

Министерство науки и высшего образования Российской Федерации  
**Муромский институт (филиал)**  
федерального государственного бюджетного образовательного учреждения высшего образования  
**«Владимирский государственный университет  
имени Александра Григорьевича и Николая Григорьевича Столетовых»  
(МИ ВлГУ)**

Кафедра *ИЯ*

«УТВЕРЖДАЮ»  
Заместитель директора по УР  
\_\_\_\_\_ Д.Е. Андрианов  
\_\_\_\_\_ 23.05.2023

**РАБОЧАЯ ПРОГРАММА ДИСЦИПЛИНЫ**

*Профессиональный иностранный язык*

**Направление подготовки** 38.04.01 Экономика

**Профиль подготовки** Экономика фирмы

Семестр	Трудоем- кость, час./зач. ед.	Лек- ции, час.	Практи- ческие занятия, час.	Лабора- торные работы, час.	Консуль- тация, час.	Конт- роль, час.	Всего (контак- тная работа), час.	СРС, час.	Форма промежу- точного контроля (экз., зач., зач. с оц.)
1	144 / 4		32			0,25	32,25	111,75	Зач.
Итого	144 / 4		32			0,25	32,25	111,75	

Муром, 2023 г.

## 1. Цель освоения дисциплины

Цель дисциплины: совершенствование иноязычной коммуникативной компетенции, необходимой для осуществления профессиональной деятельности.

Задачи дисциплины: развитие иноязычных коммуникативных умений в ситуациях профессионального общения.

## 2. Место дисциплины в структуре ОПОП ВО

Дисциплина «Профессиональный иностранный язык» продолжает курс обучения иностранному языку по программе подготовки бакалавров. Углубление и расширение вопросов, рассматриваемых в данной дисциплине, будет осуществляться в профессиональной деятельности.

## 3. Планируемые результаты обучения по дисциплине

Планируемые результаты обучения по дисциплине, соотнесенные с планируемыми результатами освоения ОПОП (компетенциями и индикаторами достижения компетенций)

Формируемые компетенции (код, содержание компетенции)	Планируемые результаты обучения по дисциплине, в соответствии с индикатором достижения компетенции		Наименование оценочного средства
	Индикатор достижения компетенции	Результаты обучения по дисциплине	
УК-4 Способен применять современные коммуникативные технологии, в том числе на иностранном(ых) языке(ах), для академического и профессионального взаимодействия	УК-4.1 Использует иностранный язык как средство академического и профессионального взаимодействия с применением современных коммуникативных технологий	Знать грамматический минимум, необходимый для работы с иноязычной информацией в профессиональной деятельности (УК-4.1) Знать лексический минимум по изучаемой отрасли науки, необходимый для работы с иноязычной информацией в профессиональной деятельности (УК-4.1) Уметь понимать иноязычную информацию профессионального характера (УК-4.1)	Собеседование, Тест, перевод, реферат
УК-5 Способен анализировать и учитывать разнообразие культур в процессе межкультурного взаимодействия	УК-5.1 Демонстрирует способность использовать иностранный язык как средство межкультурного общения	Уметь анализировать и учитывать разнообразие культур в процессе межкультурного взаимодействия (УК-5.1)	Собеседование, Тест, перевод, реферат

#### 4. Структура и содержание дисциплины

Общая трудоемкость дисциплины составляет 4 зачетные единицы, 144 часа.

##### 4.1. Форма обучения: очная

Уровень базового образования: высшее.

Срок обучения 2г.

##### 4.1.1. Структура дисциплины

№ п\п	Раздел (тема) дисциплины	Семестр	Контактная работа обучающихся с педагогическим работником							Самостоятельная работа	Форма текущего контроля успеваемости (по неделям семестра), форма промежуточной аттестации(по семестрам)
			Лекции	Практические занятия	Лабораторные работы	Контрольные работы	КП / КР	Консультация	Контроль		
1	Иноязычная межкультурная коммуникация	1		8						32	Устный опрос
2	Профессиональная коммуникация на иностранном языке	1		24						79,75	Тестирование, устный опрос
Всего за семестр		144		32				0	0,25	111,75	Зач.
Итого		144		32					0,25	111,75	

##### 4.1.2. Содержание дисциплины

###### 4.1.2.1. Перечень лекций

Не планируется.

###### 4.1.2.2. Перечень практических занятий

###### Семестр 1

*Раздел 1. Иноязычная межкультурная коммуникация*

###### Практическое занятие 1

Иноязычная коммуникация в личной сфере общения (2 часа).

###### Практическое занятие 2

Иноязычная коммуникация в академической сфере общения (2 часа).

###### Практическое занятие 3

Иноязычная коммуникация в деловой сфере общения (2 часа).

###### Практическое занятие 4

Иноязычная коммуникация в деловой сфере общения (2 часа).

## *Раздел 2. Профессиональная коммуникация на иностранном языке*

### **Практическое занятие 5**

Грамматика для чтения и перевода профессионально ориентированной литературы (2 часа).

### **Практическое занятие 6**

Грамматика для чтения и перевода профессионально ориентированной литературы (2 часа).

### **Практическое занятие 7**

Грамматика для чтения и перевода профессионально ориентированной литературы (2 часа).

### **Практическое занятие 8**

Чтение иноязычных источников информации (2 часа).

### **Практическое занятие 9**

Чтение иноязычных источников информации (2 часа).

### **Практическое занятие 10**

Чтение иноязычных источников информации (2 часа).

### **Практическое занятие 11**

Подбор и перевод профессионально ориентированной литературы (2 часа).

### **Практическое занятие 12**

Подбор и перевод профессионально ориентированной литературы (2 часа).

### **Практическое занятие 13**

Подбор и перевод профессионально ориентированной литературы (2 часа).

### **Практическое занятие 14**

Реферирование информации профессионально ориентированного характера (2 часа).

### **Практическое занятие 15**

Реферирование информации профессионально ориентированного характера (2 часа).

### **Практическое занятие 16**

Реферирование информации профессионально ориентированного характера (2 часа).

#### **4.1.2.3. Перечень лабораторных работ**

Не планируется.

#### **4.1.2.4. Перечень тем и учебно-методическое обеспечение самостоятельной работы**

Перечень тем, вынесенных на самостоятельное изучение:

1. Аудирование иноязычной деловой информации.
2. Письменная обработка иноязычной профессионально ориентированной информации.
3. Устная обработка иноязычной профессионально ориентированной информации.

Для самостоятельной работы используются методические указания по освоению дисциплины и издания из списка приведенной ниже основной и дополнительной литературы.

#### **4.1.2.5. Перечень тем контрольных работ, рефератов, ТР, РГР, РПР**

Не планируется.

#### **4.1.2.6. Примерный перечень тем курсовых работ (проектов)**

Не планируется.

**4.2 Форма обучения: заочная**  
 Уровень базового образования: высшее.  
 Срок обучения 2г 6м.

Семестр	Трудоем- кость, час./ зач. ед.	Лек- ции, час.	Практи- ческие занятия, час.	Лабора- торные работы, час.	Консультация, час.	Конт- роль, час.	Всего (контак- тная работа), час.	СРС, час.	Форма промежуточного контроля (экз., зач., зач. с оп.)
<b>1</b>	<b>144 / 4</b>		<b>10</b>			<b>0,5</b>	<b>10,5</b>	<b>129,75</b>	<b>Зач.(3,75)</b>
<b>Итого</b>	<b>144 / 4</b>		<b>10</b>			<b>0,5</b>	<b>10,5</b>	<b>129,75</b>	<b>3,75</b>

**4.2.1. Структура дисциплины**

№ п\п	Раздел (тема) дисциплины	Семестр	Контактная работа обучающихся с педагогическим работником							Самостоятельная работа	Форма текущего контроля успеваемости (по неделям семестра), форма промежуточной аттестации(по семестрам)
			Лекции	Практические занятия	Лабораторные работы	Контрольные работы	КП / КР	Консультация	Контроль		
1	Иноязычная межкультурная коммуникация	1		2						30	Устный опрос
2	Профессиональная коммуникация на иностранном языке	1		8						99,75	Тестирование, устный опрос
Всего за семестр		144		10		+		0	0,5	129,75	Зач.(3,75)
Итого		144		10					0,5	129,75	3,75

**4.2.2. Содержание дисциплины**

**4.2.2.1. Перечень лекций**

Не планируется.

**4.2.2.2. Перечень практических занятий**

**Семестр 1**

*Раздел 1. Иноязычная межкультурная коммуникация*

**Практическое занятие 1.**

Иноязычная коммуникация в личной, академической и деловой сферах общения (2 часа).

## *Раздел 2. Профессиональная коммуникация на иностранном языке*

### **Практическое занятие 2.**

Грамматика для чтения и перевода профессионально ориентированной литературы (2 часа).

### **Практическое занятие 3.**

Чтение иноязычных источников информации (2 часа).

### **Практическое занятие 4.**

Подбор и перевод профессионально ориентированной литературы (2 часа).

### **Практическое занятие 5.**

Реферирование информации профессионально ориентированного характера (2 часа).

#### **4.2.2.3. Перечень лабораторных работ**

Не планируется.

#### **4.2.2.4. Перечень тем и учебно-методическое обеспечение самостоятельной работы**

Перечень тем, вынесенных на самостоятельное изучение:

1. Аудирование иноязычной деловой информации.
2. Письменная обработка иноязычной профессионально ориентированной информации.
3. Устная обработка иноязычной профессионально ориентированной информации.

Для самостоятельной работы используются методические указания по освоению дисциплины и издания из списка приведенной ниже основной и дополнительной литературы.

#### **4.2.2.5. Перечень тем контрольных работ, рефератов, ТР, РГР, РПР**

1. Профессиональная лексика.
2. Грамматика для перевода профессионально ориентированной литературы.
3. Чтение иноязычных профессиональных источников информации.
4. Перевод профессионально ориентированной литературы.

#### **4.2.2.6. Примерный перечень тем курсовых работ (проектов)**

Не планируется.

## **5. Образовательные технологии**

В процессе изучения дисциплины применяются активные и интерактивные технологии. На практических занятиях используется технология обучение в сотрудничестве (в малых группах). В рамках самостоятельной работы осуществляется персонифицированная работа студентов в информационно-образовательном портале MOODLE.

## **6. Оценочные средства для текущего контроля успеваемости, промежуточной аттестации по итогам освоения дисциплины.**

Фонды оценочных материалов (средств) приведены в приложении.

