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**CRIMINAL LEGAL AND CRIMINAL PROCEDURAL ASPECTS OF  
INSTITUTE OF PARDON IN THE COMPARASION WITH  
CONSTITUTIONAL PRINCIPLE OF THE PRESUMPTION OF  
INNOCENCE**

**Abstract**

*The article deals with juridical nature of institute of pardon, its criminal legal and procedural aspects in the light of provisions of constitutional principle of the presumption of innocence – with comparative legal approach, shows separate inappropriate provisions of the Criminal and Criminal Procedure Codes of Ukraine which contradict constitutional principle of presumption of innocence and offers the method of removal of this non-compliance.*

**КРИВИЧНОПРАВНИ И КРИВИЧНОПРОЦЕСНИ АСПЕКТ  
ИНСТИТУТА ПОМИЛОВАЊА У ОДНОСУ НА УСТАВНИ  
ПРИНЦИП ПРЕЗУМПЦИЈЕ НЕВИНОСТИ**

**Апстракт**

*У чланку се разматра правна природа института помиловања, његови кривичноправни и кривичнопроцесни аспекти у складу са местом и значајем уставног принципа презумпције невиности – упоредноправном методом, показујући несагласност између појединих одредаба Кривичног законика Украјине и Кривичнопроцесног законика Украјине с једне стране, и уставног принципа презумпције невиности с друге стране, и предлаже се начин превазилажења те несагласности.*

**УГОЛОВНО-ПРАВОВОЙ И УГОЛОВНО-ПРОЦЕССУАЛЬНЫЙ  
АСПЕКТЫ ИНСТИТУТА ПОМИЛОВАНИЯ В СОПОСТАВЛЕНИИ  
С КОНСТИТУЦИОННЫМ ПРИНЦИПОМ ПРЕЗУМПЦИИ  
НЕВИНОВНОСТИ**

**Резюме**

*В статье рассматривается правовая природа института помилования, его уголовно-правовой и уголовно-процессуальный аспекты в свете положений конституционного принципа презумпции невиновности – с сравнительно-*

*правовым подходом, показывается несоответствие отдельных положений Уголовного и Уголовно-процессуального кодексов Украины конституционному принципу презумпции невиновности и предлагается способ устранения этого несоответствия.*

## **Кримінально-правовий та кримінально-процесуальний аспекти інституту помилування у співставленні з конституційним принципом презумпції невинуватості**

У конституціях багатьох держав інститут помилування знаходить певну регламентацію. Так, відповідно до Конституції Російської Федерації 1993 р кожний засуджений за злочин має право просити про помилування (ч. 3 ст. 50), здійснення якого відноситься до компетенції Президента (п. “в” ст. 89). Саме засуджені є адресатами помилування відповідно до положень Конституції Республіки Білорусь (п. 14 ст. 100), Естонської Республіки (п. 19 ст. 78), Литовської Республіки (п. 23 ст. 84), Республіки Узбекистан (п. 20 ст. 93) тощо.

Досить повно інститут помилування регламентується в Конституції Австрійської Республіки 1920 р. в редакції 1929 р.: Федеральному президенту цієї країни “належить право... в) в окремих випадках: помилування осіб, засуджених вироком суду, що вступив у законну силу, пом'якшення та зміна призначених судом покарань, пом'якшення правових наслідків і погашення судимості в порядку помилування, насамкінець, припинення кримінального судочинства стосовно осіб, які переслідуються в офіційному порядку за кримінально карані діяння (п. “в” абзац 2 ст. 65). Кримінальний кодекс Австрійської Республіки 1974 р. не містить положень щодо помилування.

Відповідно до ст. 84 Конституції Республіки Македонії 1991 р. Президент “надає помилування згідно з законом”. У КК цієї країни (Criminal Code of Republic of Macedonia) є ст. 114 “Помилування”, згідно з якою помилуванням індивідуально визначена особа звільняється від судового переслідування або повністю чи частково звільняється від виконання покарання; призначене покарання замінюється м'якшим покаранням або умовним засудженням, або певний правовий наслідок покарання чи заходу безпеки анулюється; помилування може визначати анулювання чи скорочення таких заходів безпеки, як заборона виконання роботи за професією, діяльності чи службових обов'язків; заборона керування моторним транспортним засобом для правопорушників, які є водіями за професією; вислання іноземця з країни. У той самий час надання помилування не зачіпає прав третіх осіб, що ґрунтуються на судовому рішенні (ст. 115 КК).

Ст. 110 “Помилування” Кримінального кодексу Республіки Сербія 2005 р. [26] гласить: “(1) Помилуванням поіменно визначена особа звільняється від кримінального переслідування або повністю чи частково звільняється від виконання покарання, замінюється призначене покарання м'якшим покаранням або умовним засудженням, дається реабілітація, встановлюється коротше тривання призначених правових наслідків засудження або скасовує окремі чи всі правові наслідки засудження.

(2) Помилуванням може бути скасовано або визначено коротшим тривання заходів

безпеки заборони здійснення професії, діяльності та посади, заборона керування моторним транспортним засобом і висилання іноземця з країни.”

У кримінальних кодексах інститут помилування відображений по-різному: від побіжного згадування про помилування (§§1, 3, 4 ст. 107 КК Республіки Польща 1997 р. [31]). до детальної регламентації. Так, у ст. 96 “Помилування” КК Республіки Білорусь 1999 р. [18] зазначається; Помилування здійснюється Президентом Республіки Білорусь стосовно індивідуально визначеної особи: 2. На підставі акта помилування особа, засуджена за злочин, може бути повністю або частково звільнена від покарання як основного, так і додаткового, або звільнена від покарання умовно, або такій особі невідбута частина покарання може бути замінена більш м'яким покаранням, або їй може бути знята судимість. 3. Якщо особа, умовно звільнена актом помилування, впродовж невідбутого строку вчинить умисний злочин, а так само злочин з необережності, за який вона засуджується до позбавлення волі, суд призначає їй покарання за правилами, передбаченими ст. 73 цього Кодексу, тобто за сукупністю вироків.”

Зазначимо, що про помилування не згадується у кримінальних кодексах ряду держав (зокрема, Федеративної Республіки Німеччини 1871 р., в редакції 1998 р., Данії 1930 р., Республіки Корея 1953 р., Швеції 1962 р., Китайської Народної Республіки 1979 р., зі змінами 1997 р., Кримінальному законі Латвійської Республіки 1998 р.).

У Кримінальному кодексі України, який був прийнятий Верховною Радою України 5 квітня 2001 р., і набув чинності 1 вересня 2005 р., про помилування йдеться у статтях 74, 85 та 87, які містяться в розділі XII його Загальної частини “Звільнення від покарання та його відбуття”, а також у ст. 44, що міститься в розділі IX цієї ж частини “Звільнення від кримінальної відповідальності.”

На підставі акта про помилування засуджений може бути повністю або частково звільнений від основного і додаткового покарання, а також засудженому може бути змінено покарання або невідбуту його частину більш м'яким покаранням (ст. 85 КК України). Як слушно зазначає Л. Хрушова, за актом про помилування особа може бути звільнена повністю або частково від основного покарання; повністю або частково від додаткового покарання (1, с. 272), тобто від основного та/або додаткового покарання, а не обов'язково одночасно від обох видів покарання. Таке тлумачення розглядуваного припису ст. 85 КК України узгоджується з підходом, зафіксованим у ч. 1 ст. 5 Закону України “Про застосування амністії в Україні” від 01.10.1996 р. з наступними змінами.

Помилування здійснюється Президентом України стосовно індивідуально визначеної особи (ч. 1 ст. 87 КК України), тобто персоналізовано. Актом про помилування може бути здійснена заміна засудженому призначеного судом покарання у виді довічного позбавлення волі на строк не менше двадцяти п'яти років (ч. 2 ст. 87 КК України). Звернімо увагу на те, що тут позбавлення волі визначається тривалістю мінімум 25 років, хоч у вітчизняній літературі цей строк іноді вважається абсолютно визначеним [2, с. 310; 32 с.405] і навіть максимальним [3, с. 149].

