes, a banker, military general and the first director of the Bureau of the Budget of the U.S.
[15] From this amount was subtracted a pro rata amount of the debt equivalent to the territory ceded to other countries Article 254 of the Versailles Treaty), with the exception of Alsace-Lorraine, since Germany had not acceded to a proportionate amount of French debt under the 1871 Treaty of Frankfurt ending the Franco-Prussian war (Article 255 of the Versailles Treaty).
[16] The C bonds would only become payable is the Commission deemed the country to have the capacity to pay at a later date, and was regarded more in the nature of political optics.

annum with an additional 1% per annum as a sinking fund. In addition, a value recovery component tied to exports was required.[17]

Apart from these obligations, the country owed ongoing requirements for expenditures for occupying forces. Internal expenditures to promote social stability mounted as well. "The government extended largesse to veterans, widows, and orphans; to the unemployed, the old, and the disabled; to consumers generally through subsidized food; and to its own lower-level employees through disproportionate salary adjustments." [18] Accordingly, transfer payments reached approximately 50% of the budget in the period 1919-1923.[19]

Its failure to fulfil in-kind obligations led to the occupation of the Ruhr Valley industrial region by France and Belgium. Payments to striking workers in that region further strained the currency.

To counteract the spiraling *Papiermark*, the introduction of the *Rentenmark* backed by a mortgage on real property and to a degree on personal property[20] contributed to what the Dawes Committee referred to as an "unstable equilibrium", but was technically not legal tender, could not be used for international trade transactions and was subject to the limited capacity of the *Rentenbank*.[21] There remained a bewildering array of currencies in circulation: dollars, pounds, florins, gulden, Swiss francs, French francs, Scandinavian crowns, paper marks, dollar treasury bonds, bonds of the gold loan and emergency currencies (*Notgeld*) expressed either in gold or paper marks.[22]

Reparations payments on the A and B bonds were in moratorium. By November 1923 one U.S. dollar was worth 4.2 trillion marks. As 1924 began, the solution had not yet been found and the situation was fraught with uncertainty.

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[17] *Schedule of Payments Prescribing the Time and Manner of Securing and Discharging the Entire Obligations of Germany for Reparations under Articles 231, 232, and 233 of the Treaty of Versailles*, London, May 5, 1921.
[18] Schuker, Stephen A., *American "Reparations" to Germany, 1919-1933: Implications for the Third-World Debt Crisis*, International Finance Section, Department of Economics, Princeton University, 1988, p. 20.
[19] *Id*.
[20] Dawes, pp. 349-50.
[21] *Id*., p. 408.
[22] *Id*., p. 349.

In the aftermath of the Balkan crisis of the 1990s, of a population of 4.3 million citizens of Bosnia and Herzegovina, 250,000 had died, 200,000 had been wounded, many with permanent disabilities, 800,000 had become refugees abroad, half the house-holding population had lost their homes; and 800,000 had become displaced persons within the country. The economy collapsed. GDP fell from $10.6 billion in 1990 to $2.1 billion in 1995. Its industry was devoted to arms manufacturing for the former Yugoslavia, for the Eastern bloc and for the emerging markets. As the country informed its creditors, "Equipment was obsolete, export goods were oriented to the demands of command economies rather than the international market, and the terms of trade for raw and semi-finished goods were . . . in secular decline." Nevertheless, the country was expected to assume its share of the former Yugoslav external debt pursuant to the formula by which the debt was apportioned among the former Yugoslav republics on the basis of an assessment of end-users of the proceeds or, for general borrowings, on the basis of an IMF formula. Bosnia's share, adjusted for a slightly higher than required allocation to other republics, was over 10% of the total debt of the former Yugoslavia.[23]

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I. Introduction.

The *ex post* analysis of the outcomes of the foregoing scenarios by economists, financial historians and others is vast, particularly with reference to post-World War I Germany. This paper does not purport to contribute to that body of work. Instead, it attempts, on a comparative basis, to take a prospective look at the events described from the point of view of the time when the planners were confronted with the problem. This is in the interest of exploring how they thought through the sequence of steps and the hierarchy of measures

[23] The author's firm served as external legal counsel to Bosnia and Herzegovina in the debt restructuring described herein and the foregoing information and the subsequent discussion of Bosnia are based on Stumpf, Mark H., *Reflections on the Bosnia Debt Restructuring*, Law and Contemporary Problems, Volume 73, Number 4, Fall 2010. Reference is made to that article for a more extensive discussion of the negotiating process and the instruments issued in the restructuring plan.

they employed, as well as the techniques they devised, to determine whether any lessons common to them can be derived. Accordingly, the paper is limited by reference to this perspective.