## **7. Учебно-методическое и информационное обеспечение дисциплины.**

### **7.1. Основная учебно-методическая литература по дисциплине**

1. Мотожанец, А. А. Focus on your Master Studies in Economics and Management : учебное пособие / А. А. Мотожанец, А. Ю. Поленова. — Ростов-на-Дону, Таганрог : Издательство Южного федерального университета, 2018. — 136 с. — ISBN 978-5-9275-2841-7. — Текст : электронный // Цифровой образовательный ресурс IPR SMART : [сайт]. — URL: <https://www.iprbookshop.ru/87693.html> - <https://www.iprbookshop.ru/87693.html>

2. Лукина, Л. В. Курс английского языка для магистрантов. English Masters Course : учебное пособие для магистрантов по развитию и совершенствованию общих и предметных (деловой английский язык) компетенций / Л. В. Лукина. — Воронеж : Воронежский

государственный архитектурно-строительный университет, ЭБС АСВ, 2014. — 136 с. — ISBN 978-5-89040-515-9. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: <http://www.iprbookshop.ru/55003.html> — Режим доступа: для авторизир. Пользователей - <https://www.iprbookshop.ru/55003.html>

## **7.2. Дополнительная учебно-методическая литература по дисциплине**

1. Алешугина, Е. А. Профессионально ориентированный английский язык для магистрантов : учебное пособие для вузов / Е. А. Алешугина, Г. К. Крюкова, Д. А. Лошкарева. — Нижний Новгород : Нижегородский государственный архитектурно-строительный университет, ЭБС АСВ, 2016. — 96 с. — ISBN 978-5-528-00113-5. — Текст : электронный // Электронно-библиотечная система IPR BOOKS : [сайт]. — URL: <http://www.iprbookshop.ru/80825.html>— Режим доступа: для авторизир. пользователей - <https://www.iprbookshop.ru/80825.html>

## **7.3. Перечень информационных технологий, используемых при осуществлении образовательного процесса по дисциплине, включая перечень программного обеспечения и информационных справочных систем**

В образовательном процессе используются информационные технологии, реализованные на основе информационно-образовательного портала института ([www.mivlgu.ru/iop](http://www.mivlgu.ru/iop)), и инфокоммуникационной сети института:

- предоставление учебно-методических материалов в электронном виде;
- взаимодействие участников образовательного процесса через локальную сеть института и Интернет;
- предоставление сведений о результатах учебной деятельности в электронном личном кабинете обучающегося.

Информационные справочные системы:

1. Онлайн словарь Мультитран, режим доступа: <http://www.multitrans.ru/c/m.exe?a=1&SHL=2>
2. Онлайн словарь Эбби Лингво, режим доступа: <https://www.lingvolive.com/ru-ru>
3. Онлайн словари английского языка Оксфордского университета, режим доступа: <https://en.oxforddictionaries.com/>
4. Онлайн словарь английского языка Кембриджского университета, режим доступа: <http://dictionary.cambridge.org/ru/>
5. Онлайн словари и энциклопедии на «Академике», режим доступа: <http://translate.academic.ru/>

Программное обеспечение:

- 7-Zip (GNU LGPL)
- Microsoft Office Standard 2010 Open License Pack No Level Academic Edition (Государственный контракт №1 от 10.01.2012 года)
- Adobe Reader XI (Общие условия использования продуктов Adobe)
- Kaspersky Endpoint Security для бизнеса - Стандартный Russian Edition. 500-999 Node 2 year Educational Renewal (продление) (Гражданско-правовой договор бюджетного учреждения №2020.526633 от 23.11.2020 года)

## **7.4. Перечень ресурсов информационно-телекоммуникационной сети «Интернет», необходимых для освоения дисциплины**

[iprbookshop.ru](http://iprbookshop.ru)  
[multitrans.ru](http://multitrans.ru)  
[lingvolive.com](https://lingvolive.com)  
[dictionary.cambridge.org](http://dictionary.cambridge.org)  
[translate.academic.ru](http://translate.academic.ru)  
[mivlgu.ru/iop](http://mivlgu.ru/iop)

## **8. Материально-техническое обеспечение дисциплины**

### **Компьютерный класс**

Комплект учебно-методических пособий, комплект проекционного оборудования (проектор NEC V302XG, проекционный экран), 11 компьютеров: монитор LCD 20" Philips, сист. блок Intel Core i5/3,1ГГц/10Гб, клавиатура, мышь. Доступ к сети Интернет.

### **Кабинет иностранного языка**

Комплект учебно-методических пособий, комплект проекционного оборудования (проектор NEC V302XG, проекционный экран), 11 компьютеров: монитор LCD 20" Philips, сист. блок Intel Core i5/3,1ГГц/10Гб, клавиатура, мышь. Доступ к сети Интернет.

### **Кабинет английского языка**

Комплект учебно-методических пособий; компьютер: монитор LCD 19" Samsung, сист. блок Intel Dual Core/1,8ГГц/2Гб/DVD-RW, клавиатура, мышь. Доступ к сети Интернет.

## **9. Методические указания по освоению дисциплины**

Практические занятия предполагают индивидуальную работу каждого магистра, которая предполагает аудирование иноязычных текстов, чтение и перевод профессионально ориентированной литературы, устное сообщение по теме, устное реферирование полученной иноязычной информации. При выполнении заданий необходимо точно определить, что конкретно требуется: выполнить устно или письменно; провести работу с отдельными словами, словосочетаниями, предложениями или текстом, какие образцы рекомендуется использовать. При затруднении рекомендуется использовать соответствующие методические материалы, размещенные в ИОП и использовать их в качестве опор. Если возникают вопросы, преподаватель дает дополнительные комментарии по конкретному языковому явлению.

Внеаудиторную учебную деятельность осуществляется в рамках тем, отводимых на самостоятельное изучение. Самостоятельно выбираются методы, формы и режим выполнения самостоятельной работы в соответствии с личностными особенностями, уровнем подготовки, условиями выполнения. Студент самостоятельно отслеживает процесс и успешность своего продвижения в овладении учебным материалом. Задания, выносимые на самостоятельную работу, размещены на ИОП в соответствующем разделе. Студент должен регулярно выполнять задания и отчитываться перед преподавателем на каждом занятии. Для успешного выполнения заданий, студент имеет возможность неограниченного количества попыток и индивидуальной временной протяженности в процессе выполнения заданий. Для эффективного выполнения заданий, выносимых на самостоятельную работу, студенту рекомендуется использовать учебно-методические материалы, размещенные в том же разделе в ИОП, где приводится методически обработанный материал в помощь студенту по каждому изучаемому разделу. Результаты изучения тем, отводимых на самостоятельное освоение, учитываются при проведении промежуточной аттестации.

Форма заключительного контроля при промежуточной аттестации – зачет. Для проведения промежуточной аттестации по дисциплине разработаны фонд оценочных средств и балльно-рейтинговая система оценки учебной деятельности студентов. Оценка по дисциплине выставляется в информационной системе и носит интегрированный характер, учитывающий результаты оценивания участия студентов в аудиторных занятиях, качества и своевременности выполнения заданий в ходе изучения дисциплины и промежуточной аттестации.



Программа составлена в соответствии с требованиями ФГОС ВО по направлению  
*38.04.01 Экономика* и профилю подготовки *Экономика фирмы*  
Рабочую программу составил *ст. преподаватель Лебедев А.Р.*\_\_\_\_\_

Программа рассмотрена и одобрена на заседании кафедры *ИЯ*

протокол № 6 от 19.05.2023 года.

Заведующий кафедрой *ИЯ* \_\_\_\_\_ *Панкратова Е.А.*  
(Подпись)

Рабочая программа рассмотрена и одобрена на заседании учебно-методической  
комиссии факультета

протокол № 8 от 22.05.2023 года.

Председатель комиссии ГФ \_\_\_\_\_ *Терентьева И.В.*  
(Подпись) (Ф.И.О.)

**Фонд оценочных материалов (средств) по дисциплине**  
**Профессиональный иностранный язык**

**1. Оценочные материалы для проведения текущего контроля успеваемости по дисциплине**

Оценочные средства для текущего контроля включают следующее.

**ТЕСТИРОВАНИЕ**

Выполните тест в соответствующем электронном курсе в ИОП МиВлГУ. Тестовые задания охватывают содержание изученных тем. Индивидуальный тест включает вопросы и формируется в автоматическом режиме на основе типовых заданий. Оценивание результатов осуществляется пропорционально процентам выполнения тестовой работы.

Тест для текущего контроля размещен в ИОП МИВлГУ по ссылке:  
<https://www.mivlgu.ru/iop/course/view.php?id=910>.

**УСТНЫЙ ОПРОС**

**ЧТЕНИЕ. ПЕРЕВОД**

Задание. Осуществите поиск иноязычной текстовой информации, представляющей для вас профессиональный интерес. Переведите отобранный текстовый материал профессионально ориентированного характера на русский язык, используя электронные словари.

1. Онлайн словарь Мультитран, режим доступа:  
<http://www.multitran.ru/c/m.exe?a=1&SHL=2>

2. Онлайн словарь Эбби Лингво, режим доступа:  
<https://www.lingvolive.com/ru-ru>

3. Онлайн словари английского языка Оксфордского университета, режим доступа:  
<https://en.oxforddictionaries.com/>

4. Онлайн словарь английского языка Кембриджского университета, режим доступа:  
<http://dictionary.cambridge.org/ru/>

5. Онлайн словари и энциклопедии на «Академике», режим доступа:  
<http://translate.academic.ru/>

Задание. Выберите интересующую вас информацию профессионально ориентированного характера и передайте ее содержание в форме устного реферата на иностранном языке.

The optimal capital structure in agricultural  
cooperatives under the revolving fund cycles  
Yung-Chang WANG

Department of Banking and Finance, Chinese Culture University, Taipei, Taiwan

Abstract Due to the financial features specific to agricultural cooperatives, the paper constructs a constrained-maximizing model under the assumption that the financial objective of an agricultural cooperative is to maximize the present value of the patron after-tax total income on an infinite time horizon by choosing the dividend rate, the cash patronage refund rate, and the length of the revolving fund cycles. The model is solved numerically in a numerical illustration. In equilibrium, the optimal capital structure is derived for the agricultural cooperative. The effects of the changes in personal tax rates and discount rates are also explored.

Keywords: cash patronage refund rate, constrained-maximizing model, dividend rate, present value

According to the International Cooperative Alliance (ICA), a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise. The cooperative is

owned, controlled, and used by its member patrons. The capital structure that maximizes the share price is the optimal one sought by the investor-owned firm. However, the optimal capital structure defined is not adequate for the cooperative. The capital structure of cooperatives has been extensively discussed theoretically and empirically (Dahl and Dobson 1976; Beierlein and Schrader 1978; Barton et al. 1998; Diaz-Hermelo et al. 2001; Hailu et al. 2007; Russell 2013). This paper attempts to address the cooperative optimal capital structure in a constrained-maximizing model in which the member patrons seek to maximize their after-tax total income on an infinite time horizon.

#### LITERATURE REVIEW

Dahl and Dobson (1976) calculate the least cost financial structure by applying the linear programming model to the financial data of 189 Wisconsin farm supply cooperatives, Beierlein and Schrader (1978) discuss the discounted cash flows, the effects of different capital structures on the growth rate and the member benefit in an agricultural cooperative. It is noted that they treat the dividend rate, the cash patronage refund rate, and the length of the revolving fund cycles as exogenous variables. They show that, given the 50% tax bracket, if the cash patronage refund rate is 20% and the length of revolving fund cycle is 10 years or longer, the member will lose money using a discount rate of 10%.

