DÉJÀ VU IN TURKEY: CURRENCY CRISIS AND CORPORATE INSANITY

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The Turkish Crisis: The Lira as Symbol

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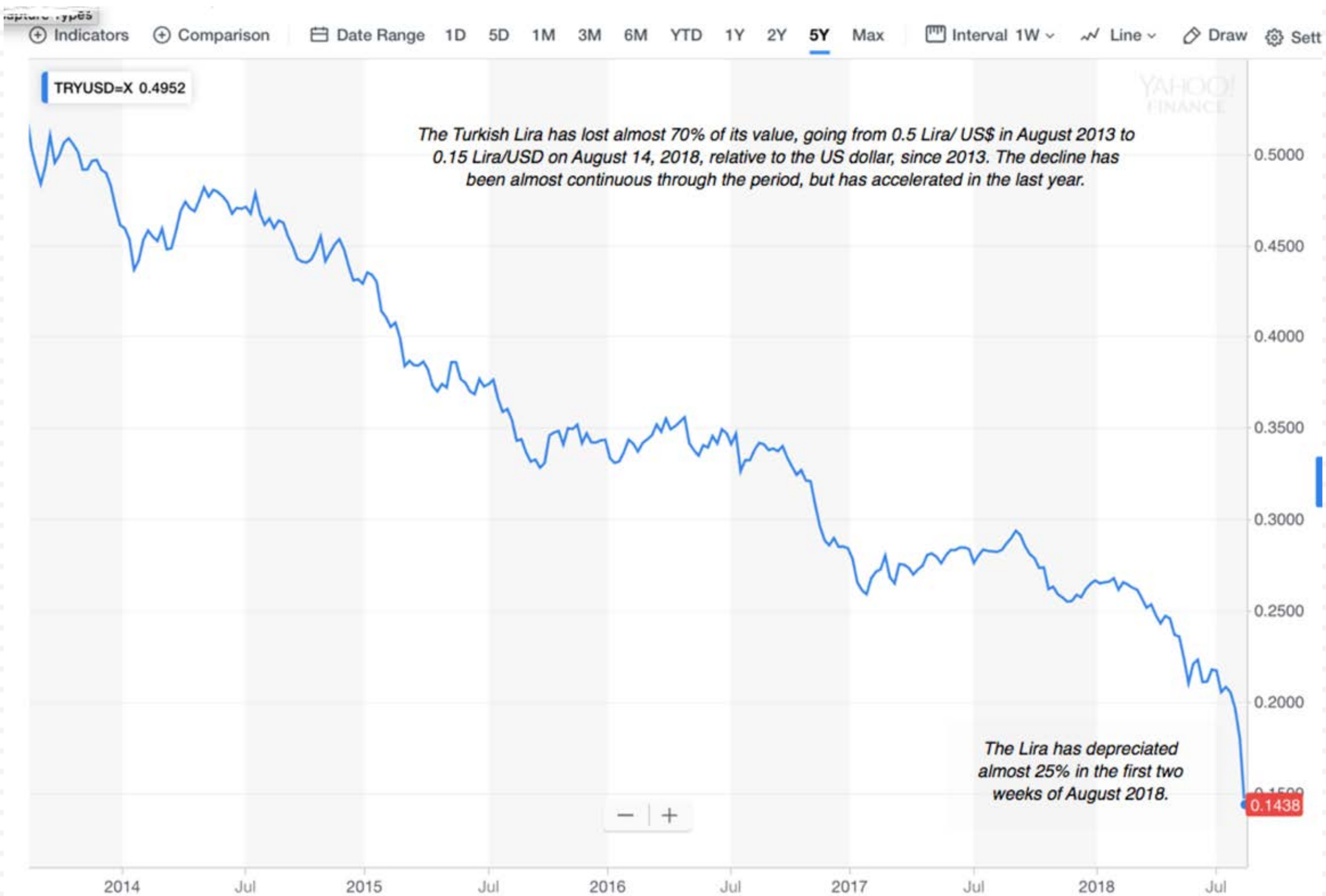
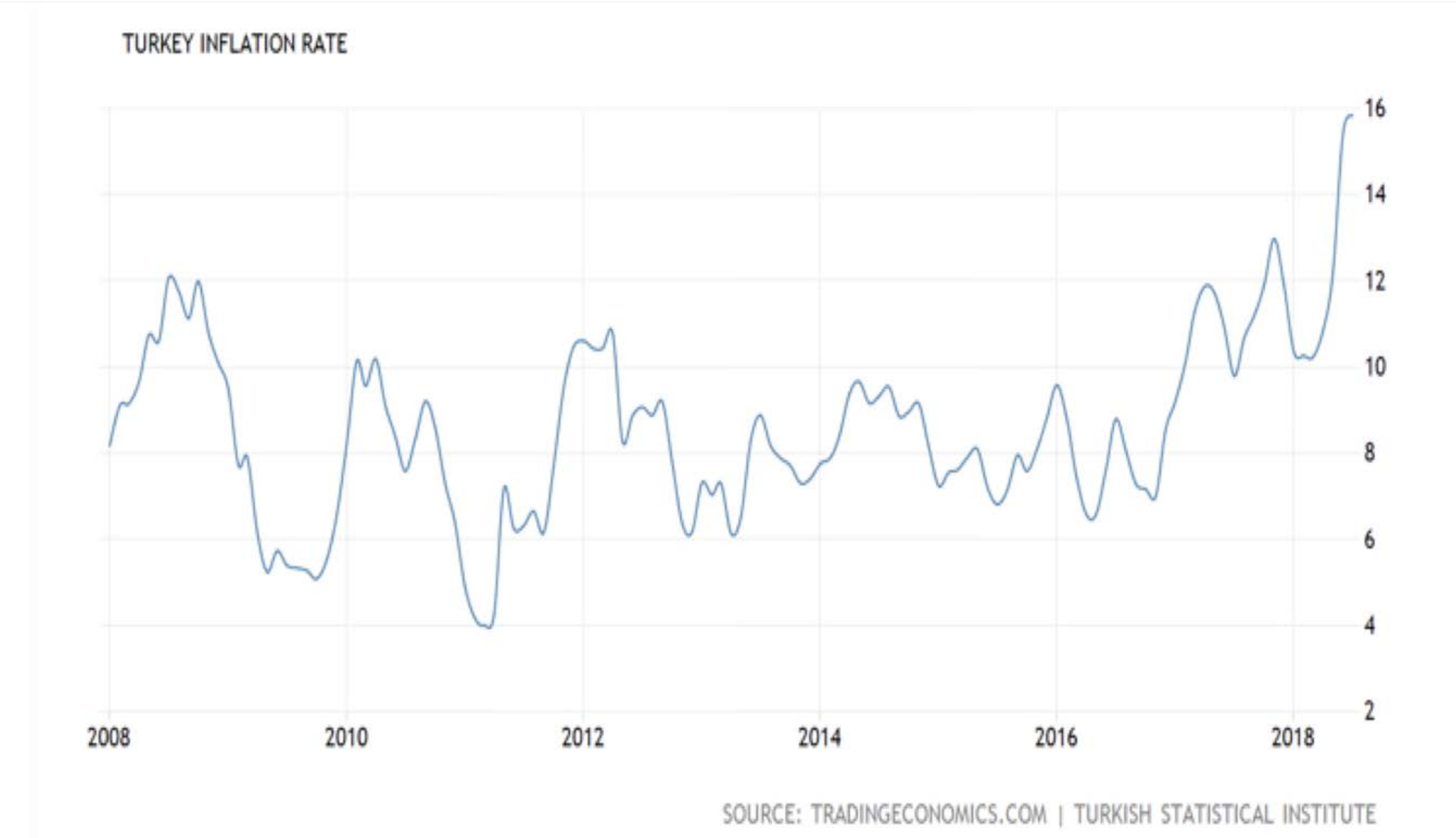