II. Organic stress, uncertainty and the relativity of time.

The foregoing scenarios represent instances in which the financial stresses revealed deep organic weaknesses in the structure of government. They also mandated that maximum efforts be placed on detecting and implementing resources for debt service. And they required special creativity in elaborating restructuring mechanisms that were at the same time satisfactory to the creditor community and flexible enough to take account of the uncertainties of the situation.

In the extremely challenging cases presented by the scenarios above, time needed to stand still while solutions were contemplated and implemented. Both debtor and enlightened creditors could appreciate this need. The time relativity factor can be a tremendous asset to sovereigns facing these difficulties.

In the case of the U.S., the actual restructuring transaction took place almost a decade from the formal beginning of the country. Partly this can be attributed to the more stately pace at which life progressed in that era, as well as limited enforcement remedies. But the statesmen of the day realized that the problem required the deepest analysis, development of a strategy for solution, selling the results at the political level and implementing it, none of which could be rushed.

In the case of Germany, a workable solution was not arrived at in preliminary form until almost six years from the conclusion of World War I.

Of course, the longer a solution takes, the larger the problem. In the case of the U.S., for example, interest kept accruing and when the restructuring actually took place interest represented a material percentage of the total restructurable debt. But the massive and fundamental reordering of the structure of government was well worth that price.

The fact that time stands still should be coupled with the observation that this is not an infinitely elastic concept. The well of patience on the part of creditors appears to become shallower as the years advance. For example, as noted, before the solution was at hand in Germany, France and Belgium occupied the Ruhr industrial region when Germany failed to make in-kind transfers under its reparations protocol. In Bosnia, the banks were not sympathetic to delays not clearly associated with noteworthy progress, in spite of the vast devastation of the population and the physical assets of the country. And exogenous factors significantly shortened the window for negotiation of the restructuring terms. In short, the lesson is that time stands still up to a point, but it must be used wisely and efficiently.

III. Fundamental adjustments to the structure of government.

In all the scenarios, a fundamental reconception of the structure of government preceded the actual debt restructuring. In all of the scenarios, the relationship of the federal government to the states was of special concern.

The main categories of revision are summarized below.

a. New constitution and federal/state relations

In the U.S. of the 1780s , the failure of the Articles of Confederation to yield a workable fiscal result was evident. The problem could not be solved with the form of government provided for under the Articles. The need for a new start to the constitutional order was imperative. But there were opposing voices concerned that the new order would result in too great a concentration of power at the top. They were happy not only to see no new constitution but to see the Articles wither away and disappear altogether. It took heroic efforts to overcome this obstacle but the forces in favor of a stronger central government prevailed in time. A new charter for the country with a fundamental fiscal reorganization was the result. The U.S. Constitution, finally adopted in 1789, has as a major focus the correction of the deficiencies of the Articles. It gave direct power to levy and collect taxes (including duties, imposts and excises) to the federal government.[24] It established the foundation for an executive branch with robust powers. Of the three main focuses, fiscal matters, war and foreign affairs, the first Congress under the new Constitution passed a law establishing the Department of the

[24] Article 1, Section 8 of the Constitution.

Treasury as an autonomous entity, reporting directly to Congress, whereas the Departments of War and State were created as more in the nature of advisors to the President. The Treasury Department quickly became by far the largest department of government.

The demand of the states and communes of post-World War I Germany have been cited as an important factor in the hyperinflation experienced in that period. Those entities lacked taxing power and no anchored budget by which to measure their revenue demands. The national government simply honored their requests by printing more money. The Dawes Committee laid blame on the deficiency of the Weimar Constitution[25] in completing the concept of centralization of fiscal matters. As the Dawes Report observed, "Although the Reich is charged with the administration of taxes formerly undertaken by the States, it is under obligation to cede the major part of the proceeds of the income tax, for example, to them. … [T]here is no clear principle connecting their resources with their obligations. When in difficulties, they press the Reich for larger subventions . . . just as in turn the needy communes press the States for greater financial aid."[26] The restructuring plan required that the "The resources normally to be assigned to the States and communes must be clearly defined, and care must be taken to secure that the resources are not more than adequate to legitimate needs."[27] This was to be a key component of the budgeting process.