VanSickle and Ladd (1983) calculate the optimal cash patronage refund rate and the members' after-tax total profits, based on the financial data of marketing cooperatives and supply cooperatives in 1979. They find that the members' after-tax total profits increase with the length of the revolving fund cycles. The VanSickle-Ladd model is basically an equilibrium analysis, ignoring the process toward equilibrium, which could significantly affect the members' benefit.

Barton et al. (1996), maximizing the farmers' expected utility function, derive the optimal solvency ratio that is related to the risk aversion, the rate of return on assets, interest rates, the variance of the return on assets, the variance of the interest rate and the correlation between the rate of return on assets and the interest rate. They further find that the optimal solvency ratio is positively correlated with the variance of the return on assets, the variance of the interest rate, and the interest rate while it is negatively correlated with the rate of return on assets. Parcell et al. (1998), using a capital structure model incorporating stochastic interest rates, address that the optimal equity-to-asset ratio for Kansas and Midwestern agricultural cooperatives was sensitive to the changes in the business risk, but less sensitive to the changes in the interest rate risk.

Harris (1998) suggests that, for most cooperatives, a reasonable cycle for revolving the allocated equity is 5 to 10 years, while the actual cycles depend on the nature of the cooperative's operations, the business cycle and the type of capital acquired. Diaz-Hermelo et al. (2001) argue that the value of equity credits is a function of the expected incremental value of cash patronage refunds and dividends plus the discounted book value of equity credits paid to members. Ananiadis et al. (2003) suggest that the Greek dairy cooperatives should increase the contribution of retained profits to capital in order to achieve the capital intensity and the economies of scale.

Hailu et al. (2007) reveal that the financial structure and the firm size have probably contributed to the variations in the cost efficiency and obtaining a sufficient equity capital is expected to improve the cooperative efficiency. Dahlgren (2007) indicates that the "Pay As You Go" plan provides a far more attractive value proposition for the member patrons than the "Pay Later" plan. The former has higher cash patronage refunds and shorter revolving fund cycles even though the latter allocates more patronage refunds. Russell (2013) argues that even a large deviation in the current effective tax rates is not likely to affect the optimal share of the allocated earnings. He suggests that the board members focus on understanding the member risk preferences. Royer (2014) formulates an equation to show that the cost of equity is positively correlated with growth whereas it is negatively correlated with the length of the revolving period and the proportion of patronage refunds paid in cash.

This paper formulates a constrained-maximizing model under the assumption that the financial objective of a cooperative is to maximize the present value of the patron after-tax total income on an infinite time horizon. The model is established for the cooperative under the revolving fund plans with the dividend rate, the cash patronage refund rate, and the length of revolving fund cycles as endogenous variables. If the present value of the patron after tax total income is calculated into the infinite time horizon, the model will reach equilibrium after some time periods of dynamic

adjustments. The optimal length of the revolving fund cycles and the optimal debt ratio are thus obtained, thereby deriving the optimal capital structure of cooperatives.

#### MODEL

Boland and Barton (2013) summarize the equity management programs into five types: estate settlements, age-of-patron, revolving funds, percentage pools, and base capital plans. Barton et al. (2011) suggest that the revolving funds and base capital redemptions are the preferred methods because the equity investment of the individual patrons is maintained as close to the proportions of their use as possible. Based on the USDA Rural Business Cooperatives Programs survey of agricultural cooperatives conducted in 2008, Eversull (2010) finds that 44% of the local cooperatives used the revolving fund method of the equity redemption with the revolving fund length averages from 6 years in service cooperatives to 20 years in farm supply cooperatives and the average cash patronage refunds range from 40.43% in farm supply cooperatives to 68.26% in cotton and cotton gins cooperatives.

According to Dahl and Dobson (1976), under the Revenue Act of 1962, cooperatives must pay at least 20% of their patronage refunds in cash if they wish to deduct the total member patronage refunds from the gross income when computing the federal income tax obligations. However, both cash refunds and retained earnings must be included in the patron taxable income. Hence, a patron may lose money if she/he is in the high income tax bracket, the cash patronage refund rate is low, and the revolving fund length is long. Both the equity capital and the revolving fund capital are qualified for a claim to dividends. The dividend rate cannot exceed 8% per annum or the limit specified by state regulations, whichever is greater. (VanSicle and Ladd 1983: 275) However, most cooperatives do not pay dividends on their revolving fund capital.

#### **Общее распределение баллов текущего контроля по видам учебных работ для студентов**

Рейтинг-контроль 1	тестирование, устный опрос	до 15
Рейтинг-контроль 2	устный опрос	до 15
Рейтинг-контроль 3	устный опрос	до 50
Посещение занятий студентом	отсутствие пропусков по неуважительным причинам	до 5
Дополнительные баллы (бонусы)	активность на занятиях	до 5
Выполнение семестрового плана самостоятельной работы	устный опрос	до 10

## **2. Промежуточная аттестация по дисциплине**

### **Перечень вопросов к экзамену / зачету / зачету с оценкой.**

### **Перечень практических задач / заданий к экзамену / зачету / зачету с оценкой (при наличии)**

УК-4, УК-5

ЗНАТЬ

Выберите соответствующий вариант ответа.

Тема. Грамматика. Активный-пассивный залог

1. The command economy ()is directed by centralized control of governments.

управляется

управляет

управлял

2. A market economy ()is guided by an informal system of prices and profits in which most decisions are taken by private individuals and firms.

направляется

направляет

направлена

3. In an economy like the United States, most economic decisions ()are made in markets.

принимаются

принимают

принимали

4. Adam Smith ()proclaimed that the invisible hand of markets would lead to the optimal economic outcome as individuals pursue their own self-interest.

провозгласил

был провозглашен

провозглашает

5. The distribution of income ()is determined by the ownership of factors of production (land, labor, and capital) and by factor prices.

определяется

определяет

определяются

6. The equilibrium of supply and demand in a competitive market ()is attained at a price where the forces of supply and demand are in balance.

достигается

достигаются

достигает

7. Too low a price ()generates a shortage, and buyers will therefore tend to bid prices upward to the equilibrium.

приводит

привела

приводится

8. Price elasticity of demand ()measures the quantitative response of demand to a change in price.

измеряет

измеряется

измеряют

9. The relationship between the quantity of out-put and the quantities of inputs is ()called the production function.

называется

называются

называет

10. The marginal product of each input ()will generally decline as the amount of that input increases, when all other inputs are held constant.

будет снижаться

снижается

снизился

Тема. Грамматика. Неличные формы глагола

1. Economics is studied for a variety of reasons: ()to understand problems facing the citizen and family, to help governments promote growth.

для понимания

понимающий

понимая

понятый

2. Often statistical studies permit ()understanding of complex situations.

понимание

понимая

понятый

понимать

3. Experiments allow us ()to test different economic hypotheses.

проверить

проверяющий  
проверенный  
для проверки

4. All societies have different combinations of command and market; all societies are ()mixed economies.

смешанный  
смешивать  
смешивающий  
смешение

5. Productive efficiency occurs when production of one good cannot be in-creased without ()curtailing production of another good.

без сокращения  
включая сокращение  
для сокращения  
чтобы сократить

6. Sellers meet ()to trade and determine prices and quantities for commodities.

для того, чтобы торговаться и определять  
торговать и определять  
торгуя и определяя  
торгующий и определяющий

7. The market mechanism is an admirable way of ()producing goods, sometimes market failures lead to deficiencies in the economic outcomes.

производства  
производящий  
произведенный  
производить

8. Government's role in a modern economy is () to ensure efficiency, to correct an unfair distribution of income, and to promote economic growth and stability.

обеспечивать  
обеспеченный  
обеспечивая  
обеспечивающий

9. ()To combat these conditions, governments regulate businesses or put legal antitrust constraints on business behavior.

для того чтобы бороться  
борющийся  
бороться  
борьба

10. The ()prevailing mode of economic organization in modern advanced industrial economies is the mixed economy.

преобладающий  
преобладать  
для преобладания  
преобладая

11. The most important influence is the commodity's production cost, ()determined by the state of technology and by input prices.

определенный  
определяя  
определять  
для определения

12. Competitively determined prices ration the ()limited supply of goods among those with the demands and the necessary dollar votes.

ограниченный  
ограничивая

ограничивать  
для ограничения

13. ()To understand how business enterprises function, we begin by analyzing a firm's production behavior.

для того, чтобы понять  
понимающий  
понимая  
понятый

Тема . Грамматика. Модальные глаголы

1. Economists and other scientists have a variety of weapons that ()can be deployed to attack economic questions.

могут использоваться  
могут использовать  
должен использовать  
должен быть использован

2. Economic goods are scarce, not free, and society ()must choose among the limited goods that can be produced with its available resources.

должны выбирать  
должны выбираться  
может выбирать  
может выбираться

3. Every society ()must solve three fundamental problems: what, how, and for whom?

должно решать  
может решать  
должно быть решено  
может решаться

4. What kinds and quantities ()shall be produced among the wide range of all possible goods and services?

должны быть произведены  
могут быть произведены  
должны производить  
могут производиться

5. How ()shall resources be used in producing these goods?

должны использоваться  
могут использоваться  
должны быть использованы  
могут использовать

6. Governments ()may decide to step in and regulate these spillovers (as it does with air pollution) or provide for public goods (as in the case of national defense).

могут решать  
могут быть решены  
должны решаться  
должны решать

7. To avoid pitfalls in the use of supply-and-demand analysis, we ()must observe certain strictures.

должны наблюдать  
должны наблюдаться  
могут наблюдать  
могут наблюдаться

8. We ()can measure consumer surplus as the area between the demand curve and the price line.

можем измерять  
должны измеряться  
можем быть измерены

должны измерять

9. We ()can calculate the marginal product of a factor as the extra output added for each additional unit of input while holding all other inputs constant.

можем вычислять

может быть вычислено

должны быть вычислены

должны вычислять

10. In the long run, all inputs, fixed and variable, ()can be adjusted.

могут регулироваться

могут регулировать

должен регулировать

должен регулироваться

Грамматика. Союзы. Союзо-предлоги

1. Because economic questions enter into ()both daily life and national issues, a basic understanding of economics is vital for sound decision making by individuals and nations.

как... так и ...

оба ...и...

ни...ни..

если.., то...

2. Observation of economic history pro-vides countless episodes ()from which to find patterns of behavior.

из которых

которые

от которых

каждый из которых

3. ()Since the development of macroeconomics in the 1930s, government has undertaken a third role: using fiscal powers and monetary policy to promote long-run economic growth and productivity.

С

С тех пор как

Поскольку

Потому что

4. Improvements in agricultural technology mean that supply increases greatly, ()while demand for food rises less than proportionately with income.

в то время как

потому что

до того, как

в следствии того, что

5. ()As firms become larger and larger, difficulties of control and management may produce decreasing returns to scale.

Поскольку

Из-за

Такие как

Но

6. ()Thus the marginal social cost of producing a good under perfect competition just equals its marginal utility valuation.

Таким образом

Перед тем, как

Вследствие того, что

Ввиду того, что

7. Markets must meet three important tests ()before they are socially optimal.

До того, как

До

После того, как



По причине

8. Remember that it is the tail of marginal utility ()that wags the market dog of prices and quantities.

который

что

какой

из-за

9. ()Moreover the price is equal to the marginal utility of the last unit bought.

