Part I Final exam Essays: Many if not all of our case studies show tremendous the benefits from the 1988-2008 boom that made China a major international power. In 2010 the BRICS (mainly China) offered a $100B credit line to help any country impacted by the GFC (not be confused with GCF). There were no takers, since commodity prices surged as the U.S and China and then the EU eased monetary policy. In 2014 the BRICS took steps to institutionalize this reserve sharing program in the Treaty for Establishment of a BRICS Contingent Reserve Arrangement, signed at Fortaleza, Brazil in July 2015 (see Table CR-1 below, from Wikipedia). All the BRICS have access, SA has access to double its contribution. No country has ever used these credit lines, but packaged with the NDB it may signal a shift toward a larger role for the G-20 in global governance. This exam uses some of the tools we learned in this class to chronicle the rise of the BRICS (especially China) then we discuss the countries that may benefit from this new global financial safety net (in the next crisis, which are seeing now in Argentina I'm afraid). A*nswer these questions in your exam book bringing data tables and Figures (hand them in for me to review first)* Please plan to keep your exam book answers brief with bullet points or list, please clearly label and refer to points in diagrams. Check the course calendar & Blackboard for due dates and possible revisions or corrections. Let me know by email if you cannot find readings or links to not work. **Please prepare the data table for FE-1 before the final exam, bring your printed Table to class (don't write out the answers, just prepare the numbers). Part II is a question related to your case study which can be typed and submitted online before or after this final exam. Sections in italics are extra credit. Note there are two short Case study questions (and on EC section). You can submit the answers to these questions after the final exam to save tim*e in class*..**

FE-1 A) Starting about 2000, the year China joined the WTO, China's CA surplus increased from about 1.3% of GDP to almost 10% see Figure CA-1. The 1994 devaluation is part of the story but the real depreciation was over by 2000 (don't forget the J-Curve however). Use the Figure D-1 to show how a depreciation and a shift in demand export and rapid productivity growth in traded goods would shift export supply to the right created a large CA surplus (Figure CA-1). What is the advantage to the rest of the world of China's export boom?

FE-1B) Switching the savings and investment in the Metzler diagram we consider China a large country (see Sachs and Larraine, Figure 6-11). We can use WDI data to determine whether large China's 2007-08 CA surplus was driven by change in Investment or savings.Using the WB interactive diagram pasted into this wordpress page* create Table CA-2 showing Savings and investment in 2000 and 2007-2008), taken from the interactive figure shown here see Table CH-1 below. Now subtract China's GCF (gross capital formation) from gross domestic savings (GDS), this should be (roughly) the CA as a share of GDP (what do you get). During this period Savings and Investment shares increased, which changed the most? What is the bottom line in Table CH-1 an estimate of? Why is this important, considering the relative savings rates of the U.S. and China? Why do economists argue this is the fundamental cause of the U.S. trade deficit with China? What does this argument overlook (see your MFD diagram…). Was this a savings or investment driven CA surplus? See Table CH-1 below. *http://darrylmcleod.com/interactive-figures/ Why do we need both the MFD and the IT or Metzler diagram to discuss trade deficits,

Table CH-1 Savings and Invesment Shares for China				Change	
	2000	2007	2008	2000-08	2000-07
GCF Gross Capital Formation	34	42	43	9.0	7.2
GDS Gross Domestic Savings	37	51	50	13	14
	2.9	9.2	7.1	4.3	6.4
Source WDI interactive figures posted here: ttp://darrylmcleod.com/interactive-figures/					

FE-1C) Suppose export demand suddenly falls due to the 2008 crisis, made worse by the EU crisis in 2010 (see the EU unemployment rates). How can and did China reduce savings and increase GFC? (recall the twin deficits). This may not be enough, what did China do to increase GFC (given that export demand collapsed temporarily. How did these shifts likely benefit the Chinese people? See the FT video on the end of the Chinese Miracle (not really the end, 1.4M views).