Абсолютно визначений строк позбавлення волі при помилуванні особи, засудженої до смертної кари, фігурує у КК Російської Федерації 1996 р. (ч. 3 ст. 59 “Смертна кара”: “Смертна кара в порядку помилування може бути замінена

довічним позбавленням волі або позбавленням волі на строк двадцять п'ять років”); в цьому плані хибним уявляється твердження, що в КК РФ у даному випадку йдеться, зокрема, про позбавлення воля “на строк не більше 25 років” [4, с. 21]. Абсолютно визначений строк позбавлення волі передбачений у подібних випадках і в КК Республіки Таджикистан 1998 р. (ч. 3 ст. 59), КК Республіки Узбекистан 1994 р. (ч. 3 ст. 51) — двадцять п'ять років, а також у КК Киргизької Республіки 1997 р. (ч. 4 ст. 49) — тридцять років. Відповідно до ч. 3 ст. 49 КК Республіки Казахстан 1997 р. в розглядуваному випадку смертна кара може бути замінена довічним позбавленням волі на строк двадцять п'ять років з відбуванням покарання у виправній колонії особливого режиму, а відповідно до ч. 3 ст. 80 КК Туркменістану 1997 р. — позбавленням волі до двадцяти п'яти років. За КК Республіки Молдова 2002 р. (ч. 5 ст. 70 “Позбавлення волі на певний строк”) у випадку пом'якшення покарання в порядку помилування довічне ув'язнення замінюється позбавленням волі на строк 35 років.

У кримінальних кодексах держав, що утворилися на теренах колишнього СРСР, у структурних підрозділах (розділах чи главах), присвячених питанням звільнення від кримінальної відповідальності, не йдеться про таку підставу застосування цього інституту, як акт помилування. Виняток становить лиш КК України, де в ч. 1 ст. 44 зазначається, зокрема, що “особа, яка вчинила злочин, звільняється від кримінальної відповідальності... на підставі... акта помилування.”

Помилування — акт глави держави, за яким визначена особа (кілька осіб) повністю або частково звільняється від відповідальності чи покарання (незалежно від тяжкості злочину, вчиненого ними), а також до неї може застосовуватися більш м'яке покарання, чи з особи знімається судимість. Згідно із ст. 44 КК України актом помилування особа звільняється як від відповідальності, так і від покарання [5, с. 285] (якщо бути точним, то в згаданій нормі йдеться про звільнення від відповідальності — С.Я.). Дещо відступаючи від даного визначення, С. Гавриш далі зазначає, що за своєю юридичною природою помилування є не реабілітацією, а лише звільненням від покарання [5, с. 286].

Визначення помилування, яке можна вважати типовим для вітчизняної правової доктрини, дає А. Музика: “Помилування — правовий акт найвищого органу державної влади (глави держави), за яким конкретна особа звільняється від відбування покарання або це покарання пом'якшується” [6, с. 654]. Вітчизняні конституціоналісти С. Серьогіна та Ю. Тодика вважають, що з точки зору конституційного права помилування є актом вищого органу державної влади, який повністю або частково звільняє засудженого від покарання або замінює призначене судом покарання на більш м'яке. Помилування може передбачати також зняття судимості з осіб, які раніше відбули покарання [7, с. 519].

Про зняття судимості актом помилування йшлося в чинному на той час Положенні про порядок здійснення помилування, затвердженому Президентом України Указом від 12.06.2000 р. Свого часу ми зазначали, що в статтях 85 та 87 КК України, у яких ідеться про помилування, “нічого не говориться про можливість зняття судимості актом помилування, а в ч. 3 ст. 91 “Зняття судимості” вказується, що зняття судимості встановлюється Кримінально-процесуальним кодексом України. З врахуванням викладеного та беручи до уваги положення п. 22 ч. 1 ст. 92 Конституції України про те, що виключно законами України

визначаються діяння, які є злочинами, та відповідальність за них, логічним буде дійти висновку, що й питання припинення кримінально-правових відносин, включаючи такий його аспект, як погашення та зняття судимості, має вирішуватися законом [8, с. 190].

А. Пінаєв зазначає, що припис згаданого Положення про право зняття судимості, що став суперечити КК України, прийнятому в 2001 р., втратив силу; при цьому він чомусь вважає таким, що втратив силу, і припис Положення про право повністю або частково звільнити особу від покарання, називаючи при цьому ст. 87 [9, с. 427], хоча мало б ітися про ст. 85 КК України.

У чинному Положенні про здійснення помилування, затвердженому Указом Президента України від 19.07.2005 р., про зняття судимості актом помилування вже не йдеться. Разом із тим у ньому містяться приписи, зокрема, про повне або часткове звільнення від відбування як основного, так і додаткового покарання та про заміну покарання, які, на нашу думку, не суперечать положенням ст. 85 КК України.

На думку В. Устименка, оскільки КК України “не встановлює заборони на зняття судимості”, то “не виключається зняття судимості на підставі акта про помилування” [10, с. 157]. Але ж порядок зняття судимості встановлюється Кримінально-процесуальним кодексом (далі — КПК) України, а саме ст. 414 “Порядок розгляду судом клопотання про зняття судимості”.

Законом від 16.03.2006 р. ст. 151 Кримінально-виконавчого кодексу України 2003 р. доповнено ч. 7 такого змісту: “Засудженим до довічного позбавлення волі може бути подано клопотання про його помилування після відбуття не менше двадцять років призначеного покарання”. Раніше такий припис містився лише в підзаконному нормативному акті — згаданому Положенні. У Положенні чітко проводиться думка, що помилування застосовується тільки щодо засуджених судами осіб. Зокрема, в п. 4 зазначається: Клопотання про помилування може бути подано після набрання вироком законної сили.” Деякі вітчизняні дослідники вважають, що такий підхід суперечить положенню КК України, в якому помилування розглядається “і як від звільнення від кримінальної відповідальності”, у зв'язку з чим пропонують привести у відповідність з КК інші нормативні акти [11, с. 227].

У Конституції України, прийнятій у 1978 р. (за станом на 31 грудня 1995 р.) зазначалося, що Президент України “здійснює помилування осіб, засуджених судами України” (п. 11 ст. 114<sup>5</sup>). Традиційно “помилувати” означає “простити кому-небудь провину, виявивши поблажливість до кого-небудь”; “скасувати або пом'якшити кару, до якої присуджено обвинуваченого” [12, с. 855]. Вина ж встановлюється у визначеному законом порядку вироком суду. Отже, помилування має стосуватися лише засуджених, тобто вже підданих відповідальності осіб. Раніше ми вже зазначали, що “положення ст. 44 КК, яка регламентує правові підстави та порядок звільнення від кримінальної відповідальності, щодо можливості застосування цього інституту на підставі акта помилування, є юридично неспроможним” [8, с. 186-187]. Таку оцінку повністю поділяють І.О. Зінченко, В.І. Тютюгін [33, с. 183]. Л. Хрушова зазначає: “Актом про помилування не може бути вирішено питання про звільнення особи, яка вчинила злочин, від кримінальної відповідальності. Помилування стосується

тільки осіб, засуджених судом за вчинення злочинів, тобто тих осіб, які вже піддані кримінальній відповідальності” [1, с. 276]. С. Школа “критично оцінює рішення законодавця щодо можливості звільнення від кримінальної відповідальності у зв'язку з помилуванням (ч. 1 ст. 44 КК України)” [13, с. 12]. Дещо завуальовано зачіпають питання, що розглядається, А. Бойко та О. Дударов, на думку яких “реальна правозастосовна практика, як правило, зорієнтована на не пов'язане із звільненням від кримінальної відповідальності у зв'язку з помилуванням засуджених” [14, с. 185]. Про це зазначає й Л. Мостепанюк, не вживаючи при цьому слів “як правило”; називаючи помилування як підставу звільнення від кримінальної відповідальності з посиланням не лише на ст. 44, а й на ст. 84 КК України [4, с. 22], в якій насправді про помилування не згадується.

Крім ч. 1 ст. 44 КК України положення про звільнення особи, яка вчинила злочин, від кримінальної відповідальності актом помилування міститься у КПК України: “Кримінальну справу не може бути порушено, а порушена справа підлягає закриттю... в зв'язку з помилуванням окремих осіб” (п. 4 ч. 1 ст. 6). Українські вчені -процесуалісти зазначали: “У п. 4 ч. 1 ст. 6 КПК йдеться про випадки помилування осіб ще до того, як була порушена кримінальна справа щодо них, або ж під час провадження у справі. Такі випадки можливі, але на практиці вони не трапляються” [15, с. 14]. Дійсно, як випливає з тексту процитованого кримінально-процесуального закону, помилування може стосуватися осіб, яким навіть не пред'явлене обвинувачення, отже, без встановлення їх вини обвинувальним вироком суду, який набрав законної сили, тобто всупереч конституційному принципу презумпції невинуватості, зафіксованому в ч. 1 ст. 62 Конституції України (“Особа вважається невинуватою у вчиненні злочину і не може бути піддана кримінальному покаранню, доки її вину не буде доведено в законному порядку і встановлено обвинувальним вироком суду”), а тим сами усупереч конституційному принципу верховенства права, зокрема положенню ч. 2 ст. 8 Конституції України (“Конституція України має найвищу юридичну силу. Закони та інші нормативно-правові акти приймаються на основі Конституції України і повинні відповідати їй”).