Relations with states in the German case also meant taking all steps necessary to overcome the right of consent of states to the alienation of the railroad, which, as will be seen below, was a crucial component of the plan.[28]

The Dayton Accords after the Balkan conflict provided a new constitution for Bosnia and Herzegovina. The new structure codified the Washington Agreement whereby two ethnic entities were created, the Federation of Bosnia and Herzegovina and Republika Srpska, over which a thin overarching superstructure was placed. The end result is reminiscent of the U.S. structure under the Articles of Confederation in respect

[25] Dawes, p. 368.
[26] *Id*.
[27] Dawes, p. 371.
[28] *Id*., p. 451.

of fiscal matters. Bosnia's post-Dayton structure did not fully define the fiscal relationship between the overarching state and the two entities underneath its umbrella. Dayton did foresee that the overarching state would be the vehicle by which foreign debt was incurred and serviced. But it left open the question of how the two entities under the umbrella state would interact with the state to assure timely debt management. The Constitution stated, in summary fashion, "The Parliamentary Assembly shall each year, on the proposal of the Presidency, adopt a budget covering the expenditures required to carry out the responsibilities of institutions of Bosnia and Herzegovina and the international Obligations of Bosnia and Herzegovina. . . . . The Federation shall provide two-thirds, and the Republika Srpska one-third, of the revenues required by the budget, except insofar as revenues are raised as specified by the Parliamentary Assembly."[29] The entities below the central government level retained the primary taxing authority, as under the Articles of Confederation. The resolution of this issue occupied considerable attention as a precursor to the debt restructuring. One of the first statutes to be passed by the new legislature was a law whereby the two entities flowed tax money to the overarching government for debt service. The statute dealt with debt originating prior to, during and after the war. It provided mechanisms for budgeting at the entity level in anticipation of the debt service bill that would be forthcoming from the state. And it provided the methodology for the allocation between the two entities of the debt service burden for the fiscal period in question.

b. *New or restructured central bank/currency reform*

The U.S. attempted a central bank in the 1780s, at a time when there were no banks in the United States. That bank, the Bank of North America, proved to be inadequate in several respects--too low a limit on capitalization and rechartered in 1786 as a state bank (Pennsylvania) which stipulated a limited life not long to run. In order to rectify the deficiencies of this institution, and to lay the groundwork for the overhaul of the financial system of the U.S., a new central bank was created. The Bank of the United States was a federally chartered institution (after vigorous debate about its constitutionality). It was capitalized in the main by private subscription, including foreign ownership. The government took a 20% interest, capitalizing its percentage with

[29] Article VIII, Section 3 of the Constitution of Bosnia and Herzegovina.

a 10-year loan to the government.[30] The new bank would act as fiscal agent for the government and provide short-term credits. But it would not be allowed to buy government bonds. It would also supply credit to the private sector.

The new bank would issue paper currency backed by its gold, silver and government bond reserves, as outlined in Hamilton's Report on a Mint.[31]

In the German case, the Dawes Plan deemed a unified and stable currency essential for rehabilitation of Germany's finances. The plan called for either a new bank or a substantial revision of the existing *Reichsbank*. It provided for the elimination of the *Rentenbank*, under which the *Rentenmark* had been issued, and a planned gold bank was to be discontinued. The new or revised entity would have the following principal attributes:

i. It would issue notes, called *Reichsmark*, and the existing plethora of disparate notes, bonds and other instruments would be withdrawn from circulation. This would represent an exclusive right to issue notes with the exception of the right of banks in four states to issue notes up to existing quotas.[32] The rate of exchange for *Papiermark* was set at one trillion to one (similar to *Rentenmark*). The new currency would be linked to gold but not redeemable for a grace period.[33]

ii. Advances to the government, which had been a major source of hyperinflation, were sharply curtailed.

iii. It would have foreign oversight but significant German management.

iv. It would receive reparations payments into an account of an agent for reparations payments, to be disbursed in the manner described below.

v. It would be capitalized with a portion of the proceeds of the foreign financing described below.

[30] The Report of the Secretary of the Treasury, (Alexander Hamilton,) on the Subject of a National Bank Read in the House of Representatives, Dec. 13th, 1790, S Whiting & Co., 1811.
[31] McGraw, p. 115.
[32] Baden, Bavaria, Saxony and Wirtemberg. Dawes, p. 398.
[33] *Id*., p. 299.

In Bosnia, the Dayton Accords prescribed a new central bank. It was established as a currency board for six years, with convertibility of the new national currency, the Convertible Mark, on a one-to-one basis into *Deutsche Mark*. The Governor was appointed by the International Monetary Fund and the rest of the governing board by the entities, during the first six years. Thereafter, the Governor and remaining board were to be appointed by the President of Bosnia and Herzegovina.

c. Infrastructure restructuring

In the German case, a central focus of the Dawes Plan was restructuring the railroad, giving an exclusive concession to a newly formed corporation, recapitalizing the industry and using it as a fiscal engine, as will be further described below. In Bosnia as well, the Dayton Accords established a Public Corporations law, with a transportation company as its first specific implementing act. The law emphasized the importance of this immediate step. [34]

IV. Attentiveness to third party support

In all scenarios, third party actors from other countries played a key supporting role. This was the case even if the debtor sovereign was not necessarily well-disposed to receive it. For example, in the German case, two crucial foreign inputs coincided in this connection, the Dawes Committee, which in turn attracted the participation of J.P. Morgan & Co., which led an 800 million Gold Mark equivalent bond financing that supported the stabilization of the country and underpinned the whole plan. It was used to provide capital to the restructured *Reichsbank*, and for budgetary purposes while the payment obligations under the plan were in a grace period. Repayment of this financing was given priority under the plan. “The authorities in Berlin knew

