5123430 Winter 2013
Lecture Note, October 9, 2013 (revised on October 15, 2013)

Lecture Note for Day 2 (October 9, 2013)

Course	Sovereign Defaults: Lessons from History and Future Implications
Course No.	5123430 Winter 2013
Instructor	Toshiro Nishizawa
Subject	Overview of the key concepts

1. Debt and credit, "an act both of trust and of confidence"

1.1. Needless to say, "debt" and "credit" are two sides of the same coin, where the word "credit" is derived from a Latin word "*credere*" meaning "believe."

1.2. Any sort of debt crises or defaults can often be triggered by "a puff of smoke" (!) because of the precarious and fickle nature of trust and confidence. Here we mean by "debt crises" or "defaults" an event where a borrowing entity is not capable or not willing to meet payment obligations to their creditors.

1.3. The most familiar case is "bank runs." For banks, deposits are liabilities owed (or payment obligations) to depositors. The mechanism behind sudden outflows or unavailability of cash is basically the same for banking crisis, sovereign debt crisis, currency crisis, and so on.

1.4. For bank runs, please see the case of UK's Northern Rock bank in 2007 (video).

Website:
http://www.youtube.com/watch?feature=player_detailpage&v=sKjdT8I6TnE

1.5. For a banking sector crisis, please see the case of Iceland in 2008 (video).

Website:
http://www.youtube.com/watch?feature=player_embedded&v=X35R_3ZN-t8

Question: *Why did bank depositors suddenly start rushing to their bank (Northern Rock) to withdraw their deposits?*

Question: *How would you react if you heard a rumor spreading elsewhere that a country in your investment portfolio* now had to borrow at interest rates three times as high as interest rates one month ago?*
(*: For example, let's suppose that you have purchased and currently own government bonds of that particular country.)

Question: *How would you react if you saw statistics showing that foreign exchange reserves* of a country where you had invested in stocks were now only 20 billion dollars as compared to 40 billion dollars just one month ago?*
(*: Very roughly speaking, foreign exchange reserves are dollar assets readily available to monetary authorities for intervention in foreign exchange markets.)

Question: *What could happen to the bank? What could happen to the country's borrowing? What could happen to the country's currency?*

Question: *Why are all these players (banks and countries) so fragile to crises of confidence?*

Question: *Under what conditions, debt crises or defaults could be triggered by "a puff of smoke"?*

2. Balance sheet

2.1. Balance sheet is a summary statement to show the financial position of an entity on a specified date. A balance sheet states (1) what assets the entity owns, (2) what it owes (its liabilities), and (3) what is the amount left after satisfying the liabilities. It represents a fundamental accounting equation (assets = liabilities + owners' equity).

<table>
<tr><td rowspan="2">Assets</td><td>Liabilities</td></tr>
<tr><td>Owner's equity</td></tr>
</table>

Question: *How could crises of confidence affect borrowing entities' balance sheet?*

2.2. How does a bank balance sheet typically look like?

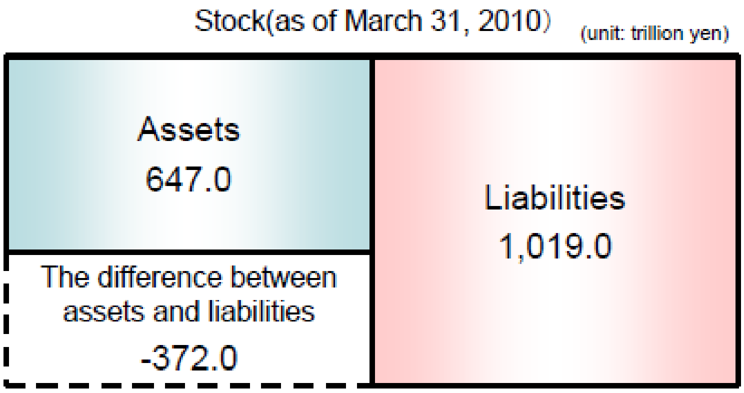
<table>
<tr><td rowspan="2">Assets
  Cash and deposits
  Account receivable and accrued revenue
  Securities
  Loans
  Tangible assets
  Intangible assets
  …
  …
  …
  Other assets</td><td>Liabilities
  Deposits
  Account payables and accrued liabilities
  Borrowings
    Loans and other borrowings
    Bonds and debentures
    Other liabilities</td></tr>
<tr><td>Equity
  Share capital
  Retained earnings
  …</td></tr>
</table>

2.3. How does a government balance sheet typically look like?

<table>
<tr><td rowspan="2">Assets
  Cash and deposits
  Securities
  Account receivables, etc.
  Loans
  Money in trust
  Allowance for doubtful debt
  Tangible assets
  Intangible assets
  Investments
  Other assets</td><td>Liabilities
  Financial bills
  Government bonds
  Borrowings
  Money in custody
  Deposit reserved from public pension
  Allowance for retirement benefits</td></tr>
<tr><td><u>Difference between assets and liabilities</u></td></tr>
</table>