Значимо, що положення п. 4 ч. 1 ст. 6 чинного нині КПК України 1960 р. відповідає положенню п. 4 ст. 5 Основ кримінального судочинства Союзу РСР та союзних республік 1958 р., які втратили чинність. Свого часу проф. М. Ісаєв констатував, що помилування у сенсі закриття кримінального переслідування стосовно конкретної особи в радянській практиці не зустрічається” [16, с. 563].

Думку про те, що норма КПК України, яка розглядається, “суперечить Конституції України, самій ідеї помилування винуватої особи (навіщо милувати невинуватого?), оскільки питання винуватості особи у вчиненні злочину вирішує тільки суд”, що “неприпустимо питання про винуватість особи ставити в залежність від того, чи визнає вона себе винною у вчиненні злочину”, висловила ще кілька років тому О. Губська, називаючи її “мертвою” і такою, що засмічує процесуальне законодавство.” [17, с. 17, 18].

У ч. 2 ст. 6 КПК України зазначається, що у випадку, коли обставини, зазначені в п. 4 ст. 1 ст. 6, зокрема наявність акта помилування, виявляється в стадії судового розгляду, суд доводить розгляд справи до кінця й постановляє “обвинувальний вирок із звільненням засудженого від покарання.” Виникає

питання — чому саме обвинувальний вирок? “Вирок суду може бути обвинувальний або виправдальний” (ч. 1 ст. 327 КПК України). Обвинувальний вирок може мати місце лише у випадку доведеності вини підсудного у вчиненні ним злочину. Всупереч цьому очевидному положенню припис ч. 2 ст. 6 КПК України приховано виходить з того, що вина вважається доведеною самим фактом наявності акта про помилування, що суперечить конституційному принципу презумпції невинуватості.

У ч. 3 ст. 6 КПК України зазначається: “Закриття справи на підставах, зазначених у п. 4 цієї статті, не допускається, якщо обвинувачений проти цього заперечує. В цьому разі провадження у справі продовжується в звичайному порядку.” Але ж продовження провадження у справі в звичайному порядку, коли не виключається встановлення невинуватості підсудного у вчиненні злочину і, як результат, постановлення виправдального вироку, не повністю узгоджується з положенням про закриття справи у зв’язку з помилуванням (п. 4 ч. 4 ст. 6) та постановленням обвинувального вироку із звільненням засудженого від покарання (ч. 2 ст. 6 КПК України). Як пише В. Мойсик, “на сьогодні, внаслідок неузгодженості окремих норм чинного законодавства, в національній правозастосовній системі створена й існує реальна можливість помилування невинуватих осіб, що суперечить не тільки букві й духу Конституції, а й правовій природі самого акту помилування” [30, с. 42].

Викладене свідчить про певну неузгодженість положень, що розглядаються, а також про те, що вони, як і положення КПК, ч. 1 ст. 44 КК України про звільнення особи від кримінальної відповідальності на підставі акта помилування, суперечить конституційним принципам презумпції невинуватості та верховенства права і мають бути скасовані. Про невідповідність інституту звільнення від кримінальної відповідальності конституційному принципу презумпції невинуватості вже говорилось в українській правовій доктрині [28, с. 39; 29, с. 48].

Помилування є міжгалузевим інститутом, що відіграє суттєву роль у механізмі протидії злочинності. Президентом України протягом 1994-2002 рр. було помилувано 6454 особи [27, с. 12]. Надія на помилування – “важливий стимул для виправлення. Особливо це стосується засуджених дл довічного позбавлення волі” [14, с. 185] Як зазначають учені різних країн, у помилуванні знаходить вираз принцип гуманізму [17, с. 16; 19, с. 66; 20, с. 155; 21, с. 190], індивідуального милосердя [7, с. 518], гуманізму та милосердя з боку держави [2, с. 310]; цей інститут є актом милості [22, с. 336], дарування покарання [23, с. 375], тобто звільнення від відбування призначеного покарання, зрештою актом політичної мудрості [24, с. 551]. Вітчизняні вчені В. Маляренко та А. Музика пишуть: “Амністія та помилування являють собою прощення державою осіб, які вчинили злочин; це акти гуманізму, милосердя і водночас довіри до осіб, які підлягають амністуванню чи помилуванню” [27, с. 36]

Потребу в законодавчому вдосконаленні інституту помилування вважаємо назрілою і необхідною для підвищення його ефективності. Ми підтримуємо думку про дієльність прийняття спеціального закону щодо помилування [13, с. 5; 34, с. 185]. Зазначимо, що в окремих країнах подібні закони існують. Так, у Нідерландах є Закон “Про помилування” 1988 р. [25, с. 16-50].

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## FOUNDATIONS, RESULTS AND PERSPECTIVES OF TRANSITION: A CASE OF SERBIA

### Abstract

*Paper considers the foundations, results and perspectives of transition process, with special focus on Serbia. The foundations were the postulates of neoclassical economics, the mainstream in recent economic thought. They determined the goal, the methodology, and the ideological basis of this process, and resulted especially in Washington Consensus. The results of the reforms, based on Consensus, showed, with some exceptions, that these countries realized deep and long-term economic fall, followed by similar processes in other spheras. Contrary to ordinary opinions that transition crisis show as result of inconsistency in reforms taking, this is normaly its result. As an analogue is the Morgenthau's plan for West Germany observed, that has promoted Germany to industrial disarmament, and that would lead to its poverty and its transformation into raw material basis for the developed economies, and to impossibility of survival of the existing number of population. Fortunately for the Germany, Morgenthau's plan was abandoned and Marshall's plan was introduced. It lead to industrial renewal of Germany. For the transition countries it is also necessary, considering the practice and basic principles of the Other Canon, which have they origins as far as from the economic policy of Henry VII, to acess re-industrialization in the same way, which is the necessity for renewall of economies, and for overcoming the long-term crisis.*

**Key words:** *Standard theory, Other canon, Washington Consensus, Transition crisis, Neoclassical economics, Industrialization, Morgenthau's Plan, Marshall's plan, Development*

## ОСНОВИ, РЕЗУЛТАТИ И ПЕРСПЕКТИВЕ ТРАНЗИЦИЈЕ: ПРИМЕР СРБИЈЕ

### Апстракт

*Рад разматра основе, резултате и перспективе процеса транзиције, с посебним освртом на Србију. Основе су чинили постулати неокласичне економије, главног тока у данашњој економској мисли. Они су определили циљ, методологију и идеолошку основу овог процеса, и резутовали су Вашигтонским консензусом. Резултати реформи у тзв. посткомунистичким земљама, заснованих на Консензусу, показују, уз мање изузетке, дубок и дуготрајан економски пад, уз негативне процесе и у другим сферама. Насупрот уобичајеним мишљењима да је транзициона криза резултат недоследности у спровођењу реформи, она је управо супротно њихов закономеран резултат.*

*Као аналог истиче се Моргентауов план за 3. Немачку, којим је након Другог светског рата било предвиђено да она буде индустријски разоружана, што би водило њеном сиромашењу и претварању у сировински додатак развијеним привредама, и онемогућило опстанак тадашњег броја становника. На срећу по Немачку, Моргентауов план је замењен Маршаловим који јој је обезбедио индустријску обнову. И за транзиционе земље потребно је, у складу с поставкама и праксом Другог канона, који потиче од економске политике Хенрија VII, приступити реиндустријализацији, као нужном услову оживљавања привреда и изласка из дуготрајне кризе.*

**Кључне речи:** *Стандардна теорија, Други канон, Вашингтонски консензус, транзициона криза, неокласична економија, индустријализација, Моргентауов план, Маршалов план, развој*

## **Introduction**

Twenty years of the implementing reforms in transition process in eastern european countries made too many evidences for a comprehensive estimation of this process. The foundations and the results of transition can be objective observed and the perspectives for these countries concluded. After the catastrophic decade of 1990's, with deep transition (or transformational) crisis, the years at the beginning of 21 century brought the encouraging tendencies in the most of these countries. However, the results (production and living standard) from the years of pre-transition were not reached. And the recent financial and economic crisis shows how much these countries are far from promised prosperity and welfare.