[34] Dayton Accords, Public Corporations Annex, 9 Article II, Section 1 of the Annex states that “The Parties, recognizing an immediate need to establish a Public Corporation to organize and operate transportation facilities, such as roads, railways and ports, for their mutual benefit, hereby establish a Bosnia and Herzegovina Transportation Corporation . . . for such purpose.”

that they had no choice, but they did not welcome exclusive dependence on the good graces of New York", among other reasons, worrying that "America is a country of fads and enthusiasms." [35]

In its financial restructuring in the 1790s, U.S. identified and gave priority to its foreign loans, primarily from Holland and France. Because of the underdeveloped U.S. capital markets, it was essential for the country to stay in the good graces of the European financing sources. Holland had been a faithful source of credit throughout the war and an important source of trade finance thereafter. France had supported the country's war effort in many ways, although its motives were increasingly subject to doubt.[36] Both were to be paid in full in accordance with existing contractual terms. But since there was no money to do so, their debt was refinanced, at par.

Third-party support was not always monetary. Bosnia received the support and advice of the Office of Technical Assistance of the U.S. Department of the Treasury (OTA). This service was provided without compensation, and from its position of neutrality it assisted the government in assembling a negotiating committee of representatives of the three ethnic groups that had been at war with one another immediately preceding the negotiation. And OTA was able to moderate the competing influences of the international financial institutions and the banks to help bring about a workable solution.

V. Developing sources of debt service and going all-in to reinforce them

For the U.S., there were several basic constraints on the fiscal front in the search for a viable strategy to service its debt. Taxation was a flashpoint of the Revolutionary War and an issue of high sensitivity. More

[35] Schuker, pp. 36-7

[36] Abundant evidence emerged suggesting a systematic strategy on the part of France to regain U.S. territory lost in the treaties concluding the Seven Years War and to thwart the British. See, e.g., Unger, Harlow Giles, The French War Against America, Wiley, 2005. Relations worsened with the signing of the Jay Treaty with England and led to the Quasi-War with France.

broadly, the country did not support the creation of a funding mechanism for an ongoing war machine, as they viewed the European arrangements. And they were leery of concentrating too much power in the hands of the federal government, even as newly conceived under the Constitution. The solution was a carefully calibrated system emphasizing collection of indirect levies (duties on imports and tonnage), tilting toward luxuries and away from core necessities.

Prior to enactment of these measures, the States monopolized the collection of tariffs. Whatever harbor a ship happened to come in, that State would impose the tariff and keep the proceeds. Smuggling was also rampant, particularly in areas with many coves and inlets.

Going all-in with this strategy meant devising numerous complementary measures to maximize receipts. These included:

a. Opening offices of the new Bank of the United States in every major port city to act as fiscal agents for collections.

b. Adding hundreds of lighthouses to guide ships to harbor.

c. Establishing a Revenue Cutter Service (later renamed the U.S. Coast Guard) to patrol the porous coastline.

d. Monitoring receipts with a close eye to detecting irregularities through detailed statistical reporting, employing staff at Treasury and in the field to carry out the work.[37]

As a measure of the effectiveness of these strategies, the customs receipts from four important ports (New York, Philadelphia, Baltimore and Charleston) went from U.S.$ 1,975,000 for the period 1785-1788 to U.S. $ 11,845,000 in period 1792-1795. [38]

When these taxes proved to be inadequate, a whiskey tax was added[39], and later a direct tax by the federal government to the States (not individuals in the States).

[37] McCraw, pp. 90-1.
[38] Edling, p. 77.
[39] Chernow, p. 342.

The Dawes Plan identified a complex set of flows that supported the external financial obligations. The plan was built on its stated view that Germany possessed growing population; technical skill and abundant material resources; improving plant and equipment, including especially the railroad; and modern communications. "She will be able to resume a favored position in the activity of a world where normal conditions of exchange are gradually being restored."[40]

The main components were:

a. *Railroad*. As noted, the Dawes Plan cited the railroad as the most important asset of the republic and one that could provide crucial resources of repayment if properly restructured. This complex restructuring-within-a-restructuring called for an exclusive railroad concession to be transferred to a newly formed company to be wholly-owned by the government. It would issue both common and preference shares. The preference shares were to be marketed and the proceeds would go 3/4 to the new company to pay debts and for development and the rest to the government, in part to counterbalance the effect of the transport tax. There would also be created a new railroad bond issue, to the held by the agent for reparations payments at the *Reichsbank*.

b. *Budget allocation*. The plan called for a grace period in the 1924-25 period to allow for stabilization. Contributions from the general budget in increasing amounts were expected for each fiscal period thereafter. The plan analyzed extensively the existence and scope of taxation and determined that substantial under-taxation existed in a number of categories. Germany was required to correct these deficiencies in subsequent fiscal periods. The Committee adopted a principle of commensurate tax burden with other European countries, steering away from a confiscatory tax concept in favor of a more evenhanded approach.