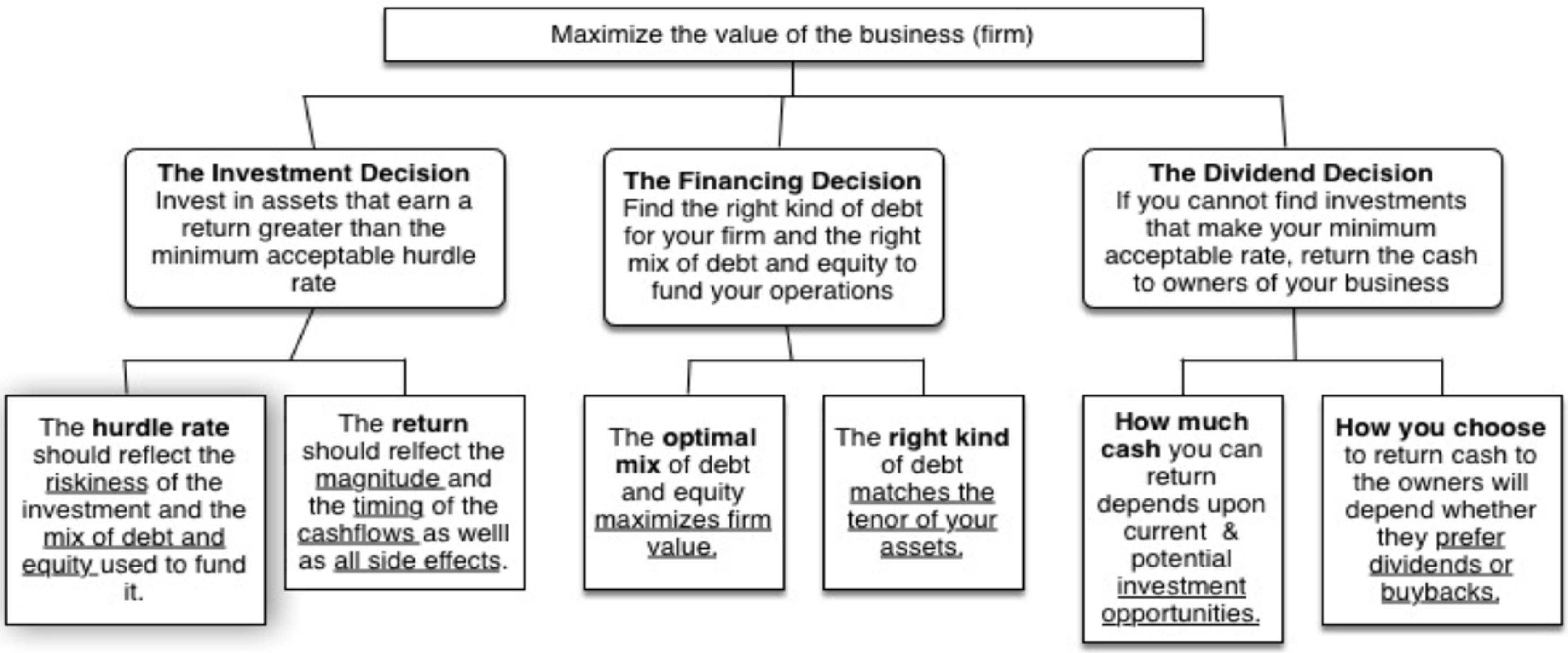
The Fundamentals



And the Consequences

- In Turkey: The drop of the lira has sent Turkey spiraling into a crisis, with foreign currency reserves running short and the economy going into shock.
- The Contagion effect: As Turkey goes into crisis, the rest of the world is being drawn in:
  - Emerging market currencies are dropping and developed market currencies are gaining.
  - Default spreads for both sovereigns and corporates are increasing.
  - Equity markets around the world are coming under selling pressure.