The long-term crisis of transitional economies (and societies) is the result of the implemented neoclassical model of transformation and requires the serious examination the foundations of transition process and the search new ways for their development. The purpose of this paper is to consider both of these aims, with special attempt to present the results of transition process in Serbia.

The new development strategy for Serbia, also other transition countries, must consider the ideas of alternative economic theory, that is derived from the Other canon wich have they origins as far from the economic policy of Henry VII. So, these countries can access re-industrialization, which is the necessity for renewall of economies, and for overcoming the long-term crisis.

## **Foundations of transition proces**

The Fall of the Berlin Wall 1989 and the end of cold war are certainly the most signficiant events at the end of the XX century. They lead the countries of Eastern and South-Eastern Europe to a fundamental problem: how to make a transition from planned towards market-based economy, but they also created an ambient, in which it would be possible to discuss, without prejudice and ideological burden, among the others the role of the State in economic development. Unfortunately, the mainstream economics'

thought – as a result of the standard assumptions of neoclassical theory – hampered this consideration of two fundamentally different economic outlooks: a production-centered and activistic-idealistic (Renaissance) tradition and a barter-centered and passivistic-materialistic tradition of Smith, Ricardo and neo-classical economics [Reinert 1999, p. 270].

Without pre-made recipes for development of market institutions and market economy, or, as it was the case with Yugoslav experience since the beginning of 1950s, simply suppressed, creators of the changes in these countries accepted foreign experts and recipes issued by international financial institutions with IMF in front. In their basis were neo-classical postulates, ideas of “natural harmony” created by the market mechanism, that recent make the core mainstream in economic thought. “Natural harmony”, or a world void of any systemic effects, world of Samuelson's factor price equalisation [Samuelson 1948], will make all wage earners of all the world equally rich – if we can only “get the prices right” and “provide a level playing field”. The dominance of neoclassical economics was the decisive factor in determining the transition strategy. Consequently, there was no debate on goal, method and ideology underpinning the transition process.

Although the recommended prescriptions were at first geographically and historically specific, and were meant to solve problems of Latin America, former socialist countries similarly have they accept, as well as the countries of Sub-Saharan Africa. Quickly, they were became “the general wisdom for growth and development policy” [Marangos 2009, p. 197]. These recipes are known as Washington Consensus, the term coined by J. Williamson in 1989 [Williamson 1990]. Originally, the Consensus policies are next (table 1, left column). Reformers in these countries, and their advisors, emphasized that transition would bring temporary crisis, and then, very soon, the economies would renew, and their new ownership structure will ensure a quick compensation for the temporary decrease and then a quick growth and catching up with developed countries.

The goal of reforms had to be competitive capitalism, the methodology neoclassical economics, and the ideological foundation self-interest. The individual conditions of each country was not in concern. The debate on transition was restricted to the speed of reform. The only concern was whether transition economies should immediately liberalise, stabilise, and privatise, that required so-called shock-therapy approach, or implement the neoclassical policies gradualistic, at a slow pace (gradualist approach).<sup>1</sup>

But, as was shown in [Marangos 2002], debate between the supporters of two approaches, in fact was immaterial. Both transition approaches adopted a combination of shock-therapy and gradualist strategies. In Serbia, this was also the case, although the transition process had many special characteristics, as a result of the known events in the 1990's.

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<sup>1</sup> The term “shock-therapy” is derived from Poland's stabilisation and liberalization program initiated on January 1, 1990. However, even Poland later pursued gradualist policies that appear more successful than those under shock therapy.

Table 1. Original and augmented Washington Consensus

Original Washington Consensus	"Augmented" Washington Consensus, the previous 10 items, plus:
1. Fiscal discipline	11. Corporate governance
2. Reorientation of public expenditures	12. Anti-corruption
3. Tax reform	13. Flexible labor markets
4. Financial liberalization	14. WTO agreements
5. Unified and competitive exchange rates	15. Financial codes and standards
6. Trade liberalization	16. "Prudent" capital-account opening
7. Openness to FDI	17. Non-intermediate exchange rate regimes
8. Privatization	18. Independent central banks/inflation targeting
9. Deregulation	19. Social safety nets
10. Secure Property Rights	20. Targeted poverty reduction

Source: [Williamson 1990]; [Rodrik 2003; 2006]

What mean principles of Washington Consensus? Let us see (items on table 1).

- 1) Means that public revenues should cover public expenditures, because budget deficit leads to inflation and to balance of payments deficit.
- 2) This suggested switching expenditure, in a pro-growth and pro-poor way, from things like non-merit subsidies to basic health care, education, and infrastructure.
- 3) The aim is a tax system that would combine a broad tax base with moderate marginal tax rates. This would increase fiscal, and then total public revenues.
- 4) If exist control of interest rates, it must be cancelled.
- 5) Central Bank has to ensure that appreciated domestic currency does not jeopardise the competitiveness of domestic economy in external trade.
- 6) As general approach, without pointing out the swiftness of its application.
- 7) It doesn't refer to comprehensive capital account, but only to FDI, in the meaning that all foreigners should be able to invest, build or buy something, and should be able to do that without limitations.
- 8) It is assumed that privatization, if conducted properly, is beneficial, whether privatized enterprises do business in competitive market, whether they are regulated.
- 9) It refers, primarily, to removal of barriers to entry given market, which increases competition, as well as the exit barriers for firms, not a removal regulation of safety of production, ecology regulation, or economic regulation in case of natural monopolies.
- 10) It is necessary to ensure to gain property rights at an acceptable cost.

Is this set of policies acceptable? Williamson emphasized uniqueness of 1989 [Williamson 2003, p. 11], and critics of Consensus emphasized that some of the important policies are missing, for example social equality and institutional

development.<sup>2</sup> This is unquestionable, and therefore Williamson later supplemented the program, and named it *After the Washington Consensus* [Williamson 2006]. However, it's important to estimate original policies, because they were practically implemented. It's clear that in these evaluations couldn't be (and shouldn't be) a consensus, but still, surprisingly, there are many our economists that fully support these policies. In my opinion, uncritical relation toward policies of the Consensus can't be good – they must be considered individually in the context of specific economy and concrete period of time .

The ideas derived from the Washington Consensus had a huge influence on the economic reforms of many countries, among them on postcommunist countries, although the way these countries interpreted these ideas varied significantly. However, the original policies reigned unchallenged for only a short time. International economic and political circumstances has been changed, as well as domestic condition in reforming countries. So appeared new problems and the original proponents of the Consensus had to search for new answers. These answers often complemented the original recommendations of the Consensus, but not always. Also, new goals, more complex and difficult, were constantly added to the list of requirements, so the final frontier of the reform process became mere preconditions for success.

### **Results of the transition process: the case of Serbia**

Through the reforms, the institutional ambient in transition countries has been radically changed: for most prices a free price system was introduced, foreign exchange was liberalized, subsidies were cut, currencies were devaluated and made convertible, restrictive credit policy was introduced, borders were open for foreign capital, most of the state-owned enterprises were privatized. In most cases, it is all done by “shock therapy” (all, right now, at the same time). The applied model assumed that the market institutions would spontaneously lead to capitalism, as soon as the ownership was privatized, prices were free, currency was stabilized and free competitive market was established. The economy should, after a short period of crisis, spontaneously lead to the renewal of production and economic growth.

These changes, however, weren't backed with proper and suitable changes in real sector. The results achieved are well known, and there is no point in repeating them here. They undoubtedly show failure.

The implementation of reforms prescribed in Washington Consensus and after gave not expected results. These results cannot be marked as good: instead of the promised prosperity, the majority of countries measured a great and a long-term fall in GDP, industrial production and living standard. The former yugoslav republics were not an exception. Not even Slovenia, with all its specificities and a refusal to apply some of the IMF policies (i.e. Washington Consensus), with annual GDP growth around 2%, cannot be satisfied. Serbia, fell almost 30% of its value in 1989, is in a similar situation as the Ukraine and Moldavia, whose decrease is between 40% and 50%. The official statistical methodology in Serbia

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<sup>2</sup> The first who wrote about Consensus failure to see crucial role of institutions in economic development was Naím Moisés. He also said the Consensus policies had to be seen merely as „first stage“ or „first generation“ reform. (Latin America's Journey to the Market: From Economic Shocks to Institutional Therapy, San Francisco, 1995. According [Moisés 2000].)

meanwhile was changed, so the consistent time series of GDP (or earlier gross domestic material product) cannot be found. On figure 1 therefore were two data series shown: the gross domestic (material) product (for period 1989–2004) and gross domestic product (for period 1997–2009). Both series, as the other data in this paper, not included the data for the Autonomous Province Kosovo i Metohija.