Более того

Однако

Поскольку

Таким образом

10. ()Because decisions take time to implement, and because capital and other factors are often very long-lived, the reaction of production may change over different time periods.

Так как

В связи с этим

Таким образом

Из-за

Грамматика. Степени сравнения

1. People desire ()much more than the economy can produce.

намного больше

немного больше

намного меньше

2. The ()most important forms of economic organization today are command and market.

самый важный

более важный

важный

3. Under perfect competition, a business must find ()the cheapest method of production, efficiently using labor, land, and other factors; otherwise, it will incur losses and be eliminated from the market.

самый дешевый

дешевле чем

дешевый

4. At a price above the equilibrium, producers want to supply ()more than consumers want to buy, which results in a surplus of goods and exerts downward pressure on prices.

больше чем

больше

всех больше

5. One of ()the most fruitful arenas for application of supply and demand is agriculture.

самый продуктивный

более продуктивный

продуктивный

6. But this means that we reap a surplus of utility over price on all earlier units, for the marginal utilities of earlier units are ()greater than that of the last unit by the law of diminishing marginal utility.

больше чем

всех больше

большой

7. When doubling inputs leads to ()less than double the quantity of output, this situation is one of decreasing returns to scale.

меньше

наименьший

маленький

8. Prices are above marginal costs but the industry exhibits ()greater diversity of quality and service than under perfect competition.

больше

самый большой

большой

9. It can produce ()more of one good only by producing less of another good.

больше...меньше...

чем больше..., тем меньше

наибольший...наименьший...

10. The substitution effect occurs when a ()higher price leads to substitution of other goods to meet satisfactions.

более высокая

менее высокая

самая высокая

## УМЕТЬ

Задание. Осуществите поиск иноязычной текстовой информации, представляющей для вас профессиональный интерес. Переведите отобранный текстовый материал профессионально ориентированного характера на русский язык, используя электронные словари.

1. Онлайн словарь Мультитран, режим доступа:  
<http://www.multitran.ru/c/m.exe?a=1&SHL=2>

2. Онлайн словарь Эбби Лингво, режим доступа:

<https://www.lingvolive.com/ru-ru>

3. Онлайн словари английского языка Оксфордского университета, режим доступа:

<https://en.oxforddictionaries.com/>

4. Онлайн словарь английского языка Кембриджского университета, режим доступа:

<http://dictionary.cambridge.org/ru/>

5. Онлайн словари и энциклопедии на «Академике», режим доступа:  
<http://translate.academic.ru/>

Задание. Выберите интересующую вас информацию профессионально ориентированного характера и передайте ее содержание в форме устного реферата на иностранном языке.

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Abstract Due to the financial features specific to agricultural cooperatives, the paper constructs a constrained-maximizing model under the assumption that the financial objective of an agricultural cooperative is to maximize the present value of the patron after-tax total income on an infinite time horizon by choosing the dividend rate, the cash patronage refund rate, and the length of the revolving fund cycles. The model is solved numerically in a numerical illustration. In equilibrium, the optimal capital structure is derived for the agricultural cooperative. The effects of the changes in personal tax rates and discount rates are also explored.

Keywords: cash patronage refund rate, constrained-maximizing model, dividend rate, present value

According to the International Cooperative Alliance (ICA), a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise. The cooperative is owned, controlled, and used by its member patrons. The capital structure that maximizes the share

price is the optimal one sought by the investor-owned firm. However, the optimal capital structure defined is not adequate for the cooperative. The capital structure of cooperatives has been extensively discussed theoretically and empirically (Dahl and Dobson 1976; Beierlein and Schrader 1978; Barton et al. 1998; Diaz-Hermelo et al. 2001; Hailu et al. 2007; Russell 2013). This paper attempts to address the cooperative optimal capital structure in a constrained-maximizing model in which the member patrons seek to maximize their after-tax total income on an infinite time horizon.

#### LITERATURE REVIEW

Dahl and Dobson (1976) calculate the least cost financial structure by applying the linear programming model to the financial data of 189 Wisconsin farm supply cooperatives, Beierlein and Schrader (1978) discuss the discounted cash flows, the effects of different capital structures on the growth rate and the member benefit in an agricultural cooperative. It is noted that they treat the dividend rate, the cash patronage refund rate, and the length of the revolving fund cycles as exogenous variables. They show that, given the 50% tax bracket, if the cash patronage refund rate is 20% and the length of revolving fund cycle is 10 years or longer, the member will lose money using a discount rate of 10%.

VanSickle and Ladd (1983) calculate the optimal cash patronage refund rate and the members' after-tax total profits, based on the financial data of marketing cooperatives and supply cooperatives in 1979. They find that the members' after-tax total profits increase with the length of the revolving fund cycles. The VanSickle-Ladd model is basically an equilibrium analysis, ignoring the process toward equilibrium, which could significantly affect the members' benefit.

Barton et al. (1996), maximizing the farmers' expected utility function, derive the optimal solvency ratio that is related to the risk aversion, the rate of return on assets, interest rates, the variance of the return on assets, the variance of the interest rate and the correlation between the rate of return on assets and the interest rate. They further find that the optimal solvency ratio is positively correlated with the variance of the return on assets, the variance of the interest rate, and the interest rate while it is negatively correlated with the rate of return on assets. Parcell et al. (1998), using a capital structure model incorporating stochastic interest rates, address that the optimal equity-to-asset ratio for Kansas and Midwestern agricultural cooperatives was sensitive to the changes in the business risk, but less sensitive to the changes in the interest rate risk.

Harris (1998) suggests that, for most cooperatives, a reasonable cycle for revolving the allocated equity is 5 to 10 years, while the actual cycles depend on the nature of the cooperative's operations, the business cycle and the type of capital acquired. Diaz-Hermelo et al. (2001) argue that the value of equity credits is a function of the expected incremental value of cash patronage refunds and dividends plus the discounted book value of equity credits paid to members. Ananiadis et al. (2003) suggest that the Greek dairy cooperatives should increase the contribution of retained profits to capital in order to achieve the capital intensity and the economies of scale.

Hailu et al. (2007) reveal that the financial structure and the firm size have probably contributed to the variations in the cost efficiency and obtaining a sufficient equity capital is expected to improve the cooperative efficiency. Dahlgren (2007) indicates that the "Pay As You Go" plan provides a far more attractive value proposition for the member patrons than the "Pay Later" plan. The former has higher cash patronage refunds and shorter revolving fund cycles even though the latter allocates more patronage refunds. Russell (2013) argues that even a large deviation in the current effective tax rates is not likely to affect the optimal share of the allocated earnings. He suggests that the board members focus on understanding the member risk preferences. Royer (2014) formulates an equation to show that the cost of equity is positively correlated with growth whereas it is negatively correlated with the length of the revolving period and the proportion of patronage refunds paid in cash.

This paper formulates a constrained-maximizing model under the assumption that the financial objective of a cooperative is to maximize the present value of the patron after-tax total income on an infinite time horizon. The model is established for the cooperative under the revolving fund plans with the dividend rate, the cash patronage refund rate, and the length of revolving fund cycles as endogenous variables. If the present value of the patron after tax total income is calculated into the infinite time horizon, the model will reach equilibrium after some time periods of dynamic

adjustments. The optimal length of the revolving fund cycles and the optimal debt ratio are thus obtained, thereby deriving the optimal capital structure of cooperatives.

#### MODEL

Boland and Barton (2013) summarize the equity management programs into five types: estate settlements, age-of-patron, revolving funds, percentage pools, and base capital plans. Barton et al. (2011) suggest that the revolving funds and base capital redemptions are the preferred methods because the equity investment of the individual patrons is maintained as close to the proportions of their use as possible. Based on the USDA Rural Business Cooperatives Programs survey of agricultural cooperatives conducted in 2008, Eversull (2010) finds that 44% of the local cooperatives used the revolving fund method of the equity redemption with the revolving fund length averages from 6 years in service cooperatives to 20 years in farm supply cooperatives and the average cash patronage refunds range from 40.43% in farm supply cooperatives to 68.26% in cotton and cotton gins cooperatives.

According to Dahl and Dobson (1976), under the Revenue Act of 1962, cooperatives must pay at least 20% of their patronage refunds in cash if they wish to deduct the total member patronage refunds from the gross income when computing the federal income tax obligations. However, both cash refunds and retained earnings must be included in the patron taxable income. Hence, a patron may lose money if she/he is in the high income tax bracket, the cash patronage refund rate is low, and the revolving fund length is long. Both the equity capital and the revolving fund capital are qualified for a claim to dividends. The dividend rate cannot exceed 8% per annum or the limit specified by state regulations, whichever is greater. (VanSicle and Ladd 1983: 275) However, most cooperatives do not pay dividends on their revolving fund capital. Cooperatives may tend to use more revolving fund capital than is necessary because it is obtained at zero cost from the standpoint of management.

From the patron point of view, the financial objective of an agricultural cooperative is to determine the dividend rate, the cash patronage refund rate, and the revolving fund length that maximize the present value of the patron after-tax total income on an infinite time horizon. The total income includes the dividend income, the cash patronage refund and equity redemption from the revolving funds. With the unallocated equity ignored, the net operating income of an agricultural cooperative is allocated among such uses as interest expenses on the long-term debt, dividends on the equity capital, the revolving fund capital, and the cash patronage refunds.

For simplicity, it is assumed that the cooperative is a firm with a zero growth and is exempt from taxation at the firm level because it meets the legal requirements. The net operating income is thus expected to be fixed at some level in each of the future periods. The net operating income is used to pay interests on the debt and allocated to member patrons via dividends and patronage refunds. Its allocation in period  $j$  is, therefore, written as:

where  $NOI_j$  is the expected value of the net operating income,  $r_j$  is the cost of the long-term debt,  $D_j$  is the amount of the long-term debt,  $i_c$  is the dividend rate,  $CS$  is the amount of the common stock or equity capital,  $PR_j$  the patronage refund, is the net income after dividend payment,  $1-s$  is the percentage of  $PR$  allocated to the revolving fund capital, and  $s$  is the cash patronage refund rate or the proportion of the patronage refunds paid in cash. Furthermore, the cost of debt is assumed to be the increasing function of the long-term debt given by:

If the total assets are fixed at an amount of  $K$  and financed by the long-term debt and equity capital, the following equation holds in period 0.

where  $D_0$  is the long-term debt in the period 0. Under the revolving fund plans, the capital structure constraint is established in each period.

The following equation is applicable in the periods before the equity redemption:

where  $m$  denotes the revolving fund length. For instance,  $m=4$  means that the revolving fund in period 0 has to be returned to the member patrons at the beginning of the period 4, the revolving fund in the period 1 has to be returned at the beginning of the period 5, and so on. The revolving fund capital accumulates up to  $(1-s)(PR_0 + PR_1 + PR_2 + PR_3)$  at the beginning of the period 3, and  $(1-s)(PR_1 + PR_2 + PR_3 + PR_4)$  at the beginning of the period 4. Hence, after the equity redemption, the capital structure constraint is written as

From the period  $m$  on, in computing the total income, the repayment of the revolving fund capital retained in  $t-m$  has to be added to the dividend income and the cash patronage refund in  $t$ .