Source: Ministry of Finance, Japanese Government financial statement for FY2009 (the year ended March 31, 2010). Accessed October 7, 2013.
http://www.mof.go.jp/english/budget/others/2011_03_english.pdf

Japanese Government financial statement for FY2009



Source: Ministry of Finance, Japanese Government financial statement for FY2009 (the year ended March 31, 2010). Accessed October 7, 2013. http://www.mof.go.jp/english/budget/others/2011_03_english.pdf

Question: *Is the (Japanese) government insolvent* with liabilities exceeding assets?*

*: "Insolvent" means "The condition that exists when (1) one's liabilities are greater than assets, so that a complete liquidation even at fair market value would not pay all debts, or (2) one's current income is not sufficient to pay current bills, resulting in the need to contribute more cash to the organization or default on some payments. (The Complete Real Estate Encyclopedia by Denise L. Evans, JD & O. William Evans, JD. The McGraw-Hill Companies, Inc.)

2.4. Beyond assets shown on the government's balance sheet, other resources available to the government include *its power to tax*.

2.5. On government borrowings, please follow up on the developments over the US government debt limit (video).

"Once you hit the end of extraordinary measures your borrowing authority is gone. You have no more ability to borrow and you're then left with cash. As any small business person knows, if you're operating your business relying on cash in the cash box to pay your daily bills, if your revenue is not adequate on a given day and you empty the cash box, you can't pay all your bills when the cash box is empty. I can't say with precision when that is but I can tell you I can't refill the cash box once we've lost our ability to use extraordinary measures. That is going to happen in mid-October." (Jacob J. Lew, Secretary of the Treasury, September 17, 2013)

Website:
http://www.cbsnews.com/video/watch/?id=50156561n
Also http://link.brightcove.com/services/player/bcpid962511081001?bckey=AQ~~,AAAA3-z6-hE~,w5sJnwsVf9y2fg-cyLOlC9fcA5mXDN0A&bctid=2678963446001

3. Natural inclination towards excessive debt accumulation

3.1. Leverage

"the ratio of a company's loan capital (debt) to the value of its ordinary shares (equity); gearing"

"the use of credit or borrowed capital to increase the earning potential of shares"

http://oxforddictionaries.com/definition/english/leverage

For example,

Benefit of leverage on investors' return

		Low leverage	High leverage
	Project cost	1,000	1,000
(a)	Debt	**500**	**900**
(b)	Equity	**500**	**100**
(c)	Revenue from project (*p.a.*)	75	75
(d)	Interest rate on debt (*p.a.*)	5%	6%
(e)	Interest payable [(a) x (d)]	25	54
(f)	Profit [(c) - (e)]	50	21
	Return on equity [(f) / (b)]	10%	21%

Source: page 120, Yescombe (2007)

Source: Yescombe, E.R. 2007. Public Private Partnerships: Principles of Policy and Finance. Burlington and Oxford: Butterworth-Heinemann.

3.2. Balancing the risk and opportunities of debt is becoming more and more difficult.

"Infusions of cash can make a government look like it is providing greater growth to its economy than it really is. Private sector borrowing binges can inflate housing and stock prices far beyond their long-run sustainable levels, and make banks seem more stable and profitable than they really are." (Reinhart and Rogoff 2009, xxv)

"Debt-fueled booms all too often provide false affirmation of a government's policies, a financial institution's ability to make outsized profits, or a country's standard of living." (Reinhart and Rogoff 2009, xxv)

3.3. For one of the typical cases of inclination towards excessive debt accumulation, please see the sub-prime mortgage crisis (video).

Website:
http://www.youtube.com/watch?v=Q0zEXdDO5JU
http://www.youtube.com/watch?v=bx_LWm6_6tA

3.4. The higher the leverage, the more fragile the debtor becomes against crises of confidence.

4. Transfer of debt burden

   Website:
   http://www.youtube.com/watch?feature=player_detailpage&v=yGrJbHmIjI4

Question: *Is the government (sovereign) "a lender of last resort" or eventually going to be "a debtor of last resort"?*

Question: *Whose burden is it?*

5. Sovereign defaults

5.1. In this course, as described in the syllabus and referred to at the begging of this lecture note, we define a sovereign default as "the *failure or refusal* of a government to meet payments on its debt obligations to either domestic or external creditors, or to both." Technically speaking, "From a legal point of view, a default event is an episode in which a scheduled debt service is not paid beyond a grace period specified in the debt contract." (Hatchondo, Martinez, and Sapriza 2011, 137) We broaden this definition in a legal sense by including "an episode in which the sovereign makes a restructuring offer that contains terms less favorable* than the original debt."

*: Less favorable for creditors, not for debtors.

Question: *Could we say that the United States Government is on the verge of default? If so, in what sense does the episode constitute a default?*

5.2. Companies go bankrupt, but countries do not.

5.3. Costs and benefits of sovereign defaults for a government

5.4. "To default, or not to default: that is the question"

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