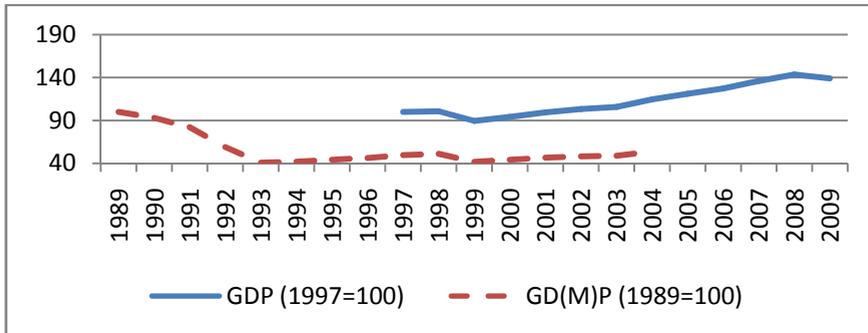


Figure 1. Gross domestic and gross domestic (material) product of Serbia

Note: for 2009 preliminary data

Source: [Републички завод за статистику 2008; 2010a]

Greatest losses, not only in Serbia, were in industry. The industrial output in Serbia in 2009 is on the level of 39% related to 1989 (figure 2), many branches drastically decreased output, and some seized to exist.<sup>3</sup> As the industry is moving force of technological progress, an engine to economic growth and creator of synergetic effects in all economy<sup>4</sup>, this presentation of its decrease is by itself enough to mark the whole period as “negative”.

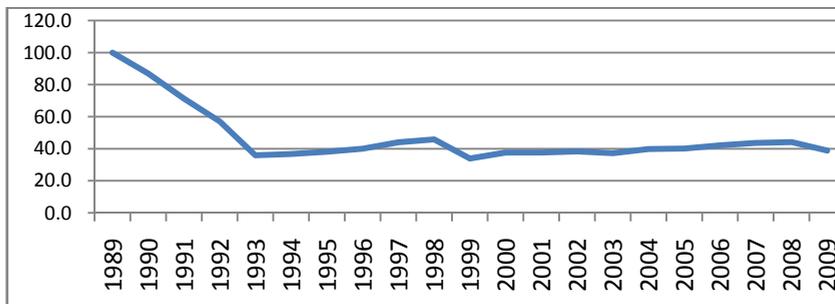


Figure 2. Industrial output in Serbia (1989=100)

Source: Author’s calculation based on [Републички завод за статистику 2010b]

<sup>3</sup> It is great drop in 1999, a year in which Serbia was bombed by NATO. That factor and others during the 1990s (economic sanctions, wars in the surrounding republics) are not to be underestimated. However, a drastic drop of industrial output is clearly seen. Meanwhile, we can see that industrial output moved, similar to other transition countries [Blanchard 1996], like an U-pattern, but just to 1999, when this evolution was broken. This same can be seen on the figure 1.

<sup>4</sup> This was described in 1613 by italian mercantilist A. Serra [Serra 1952 /1613/].

In most transition countries, the economic crisis was followed by other negative consequences, such as a great demographic crisis – decline in population, spread of the diseases, a drop in fertility, increase in mortality. Stuckler and the co-authors tested the hypothesis that it was the mass privatization that caused the increase in mortality in the post-communist countries [Stuckler et al., 2009]. UNICEF has estimated 3.256.000 „excess“ deaths in transition countries, for the decade 1990–1999 (without Bosnia and Herzegovina, Georgia for 1993, Tajikistan for 1996–1999, and FR Yugoslavia for 1999) [UNICEF 2001, p. 49]. The depth of demographic crisis is probably best illustrated by the *Russian Cross*, firstly detected in 1992 in Russia: curves of dynamics of live births and deaths were crossed. Same happened in Serbia (figure 3), but the trend of approaching and intersecting of these curves is not clearly seen, as in Russia.

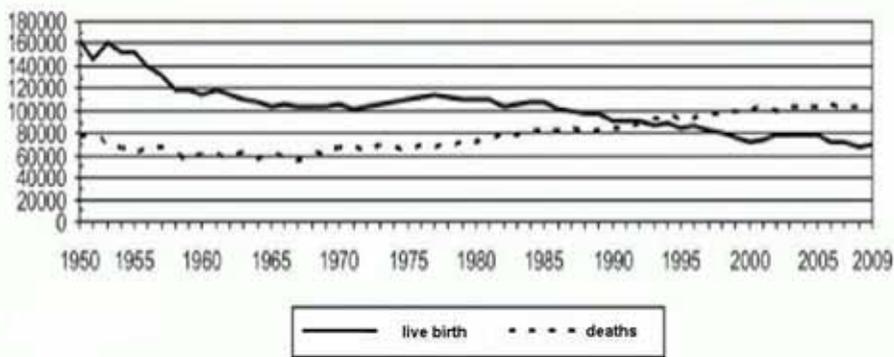


Figure 3. Natural population changes in Serbia 1950–2009

Source: [Републички завод за статистику 2010с]

Transition resulted in great social expenses – increased poverty, increased unemployment, increased inequality, aggravation of public services and their polarization, criminal, increase in corruption and citizen unrest.<sup>5</sup> Finally, we should point out vast external obligations, which happened inspite of great privatization revenues and great inflow of foreign remittance in case of Serbia. Estimations of all inflows (privatization, foreign direct investments, foreign remittance) are different, from 30 even to 70 billions euro, only for the period since 2000. This huge inflow wasn't directed in production, or to rebuild tragically underdeveloped infrastructure, but in consumption from import.

For this enormous consumption growth from import almost always is blamed the relative appreciation of RSD, but not foreign exchange liberalization which was swiftly and uncritically conducted at the beginning of the decade, according to requirements of Consensus. According this argumentation, appreciated exchange rate destimulates export and stimulates import. Both sides of argumentation, however, are questionable: source of inlow from which the foreign currency is bought and the

<sup>5</sup> Also for first decade of transition [Ellman 2000].

imported goods are paid should be taken into consideration when we talk about import, and more detailed explanations are necessary when we talk about export.

It is wrongly assumed that RSD devaluation (depreciation) would increase competitiveness of our export, even if there is production that could be exported. Devaluation of RSD doesn't change prices of our goods in foreign markets, so they won't be easier to export.<sup>6</sup> It will only lead to redistribution between domestic manufacturers: more wealth will go to exporters (in RSD, nominally). Moving of export and import is not affected by nominal exchange rate, but its long term trend, expressed as real exchange rate [Tasić i Zdravković 2008]. It is well known that prices in our markets, for a long time, almost automatically adjust to EUR (previously with DM), and react very quickly to changes in exchange rates. So the effects of changes in exchange rate of RSD quickly disappears, and previous constellation is established, on higher nominal value. So what changes?

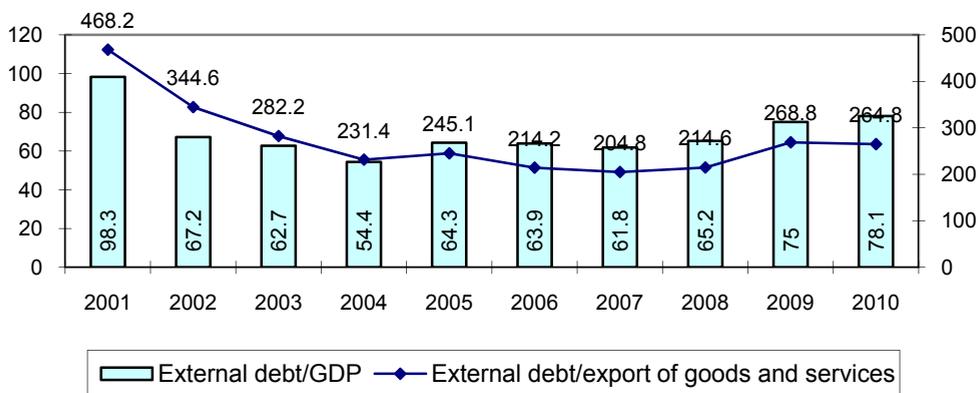


Figure 4. Indicators of external debt of Serbia 2001–2010 (%)

Note: for 2010 first half

Source: [Народна банка Србије 2010]

Next important moment of transition crisis is high external indebtedness of these countries. This indicator is also unequal between countries, and it is comforting to say that extreme indebtedness is phenomenon that exists in some other countries as well (above all, Greece). As we can see (figure 4), except in 2001, Serbia is, according to External debt/GDP indicator, in a group of medium indebted countries, although moving towards highly indebted countries at the end of period. Other indicator (External debt/Export), excluding 2006–2008, shows significant and belongs to highly indebted countries. (See WB criteria on Table 2.)