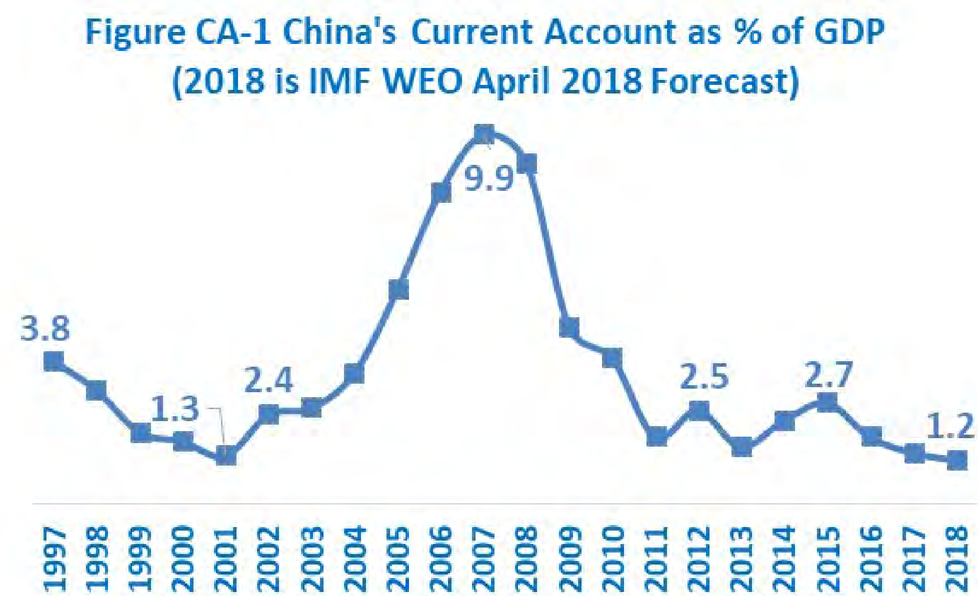
FE-2A) China is a large country, a large sustained CA surplus make it an exporter of capital (a global high saver). Use the Metzler diagram Figure 9 (the left panel is China) don't worry about the rest of the world (ROW) for now. Show how an rightward shift in savings (investment went up too but lets ignore that for now). If China was had closed capital markets what would happen to it domestic interest rate? Why would this be an advantage to China (what happens when interest rates are very low)? Instead for reasons that could be related to the 1998 Asia crisis (triggered by the 1994 depreciation of the renminbi?) China decided to export capital and build up reserves, Show this in Figure 9. How did exporting Chinese savings benefit the ROW (especially the United States)? China shared the benefits of its savings boom even as it accumulated an amazing amount of reserves peaking at nearly 4 trillion in 2014 (see a very nice Wikipedia figure). Explain how this sustains rapid employment growth.

FE-2B) That said, a country cannot run aCA surplus unless savings exceed investment, show this using NA identities, Y = C + I + G + CA assuming G = T (balanced budget). FE-2C) What about the exchange rate? Returning to Figure R-6 when more of less did China overcome its "fear of floating" (look at the nominal Fx rate in Figure R-6). FE-2B What can large trade surplus countries do to be a "good neighbor" (recall the midterm example of AbEconomics). Considering GDS = T – G + S_{priv} what did Germany and China do to reduce their CA surpluses (recall Germany took in 1.6 million refugees, mainly from Syria and Africa, Eritrea for example). China increased spending on infrastructure, especially in outlying provinces, this reduced its reliance on export employment. Also wages rose, squeezing profits of exporters (recall the Absorption Approach due to Canadian IMF economist Alexander where income distribution played a critical role in reducing savings… this ties into the Lewis Turning point as reflected in the Kuznets Curve, see this amazing FT video on China, viewed 1.4 million times!!) In other words, why does greater equality driven by rising wages reduce China's CA deficit, as we have seen already.

