

# AMEM SPRING 2021 FINAL PROJECT

## COMMENTS

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### Group 1:

Derkova, Drdlova, Foltynova, Tenai

#### Forecast:

Your choice of REER trend shocks is a bit weird, for two reasons.

(1) you depreciate the REER trend mainly via the persistent growth shocks (`shock_dl_z_tnd`). That's OK to get REER trend depreciation, but notice that you also increase RIR trend via the 'Trend UIP Condition' (line 268 in the model code), effectively making monetary policy easy (negative RIR gap) in this period. That's not so realistic and indeed you had to put `shock_i` to keep rates low, otherwise the model would hike them considerably. Note this doesn't happen when you use `shock_l_z_tnd`, which is not persistent and doesn't affect `dl_z_tnd` and therefore also doesn't affect `r_tnd`.

(2) you use `shock_l_z_tnd`, but to *appreciate* the REER. Indeed, since 2016Q1 you revert much of the previous REER trend depreciation, which gives you very large REER gap in 2016-2017 (undervalued FX rate). That's a bit counterintuitive - there was a large shock, country fundamentals shifted, end of story. Why the reversion?

The forecast tracks actual data quite well, but "under the hood" the story is a bit wild. At the end of the forecast, you have still deeply negative output gap, very undervalued REER gap, and in 2015-16 you have deeply negative RIR gap.

It's also not clear why you needed so much `shock_l_y_gap` and also `shock_dl_cpi`. My guess is to offset the undervalued REER gap?

You could sell this to a unsuspecting client because headline variables look more or less fine, but it wouldn't fly past a reasonably competent analyst.

#### Text:

Lots of the text is backward-looking, ie. describing events before 2015. That's only relevant if it helps explain the forecast, which here it mostly doesn't.

The text could be more directly linked to the forecast. It's not bad, but a reader needs to search a lot. For example, in the paragraph about exchange rate, you only say what will happen to the exchange rate almost at the end. Start by saying "The manat exchange rate will depreciate sharply..." and then explain why. People are impatient, some people wouldn't even finish reading the paragraph (I'm not exaggerating).

### Group 2:

Danko, Kutlak, Nguyen, Janku

#### Forecast:

Overall quite good.

Good choice of shocks. Maybe you could also slightly slow down the  $dl\_y\_tnd$  and then have less negative output gap, but that's a minor issue.

Using the FX shock to speed up depreciation is fine, but in a real-world forecast you would spread out the shocks more - do a sequence of smaller shocks rather than two big shocks, because you cannot know when exactly will these two large shocks occur.

I like that at the end of the forecast, gaps are mostly closed or closing and trends aren't wild either, that suggests there is no obvious error in the forecast construction.

### **Text:**

I like the forecast part, the first part is only relevant if it helps explain the forecast, which here it mostly doesn't. Otherwise I like it, it's concise and main points are correct. Below are two sentences that caught my eye:

A negative growth of the economy will most likely continue until the oil price increases

Not really. Oil price is level variable, growth is growth. GDP will drop to a level consistent with the new oil price, but will not keep dropping.

We expect the manat to depreciate by 35% in the upcoming periods, which will also be accompanied by the real exchange rate depreciation also by approximately 35%.

Nominal depreciation is usually 2-4 larger than real depreciation, because the price level adjusts too.

### **Group 3:**

Gruzova, Koci, Krampfl, Renc

### **Forecast:**

Fairly nice forecast, there are couple of things I don't understand.

(1) The REER gap is still quite open at the end of the forecast, which is a bit odd - generally the forecast should say the current shocks will fade away and we cannot that well predict shocks that will happen 3-4 years ahead. I guess it's because of the FX shocks in 2016, maybe?

(2) Risk premium is also quite elevated at the end of the forecast. A premium of 7pp is *very* high, suitable for countries in crisis, banana republics, or countries with terrible track-record (Argentina) etc. Azerbaijan was hit by a large shock, but it still is a fairly well developed economy with substantial natural wealth.

(3) Inflation target is 5.5% at the end of the forecast, but that's not really consistent with keeping the FX rate stable as was the true preference of the central bank. If the CBA wants to keep FX stable, inflation will have to be lower (it was around 3% in 2016-2020)

### **Text:**

It's a bit confusing and the English is unfortunately not very good.

In general the text should be more focused on explanation of the headline variables - it's fine to explain the story, but mentioning the forecast variable only at the end of the first page is a bit too late. People are impatient and don't read sometimes even one page.

There are also some sentences that I don't understand - not clear if it's a language issue, or what you wrote was wrong:

Interventions were useful, however, resulted in a nearly 40% depreciation of the real

No, interventions did not cause REER depreciation.

the price level was lowered gradually only by 30%

No, price level went up.

level of gross domestic product appreciated again

Not sure what that means.

## Group 4:

Bufka, Cepelova, Dvoracek, Janek

### Forecast:

Fairly good, one thing that stands out is the inflation target which remains above 10% forever. See my comment on Group 3 as to why the inflation target should be low at the end of the forecast. Otherwise I don't see anything that stands out, which is good.

### Text:

I like the text. It's on point, concise, explains the movement of variables on the forecast. Also it reads well, it's logically structured.

real oil prices are below the trend (extracted from the Kalman's filter)

Nobody cares about our filter, they want to know the the "real world" reasons.

According to the balance of payments, foreign exchange reserves are shrinking.

This is not very illustrative sentence...

## Group 5

Holodnakova, Vojtko, Buci

### Forecast:

The forecast isn't bad, it's just a bit unorganized, perhaps it would need one more fresh look. The shocks are mostly logical, but their timing or magnitude could be improved to have the overall forecast story more coherent.

The REER gap is very negative all the time, because you only depreciate nominal FX rate by a shock in 2016Q1. In reality, it weakened already in 2015. This causes the quite low inflation, which you then offset by positive supply shocks. It also pushes the output gap very low which you then offset by the

output gap shocks... Just shifting the nominal FX shock to earlier period (or smoothing it over a few periods) would do the trick.

Inflation target remains high at the end of the forecast. See my comment on Group 3 as to why the inflation target should be low at the end of the forecast.

**Text:**

I like the text, it reads well, it's on point, and it makes the right observations. Would be good to also explain a bit more about inflation and interest rates. I like it also mentions the "post-shock" equilibrium of the economy - growth, FX regime, etc.