

8. (4 points)

A state has an assigned risk auto insurance plan for risks that are rejected by the voluntary market. The state is concerned about the exposure growth and poor loss experience of this plan.

a. (0.5 point)

Describe how switching to a reinsurance facility may impact the size of the residual market.

b. (2 points)

Describe how the government facilitates full consumer participation and imposes cross subsidies in obtaining personal auto insurance and saving for retirement.

c. (1.5 points)

Provide three arguments either for or against the statement: “All drivers, including those in the residual market, should pay actuarially fair rates for their automobile liability insurance.”

SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 8	
TOTAL POINT VALUE: 4.00	LEARNING OBJECTIVE: B2, B3
SAMPLE/ACCEPTED ANSWERS	
Part a: 0.5 point	
<ul style="list-style-type: none"> • “May actually increase residual market because the stigma of being rejected by the voluntary market is removed. An insured does not know that they have been ceded to the reinsurance facility.” • “If companies were allowed to price as they see fit, moving to a Reinsurance Facility should reduce the residual market size as they would be willing to retain more of the risk.” • “Since insurers can charge their own rates for each applicant, they have the ability to charge more adequate rates → less likely to cede business to facility → size should decrease.” • “It will reduce the size of the residual market by only allowing insurers to cede so many risks to the reinsurance facility.” • “Since the Reinsurance Facility uses Insurer’s own rates, which are not high enough for high risks, insurers will pass these risks to the Reinsurance Facility, increasing the size of the Residual Market.” 	
Part b: 2 points	
<p>Personal Auto Insurance:</p> <ul style="list-style-type: none"> • The government encourages full participation through states laws requiring liability coverage. Cross-subsidies are imposed by residual market mechanisms and restricted rating variables. • Purchase of insurance is required by law, which is the method facilitating full participation in the plan. The government also creates residual market mechanisms to help high-risk insured obtain coverage, increasing participation and creating a cross subsidy at the same time, as rates in the residual market are generally lower than the costs, and these costs are passed onto primary insurers, who build it into their rates, creating the cross subsidy.” <p>Saving for Retirement:</p> <ul style="list-style-type: none"> • By creating the OASDI tax, the government is facilitating full consumer participation in saving for retirement. Since this program is compulsory, everyone pays in. The benefit distribution formula is slightly skewed to provide greater benefit to lower income workers, thus creating cross subsidies where higher income workers end up paying for this greater benefit. • Social Security program is compulsory for all workers, so that guarantees full participation. Government imposes cross subsidies by giving a minimum floor of income and weighting benefits toward low income and large families. • Everyone is automatically enrolled in Social Security. The retired generation is paid for by the working generation. • Social Security has mandatory participation, so all workers must pay. It uses cross-generational subsidies: current workforce pays the benefits of the retired workforce. 	
Part c: 1.50 points	
<p>FOR:</p> <ul style="list-style-type: none"> • Use of actuarially fair rates provides incentive for higher-risk insureds to control losses. • Low-risk no longer have to subsidize for high-risk in residual market 	

SAMPLE ANSWERS AND EXAMINER'S REPORT

- It promotes availability of coverage as insurers more willing to offer coverage if they can charge appropriate rate.
- Cross-subsidies are a crude method of subsidizing low-income drivers; government should provide financial assistance directly if necessary.
- The rate should reflect all the costs of a risk transfer for an individual risk.
- It will reduce adverse selection since everyone is being charged actuarially fair rates.
- Facilitates competition as there now becomes motivation/opportunities for insurers to develop innovative rating plans.

AGAINST:

- There should be a limit to what one should pay for insurance.
- Some high risk insureds may choose to go without coverage → further burden on overall market as not collecting any premium
- If insurance is compulsory, it must be available & affordable to all.
- Actuarially fair rates may harm low & middle income insurance buyers

EXAMINER'S REPORT

Part a

- This question involved a hypothetical situation for which there were limited references in the syllabus. A correct answer would require making a number of assumptions and explaining how those assumptions would lead to a certain outcome. A wide variety of answers were accepted because the question allowed candidates to make a selection and use any argument to support their decision.
- Candidates were expected to understand how a reinsurance facility and an assigned risk plan work, the process by which an insured will be placed in one or alternatively in the voluntary market, and that the reinsurance facility is a residual market mechanism.
- We accepted answers that provided a logical construction of why the residual market would increase or decrease. Many candidates did not understand that involuntary market rates would change under a facility (as they would be the issuing company's rates) or that the method of placement in the residual market would be changing.

Part b

Regarding auto insurance, candidates were expected to know

- that state governments establish residual market mechanisms to provide auto insurance to those who cannot obtain it in the voluntary market;
- that some form of auto insurance is generally compulsory for those who own automobiles;
- that governments generally require residual market mechanisms to charge rates that are inadequate for the risks insured and that the rate deficiency is spread to the voluntary market, or that governments require companies to charge rates that are inadequate for some classes they feel could not otherwise afford auto insurance and require other classes to subsidize these classes.

Regarding social security, candidates were expected to know

- that social security is compulsory for virtually all wage-earners;
- that the program operation and benefit formula pay benefits that are not proportional to contributions, generally subsidizing lower-income workers, disabled, workers with

SAMPLE ANSWERS AND EXAMINER'S REPORT

families, etc., or that taxes are paid by one generation to provide benefits to another.

Common mistakes were to discuss only one line of insurance but not the other, to fail to mention either the compulsory nature or cross-subsidies, or to fail to discuss the method of cross-subsidization.

Part c

There were a wide range of possible answers to this part, which are mentioned above. Candidates were expected to know at least 3 of these arguments for or against.

Candidates that did well gave three arguments “for” or “against” or gave a mixture while correctly labeling which side the argument supported. A common mistake was to label an argument one way while giving an argument in the opposite direction (i.e. labeling an argument “for” that was in fact an argument “against”).

One common mistake was to cite the answer (appearing in one reading) that “An equal sharing of costs is fairer than one based on relative risk.” This reading presented this not as an established fact but as a theory advanced by some proponents. We expected an actuarial candidate to take a more nuanced view of this (for example, would one sensibly argue that the driver of a Ferrari should pay the same as the driver of a compact car?).