<sup>6</sup> It is possible to realized export with lower export prices (damping), and exporters would be compensated with greater amounts of RSD. But that kind of export promotion is not allowed, and aside from that, it would meant a spillover of value created in country.

Table 2. Indebtedness according World Bank criteria

Indicator	Indebtedness		
	High	Medium	Low
External debt/GDP	> 80%	48% – 80%	< 48%
External debt/export	> 220%	132% – 220%	< 132%

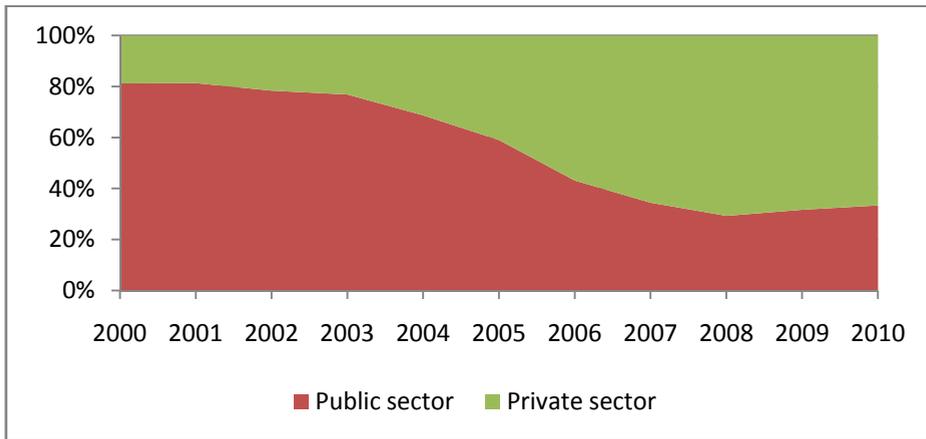


Figure 5. Structure of external debt of Serbia 2000–2010

Note: for 2010 first half

Source: [Народна банка Србије 2010]

Of course, the structure, i.e. share of public and private sector in total debt is important. It is often emphasized as (relatively) favorable circumstance. According official data (figure 5), it really seems so. However, I should be skeptic – who can guarantee that the state (tax payers) won't pay back debts that isn't hers and wasn't guaranteed by the state?

### Perspectives for renewal and development

Intensity of negative changes and, especially, longevity of negative results of the transition process initiate the review of the term transition crisis (or transformational recession [Kornai 1994]), or should determinate its new meaning. However, initiators and protagonists of reforms in these countries don't want do, or are not able to see at first the reforms results. Or apply some of the well known evading techniques in facing them.<sup>7</sup> Basic principles and strategies are not questioned, and the lack of results is explained by inconsistency in handling the reform, and by limitations set by politics, so that it is all brought down to a mere technical problem of reform undertaking. In that

<sup>7</sup> See more detailed consideration in [Буквић 2010].

case, all debates about causes of crisis and possible means to prevent it, are stopped. Why does this happen?

But this debate is really necessary. And for it to be successful, it must address the core of the problem. The reconsideration of Consensus must be in focus, as well as its theoretical basis on which it was built and is sustained. Regardless that many countries were drawn to poverty, as a consequence of its recipes. So we must not think that the general approach is good, and that only some of the policies and measures are bad, and not conducted properly.

Although Consensus was meant to solve “local problems”, their policies were soon accepted as a general approach for all developing countries. It is considered that its policies are enough to initiate economic growth and remove stagnation. Great role of the free market within set of policies is the reason it’s often called neoliberal (even “neoliberal manifesto”), although Williamson emphasized that it’s not right, that term neoliberalism was coined to describe doctrines espoused by the Mont Pelerin Society, and that there are a number of distinctively neoliberal doctrines that are conspicuous by their absence policies of Consensus [Williamson 2003, p. 11].<sup>8</sup>

Of course, we must bear in mind that “reforms were uneven and remained incomplete”, as in Report emphasized IMF<sup>9</sup>, which is true, although the conclusion drawn (“According to its authors, the problem was not with the approach taken to reform, but that it did not go deep and far enough.”) is questionable. From this point of view, the failures have to be chalked up to too little reform of the kind that Consensus has advocated all along and not to the nature of these reforms itself. Also, the policy implication that follows is simple: do more of the same, and do it well. However, what has become clearer to practitioners of the Consensus over time is that the standard policy reforms did not produce lasting effects if the background institutional conditions were poor: sound policies needed to be embedded in solid institutions. The upshot is that the original Consensus has been augmented by a long list of so-called “second-generation” reforms that are heavily institutional in nature (table 2, right column) [Rodrik 2003 p. 42; 2006, p. 978].

As the starting point, we can use the experience of the renewal of Germany after the WWII. Feared that Germany could once again cause war, the allies accepted in 1944 a plan that ought to disindustrialize and make it an agrar country. Industrial machines should be removed, mines closed and filled with water and cement. The Germany should be turned into a land of small farmers. Then it would a peaceful nation, and the closer contact to the land and agriculture would bring moral restoration and pacification of its people.<sup>10</sup> The author of plan was H. Morgenthau.<sup>11</sup> Plan became active

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<sup>8</sup> The origin of Neoliberalism can be found some earlier, namely in the time of 1930s, in pre-war Germany, when the German Freiberg School was active [Boas & Gans-Morse 2009, p. 145].

<sup>9</sup> According to [Rodrik 2006 /2004/, p. 977].

<sup>10</sup> Similarity of Morgenthau plan and Washington consensus I was at first time emphasized in [Bukvić 2010a].

<sup>11</sup> Term Morgenthau's Plan usually has been used either to designate the described agreement or to mean any postwar program designed to effect and preserve German disarmament by significantly reducing its industrial might [Gareau 1961, p. 517]. Second meaning can be enlarged to any plan that leaves out industrialization as a factor to a country development.

as soon as Germany was defeated, in 1945.<sup>12</sup> It has become obvious in 1946 and 1947 that the plan created great problems. Former US president H. Hoover led the team of experts to visit Germany and to report about the nature and the causes of problems. In the last report he emphasized main illusion about the development of Germany: “There is the illusion that the new Germany (...) can be reduced to a ‚Pastoral State‘. It cannot be done unless we exterminate or move 25,000,000 people out of it“ [Hoover 1947, p. 28]. Hoover’s reports again discovered the core of old mercantilistic theory of population: “Industrial nation can maintain and nourish many people than it can agriculture state at the same place.“<sup>13</sup> Just as A. Smith emphasized: “the difference is very great between the number of shepherds and that of hunters whom the same extent of equally fertile territory can maintain“ [Smit 1970 /1776/, p. 869], with implications on defense power of the country. This means that industrialization increases country sustainability.

Table 3. Basic characteristic of Marshall’s and Morgenthau’s plans

<b>Marshall’s plans</b>	<b>Morgenthau’s plans</b>
Creates “improved”	Exclusively creates “improved”
<b>Schumpeterian activities:</b> (= ‘good’ export activities)	<b>Malthusian activities:</b> (= ‘bad’ export activities if no Schumpeterian sector present)
Specialising brings increasing returns / economies of scale	After a certain point, specialisation will cause unit production costs to rise causes diminishing returns
Dynamic imperfect competition	„Perfect competition“
High growth activities	Low growth activities
Price stability	Extreme price fluctuations
Generally skilled labour	Generally unskilled labour
Creates a middle class	Creates ‘feudalist’ class structure
Irreversible wages (‘Stickiness’ of wages)	Reversible wages
Technical change leads to higher wages to the producer (‘Fordist wage regime’)	Technical change tends to lower price to consumer
Creates large synergies (linkages, clusters)	Creates few synergies

Source: [Reinert 2006 /2004/, p. 100]

Within less than three months Morgenthau plan was quietly stopped. Instead Marshall’s plan was introduced, which goal was the reindustrialization of Germany and other parts of Europe. The plan was inaugurated in June of 1947<sup>14</sup> with the explanation

<sup>12</sup> See original in [Irving 1986] or more detailed description of Morgenthau's Plan in [Chase 1954].

<sup>13</sup> According to [Reinert 2006 /2004/, p. 100].