Revenue streams from other sources were designated as collateral for the primary payment requirements. These included revenues from taxes on alcohol, tobacco, beer and sugar, as well as customs receipts.

[40] Dawes, p.298.

c. *Industrial debenture*. The plan maintained that German industry had benefited from hyperinflation to eliminate or substantially reduce its corporate debt. This gave scope for an industrial debenture that could supply a meaningful contribution to the required payments. The industrial debenture was allocated to individual companies in manufacturing, navigation, mining and possibly others if designated by an organizing committee.[41] It would bear interest at 5% per annum and have a sinking fund. The German government was required to guarantee principal, interest and the sinking fund on the bonds.[42]

Bosnia, as noted above, left tax collection to the entity level, closer to the source of ongoing economic activity. But through the mechanism of the Law on State Debt described above, the entities were given clear, advance direction as to the level of taxes that would be required by the government to satisfy international claims.

VI. Proceeding to a financial restructuring

With these tools in place or in progress, the countries then moved to implement a debt restructuring plan. In each case the plan was comprehensive in the sense that it did not exclude any credit class in spite of the a natural tendency to carve out and exclude categories of debt given the enormity of the problem and the lack of resources to deal with it. Hamilton observed that "[c]redit is an *entire thing*."[43] Otherwise, the ultimate restoration of creditworthiness and causing it to be "immortal", as Hamilton said, would be impossible to achieve. The Dawes Plan was also comprehensive in the sense that it called for a single, inclusive mechanism as long as the plan was in effect that covers "all amounts for which Germany may be liable to the allied and associates powers for the costs arising out of the war, including reparation, restitution, all costs of all armies of occupation, clearinghouse operations, . . . commissions of control and supervision, etc."[44]

[41] *Id.*, pp. 461-2.
[42] *Id.*, p. 463.
[43] Chernow, p. 302.
[44] Dawes, p. 329.

But comprehensive did not mean a definitive, irrevocable plan to deal with it. Uncertainty was met with a degree of uncertainty. For example, the Dawes Plan set the country on a path, to be revisited as necessary to reach completeness. The Dawes Committee did not reject the recognition of the entirety of the reparations A and B bond debt. Its intention was, however, not to propose the permanent solution but to “facilitate a final and comprehensive solution as soon as circumstances make this possible.”[45] In fact, the plan led in time to the Young Plan later in the decade. The U.S. plan was revisited as additional sources of revenue were needed and additional political pressure was felt to retire the debt. But the fundamental strategy was put in place and the train left the station in each case.

a. ***Summary of the plans***.

i. ***The U.S. plan*** The plan was laid out by Hamilton in his *Provision for the Support of Public Credit*.[46] It was adopted by Congress with significant modifications. The basic features of the plan were these:

A. The plan was voluntary. As Hamilton stated in his *Report on a Plan for the Further Support of Public Credit*, “. . .the Funding Act expressly confirms the contracts and rights of the Creditors of the United States, who shall not think fit to subscribe to the [plan], and gives an expectation to them of further and other arrangements upon the event of the propositions made to them.” Accordingly, holders who did not wish to give up their par claims for instruments offered in the restructuring plan which they perceived to have a lower net present value could retain their original holdings.

B. The domestic debt was calculated to include principal and accrued interest at par. Because of the passage of time, the interest component, as noted above, was a significant part of the total due. Hamilton deemed it vital to recognize these obligations on a par basis so that no claim could be made that the plan was not comprehensive and marred the credit standing as a result. Hamilton was no doubt aware of the French

45 *Id*., p. 347.
46 *Provision for the Support of Public Credit*, Treasury Department, January 9, 1790.

debt restructuring of 1721[47] (which was mentioned in the Necker treatise referred to below). In that case, holders who had acquired debt in the secondary market at discounts were only offered the amount they paid for the debt or a current market valuation but not par. Many contemporaries of Hamilton argued for the same result. But Hamilton pushed back forcefully, noting the fundamental importance of the government's honoring its contractual objections to the letter. He reasoned that this position would repay itself enormously in terms of establishing the credit of the U.S. Specifically because the U.S. could, as the French did, pay a smaller amount and elected to pay the whole, it was a visible, forceful statement of the country's resolve to announce to the world the primacy of its intention to honor its debts. This meant assuming the debt of the States incurred in connection with the war. The famous dinner compromise in which the assumption, highly controversial, was agreed in exchange for agreement to locate the District of Columbia at the Maryland/Virginia border, promoted this objective. Again, this assumed debt was recognized at par.