FE-3 Case study question FE-3A Esser and Vincent (2017) map out regional financing arrangements or RFAs, swap lines, excess reserves, etc all of which they suggest contribute the "global financial safety net" (GFSN). The BRICS also has a New Development Bank (NDB) which has started to make development loans. Has the BRICS development bank or CRA made any loans yet, if yes to whom? If yes, what does the FRBSF argue those loans signal (Li, 2015). *Why is this important? Given the Triffen dilemma what will China have if the Renmembi joins the U.S. dollar as reserve currency?*

FE-3B) A new BRICS world order? China has joined with BRICs and unilaterally used its massive near 2 trillion in reserves (largely $$US) to bolster the international safety net (we hope it steps into to help Argentina, as it already has in ECU, BRA and NGS). China now has bilateral swap arrangements with many countries (see Panel C of Chart 4 page 93) Does your country benefit from swap lines or RFAs or other lending from China or the BRICS ADB? See the map provided by Dollar, 2017. If yes, are these largely symbolic or potentially important. ***FE-3B)*** *Summarize Dollar (201y), Desai and Vreeland, 2014 and Griffith-Jones (2014) views on the motivation and importance of China's new global initiatives (Dollar was WB Chief Economist in China, while Griffith Jones wrote her report to UNCTAD. Do they see China's and the BRICS initiative as complementary or rival to existing Bretton-Woods arrangements? What is your view, or your region's countries view? As discussed in FE-1, China's accumulation of large reserves may have been an unintended consequence of their successful export strategy. Having experienced and fearing another Asian crisis, and wanting to promote development in Brazil and other BRIC countries, China may just want to promote positive externalities for its trading partners in LatAm, Africa and across Asia.*

FE-4 Case study question 2 A) Discuss the key measures and policies that make you country less vulnerable to the next crisis. From the point of view of preventing high unemployment and increases in $4 or $2/day poverty which measure do you consider most important? Explain.