<sup>14</sup> Marshall’s expose discovers the core of the relationship between industry and agriculture: „Peasant has always produced food to be exchanged for other goods with the people that live in cities. This division of labor is the fundament of our modern civilisation. It now threatens to break. Industries in cities are not producing enough goods to be traded with peasants who produce food (...) Meantime, there are shortages of food and kindling material and in lot of places, people are getting close to starvation. Therefore Governments must use their external reserves to buy necessary goods abroad (...) Modern system of the division of labor on which commodity exchange is based, is in danger and could fall apart.“ (According to [Reinert 2006 /2004/, p. 122.])

which has already been known since the beginning of XVII century thanks to the A. Serra, that production of raw materials and industrial production are subject to different laws.<sup>15</sup> These arguments were used after the end of WWII in favor that raw-material production based countries also needed industrial sector. Recent mainstream in economic science, unfortunately, based on neoliberal dogma, forgot this opinions, and through its enforcers, with IMF on the head, even directly forbid the poor countries to develop industry forcing them on “equal“ competition with industrial developed countries. The same countries that used opposite policies for their development, than those enforced on poor countries.

Table 4. Means for national economic development

1.	Acceptance that wealth is created in relations between activities with increasing returns and continuous mechanization. Understanding that the state is in wrong “field of specialization“. Aware of policies it supports, stands for and protects these activities.
2.	Temporal monopoly should be given to these activities in certain geographic area / patents / and customs protections.
3.	Acceptance that economic development is synergetic phenomenon, so that diversity and division of labor in economy are imposed. “Maximizing labor division and number of jobs in country“ (A. Serra) and copying economic structure of Venice and Holland.
4.	Theoretical understanding that industrialization (and advanced service activities) simultaneously solve four great economic problems of poor countries: increase value added, increase employment, increase wages and decrease balance of payment deficit.
5.	Significance of attracting competent labor from abroad (which is more important than foreign capital). This was already very important in England, in the period of Tudor dynasty (throughout the history, many nations deprived themselves of most educated citizens through religious persecution).
6.	Relative oppression of large landowners. From Florence in XIII century through England since 1485, to South Korea after WWII. Physiocracy (the foundation of standard economics) was a revolt of large landowners against that kind of policy.
7.	Tax incentives for economic activities we wish to develop.
8.	Inexpensive loans for same activities.
9.	Export support for same activities.
10.	Helping to increase arable land and incentives to agriculture in general, although we must bear in mind that agriculture itself cannot drive the country out of poverty.
11.	Focus on education and knowledge.
12.	Patents protection for new inventions.
13.	Export duties and export prohibitions so that raw materials would become more expensive for foreign industry (used in England in XVI century, with great efficiency, in order to break Italian textile industry).

Source: [Reinert 2006 /2004/, pp. 44–46]

Because Marshall’s plan is today wrongly identified with any plan that brings great resources to the poor countries, overlooking its essence – (re)industrialization, it’s necessary to specify its main characteristics and differences to Morgenthau’s plan (table 3).

<sup>15</sup> See [Serra 1952 /1613/, ch. 3].

Table 5. Two different types of economic theory

Foundations of today's mainstream theory (standard canon)	The other canon foundation ("Alternative theory")
Equilibrium under perfect information and perfect foresight	Learning and decision-making under uncertainty (Schumpeter, Keynes, Shackle)
High level of abstraction	Level of abstraction chosen according to problem to be resolved
Man's wit and will absent	Moving force: Geist – und Willenskapiital; Man's wit and will, entrepreneurship
Innovation and new knowledge are not the (inner) moving force. Moving force: "capital per se propels the capitalist engine"	Moving force: New knowledge which creates a demand for capital to be provided from financial sector.
Metaphores are chosen from realm of physics.	Metaphors are (mainly) chosen from the realm of biology
Mode of understanding (is) Machanistic("begreifen")	Modes of understanding are Qualitative ("verstehen"). A type of understanding irreducible only to numbers and symbols
Matter (Materialism)	Will and wit (capital) (innovation and entrepreneurship) precedes matter.
Focused on Man the consumer (Adam Smith: "Man are animals which have learned to barter.")	Focused on Man the Innovator and Producer (Abraham Lincoln: "Man are animals which not only work, but innovate.")
Focused on static (World as a photography)	Focused on change (World as a film/movie)
History absent, no cumulative effects	Cumulative causations. History matters, backwash effects (Myrdal, Kaldor, Schumpeter, German Historical School)
Increasing returns at large scales are not essential feature	Increasing returns, or its absence, are essential to explaining differences in income between firms, regions and nations (Kaldor)
Seeks to be very precise. (its better to be accurately wrong, than approximately correct)	Relevance is more essential than precision. A core issue in the economy is trade-off between relevance and precision
„Perfect competition“. (Commodity competition and price competition) is an ideal situation for society	Innovation and knowledge based competition is ideal, and engine to progress. Perfect competition, with equilibrium and no innovation makes capital worthless. (Schumpeter, Hayek)
The market is a mechanism for setting prices	Market is also an arena for rivalry, and a mechanism for selecting different products and solutions (Schumpeter, Nelson & Winter)
Starting assumption for equality: no diversity	Diversity is a key factor (Schumpeter, Shackle)
Second assumption for equality: All economic activities are alike, and of equal quality as carriers of economic growth and welfare	Growth and welfare are activity specific. Different economic activities present widely different potentials for absorbing new knowledge.
Both theory and policy tend to be independent of context. ("one medicine cures all")	Both theory and policy recommendations are highly context dependant
The economy is largely independent from society.	The economy is firmly embedded in society
Technology is taken as a free good, as "mana"	Knowledge and technology is produced, have

from heaven“	cost and are protected. This production is based on incentives of the system, law, institutions and policies
Equilibrating forces are at the core of system and theory.	Cumulative forces are more important than equilibrating ones , and should therefore be the core of the system
Economy is science of harmony: Economy is self-regulating system seeking equilibrium and harmony.	Economy is characterised by inner instability and conflicts. Stability doesnt come by itself, it has to be based on policy measures (Carey, Polanyi, Weber, Keynes)
Postulates the representative or typical firm	There are no „representative firm“.All firms are unique (Penrose)
Static optimum. Perfect rationality	Dynamic optimization under uncertainty. Bounded rationality
No distinction is made between real economy and financial economy.	Conflict between real economy and financial economy are normal and must be regulated (Minsky, Keynes)
Saving is caused by refraining from consumption and a cause of growth.	Saving largely results from profits, not by refraining of consumption(Schumpeter) and saving <i>per se</i> is not useful or desirable for growth (Keynes)

Source: [Reinert 2006 /2004/, pp. 151–153]

It is clearly shown what measures needs to be taken, as well as the current position of transition countries, and Serbia. And to make everything perfectly clear, here is the list of measures used from the time of Henry VII in England (1485) until South Korea (1960s), later banned by World Bank and IMF (table 4).

## Conclusion

The analysis of the neoclassical model in both approaches (shock therapy or gradualist) reveals the internal inconsistencies of each [Marangos 2002]. The implementation of this model in either form, or its combination, had to varying degrees common outcomes. These were inflation, reduced output, unemployment, external imbalances, destruction of welfare system, corruption. Although the neoclassical economists had presented these outcomes as “short-term necessary adjustment”, the transition countries are, with some exceptions, still in great depression. Contrary to ordinary opinions, that transition crisis show as result of inconsistency in reforms taking, we can say that this is normaly its result. The transition countries had to search, and now search, new paths for development and renewal its economies. Serbia is there not alone.<sup>16</sup> In this sense, the differences between two types of economic theory (table 5) must be seriously considered.

It should be underlined that, although it seems that the situation is clear, in reality that’s not the case. Not because we should question these arguments and ideas – it is necessary to that every time. The point is something else. Current trends in world are

<sup>16</sup> See, for example [Radošević 2004].

more interdependent than ever, and very few countries, especially not Serbia, are able to carry out its own, independent policy. Financial capital has more power today than ever, and is heavily bounded with states policy, especially in USA, and large corporations, creating so called “Oligarchic triad”<sup>17</sup> (WallStreet + US Treasury + IMF) that holds true political and economic authority in whole world.

So, the most important question today is – could the logic of today’s modern capitalism (casino capitalism) i.e. financial capital, be broken? It’s not only about offered programs<sup>18</sup>, it is essential if there is enough social strength capable for that. Same is to be considered for our country – are there forces that could lead us from ruling (neoliberal) concept that leads to poverty, towards industrial oriented concept which could lead the country towards development? Much has been spoken about new models of development, based, among other, on renewal of industry, but the question whether it’s realistic or it’s just a political marketing for domestic use, remains. Does the will and capability to pursue autonomous policy exist? It’s not clearly shown today, and the economic mainstream doesn’t even recognize the necessity for that.