C. Participating creditors holding domestic debt were to be offered seven different options in exchange for their claims. These are consistent with the tool chest of Jacques Necker, the author of a treatise on finance, the finance minister under Louis XVI and a supplier of credit to the U.S. during the war (to the detriment of France's own financial position).[48] Necker's view, reflecting practice at the time, was that there were two main types of sovereign credit: perpetual annuities and life annuities, and another, to be used more sparingly, tontines. Necker believed that a sovereign, since it did not have capital, could only concentrate on cash flows needed to serve these instruments. Debt reduction would be managed, in periods when interest rates fell, by informing holders of high interest instruments that they would be redeemed unless they agreed to a lower interest rate. This they did, thus sparing the government the need to come up with the resources for the redemption, which they may well not have had. Hamilton had reason to believe that the domestic debt was owned to a significant extent by European holders.

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[47] Velde, François, *What We Learn from a Sovereign Debt Restructuring in France in 1721,* Federal Reserve Bank of Chicago Economic Perspectives, Vol. 40, No. 5, 2016.

[48] Necker, Jacques, A Treatise on the Administration of Finances of France, Thomas Mortimer translation, Logographic Press, 1786, vol. 2, Ch. XI.

Hamilton's plan departed from the Necker script in two respects. The U.S. did have capital usable in this context: its vast acreage of Western Lands, of which the U.S. had approximately 21 million acres at the time, over which it had "right of soil." Accordingly, two of Hamilton's options included an interest in land valued at $20 an acre. The higher percentage of land, the higher the interest rate on the annuity for the other portion, to compensate for the fact that the land portion was riskier and would not yield cash unless sold. The other departure by Hamilton more in line with contemporary English practice that had become popular in the United States was a sinking fund. This fund was originally to be financed with postal service receipts. But later, when Congress narrowed the options from seven to a modification of one, the land concept was rejected and land sales proceeds were directed to the sinking fund.

Four of the options were for perpetual annuities and two for life annuities. The seventh option was a tontine.

In the end, Congress accepted only one of the options and modified it[49]. The option selected stipulated that unpaid interest would be calculated through December 1790. Participating creditors would receive a certificate for an amount equal to two-thirds of the sum subscribed, at 6% per annum, beginning January 1, 1791, payable quarterly, and subject to redemption in any one year, as to both of principal and Interest, up to $8.00 per $100 of the original principal amount. Participants were also entitled to another certificate for a sum equal to the remaining third of that sum, which after 1800 would bear 6% interest. The right of redemption was at the option of the U. S. [50]

For interest claims, the subscriber was entitled to a certificate for an amount equal to the sum subscribed, bearing interest at 3% per annum, payable quarterly, and also redeemable at the option of the government.

Payments would come from dedicated revenue streams of the government.

[49] "An Act making provision for the Debt of the United States" passed August 4th, 1790 (known as the Funding Act).
[50] The assumed state debt had the same terms as to two-thirds of the debt assumed, and 3% interest as to one-third of the debt assumed. Funding Act, Sec. 15.

Accordingly, Hamilton's plan, as adopted, meant that no principal had to be paid on the debt except at the option of the government. Several related acts were adopted to reduce the outstanding debt as resources became available, including "An Act making provision for the Debt of the United States" passed the 4th of August 1790, directing proceeds of the sale of Western Lands, through the sinking fund, and "An Act making provision for the reduction of the Public debt"—passed August 12th 1790, directing that surplus revenues be used to make market purchases of government debt.

ii. The German plan

The German payment scheme called for a bundle of payments to be made to the receiver's account at the *Reichsbank*, having the following components:

-- a budgetary allocation for debt payment, subject to a grace period from budgetary allocation in the first year, followed by stipulated and increasing amounts of budgetary allocation for the next four years. During the budget grace period, a portion of the international bond financing would be used for payment in the receivers' account, with a particular emphasis on maintaining the flow of in-kind transfers.[51]

--Interest on the railroad bond, beginning in the first financial year of the company and in increasing amounts thereafter.

--Transport tax: after a one-year grace period, a stipulated amount of transport tax was to be paid, not an escalating amount.

--Interest on the industrial debentures at 5% plus a 1% sinking fund.

The above were subject to the contingencies and value recovery features described below.

Planning took account of the results of a comparable parallel case which was deemed to be farther advanced in its process: Austria. This gave planners a look into the future and gave a measure of reassurance that their projections were justifiable.

Once the foregoing payments were made to the receiver's account at the *Reichsbank* Germany's obligation was satisfied and the funds were thereafter managed as described below.