For instance, the revolving fund capital in the period 0 has to be returned in the period  $m$  and its present value equals  $(1 - s)(PR_0/(1 + d)^m)$ . The dividend income and patronage refunds, paid in cash or retained for the revolving fund capital, are subject to personal taxes.

The sum of the present values of the patron after-tax total income in the infinite time horizon is given by

where  $\tau$  is the personal tax rate applicable to member patrons and  $d$  is the discount rate for capitalization.

To exempt the total allocated savings from taxation at the firm level, we need the following constraint:

One more constraint is added when a ceiling on the dividend rate is introduced.

Under the revolving fund plans, the agricultural cooperative, facing the constraints given by Equations (1)–(4), (4a), (6), and (7), seeks to maximize Equation (5) by choosing the dividend rate, the cash patronage refund rate, and the revolving fund length. The constrained-maximizing model is given by:

In the model specified above, the endogenous variables include  $ic$ ,  $s$ , and  $m$ , while the exogenous variables include  $NOI$ ,  $CS$ ,  $K$ ,  $d$ , and  $\tau$ . This model will be solved with a numerical illustration in the next section.

#### NUMERICAL ILLUSTRATION

Suppose a zero-growth agricultural cooperative with the total assets fixed at \$10 000 000 in each period and financed by the equity capital and long-term debt. In the period 0, the common stock amounts to \$1 800 000 and the long-term debt amounts to \$8 200 000. The cost of debt increases along with the debt as it is shown in Table 1.

The value of the net operating income in each of the future periods is fixed at \$1 746 700. Initially, it is assumed that there are no personal taxes ( $\tau = 0$ ) and the discount rate is 10%. Under the revolving fund plans, what dividend rate, cash patronage refund rate, and revolving fund length should the cooperative choose such that the present value of the patron total income is maximized on an infinite time horizon?

For simplicity, it is assumed that there are only 11 dividend rates (0, 0.01, 0.02, ..., 0.09, 0.10), 9 cash patronage refund rates (0.2, 0.3, ..., 0.9, 1.0), and 12 revolving fund lengths measured in years (1, 2, ..., 11, 12). So we have a feasible set of 1 188 ( $11 \times 9 \times 12$ ) cells. A cell consists of a dividend rate, a cash patronage refund rate, and a revolving fund length. Given the exogenous variables, each of the cells is substituted into the model and the present value of the patron total income is computed period by period on an infinite time horizon. Of the 1188 cells, the optimal one is ( $m = 8$ ,  $ic = 0.1$ ,  $s = 0.3$ ) with the present value of \$7 478 000. The present values of the selected 99 cells are listed in Table 2. Table 3 shows that, for the optimal cell ( $m = 8$ ,  $ic = 0.1$ ,  $s = 0.3$ ), long-term debt reaches equilibrium as of the period 58 due to the fact that the amount retained for the revolving fund capital approximately equals the amount retired to member patrons. In equilibrium, the amount of the long-term debt is \$2 559 000. Hence, the optimal debt ratio at which the present value of the patron total income is maximized would be 25.59% (\$2 559 000/\$10 000 000).

With the imposition of personal taxes at a rate of 20% for all member patrons, the optimal cell turns to be ( $m = 11$ ,  $ic = 0.1$ ,  $s = 0.3$ ). The present value of the patron after-tax total income declines to \$5 452 500. The long-term debt remains constant at the amount of \$4 260 700 in the period 81 and thereafter. Thus, the optimal debt ratio increases to 42.61% (\$4 260 700/\$10 000 000). What if the tax rate rises to 40%, other things being equal? The optimal cell is the one ( $m = 4$ ,  $ic = 0.1$  and  $s = 0.8$ ) with an even lower present value of \$3 834 100 about 51% of that in the baseline cell ( $m = 8$ ,  $ic = 0.1$ ,  $s = 0.3$ ). The equilibrium is attained in the period 11 and thereafter with the long-term debt fixed at the amount of \$7 916 700. The optimal debt ratio rises to a height of 79.17%. The cooperative tends to rely more heavily on the debt capital as a result of higher personal tax rates because the member patrons choose to receive more cash flows in recent periods.

Finally, other things being equal, the discount rate ( $d$ ) increases, say, from initially 10% to 16%. The best cell turns out to be the one ( $m = 3$ ,  $ic = 0.1$ ,  $s = 0.3$ ) with the present value of \$4 195 700. The solution is expected. Since the member patrons value future cash flows less, they tend to choose a shorter revolving cycle and a higher cash patronage refund rate in comparison with the baseline cell ( $m = 8$ ,  $ic = 0.1$ ,  $s = 0.3$ ). The equilibrium attains in the period 8 and thereafter with a

long-term debt of \$7 916 700. The optimal debt ratio rises to 79.17% which happens to be as high as it is in the case of  $\tau = 40\%$ .

Distinct from the present value methods used in other studies, e.g. Beierlein and Schrader (1978) and Dahlgren (2007), this paper treats the dividend rate, the cash patronage refund rate, and the patronage refund length as endogenous variables and their optimal levels can be obtained, given exogenous variables like the personal tax rates and discount rates. More importantly, the optimal capital structure can be thus obtained when the system attains equilibrium. Moreover, Barton et al. (1996) derive the optimal solvency ratio via the maximization of the farmers' expected utility function in which the cash patronage refund rate and the patronage fund length are not addressed.

<http://www.mmf.spbstu.ru/mese/2016/770-784.pdf>.

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Competitiveness. General characteristics.

**Abstract** This paper examined the technical competitiveness of industrial products, according to the strategies of market penetration and life cycle of the machines. As a specific example to illustrate forklifts, represented as a set of parameters analyzed and evaluated. The competitive advantages of the industrial products (machine) are determined by using the structural principle, the theory of forecasting, Fuzzy logic and Velev's theory. The approach to the construction of multidimensional architecture of logistics machinery and minimum total cost is based on accepted classification of logistics equipment. Designers can use the results and recommendations for their future products.

**Key words:** industrial products, logistics, life cycle, competitiveness, strategies, logistics machines, characteristics.

In modern conditions of developed market environment there is a strong competition between manufacturing companies and has a big fight for market share. In industrial products, in particular, logistics machines where individual customer requirements are of particular importance and its satisfaction largely depends on how they are implemented. Worldwide competition is huge, as production companies producing for domestic market are not so many. All manufacturers are trying for bigger worldwide market share. That's why most of them have offices and dealers in other countries.

The topic of company competitiveness is usually associated with its economic efficiency, i.e. achieving greater levels of profit. This is achieved by several tools and under the influence of several factors. There are different definitions of „competitiveness”. A detailed research on the development of definitions over time according to different market conditions is done in [See 2]. As a conclusion in [2] it's said, the company competitiveness is the ability through continuous update and improvement, to create and resistant supports a competitive advantages, leading to higher economic performance in long term.

According to its definition, the following statements are made:

1. Company's competitiveness is related to the development and maintenance of competitive advantages.
2. Company's competitiveness is a relative magnitude.
3. Company's competitiveness includes adaptability to changing conditions and market environment.
4. Company's competitiveness includes the ability of Lifelong Learning, updating and improving.
5. Company's competitiveness includes durability (resistance) of the results.
6. Company's competitiveness is adynamical value.

Whether you talk about company competitiveness, product or even country, these rules are valid and are used in practice. In this paper is looking for a correlation between these statements as crucial for businesses and their validity when considering industry products.

When we talk about for product competitiveness, is not correct to take in mind only economics results after of its sale. Thus results are achieved in short term thanks to a specific

manufacturer marketing policy, temporary market conditions and etc. [2]. In other words, to be one product competitive, its results must be long term. When we are talking about technology product or machine, this can be achieved by increasing its performance, viewed as a combination of many factors.

This paper provides the technical competitiveness of industrial products. For an example, you can see logistics machines - fork lift trucks with there set of analyzed and evaluated parameters.

In the selection of industrial products (logistics equipment), the focus is primarily on technical characteristics, price, service and etc. For underdeveloped markets most important in the choice of equipment is the price. Usually, the initial investment is smaller than the expense of the machine's quality. For this reason, the manufacturers' fight is for the technical parameters, looking for its optimization at better price. It is very important to know insight the markets trends, competitive products and their development plans. This knowledge helps to produce high level machines with better technical data.

Knowing in depth the market and technical developments, it is possible to forecast with high accuracy the market demand of machines and machines technical data. The dynamics of science and technology, new technologies and predispose dynamic opportunities for design. Better quality results could be achieved using new technologies, materials, innovations and etc.

The machines' quality is a relative and subjective value. Each customer has his own requirements and this defines the quality. Master characteristics and parameters could be defined. The competitiveness of the machines can be shown by comparing their values. Using this results we can monitoring the market trends, project planning and etc.

High level of product technical competitiveness, is guaranteed with creating new advantages. This requires continuously seeking of maintenance and improving products parameters. That's why production companies have to invest in technologies, evaluation and forecast methodologies for market trends in developing competitive products with better parameters. This will help to be established guidelines for the design of future products.

Since the company competitiveness includes the ability to continually "learn", update and improve [1], this creates a requirement for adaptability of the product. In assessing the product technical competitiveness, one should be looking for opportunities for training and setting the valuation model as the markets are dynamic and their development is continuous. Therefore, a good model adaptation option would give better results in post-product development

#### REFERENCES

[1] Poirier, C, Forecasting, Demand Management, and Capacity Planning, 03 August 2012, Advanced Supply Chain Institute, [http://www.ascinstitute.com/products\\_whitepapers.php](http://www.ascinstitute.com/products_whitepapers.php)

[2] Velev, M. Assessment and analysis of company competitiveness, Sofia: Softtrade,2004

#### ЗНАТЬ

Выберите соответствующее значение выделенных слов.

In microeconomics, production is the conversion of ()inputs into ()outputs. It is an economic process that uses inputs to create a ()commodity or a service for exchange or direct use. Production is a flow and thus a rate of output per period of time. Distinctions include such production alternatives as for ()consumption (food, haircuts, etc.) vs. investment ()goods (new tractors, buildings, roads, etc.), public goods (national defence, smallpox vaccinations, etc.) or private goods (new computers, bananas, etc.), and "guns" vs "butter".

Opportunity cost refers to the economic ()cost of production: the value of the next best opportunity foregone. Choices must be made between desirable yet mutually exclusive actions. The ()opportunity cost of an activity is an element in ensuring that scarce resources are used ()efficiently, such that the cost is weighed against the value of that activity in deciding on more or less of it. Opportunity costs are not restricted to monetary or financial costs but could be ()measured by the real cost of output forgone, leisure, or anything else that provides the alternative ()benefit (utility).

Economic efficiency describes how well a system generates desired output with a given set of inputs and available technology. ()Efficiency is improved if more output is generated without

changing inputs, or in other words, the amount of "waste" is ()reduced. A widely accepted general standard is Pareto efficiency, which is reached when no further change can make someone better off without making someone else worse off. Much applied economics in public policy is concerned with determining how the efficiency of an economy can be ()improved. Recognizing the reality of ()scarcity and then figuring out how to organize society for the most efficient use of resources has been described as the "essence of economics", where the subject "makes its unique contribution."

