

Candidate 172807

Part 1

The candidate's answers to the first part of the exam are very good. The candidate has a good understanding of the model and the economic mechanisms, and exhibits solid math skills.

The household problem is accurately specified and the first order conditions are correct. However, due to an algebra error, the solutions for optimal consumption are wrong. The algebra error is minor (forgot to carry forward "gamma" from one equation to another). However, for a top score it is expected that the candidate would understand that the derived consumption levels are wrong.

The traded-sector firm problem/profits and the equilibrium wage are derived correctly. The non-traded problem is also correctly specified, but lacks a full derivation of profits as a function of model parameters and price only. However, the candidate explicitly notes that this is missing, so only a few points are deducted

In exercises 3-6b all the expressions are properly derived.

In exercise 6c the candidate misunderstands the mechanism through which the oil discovery affects prices and labor in the non-traded sector. In this example, the oil discovery works through the demand channel, and not through increased productivity in the traded sector. When discovering oil, the country becomes richer and would like to consume more of both traded and non-traded goods. The increased demand for non-traded goods increases price and labor demand in the non-traded sector.

Part 2

In question A1 the candidate provides the correct explanation for why the risk free bond market is redundant, as the ADS security that pays $(1+r)$ in all states of the world replicates this. The intuition behind the FOC is also good, although the correct term for the right-hand-side is marginal rate of substitution in state s . The candidate does not comment on why the marginal rate of substitution is multiplied with the probability of state s occurring.

In A3a, the right intuition is provided. With perfect risk sharing, only movements in global output matter for consumption. However, the candidate's explanation for a risky state in A3b is incorrect. A risky state is a high probability state of low global output, which is reflected in high prices for ADS in that state.

The answers to question A4 and A5 about home bias are good. The candidate understands what home bias is and potential reasons for why it occurs. A minor deduction in points is made however, since the explanation of home bias is somewhat imprecise. It is not about whether home invests more than foreign in domestic assets. It is about whether home investors invest a large share of their wealth in domestic assets than foreign investors.

A6 correctly states that with risky assets the asset return depends on the shock realization, in contrast to a risk-free asset for which the return determined ex-ante. Despite this, the points are deducted since the answer lacks explanations for how this in turn affects current account dynamics.

In B1 and B2 the answer is on the right track, but due to some inaccuracies full score is not given. The particular risk of sovereign debt is not that the borrower can default (default can happen in any debt contract), but the fact that upon a sovereign default the lender has limited possibilities for legal actions. In the absence of contract enforcement, the borrower can't commit to repay its debt, and the credit market may break down. In B2 the accurate answer should state that sanctions makes in costly for the borrower to violate the debt contract, which partly eliminates the commitment problem.

The answer to C1 is correct. In C2 the provided answer does not say why higher expected depreciation reduces the return differential. The correct answer is that it reduces the expected return on dollar dominated assets, from the viewpoint of a domestic investor, since fewer NOK is received when exchanging dollar assets to NOK.

In C3 the figure is wrong. The CB's demand curve is vertical in a floating exchange rate regime (at the level of the CBs reserve amount), and not upwards sloping as depicted in the figure. In C5 the candidate draws a figure showing what would happen if the CB conducts an appreciation in a fixed exchange rate regime, rather than a devaluation.

Overall assessment

Overall, this is a very good performance which deserves the grade B. In particular, part 1 of the exam is a clear B. Part 2 is a good performance, but with some major errors in A3b, C2-C3 , as well as several inaccuracies in other parts.