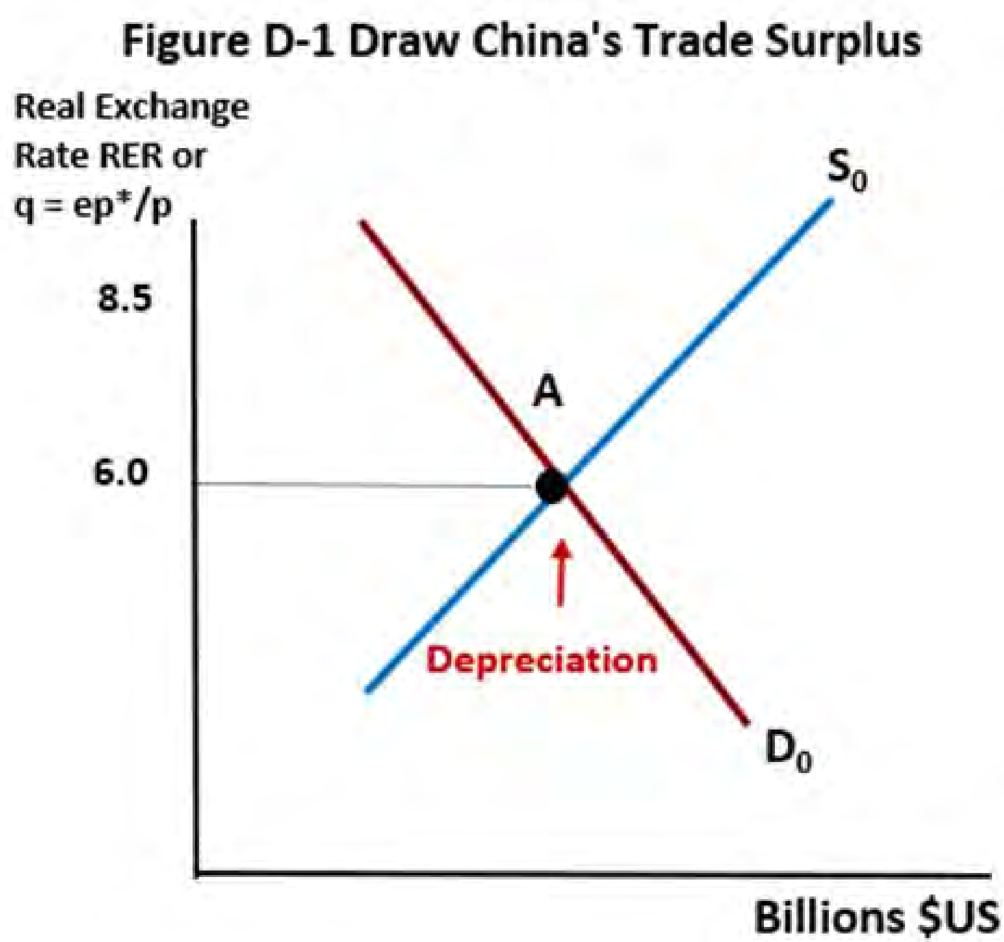
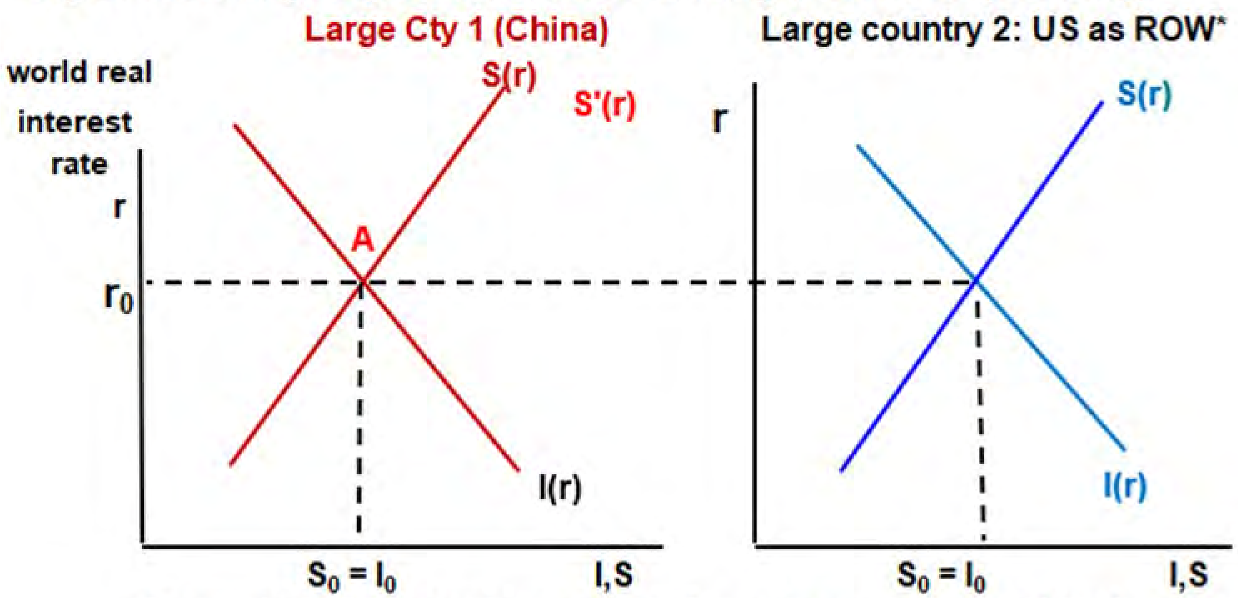


Figure R-6 China Real & Nominal Exchange (2018 USDA forecast)