1. затраты
2. выпуск
3. продукт, товар
4. потребление
5. товары
6. стоимость производства
7. вмененные потери, издержки неиспользованных возможностей
8. эффективность
9. измерять
10. выгода, прибыль
11. результативность, эффективность
12. сокращать
13. изменение
14. улучшать
15. дефицит, ограниченность

Specialization is considered key to economic efficiency based on theoretical and empirical considerations. Different individuals or nations may have different real opportunity costs of production, say from differences in stocks of human capital per worker or capital/labour ratios. According to theory, this may give a comparative ()advantage in production of goods that make more intensive use of the relatively more abundant, thus relatively ()cheaper, input.

Even if one region has an absolute advantage as to ()the ratio of its outputs to inputs in every type of output, it may still specialize in the output in which it has a comparative advantage and thereby gain from trading with a region that ()lacks any absolute advantage but has a comparative advantage in producing something else.

The general theory of specialization applies to ()trade among individuals, farms, manufacturers, service providers, and economies. Among each of these production systems, there may be a corresponding ()division of labour with different work groups specializing, or correspondingly different types of capital equipment and differentiated land uses. An example that combines features above is a country that specializes in the production of high-tech knowledge products, as developed countries do, and trades with developing nations for goods produced in factories where labour is relatively cheap and plentiful, resulting in different in opportunity costs of production. More ()total output and utility thereby results from specializing in production and trading than if each country produced its own high-tech and low-tech products.

The supply and demand model describes how prices vary as a result of a balance between product availability and demand. Prices and quantities have been described as the most directly observable attributes of goods produced and ()exchanged in a market economy. The theory of ()supply and demand is an organizing principle for explaining how prices coordinate the amounts produced and consumed. In microeconomics, it applies to price and output determination for a market with ()perfect competition, which includes the condition of no buyers or sellers large enough to have price-setting power.

1. преимущество
2. дешевый
3. коэффициент
4. испытывать недостаток
5. торговля
6. разделение труда
7. общий объем производства, объем продукции



8. обменивать
9. спрос и предложение
10. свободная конкуренция

For a given ()market of a commodity, ()demand is the relation of the quantity that all buyers would be prepared to purchase at each unit price of the good. Demand is often represented by a table or a graph showing ()price and quantity demanded. Demand theory describes individual ()consumers as rationally choosing the most preferred quantity of each good, given income, prices, tastes, etc. A term for this is "constrained utility maximization" with ()income and wealth as the constraints on demand). Here, utility refers to the hypothesized relation of each individual consumer for ranking different commodity bundles as more or less preferred.

The law of demand states that, in general, price and ()quantity demanded in a given market are inversely related. That is, the higher the price of a product, the less of it people would be prepared to buy (other things unchanged). As the price of a commodity falls, consumers move toward it from relatively more ()expensive goods (the substitution effect). In addition, ()purchasing power from the price decline increases ability to buy (the income effect). Other factors can change demand; for example an increase in income will shift the demand curve for a normal good outward relative to the origin, as in the figure. All determinants are predominantly taken as constant factors of demand and supply.

Supply is the relation between the price of a good and the quantity available for sale at that price. It may be represented as a table or graph relating price and quantity ()supplied. Producers, for example business firms, are hypothesized to be profit-maximizers, meaning that they attempt to produce and supply the amount of goods that will bring them the highest ()profit. Supply is typically represented as a function relating price and quantity, if other factors are unchanged.

The higher the price at which the good can be sold, the more of it producers will supply, as in the figure. The higher price makes it profitable to increase production. Just as on the demand side, the position of the supply can shift, say from a change in the price of a productive input or a technical improvement. The "Law of Supply" states that, in general, a ()rise in price leads to an expansion in supply and a fall in price leads to a contraction in supply. Here as well, the determinants of supply, such as price of substitutes, cost of production, technology applied and various factors inputs of production are all taken to be constant for a specific time period of evaluation of supply.

1. рынок
2. спрос
3. цена
4. потребители
5. доход
6. количество
7. дорогой
8. покупательская способность
9. прибыль, доход
10. рост цен

Public finance is the field of economics that deals with budgeting ()the revenues and expenditures of a public sector entity, usually government. The subject addresses such matters as tax incidence (who really pays a particular tax), cost-benefit analysis of government programmes, effects on economic efficiency and ()income distribution of different kinds of spending and taxes, and fiscal politics.

Welfare economics is a normative branch of economics that uses microeconomic techniques to simultaneously determine the allocative efficiency within an economy and the income distribution associated with it. It attempts to measure ()social welfare by examining the economic activities of the individuals that comprise society.

Macroeconomics examines ()the economy as a whole to explain broad aggregates and their interactions "top down", that is, using a simplified form of ()general-equilibrium theory. Such aggregates include national income and output, the unemployment rate, and price inflation and

subaggregates like ( )total consumption and investment spending and their components. It also studies effects of ( )monetary policy and fiscal policy.

Growth economics studies factors that explain economic growth – the increase in output per capita of a country over a long period of time. The same factors are used to explain differences in the level of output ( )per capita between countries, in particular why some countries grow faster than others, and whether countries converge at the same ( )rates of growth.

Much-studied factors include the rate of investment, population growth, and technological change. These are represented in theoretical and empirical forms (as in the neoclassical and endogenous growth models) and in ( )growth accounting.

1. доходы и расходы
2. распределение доходов
3. социальное обеспечение
4. экономика в целом
5. общее равновесие
6. всеобщее потребление
7. денежная политика
8. на душу населения
9. темпы роста
10. факторы роста

Money is a means of ( )final payment for goods in most price system economies and the unit of account in which prices are typically stated. An apt statement by Francis Amasa Walker, a well-known economist is, "Money is what money does." Money has a general acceptability, a relative consistency in value, divisibility, durability, portability, elastic in supply and survives with mass public confidence. It includes ( )currency held by the nonbank public and checkable deposits. It has been described as a ( )social convention, like language, useful to one largely because it is useful to others.

As a ( )medium of exchange, money facilitates trade. It is essentially a ( )measure of value and more importantly, a store of value being a basis for credit creation. Its economic function can be contrasted with barter ( )non-monetary exchange). Given a diverse array of produced goods and specialized producers, barter may entail a hard-to-locate double coincidence of wants as to what is exchanged, say apples and a book. Money can reduce the transaction cost of exchange because of its ready acceptability. Then it is less costly for ( )the seller to accept money in exchange, rather than what the buyer produces.

International trade studies determinants of ( )goods-and-services flows across international boundaries. It also concerns the size and distribution of gains from trade. Policy applications include estimating the effects of changing ( )tariff rates and trade quotas. International finance is a macroeconomic field which examines the flow of capital across international borders, and the effects of these movements on exchange rates. Increased trade in goods, services and capital between countries is a major effect of contemporary globalization.

1. окончательный платеж
2. валюта
3. общественный договор
4. средство обращения
5. мера стоимости
6. натуральный, не принимающий денежной формы
7. товарный обмен, меновая торговля
8. продавец
9. товары и услуги
10. тарифные ставки

## УМЕТЬ

Заполните пропуски соответствующими словами.

#### Чтение. Понятия.

1. In microeconomics, (1) is the conversion of inputs into outputs. It is an economic process that uses (2) to create a commodity or a service for exchange or direct use. Production is a flow and thus a rate of (3) per period of time. Distinctions include such production alternatives as for (4) (food, haircuts, etc.) vs. (5) goods (new tractors, buildings, roads, etc.), public goods (national defence, smallpox vaccinations, etc.) or private goods (new computers, bananas, etc.), and "guns" vs "butter".

1. production
2. inputs
3. output
4. consumption
5. investment

2. Opportunity cost refers to the economic (1): the value of the next best opportunity foregone. (2) must be made between desirable yet mutually exclusive actions. The (3) of an activity is an element in ensuring that scarce resources are used (4), such that the cost is weighed against the value of that activity in deciding on more or less of it. Opportunity costs are not restricted to monetary or financial costs but could be measured by the (5) of output forgone, leisure, or anything else that provides the alternative benefit (utility).

1. cost of production
2. choices
3. opportunity cost
4. efficiently
5. real cost

3. Economic efficiency describes (1) a system generates desired output with a given set of inputs and available technology. (2) is improved if more output is generated without changing inputs, or in other words, the amount of "waste" is reduced. A widely accepted general standard is Pareto efficiency, which is reached when (3) can make someone better off without making someone else worse off. Much applied economics in public policy is concerned with determining how the efficiency of an economy (4). Recognizing the reality of (5) and then figuring out how to organize society for the most efficient use of resources has been described as the "essence of economics", where the subject "makes its unique contribution".

1. how well
2. efficiency
3. no further change
4. can be improved
5. scarcity

4. (1) is considered key to economic efficiency based on theoretical and empirical considerations. Different individuals or nations may have different (2) of production, say from differences in stocks of human capital per worker or capital/labour ratios. According to theory, this may give a comparative (3) of goods that make more intensive use of the relatively more abundant, thus relatively cheaper, input. Even if one region has an absolute advantage as to (4) to inputs in every type of output, it may still specialize in the output in which it has a comparative advantage and thereby gain from trading with a region that (5) but has a comparative advantage in producing something else.

1. specialization
2. real opportunity costs
3. advantage in production
4. the ratio of its outputs
5. lacks any absolute advantage

5. The general theory of specialization applies to (1) among individuals, farms, manufacturers, service providers, and economies. Among each of these production systems, there

may be a corresponding (2) with different work groups specializing, or correspondingly different types of capital equipment and differentiated land uses. An example that combines features above is a country that (3) of high-tech knowledge products, as developed countries do, and trades with developing nations for goods produced in factories where labour is relatively (4), resulting in different in opportunity costs of production. (5) and utility thereby results from specializing in production and trading than if each country produced its own high-tech and low-tech products.

1. trade
2. division of labour
3. specializes in the production
4. cheap and plentiful
5. More total output

6. The supply and demand model describes how prices vary (1) between product availability and demand. Prices and quantities have been described as the most directly observable attributes of goods (2) in a market economy. The theory of (3) is an organizing principle for explaining how prices coordinate the amounts produced and consumed. In microeconomics, it applies to price and output determination for a market with (4), which includes the condition of no buyers or sellers large enough to have (5).

1. as a result of a balance
2. produced and exchanged
3. supply and demand
4. perfect competition
5. price-setting power

7. For a given market of a commodity, (1) is the relation of the quantity that all buyers would be prepared to purchase at each unit price of the good. Demand is often represented by a table or a graph showing (2) and quantity demanded. Demand theory describes individual (3) as rationally choosing the most preferred quantity of each good, given income, prices, tastes, etc. A term for this is "constrained utility maximization" (with income and wealth as the (4) on demand). Here, (5) refers to the hypothesized relation of each individual consumer for ranking different commodity bundles as more or less preferred.