Corporate Finance: First Principles



The Financing Principle: Debt Matching

Projects/assets	Debt Design
Duration of projects	If projects are long term (short term), debt should be long term (short term) as well.
Cash flow profile	If cash flows are even over time, straight debt is better. If cash flows are low in early years, but expected to grow over time, convertible debt fits.
Currency	Currency mix of debt should be reflective of currency mix of cashflows (especially inflows).
Pricing power	With pricing power, as inflation rises, cash flows will rise as well and floating rate debt makes sense. Without pricing power, as inflation rises, profits can be squeezed, cash flows can drop and fixed rate debt is a better fit.

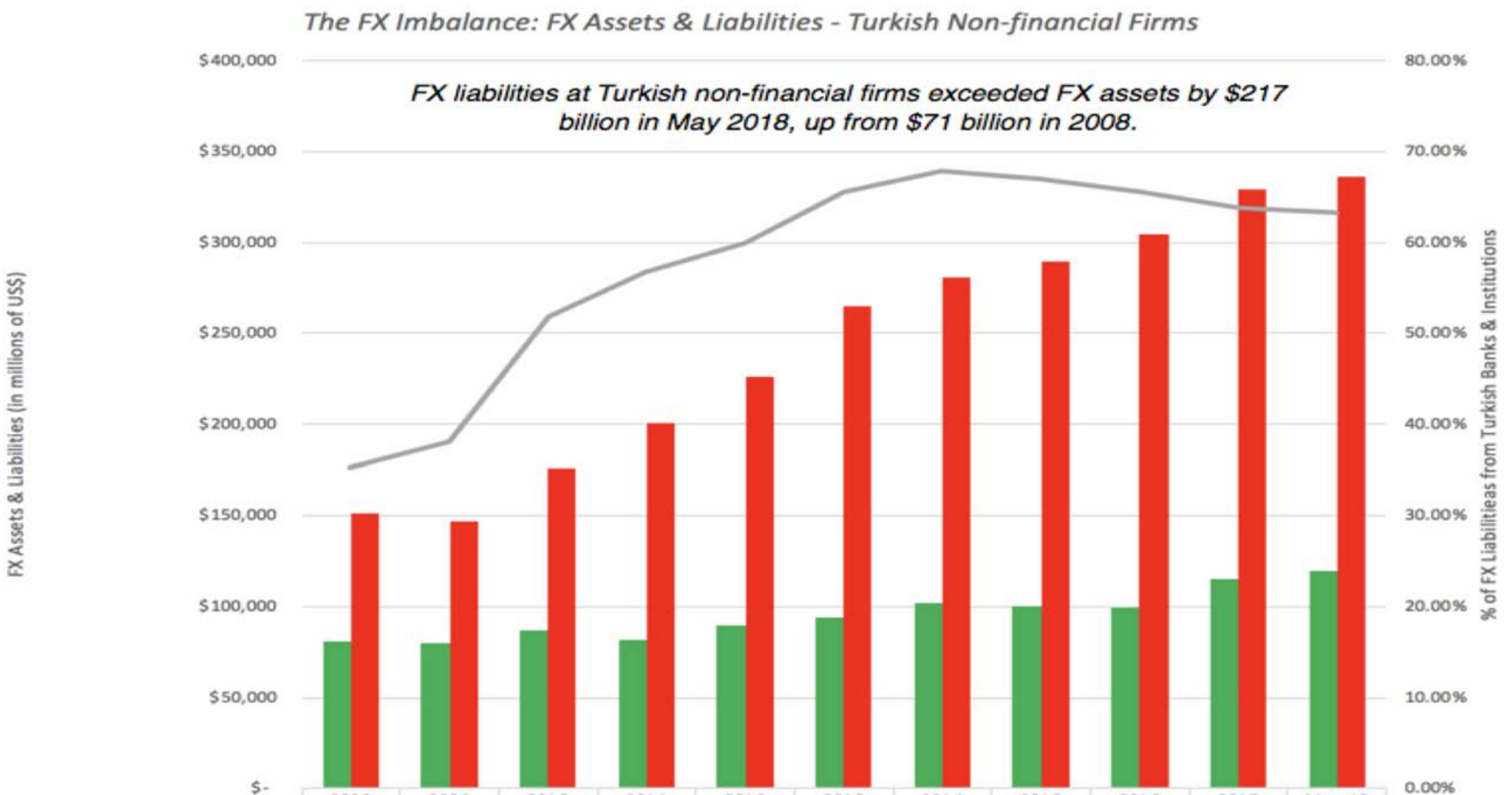
Debt Matching

- <u>Debt Design</u>: The simplest and most direct way to match debt up to assets is to design the debt to match up to asset characteristics (in terms of maturity, convertibility, fixed/floating rate and currency).