[51] Dawes, p. 314.

iii. ***The Bosnia plan***. Given the profound uncertainties of the Bosnia situation, the instruments evidencing its assumption of the debt needed to have maximum flexibility, with built-in value-recovery mechanisms, as described in "Value recovery" below.

b. Flexibility controlled by the sovereign

Uncertainty gave rise to elasticity in all of the scenarios. For the U.S., the principal amount never had to be repaid if the government so elected because it was all annuitized. The political dynamics drove the redemption through the sinking fund and other mechanisms. But the architecture permitted entire flexibility in this regard.

In the German case, the grace periods mentioned above in the description of the German plan and the contingencies outlined below were an integral part of the arrangement.

Bosnia achieved elasticity through the nature of both bonds issued in the restructuring.

c. Contingencies

As used in this paper, "contingencies" are circumstances in which a payment does *not* happen or is lowered or accumulated and not distributed. A "value recovery" event, discussed in the next section, is one in which a future occurrence results in a payment that *does* happen. (Using this distinction, both of the Bosnia bonds issued in the Bosnia debt restructuring are value recovery instruments, one subject only to the passage of time (the FLIRBs) and the other subject to GDP per capita performance, which was a trigger that turned the bond *on*, which would otherwise stay off.) The German plan had the most clear cut and extensive use of contingencies within the definition just expressed. These mechanisms were designed to take account of the uncertainly of the future evolution of the German economy. For example, the plan contemplated the need to block funds in the agent for reparation payment's account on the contingency that to disburse them would strain the balance of payments, but accumulation was nevertheless available for in-country investment, similar to the deposit facility accounts in the modern sovereign restructuring era. If the revenue streams assigned as collateral from tobacco, alcohol, sugar, beer and customs revenue were to fall short of stipulated amounts in specific years, reparation payments were to be diminished by one-third of that deficiency. (By contract, as a value recovery mechanism, if they exceeded the target amount in that period, an additional payment of one-third of the excess was to be made, subject to an adjustment cap.)[52] Given that Versailles obligations were measured in Gold Marks and that the price of gold might not accurately reflect the requirements as previously contemplated, the plan called for an adjustment (a "correcting factor") to the amounts owed under it. If the general purchasing power of gold changed by 10% or more, either Germany or the Reparations Commission had the right to ask for an adjustment.[53] There was also a contingency if the railroad preference bonds did not sell when planned, in which event a domestic financing arrangement would be required.

d. Value recovery

A value recovery mechanism was a key component of the Dawes Plan. It was geared to performance of the German economy after it had time to recover and benefit from the various mechanisms contemplated for the first years of the plan. It was called an Index of Prosperity.[54] In devising the index, the Dawes Committee found that the reliance placed by the Reparations Commission in its value recovery formula, which was based solely on exports, was insufficiently broad and subject to manipulation. Instead, the Committee opted for a six-part test:

(i) Total German exports and imports taken together;

(ii) Total budget receipts and expenditure taken together, including those of the States of Prussia, Saxony and Bavaria (after subtracting Treaty payments in the year in question);

(iii) Railroad traffic measured by weight carried;

(iv) Total value of consumption of sugar, tobacco, beer and alcohol in Germany, measured by price;

(v) Total population; and

[52] *Id.*, p. 381.
[53] *Id.*, p. 412.
[54] *Id.*, pp. 409-11.

(vi) Consumption of coal and coal equivalent (lignite) per capita.

Base values for the categories (ii), (v) and (vi) were to be determined based upon results for the years 1927-9. For the other categories, the results were to be determined over the six-years 1912-13 and 1926-29, with appropriate adjustments in the earlier period to produce comparability. If the index produced a positive result, a supplement to the payments to the agent for reparations payments would be paid but enough left for Germany to provide a strong incentive to achieve economic prosperity. Conversely, if there was a negative variance, that negative amount would have to be overcome in subsequent periods before a supplemental payment was required. The first payment would be due with respect to the 1929-30 fiscal period.

For Bosnia, the solution came in two components, both of which are value-recovery instruments in concept, one subject only to the passage of time and the other to a GDP formula. One was a front-loaded interest reduction bond (FLIRB) in the style first introduced in the Brady plan for Venezuela in 1990. Under this instrument, low but increasing fixed interest payments were called for in the first 10 years[55] of the bond and thereafter the bond converted to a floating rate instrument at 13/16 % over LIBOR. This bond represented 35% of the total.