1. demand
2. price
3. consumers
4. constraints
5. utility

8. The law of demand states that, in general, price and (1) demanded in a given market are inversely related. That is, the higher the price of a product, (2) of it people would be prepared to buy (other things unchanged). As the price of a commodity falls, consumers move toward it from relatively (3) (the substitution effect). In addition, (4) from the price decline increases ability to buy (the income effect). Other factors can change demand; for example an increase in (5) will shift the demand curve for a normal good outward relative to the origin, as in the figure. All determinants are predominantly taken as constant factors of demand and supply.

1. quantity
2. the less
3. more expensive goods
4. purchasing power
5. income

9. Supply is the relation between (1) of a good and the quantity available for sale at that price. It may be represented as a table or graph relating price and quantity (2). Producers, for example business firms, are hypothesized to be profit-maximizers, meaning that they attempt to produce and

supply the amount of goods that will bring them (3). (4) is typically represented as a function relating price and quantity, if other factors are (5).

1. the price
2. supplied
3. the highest profit
4. supply
5. unchanged

10. (1) the price at which the good can be sold, the more of it producers will supply, as in the figure. The higher price makes it profitable (2). Just as on the demand side, the position of the supply can shift, say from a change in the price of (3) or a technical improvement. The "Law of Supply" states that, in general, (4) leads to an expansion in supply and a fall in price leads to (5). Here as well, the determinants of supply, such as price of substitutes, cost of production, technology applied and various factors inputs of production are all taken to be constant for a specific time period of evaluation of supply.

1. the higher
2. to increase production
3. a productive input
4. a rise in price
5. a contraction in supply

11. People frequently do not trade (1). Instead, on the supply side, they may work in and produce through firms. The most obvious (2) are corporations, partnerships and trusts. According to Ronald Coase, people begin (3) in firms when the costs of doing business becomes lower than doing it on the market. Firms combine (4), and can achieve far greater economies of scale (when the average cost per unit declines as more units are produced) than (5).

1. directly on markets
2. kinds of firms
3. to organize their production
4. labour and capital
5. individual market trading

12. In perfectly competitive markets studied in the theory of supply and demand, there are many producers, none of which (1). Industrial organization generalizes from that special case to study the strategic behaviour of firms that do have (2) of price. It considers the structure of such (3). Common market structures studied besides (4) include monopolistic competition, various forms of oligopoly, and (5).

1. significantly influence price
2. significant control
3. markets and their interactions
4. perfect competition
5. monopoly

13. Managerial economics applies (1) to specific decisions in business firms or other (2). It draws heavily from (3) such as operations research and programming and from statistical methods such as regression analysis in the absence of certainty and perfect knowledge. A unifying theme is the attempt to optimize business decisions, including (4) and profit maximization, given the firm's objectives and constraints imposed by technology and (5).

1. microeconomic analysis
2. management units
3. quantitative methods
4. unit-cost minimization
5. market conditions

14. Uncertainty in economics is (1) of gain or loss, whether quantifiable as risk or not. Without it, household behavior would be unaffected by (2) employment and income prospects, financial and capital (3) would reduce to exchange of a single instrument in each (4), and there would be no communications industry. Given its different forms, there are various ways of representing uncertainty and modeling (5) responses to it.

1. an unknown prospect
2. uncertain
3. markets
4. market period
5. economic agents'

15. Game theory is a branch of applied mathematics that considers (1) between agents, one kind of uncertainty. It provides a mathematical foundation of (2) to model different types of (3), for example in an oligopolistic industry (few sellers), but equally applicable to wage negotiations, bargaining, contract design, and any situation where (4) are few enough to have perceptible effects on each other. As a method heavily used in (5), it postulates that agents choose strategies to maximize their payoffs, given the strategies of other agents with at least partially conflicting interests.

1. strategic interactions
2. industrial organization
3. firm behaviour
4. individual agents
5. behavioural economics

16. Public finance is the field of (1) that deals with budgeting (2) of a public sector entity, usually government. The subject addresses such matters as tax incidence (who really pays a particular tax), cost-benefit analysis of government programmes, effects on economic efficiency and (3) of different kinds of spending and taxes, and fiscal politics. Welfare economics is a normative branch of economics that uses (4) to simultaneously determine the allocative efficiency within an economy and the income distribution associated with it. It attempts (5) by examining the economic activities of the individuals that comprise society.

1. economics
2. the revenues and expenditures
3. income distribution
4. microeconomic techniques
5. to measure social welfare

17. Macroeconomics examines (1) to explain broad aggregates and their interactions "top down", that is, using a simplified form of (2). Such aggregates include (3), the unemployment rate, and price inflation and subaggregates like (4) and investment spending and their components. It also studies effects of (5) and fiscal policy.

1. the economy as a whole
2. general-equilibrium theory
3. national income and output
4. total consumption
5. monetary policy

18. Growth economics studies factors that explain economic growth – (1) per capita of a country over a long period of time. The same factors are used to explain differences in the level of (2) between countries, in particular why some countries grow faster than others, and whether countries converge at the same (3). Much-studied factors include (4), population growth, and technological change. These are represented in theoretical and empirical forms (as in the neoclassical and endogenous growth models) and in (5).

1. the increase in output
2. output per capita

3. rates of growth
4. the rate of investment
5. growth accounting

19. Money is a means of (1) for goods in most price system economies and the unit of account in which (2) are typically stated. An apt statement by Francis Amasa Walker, a well-known economist is, "Money is what money does." (3) has a general acceptability, a relative consistency in value, divisibility, durability, portability, elastic in supply and survives with mass public confidence. It includes (4) held by the nonbank public and checkable deposits. It has been described as (5), like language, useful to one largely because it is useful to others.

1. final payment
2. prices
3. money
4. currency
5. a social convention

20. As (1), money facilitates trade. It is essentially (2) value and more importantly, a store of value being a basis for credit creation. Its economic function can be contrasted with barter ((3)). Given a diverse array of produced goods and specialized producers, (4) may entail a hard-to-locate double coincidence of wants as to what is exchanged, say apples and a book. Money can reduce the transaction cost of exchange because of its ready acceptability. Then it is less costly for (5) to accept money in exchange, rather than what the buyer produces.

1. a medium of exchange
2. a measure of
3. non-monetary exchange
4. barter
5. the seller

21. International trade studies determinants of (1) flows across international boundaries. It also concerns the size and distribution of gains from (2). Policy applications include estimating the effects of changing tariff rates and (3). (4) is a macroeconomic field which examines the flow of capital across international borders, and the effects of these movements on exchange rates. Increased trade in goods, (5) between countries is a major effect of contemporary globalization.

1. goods-and-services
2. trade
3. trade quotas
4. international finance
5. services and capital

22. Economic systems is the branch of economics that studies the methods and institutions by which societies determine the ownership, direction, and allocation of (1). An economic system of a society is the unit of analysis. Among contemporary systems at different ends of the organizational spectrum are socialist systems and (2), in which most production occurs in respectively (3) and private enterprises. In between are (4). A common element is the interaction of economic and political influences, broadly described as (5). Comparative economic systems studies the relative performance and behaviour of different economies or systems.

1. economic resources
2. capitalist systems
3. state-run
4. mixed economies
5. political economy

23. The professionalization of economics, reflected in the (1) of graduate programmes on the subject, has been described as "the main change in economics since around 1900". Most major

universities and many colleges have a major, school, or department in which (2) are awarded in the subject, whether in the liberal arts, business, or for professional study. In the private sector, (3) are employed as consultants and in industry, including banking and finance. Economists also work for various (4) and agencies, for example, the national Treasury, Central Bank or Bureau of Statistics. The Nobel Memorial Prize in Economic Sciences (commonly known as (5)) is a prize awarded to economists each year for outstanding intellectual contributions in the field.

1. growth
2. academic degrees
3. professional economists
4. government departments
5. the Nobel Prize in Economics

24. The publication of Adam Smith's *The Wealth of Nations* in 1776 is considered to be the first formalisation of (1). That publication has been described as "the effective birth of (2) as a separate discipline." The book identified land, labor, and capital as (3) of production and the major contributors to (4), as distinct from the Physiocratic idea that only agriculture was productive. Smith discusses potential benefits of specialization by (5), including increased labor productivity and gains from trade, whether between town and country or across countries.

1. economic thought
2. economics
3. the three factors
4. a nation's wealth
5. division of labor

Прочитайте текст и выполните задания, следующие за ним.

Чтение. Тексты

What is economics?

1. Economics is the study of how societies choose to use scarce productive resources that have alternative uses, to produce commodities of various kinds, and to distribute them among different groups.

2. Economics is studied for a variety of reasons: to understand problems facing the citizen and family, to help governments promote growth and improve the quality of life while avoiding depression and inflation, and to analyze fascinating patterns of social behavior. Because economic questions enter into both daily life and national issues, a basic understanding of economics is vital for sound decision making by individuals and nations.

3. Economists and other scientists have a variety of weapons that can be deployed to attack economic questions. Observation of economic history provides countless episodes from which to find patterns of behavior. Economic analysis allows the facts to be arrayed into general propositions. Often statistical studies permit understanding of complex situations. And experiments allow us to test different economic hypotheses.

4. In approaching economic questions, be careful to avoid the common pitfalls. Remember to hold other things equal; keep descriptions distinct from value judgments; avoid the post hoc fallacy and the fallacy of composition; and recognize the necessary subjectivity in our observations and theories.

5. Economics is grounded in the law of scarcity, which holds that goods are scarce because people desire much more than the economy can produce. Economic goods are scarce, not free, and society must choose among the limited goods that can be produced with its available resources.

1. What issues are addressed in the text?

This text addresses the following issues:

- 1) economics field of research and application



- 2) economics as the study of goods production and their distribution
- 3) tools to solve various economic problems
- 4) law of economics about scarcity of goods

2. What part of text contains the following information?

Any person or state has to deal “economics” actually every day.

- 1) the 4th paragraph
- 2) the 1st paragraph
- 3) the 2nd paragraph
- 4) the 5th paragraph
- 5) the 3rd paragraph

3. Choose the correct statement below according to the text.

- 1) One should be aware of general errors when trying to solve economic issues.
- 2) Economists have limited number of tools for addressing economic challenges.
- 3) Economics investigates solely matters of depression and inflation in the economy.
- 4) The research of economic history renders rather few facts to obtain solution examples.

4. Choose the right answer to the question “What is the final objective of the economics?”

- 1) to study duly related spheres of the economy
- 2) to ameliorate daily life of population
- 3) to disclose laws governing the economic life of nations and individuals
- 4) to array facts into general propositions

5. Choose ultimate motives for studying economics below as stated in the text.

- 1) to learn to properly manufacture and distribute commodities
- 2) to comprehend and settle economic issues affecting people and whole countries
- 3) to conduct various experiments to test different economic theories
- 4) to enable society to choose what goods to produce with available resources

### The Three Problems of Economic Organization

1. Every society must solve three fundamental problems: what, how, and for whom? What kinds and quantities shall be produced among the wide range of all possible goods and services? How shall resources be used in producing these goods? And for whom shall the goods be produced (that is, what shall be the distribution of income and consumption among different individuals and classes)?