- <u>Derivatives & Swaps</u>: The other is to issue mismatched debt (for whatever reason) and then use derivatives markets or swaps to reduce or eliminate the mismatch.
- <u>Simple rule</u>: A company that knows its long term project characteristics and asset composition should issue debt that matches that long term exposure, and then use derivatives to protect itself against short term movements.

The Turkish Problem

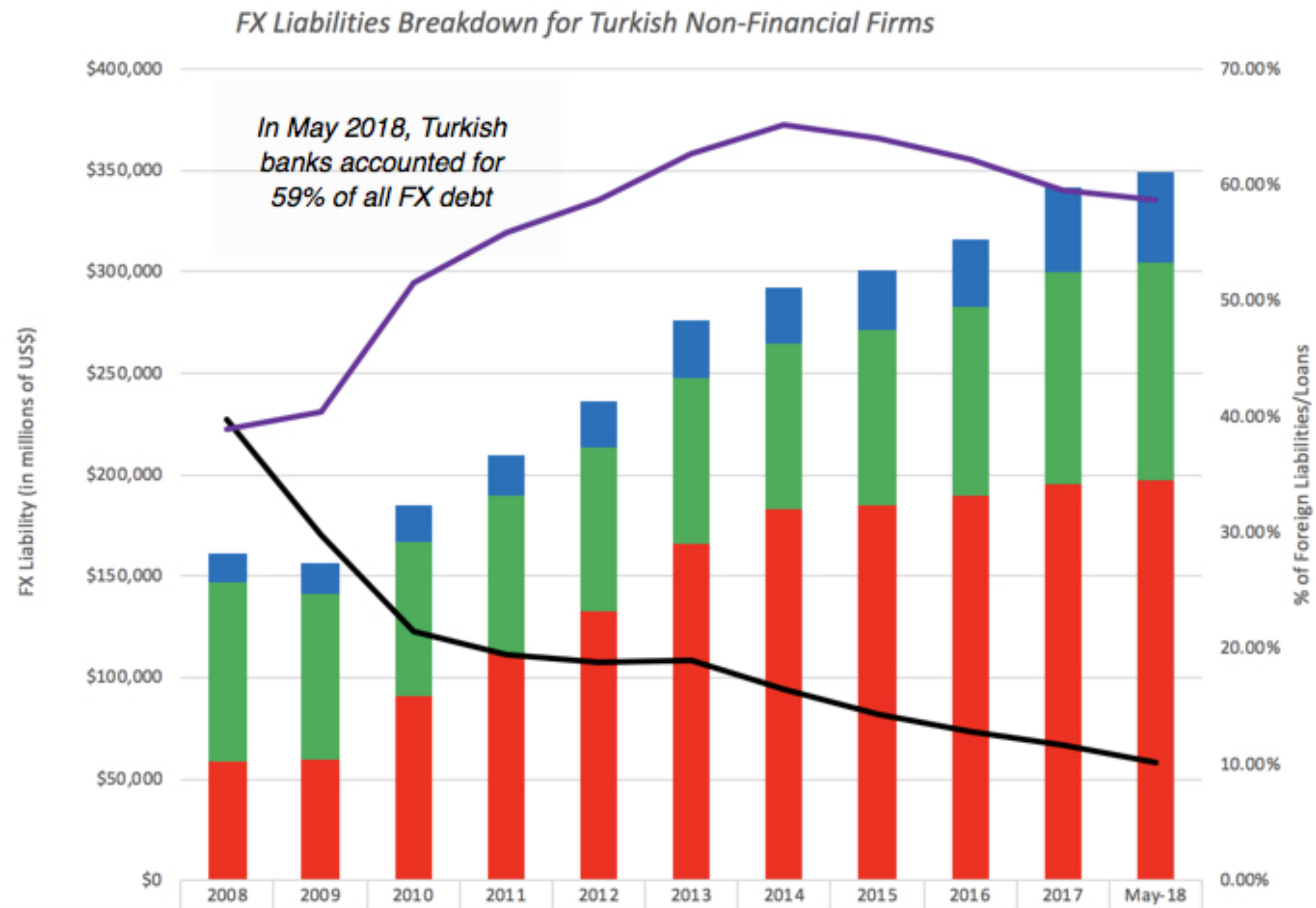
- Corporations around the world seem to revel in mismatching debt and assets, using short term debt to fund long term assets (or vice versa) and sometimes debt in one currency to fund projects that generate cashflows in another.
- In numerous studies, done over the decades, looking across countries, Turkish companies rank among the very worst, when it comes to mismatching currencies on debt, using foreign currency debt (Euros and dollars primarily) to fund domestic investments.