The other 65% of the debt was converted to a GDP performance bond. This bond was conceived before GDP performance instruments (such as in the case of Argentina) had been devised and therefore was written on a clean slate. Given the fundamental uncertainties caused by the multiple depredations suffered by the country, including loss of population, loss of physical plant and loss of export markets, the only measure thought to have appropriate relevance was a minimal level of GDP per capita. Although this measure subsequently resulted in certain operational issues, it was a breakthrough concept in an extremely challenging environment (exacerbated by exogenous influences that dramatically reduced the time for negotiating the mechanism) and enabled closure to the negotiation. The bond measures per capita GDP with an escalator based on German inflation. Because Bosnia's economy was tied to the *Deutsche Mark*, having then no viable

[55] 2% per annum for the first four years; 3% per annum for the next three years; and 3.5% per annum for the next three years.

currency of its own, Germany was considered the best proxy. GDP figures were to come from the World Bank. If the minimum target was reached in two consecutive years in the period 2004 through 2017, the bonds would go live and then (but only then) interest would begin to accrue at LIBOR plus 13/16% with a lengthy amortizing principal schedule.

There was an interplay between the two bonds that reflected a good faith estimate that after 10 years, the economy could sustain both the FLIRB at the market interest rate and the GDP Performance Bond if it were then to go live as well.

e. Positive feedback loops One of the most noteworthy features that distinguish the U.S. and German scenarios from the conventional sovereign restructuring is the extensive and innovative use of positive feedback loops emanating from the restructuring itself. For example, the U.S. assumption of the state debt meant that the federal government could adopt a uniform fiscal strategy that minimized the negative impact on growth. Hamilton's expressed concern was that, left to the States, they might impose inefficient taxes that would dampen economic activity and create a confusing patchwork of outcomes that would detract from the whole. The nation, as noted, had a chaotic hodgepodge of currencies. To assume the state debt and treat all debt in a single fashion was to bolster the internal capital market, and make the debt itself a viable means of exchange for economic activity. The plan also aimed at giving investors an incentive to support the success of the newly conceived federal government. Newly issued debt was also used to fund the government's 20% capital purchase of the newly chartered Bank of the United States with confidence that it could be liquidated as needed because of the invigorated capital market. Most broadly, assuming the debt at par was a public announcement that the government treated the principle of creditworthiness as of paramount importance.

In the German case, the feedback loops came for the architecture of the debt payment arrangement. Each required payment was to be made to a special account at the *Reichsbank* in the name of the agent for reparations payments. Once this payment was made, Germany's responsibility ceased. Thereafter the agent and a Transfer Committee determined its future course. If the *Reichsmark* was stable, the payment was forwarded to the Allies. If there was a weakness in the currency, the payment was retained to lend confidence. Obviously the key objective was to avoid a repeat of the calamitous hyper-devaluation of the past. The other use of the funds was for in-kind transactions. Under this mechanism, a German supplier of steel, and, for example, a French buyer could decide to route the transaction through the agent. The agent would pay the German seller the stipulated price and the reparations obligation to France would be correspondingly reduced. In practice, thousands of these transactions took place.[56] They had the effect of stimulating not only the German economy but also the Allied economy. Accordingly, positive feedback was not limited to the debtor country. In the German case, the hope was that better performance under the Treaty arrangements would lift the economies of Europe, producing more demand for the German economy. The feedback loop concept was intended to raise the water mark for the region, creating a virtuous circle of economic growth.[57]

The external JPMorgan bond financing also served as a policy maker's tool to set benchmark for internal borrowing.[58]

The Dawes Plan also enabled the stimulative release of sterilized foreign exchange holdings that had been accumulating since the war. This was accomplished through the means of subscriptions or deposits in the newly revised *Reichsbank*, becoming available for uses of the economy.[59]

VII. Conclusion

The examples from history suggest that conditions of extreme uncertainly require a broad palate of restructuring measures. To summarize the above discussion, a restructuring in this context could include:

a. A fundamental revision of the structure of government to maximize the capacity to manage financial obligations going forward.

b. An all-in strategy of specific fiscal solutions within the broad restructuring of government.

[56] Sterrett, J.E., *The Dawes Plan in Operation*, 1927.
[57] The foreign financing was made because of America's interest in global prosperity that would be enhanced by German prosperity. It is to be noted that U.S. did not make a reparations claim, so its interest was more generalized in terms of the world economic consequences of the solution and of course a corresponding increase in banking business.
[58] Schuker, p. 43
[59] Dawes, p. 302.

c. Being attentive to the support and resources, both current and for the future, of third parties.

d. Then addressing the specifics of the debt restructuring itself.

e. Not shying away from a fully comprehensive solution.

f. Being mindful nevertheless that high uncertainty does not need to be met with a certain solution, instead setting in motion a process that holds the well-considered potential to solve the problem, with a view to revisiting it as often as necessary to complete the task.

g. Being fair in offering value recovery mechanisms if conditions improve but providing contingency mechanisms if they do not.

h. Striving for self-reinforcing mechanisms within the restructuring architecture.

i. Maintaining an overarching goal of achieving a sustainable national identity of creditworthiness.