2. Societies meet these problems in different ways. The most important forms of economic organization today are command and market. The command economy is directed by centralized control of governments; a market economy is guided by an informal system of prices and profits in which most decisions are taken by private individuals and firms. All societies have different combinations of command and market; all societies are mixed economies.

1. What issues are addressed in the text?

This text addresses the following issues:

- 1) actions that society takes to solve different economic problems
- 2) main challenges that each society faces in the economy
- 3) principal economic issues and various approaches to manage them
- 4) the most common modes for economic organization

2. What part of text contains the following information?

The most essential patterns to run economy.

- 1) the 2nd paragraph
- 2) the 1st paragraph

3. Choose the correct statement below according to the text.

- 1) The market economy is under entire control of the state.
- 2) Society decides what kinds and quality of goods should be produced.

- 3) The resources to produce goods are never defined by society.
- 4) There are diverse solutions of economic issues by nations.

### Society's Technological Possibilities

1. With given resources and technology, the production choices between two such goods as butter and guns can be summarized in the production-possibility frontier (PPF). The PPF shows how the production of one good (such as guns) is traded off against the production of another good (such as butter).

2. Productive efficiency occurs when production of one good cannot be increased without curtailing production of another good. This is illustrated by the PPF. When an economy is operating efficiently—on its PPF—it can produce more of one good only by producing less of another good.

Societies are sometimes inside their frontier. When unemployment is high or when government regulation hampers firms' activities, the economy is inefficient and operates inside its PPF.

3. Production-possibility frontiers illustrate many basic economic processes: how economic growth pushes out the frontier, how a nation chooses relatively less food and other necessities as it develops, how a country chooses between private goods and public goods, and how societies choose between consumption goods and capital goods that enhance future consumption.

4. Dollar costs are not the same as true economic costs. When we measure the total cost of making choices in a world of scarcity, we calculate the opportunity cost, which measures the value of the things given up, or opportunities forgone.

5. The law of diminishing returns holds that, after a point, as we add equal extra doses of a variable input (such as labor) to a fixed input (such as land), the amount of extra output will decline.

1. What issues are addressed in the text?

This text addresses the following issues:

1. The essence of production-possibility frontier and its role in the economy.
2. Manifestation of productive efficiency through production-possibility frontier.
3. Economic processes that can be revealed with the aid of production-possibility frontier.
4. The economic laws influencing earnings.

2. What part of text contains the following information?

The case when economy is efficient.

- 1) the 5th paragraph
- 2) the 4th paragraph
- 3) the 1st paragraph
- 4) the 2nd paragraph
- 5) the 3rd paragraph

3. Choose the correct statement below according to the text.

1. The country does not select between private and public goods.
2. Productive inefficiency starts when production of one good cannot be increased without curtailing production of another good.
3. The economy is efficient with high unemployment rate.
4. The production-possibility frontier indicates the production possibilities of two commodities with suitable resources.

4. Choose the right answer to the question “What does production-possibility frontier depict?”

- 1) the production choices between two commodities
- 2) the fundamental economic processes
- 3) the calculation of the opportunity cost
- 4) the economic growth effect on the production-possibility frontier

5. Choose ultimate motives for studying economics below as stated in the text.

- 1) to comprehend and settle economic issues affecting people and whole countries+
- 2) to learn to properly manufacture and distribute commodities
- 3) to conduct various experiments to test different economic theories

- 4) to enable society to choose what goods to produce with available resources

### Market Basic Economic Problems

1. In an economy like the United States, most economic decisions are made in markets, which serve as mechanisms by which buyers and sellers meet to trade and determine prices and quantities for commodities. Adam Smith proclaimed that the invisible hand of markets would lead to the optimal economic outcome as individuals pursue their own self-interest. And while markets are far from perfect, they have proved remarkably effective at solving the problems of how, what, and for whom.

2. The market mechanism works as follows to determine the what and the how: The dollar votes of people affect prices of goods; these prices serve as guides for the amounts of the different goods to be produced. When people demand more of a good, businesses can profit by expanding production of that good. Under perfect competition, a business must find the cheapest method of production, efficiently using labor, land, and other factors; otherwise, it will incur losses and be eliminated from the market.

3. At the same time that the what and how problems are being resolved by prices, so is the problem of for whom. The distribution of income is determined by the ownership of factors of production (land, labor, and capital) and by factor prices. People possessing fertile land or the ability to hit home runs will earn many dollar votes to buy consumer goods. Those without property and with skills, color, or sex that the market does not value will receive low incomes.

1. What issues are addressed in the text?

This text addresses the following issues:

1. Markets perfectly solve problems of how, what and for whom.
2. Buyers and Sellers together define prices and quantity of commodities.
3. The way the markets solve main challenges of the economy.
4. Certain production factors affect the distribution of income.

2. What part of text contains the following information?

Prices perform as criteria for manufacturing certain number of various commodities.

- 1) the 3rd paragraph
- 2) the 4th paragraph
- 3) the 1st paragraph
- 4) the 2nd paragraph

3. Choose the correct statement below according to the text.

1. Markets showed their inefficiency to solve problems of how, what, and for whom.
2. Adam Smith proclaimed that the visible hand of markets would lead to the optimal economic outcome as individuals pursue their own self-interest.

3. The profit can be achieved by expanding production.

4. The people with property and skills will receive low incomes.

4. Choose the right answer to the question "How must a business find the cheapest method of production?"

- 1) to solve the problems of how, what, and for whom
- 2) to effectively use labor, land, and other factors
- 3) to trade and determine prices and quantities for commodities
- 4) to determine the what and the how

5. Name what can provide the best economic result.

1. mechanisms by which buyers and sellers meet to trade and determine prices and quantities for commodities

2. the market with persons that looking for their own interests

3. a business that must find the cheapest method of production, efficiently using labor, land, and other factors

4. the way the problems of what and how are being resolved by prices

### Government and the economic processes

1. Although the market mechanism is an admirable way of producing and allocating goods, sometimes market failures lead to deficiencies in the economic outcomes. Government steps in to correct these failures. Government's role in a modern economy is to ensure efficiency, to correct an unfair distribution of income, and to promote economic growth and stability.

2. Markets fail to provide an efficient allocation of resources in the presence of imperfect competition or externalities. Imperfect competition, such as monopoly, produces high prices and low levels of output. To combat these conditions, governments regulate businesses or put legal antitrust constraints on business behavior. Externalities arise when business actions impose costs or bestow benefits on others outside the marketplace without compensation. Governments may decide to step in and regulate these spillovers (as it does with air pollution) or provide for public goods (as in the case of national defense).

3. Markets do not necessarily produce a fair distribution of income; they may spin off unacceptably high levels of inequality of income and consumption. In response, governments generally choose to alter the pattern of incomes (the for whom) generated by market wages, rents, interest, and dividends. Modern governments use taxation to raise revenues for transfers or income-support programs that place a financial safety net under the poor.

4. Since the development of macroeconomics in the 1930s, government has undertaken a third role: using fiscal powers (of taxing and spending) and monetary policy (affecting interest rates and credit conditions) to promote long-run economic growth and productivity and to tame the business cycle's excesses of inflation and unemployment.

1. What issues are addressed in the text?

This text addresses the following issues:

1. Government's role in income distribution.
2. State regulation role in the economy.
3. The steps the government takes to soften the side effects of business actions in the market.
4. Taxation as a tool to promote income-support programs for the poor.

2. What part of text contains the following information?

The State takes certain measures to control business activities.

- 1) the 1st paragraph
- 2) the 4th paragraph
- 3) the 2nd paragraph
- 4) the 3rd paragraph

3. Choose the correct statement below according to the text.

1. Sometimes markets provide negative economic results.
2. Governments never influence economic processes.
3. The State ignores an unfair distribution of income.
4. Government has undertaken a third role long before 1930s.

4. Choose the right answer to the question "Why did the State start employing fiscal and monetary tools?"

- 1) to encourage economic rise and ensure jobs for people
- 2) to remove deficiencies in the economic outcomes
- 3) to regulate businesses or put legal antitrust constraints on business behavior
- 4) to alter the pattern of incomes (the for whom) generated by market wages, rents, interest, and dividends

5. Pick up the government regulating functions in the economy stated below according to the text.

1. taming the business cycle's excesses of inflation and unemployment
2. correcting deficiencies and failures in the economic outcomes
3. providing for an efficient allocation of resources in the presence of imperfect competition
4. contributing to more effective economy and fair distribution of income

## Методические материалы, характеризующие процедуры оценивания

Зачет включает выполнение следующих заданий.

1. Тестирование
2. Устный перевод профессионально ориентированной информации.
3. Устное реферирование осуществляется путем передачи основного содержания информации (большого объема) на иностранном языке в соответствии с правилами оформления сообщения в форме реферата.
4. Собеседование проводится по тематике прослушанных текстов.

Максимальная сумма баллов, набираемая студентом по дисциплине равна 100.

Оценка в баллах	Оценка по шкале	Обоснование	Уровень сформированности компетенций
Более 80	«Отлично»	Содержание курса освоено полностью, без пробелов, необходимые практические навыки работы с освоенным материалом сформированы, все предусмотренные программой обучения учебные задания выполнены, качество их выполнения оценено числом баллов, близким к максимальному	<b>Высокий уровень</b>
66-80	«Хорошо»	Содержание курса освоено полностью, без пробелов, некоторые практические навыки работы с освоенным материалом сформированы недостаточно, все предусмотренные программой обучения учебные задания выполнены, качество выполнения ни одного из них не оценено минимальным числом баллов, некоторые виды заданий выполнены с ошибками	<b>Продвинутый уровень</b>
50-65	«Удовлетворительно»	Содержание курса освоено частично, но пробелы не носят существенного характера, необходимые практические навыки работы с освоенным материалом в основном сформированы, большинство предусмотренных программой обучения учебных заданий выполнено, некоторые из выполненных заданий, возможно, содержат ошибки	<b>Пороговый уровень</b>
Менее 50	«Неудовлетворительно»	Содержание курса не освоено, необходимые практические навыки работы не сформированы, выполненные учебные задания содержат грубые ошибки	<b>Компетенции не сформированы</b>

### 3. Задания в тестовой форме по дисциплине

Примеры заданий:

Пример задания закрытого типа.

The PREVAILING mode of economic organization in modern advanced industrial economies is the mixed economy.

Выберите один ответ:

преобладая

для преобладания

преобладать

преобладающий

Пример задания открытого типа.

Впишите одно подходящее по смыслу слово для данных предложений.

Gross domestic \_\_\_\_\_ grew 5.8 percent in the first quarter.

We are continuously challenged to find new ways of lowering \_\_\_\_\_ costs in order to maximize returns.

The \_\_\_\_\_ acceptance was evaluated by 33 consumers, representing the target public.

Полный перечень тестовых заданий с указанием правильных ответов, размещен в банке вопросов на информационно-образовательном портале института по ссылке <https://www.mivlgu.ru/iop/question/edit.php?courseid=910&category=37371%2C24332&qshowtext=0&recurse=0&recurse=1&showhidden=0>

Оценка рассчитывается как процент правильно выполненных тестовых заданий из их общего числа.