1. The FX Imbalance



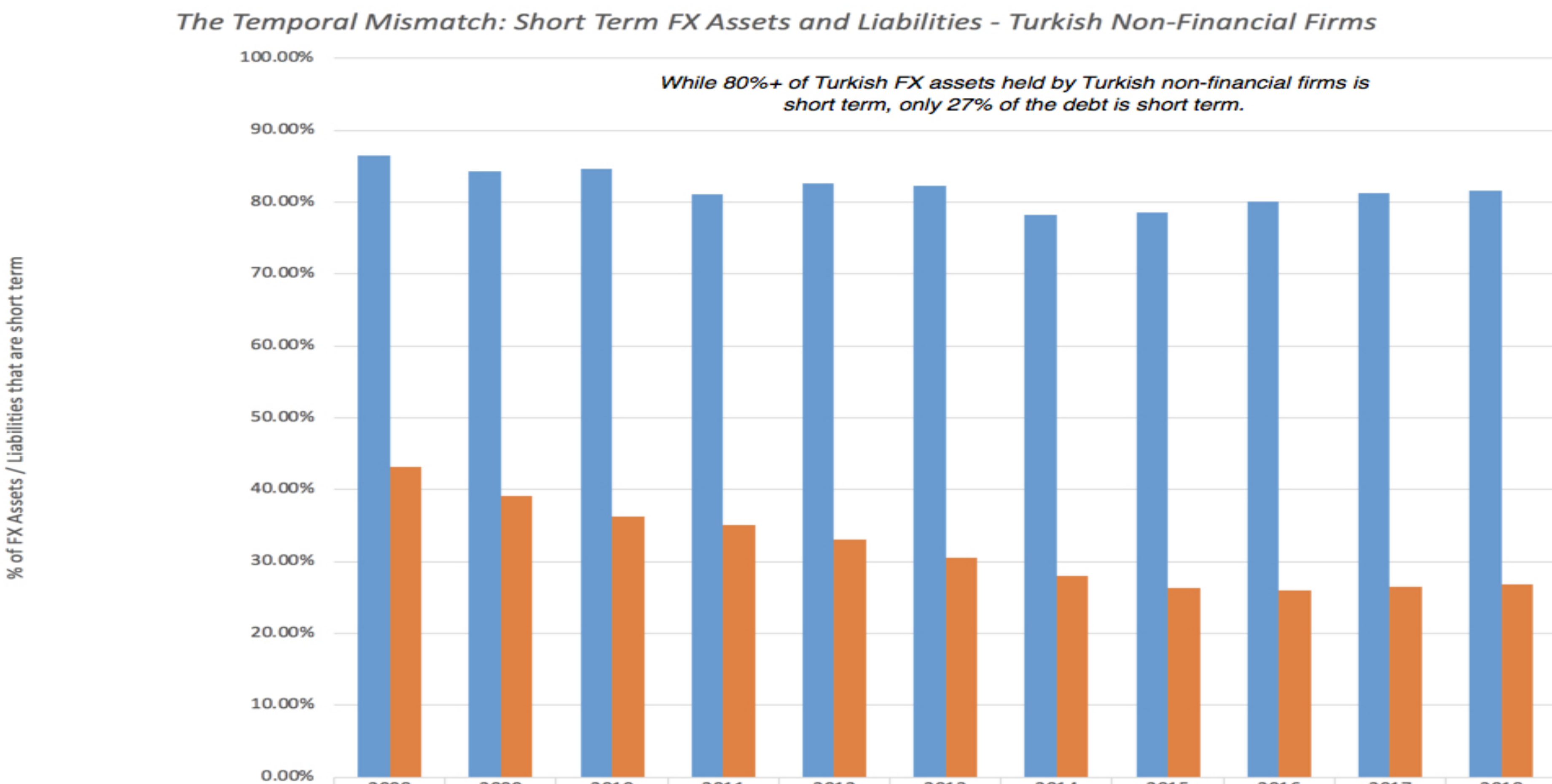
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	May-18
Foreign Exchange Assets	$80,465	$80,385	$87,379	$82,179	$89,367	$94,056	$101,968	$99,835	$99,139	$115,476	$119,407
Foreign Exchange Liabilities	$151,005	$147,087	$176,143	$200,336	$225,748	$264,965	$281,023	$289,625	$304,768	$328,961	$336,662
% from Domestic Entities	35.24%	38.17%	51.81%	56.86%	59.94%	65.52%	67.88%	66.95%	65.57%	63.74%	63.33%

2. With Turkish Banks being the main facilitators…



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	May-18
Imports Payable	$14,619	$15,234	$18,093	$20,430	$22,489	$28,153	$28,056	$29,865	$33,192	$41,073	$43,925
Foreign FX Debt	$88,320	$81,520	$76,163	$77,614	$81,417	$81,648	$81,262	$85,850	$93,495	$104,397	$107,357
Domestic FX Debt	$58,697	$59,511	$90,759	$111,976	$132,526	$166,287	$183,311	$185,265	$189,669	$195,826	$197,772
% of domestic loans FX indexed	39.77%	29.78%	21.57%	19.53%	18.85%	18.94%	16.46%	14.41%	12.87%	11.66%	10.11%
% from domestic entiles	38.87%	40.46%	51.53%	55.89%	58.71%	62.76%	65.23%	63.97%	62.23%	59.53%	58.74%

3. With a maturity mismatch added in..



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
% of Assets that are short term	86.54%	84.25%	84.65%	81.07%	82.58%	82.28%	78.21%	78.52%	80.10%	81.20%	81.58%
% of Liabilities that are short term	43.20%	39.06%	36.28%	35.14%	33.04%	30.53%	27.98%	26.33%	26.02%	26.42%	26.85%