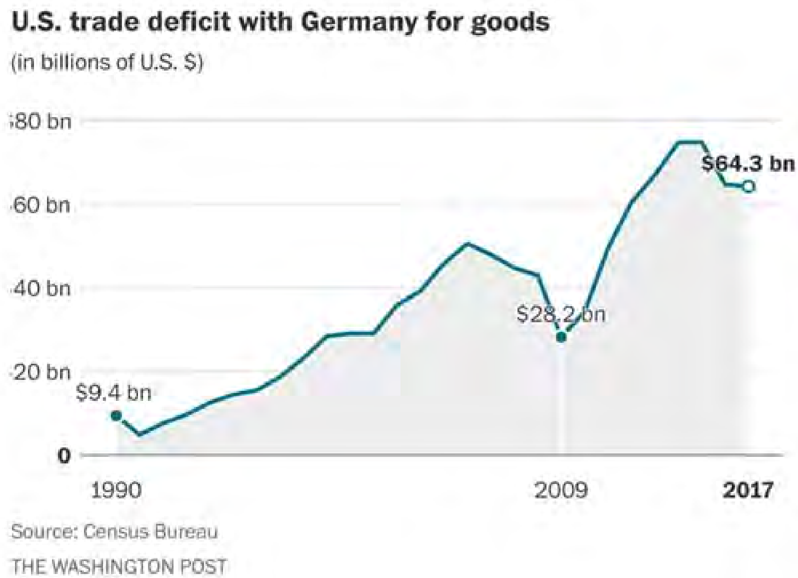
1. ***Outline the transition to a more secure policy regime for your country, including years if possible***
2. What can Germany do to be a good neighbor, reduce its CA deficit?

Fig 9: Show large Cty CA imbalances starting w/both at A (autarchy)



Bottom line: China has bigger boom, lower interest rates, nothing happens happens to the United States because all new savings stay in China

*ROW stands for "rest of world" or the U.S. (nations outside China).



To work with Figure 9 or other diagrams go to [*http://class.povertylectures.com/Econ5450_MetzlerDiagramsFall2014.xlsx*](http://class.povertylectures.com/Econ5450_MetzlerDiagramsFall2014.xlsx)

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Frankel, Jeffrey A. & Vegh, Carlos A. & Vuletin, Guillermo, 2013. "On graduation from fiscal procyclicality," Journal of Development Economics, Elsevier, vol. 100(1), pages 32-47

Griffith-Jones, Stephany. *A BRICS development bank: a dream coming true?*. No. 215. United Nations Conference on Trade and Development, 2014.

ALeslie Maasdorp (2017), New Development Banks the BRICS New Development Bank turns two, what has it achieved?

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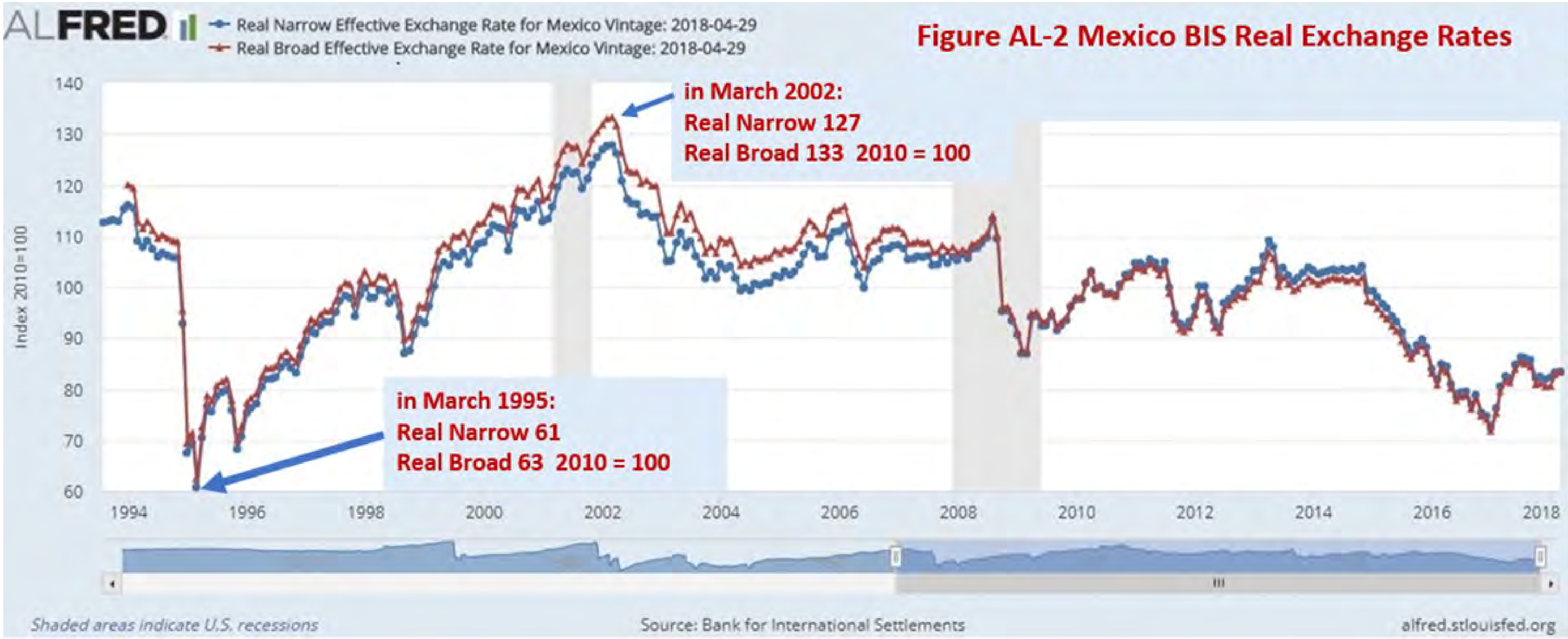
Banking on China through Currency Swap Agreements **October 23, 2015 By Cindy Li**

China in Transition: Transition and Development Strategies

Appendix A: BIS Real Exchange Rate Broad and Narrow (not much different) For Instructions on how to construct this diagram (and one for nominal exchange rates) Download this spreadsheet http://www.gdsnet.org/**FredBISReRDemoFormat2.xlsx**

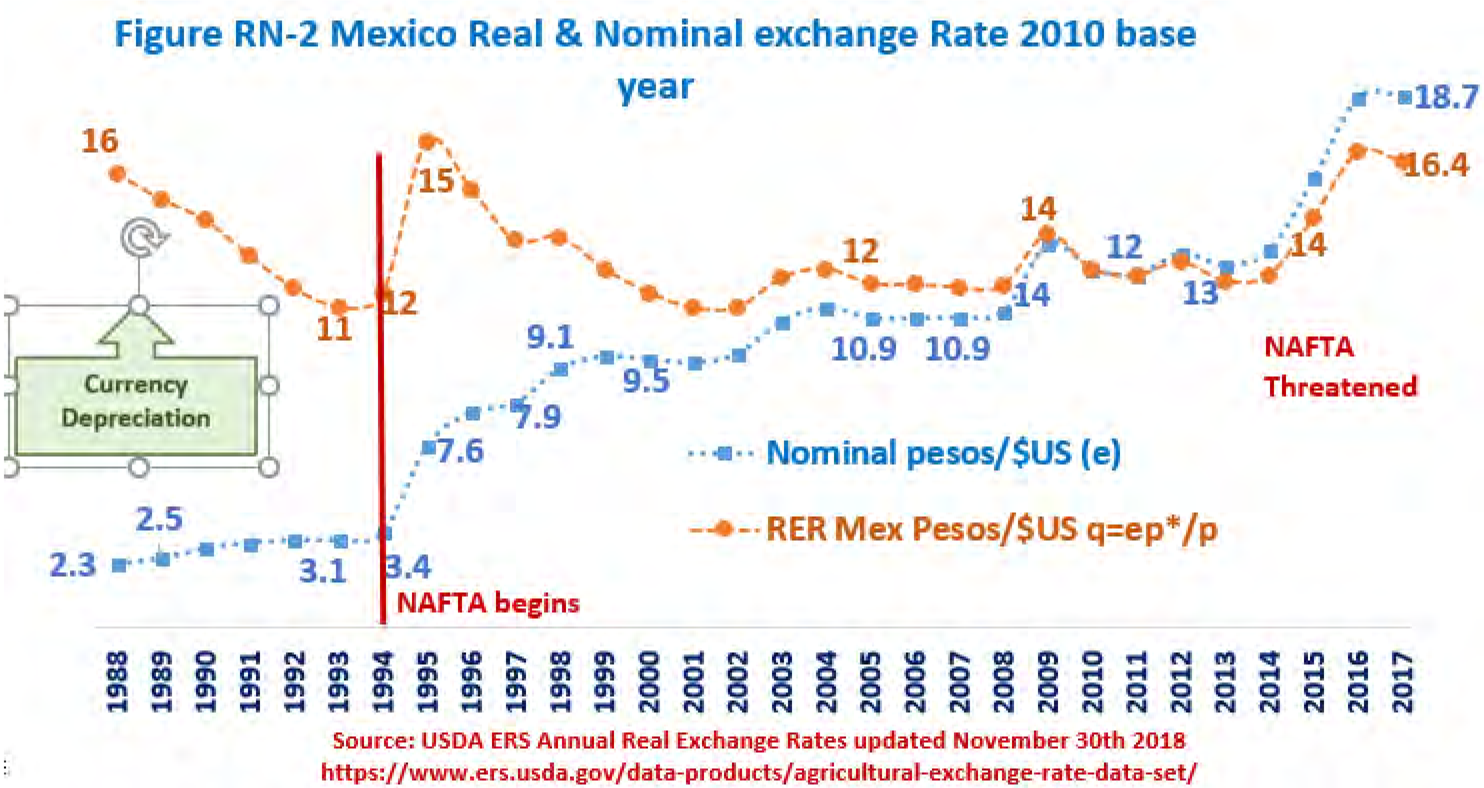


In terms of transparency, the USDA Series are still the best, they were updated Feb 22nd, and have monthly series as well

A lot of our countries are already there, including Colombia, let me know and I will find Colombia…

http://www.gdsnet.org/USDARERsChileMexNovem30tht2017Update2

http://www.gdsnet.org/ECON5450Spring2018_Calendar.pdf



https://www.ers.usda.gov/data-products/agricultural-exchange-rate-data-set/

2. Fiscal Space: can the government respond to the next crises by increasing social or public investment spending? This depends part on debt and reserves as a % of GDP (and over course a SWF is there is one. Here is the discussion at the WB-IMF Liliana Rojas-Suarez says that very low interest rates lead to rapid growth in debt (not just high commodity prices) http://live.worldbank.org/debt-and-growth. Except in the EU the era of very low "depression" interest rates is ending, but then growth is recovering so commodity prices are rising again. See Finance Minister Cardenas discussion of Fiscal Space in Colombia (he emphasized 70% of Colombia's debt is in local currency that is pesos, a big difference from the dollar debt borrowing only of the 1980s and 1990s debt crises). Why have the larger LatAm countries been able to borrow in dollars (hint: part of answer is their FCLs…).

3. **Monetary Policy:** Is inflation low enough and the exchange rate flexible enough to allow your country to depreciate its currency If it needs to? What is needed is a flexible nominal and an inflation rate is not too high, or at least is not driven by exchange rate pass through (use the RER formula for changes in q to show why this is true). Inflation rates and forecasts (as well as some debt data is in this spreadsheet). The WEO April 2018 has many other variables, also look for a recent CEPAL or Article IV or WB report on your country. They will very likely have a discussion of inflation and real exchange rate issues. Also look at recent data, such

A Flexible exchange rate: when? Overcome fear of floating: weak then strong, use reserves

B Excess reserves or a SWF (fiscal rule?)

C. Countercyclical Fiscal policy (Frenkel et al. 2013)

D. Fiscal space for safety nets (beyond CCTs and pensions)

E. A high Sovereign credit rating, access to private credit, ,

F. Foreign owned banks?

G. RFAs: Regional financing arrangements

H. IMF Quota and/or a FCL

I A larger middle class (resilience)

J. Diaspora (remittances) or ODA (Least Developed Countries)

Colonial ties to EU countries or the U.S. (Puerto Rico)