4. With pain in the near term…

% of FX Debt due in	*Banks*	*Non-bank Financials*	*Non-Financials*	*All firms*
2018	20.25%	14.72%	7.36%	13.48%
2019	21.80%	27.03%	15.93%	19.30%
2020	8.67%	28.04%	15.29%	13.39%
2021	8.16%	13.24%	12.32%	10.59%
2022	11.05%	4.33%	9.94%	9.99%
2023	9.85%	7.19%	8.10%	8.79%
2024	5.41%	2.76%	7.06%	6.02%
2025	3.81%	1.30%	6.91%	5.15%
2026	1.94%	0.31%	2.43%	2.06%
2027	3.85%	0.15%	2.59%	2.95%
2028	1.67%	0.20%	2.38%	1.91%
2029	0.17%	0.22%	1.34%	0.75%
2030 +	3.38%	0.51%	8.36%	5.61%
Weighted Maturity	**3.84**	**2.67**	**5.07**	**4.36**

The Rationale for Mismatching

- Clearly a problem: Turkish firms clearly have a debt mismatch problem, and the institutions (government, bank regulators, banks) that should have been keeping the problem in check seem to have played an active role in making it worse.
- And has happened before: Worse, this is not the first time that Turkish firms and banks will be working through a debt mismatch crisis. It has happened before, in 1994, 2001 and 2008, just looking at recent decades. If insanity is doing the same thing over and over, expecting a different outcome, there is a good case to be made that Turkish institutions, from top to bottom, are insane, at least when it comes to dealing with financing.
- And is happening elsewhere: This mismatching seems to occur in many emerging markets, though to a lesser scale, why do companies go for currency mismatches?

1. Acceptable Reasons

- The mismatched debt is subsidized: If the mismatched debt is being offered to you at rates that are well below what you should be paying, given your default risk, you should accept that mismatched debt.
- Domestic debt markets are moribund: There are emerging markets where the only option for borrowing money is local banks, and during periods of uncertainty or crisis, these banks can pull back from lending.
- Domestic debt markets are too rigid: As you can see from the debt design section, the perfect debt for your firm will often require tweaks that include not only conversion and floating rate options, but more unusual tweaks (such as commodity-linked interest rates).

2. Dangerous Reasons

1. Speculate on currency: Mismatching currencies, when you borrow money, can be a profitable exercise, if the currency moves in the right direction. There will be a moment of reckoning, when exchange rates will correct, and unless the company can see this moment coming and correct its mismatch, it will not only lose all of the east profits, but find its survival threatened.
2. Everyone does it Many of these companies argue that the government cannot let the entire corporate sector slide into default and will step in to bail them out, and true to form, governments deliver those bailouts. In effect, the taxpayers become the backstop for bad corporate behavior.

3. Bad Reasons

1. The mismatched debt has a lower interest rate: I have heard CFOs of companies in emerging markets, where domestic debt carries high interest rates, argue that it is cheaper to borrow in US dollars or Euros, because interest rates are lower.
2. Risk/Reward: Some companies believe that they will earn higher profits, on average and over time, with mismatched debt than with matched debt, but with more variability in those profits. This argument stems from the misplaced belief that markets reward all risk taking, when the truth is that senseless risk taking just delivers more risk, with no reward, and mismatching debt is senseless.

Fixing the Mismatch Problem

- *Governments* should stop enabling debt mismatching, by not stepping in repeatedly to save corporates that have mismatched debt.
- *Bank Regulators* should measure how much the banks that they regulate have lent out to corporates, in mismatched debt, and require them to set aside more capital to cover the inevitable losses.
- *Banks* have to incorporate whether the debt being taken by a business is mismatched in deciding how much to lend and on what terms.
- *Companies and businesses* have to consider what currency a loan or bond is in, when evaluating the interest rate, and in their own best interests, try to match up debt to assets.
- *Investors in companies* should start breaking down the profitability of firms with mismatched debt, especially in good periods, into profits from debt mismatch and profits from operations, and ignore or at least discount the former, when pricing these companies.