If the consensus about the later could be achieved, then the development strategy should be chosen without prejudice. It shouldn’t be based, not on ruling mainstream, but on postulats of almost forgotten “Other Canon”. If that kind of objective review could be done as necessary in USA long before ending of WWII<sup>19</sup>, there is no real reason not to be taken today. After all, even renaissance economists told us that the State exists because of the systemic effects in an economy, wich also the early A. Smith glorifies [Smit 2008 /1759/]. A. Smith prior to his meetings with the French physiocrats.

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<sup>17</sup> According to [Ковалик 2009, p. 8].

<sup>18</sup> One of the important offered programs is made by J. Stiglitz. EuroMemorandum [EuroMemorandum Group 2009] also attracts attention, by promoting transition from finance-led capitalism to capitalism.

<sup>19</sup> „No good will come from discussing the merits of intervention or planning as an abstract principle. Human societies are impossible in the absence of social controls, and our real task is to determine the fields in which such controls should be applied, and to select the machinery best suited for the attainment of our social goals.“ [Hoover 1942, p. 381.]

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## ОРИГИНАЛНИ НАУЧНИ РАД

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### MANAGEMENT DECISION – MAKING: TYPES AND STYLES

#### Abstract

*This work points out the importance of using decision analysis, styles and types to resolve management problems. It is a systematic process that follows sequences of problem identification, alternative solution generation, consequently analysis, solutions and implementation, and evaluation, and feedback. The researchers job is to actively investigate problems before they arise and anticipate their importance. Managers must discover the Corporate resources to resolve problems before they take on greater meaning.*

**Key words:** management, business, decision, styles, types, generation, proces.

### МЕНАџМЕНТ ОДЛУЧИВАЊЕ - ТИПОВИ И СТИЛОВИ

#### Абстракт

*У раду се указује на значај коришћења анализе одлучивања, стилова и типова да би се решили проблеми управљања. Ради се о системском процесу који следи секвенце идентификација проблема, алтернативне солуције генерације, консеквентне анализе, решења и имплементацију, евалуацију и повратну спрегу. Посао истраживача је да активно истражују проблеме пре него се они појаве и антиципирају њихову важност. Менаџери са ентузијазмом морају открити корпоративне ресурсе да би решили проблеме пре него што они преузму веће значење.*

**Кључне речи:** менаџмент, бизнис, одлучивање, стилови, типови, процес.

#### Intoduction

Analysis of the managerial function reveals that virtually every manager, no matter what his or her official title, makes decisions during the course of business. This points to decision-making as the common function of managers, and some writers have used the term "decision-maker" in place of manager. The decision-making proces is the sequence of events taken by management to solve business problems, a systematic proces that follows a sequence of problem identification, alternative solution generation, consequences analyses, solution selection and implementation, evaluation, and feedback. We have briefly examined this managerial decision-making process in describing the

social action phase of social responsibility and examine the process in greater detail. First, however, we must clarify the ways in which the management thinks about decisions, the general types of decision, preferred styles of decision-making, the organizational levels at which the various kinds of business decisions are made, and the conditions that influence managerial decision-making.

### **Ways of thinking about business decision-making**

#### **Linear thinking**

As contemporary business has become more complex, there has been a growing consensus that effective decision-making must take the complex nature of business into account. The most simplistic approach, however, to the solution of business problems exemplifies *linear thinking*. This assumes that each problem has a single solution, the solution will only affect the problem area, not the rest of the organization, and, once implemented, a solution will remain valid and should be evaluated only for how well it solves the problem. Problems are conceived as *discrete*, singular and unique. The way in which most fast-food restaurants deal with hiring and retention of counter or table personnel shows evidence of linear thinking. In the past, most fast-food restaurants hired teenagers and experienced 150-300 percent turnover - the average duration of employment was just under 4 months. A linear thinking approach to personnel has suggested in the past to managers that the solution to the turnover problem is "hire more teenagers". The abundance of teenagers made this *look* like an effective solution. But, when the demographic picture changed and there were fewer available teenagers, it became apparent that this simplistic solution no longer worked. Now management must consider many potential solutions - higher pay, making jobs more interesting, hiring retirees, hiring the physically challenged, offering better benefits, and others. These solutions will impact and interact with other aspects of the organization: benefits and compensation, the need for different managers and supervisory structures, employee training, and so on. As long as the problem was seen in a simplistic and linear manner, neither the range of solutions nor the impact of these solutions upon the whole organization was considered.

Although there is allure for managers in the very simplicity of a linear thinking solution, it often does not prove an effective way of dealing with organizational problems. In the rapidly changing environments of modern business, there are at least three major difficulties with this approach to problem-solving.

- Since the solution affects not only the problem area but also the rest of the organization, the results of the solution may not be anticipated. Parts of the organization not considered in the original problem-solving efforts may be affected by the solution and react in unanticipated ways. A manager may get more than was originally bargained for.
- Even if the results of a solution are only desired and intended, the focus on a single problem area ignores the interrelationships among organizational elements and may lead to a simplistic solution that does not solve the larger problem.

- Linear thinking assumes that problems, once defined, and solutions, once implemented, are always valid and ignores the rapidly changing nature of a business environments .

Such difficulties have led many business thinkers and practitioners to take a different approach to business decision-making. This new approach is called systems thinking.

### **Systems thinking**

Systems thinking is a more contemporary and encompassing approach to problem-solving that assumes that problems are complex and related to a situation, taht situation not solve the problem but will also impact on the rest of organization and should be evaluated on how well they solve the problem (intended results) and affect the total organization (unintended results), and further, that neither problems nor solutions remain constant – situations change, problems evolve and new solutions are constantly necessary.

A systems thinking approach does not view problems as discrete but sees them as related to all aspects of an organization. Organizations are composed of interrelated systems and processes, and any chage in one organizational aspect affects all others. A *systems thinker* would therefore consider the interrelatioinships among the systems and processes of the organization *before* implementing a solution. That solution will be evaluated on the basis of *all* results produced, as cited earlier. Further, there is the recognition that not only do circumstances change, requiring new solutions, but solutions themselves also function to change circumstances. It is therefore necessary, after implementing any solution, to evaluate the effect of that solution and provide feedback to the organization as it begins anew the problem-solving process. Problem-solving is therefore a dynamic proces as new solutions create new realities and those new circumstances require new solutions.

### **Types of managerial decisions**

Whether a manager takes a linear thinking or systems thinking approach to business problems, there are two major kinds of problems confronted, and the nature of the problems will influence the methods applied to reach satisfactory solutions. These are programmed and nonprogrammed decisions.

#### **Programmed decisions**

Programmed decisions characterize those problems that are well understood, highly structured, routine, and repetitive and that lend themselves to systematic procedures and rules. Each time one of these decisions is made is similar to every other

time. The checking out of a book from a library or the processing of a hospital insurance claim are examples of programmed decisions because they are repetitive and routine. Much effort may have gone into the solving of these problems the first time they were encountered in the enterprise. As they were solved for the first time, there was probably much thought given to how the solutions could be routinized. When a process is produced that will give an acceptable result each time, management has created an *algorithm*, a mathematical concept applied to management. An algorithm is "respectful calculation", in this instance a repetitive process by which an acceptable solution will always be found. Once implemented, such solution-generating processes become SOP-standard operating procedures.

Programmed decisions, since they are well structured and understood, may lend themselves to linear thinking, but this will only be so if the programmed decisions are simple problems. A programmed decision, however routine and well understood, may be quite complex and require a true systems approach when first encountered. This implies that a systems approach will be *necessary the first time the problem is solved*, but the result of this problem-solving approach will be an algorithmic solution that can then be applied every time the same problem recurs. The computer is particularly well suited to algorithmic processing since it processes the ability to make error-free complex calculations each time.

The latest application of algorithmic decision-making to a programmed decision is *artificial intelligence*, which is a multidisciplinary application of computer science, philosophy and psychology. After understanding how an individual approaches a well-understood problem, artificial intelligence (AI) seeks to duplicate human reasoning and action. The goal of AI is to improve decision-making by enhancing consistency by applying decision-making rules as an employee would do. Thus by defining decision-making rules based on mathematical modeling of expert decision-making, that expertise is preserved (even when the expert no longer has the job) and passed to others. An example of such an AI *expert system* would be a customer service computer-generated voice rotary consisting of a series of "if...then" alternatives. Each positive answer leads to a specific alternative, the "then", and the consumer eventually arrives at a satisfactory resolution of the problem initially presented. These systems may be either rule-based and operate by reference to a series of expert rules or case-based, where, having been presented with a problem, a computer searches through a data-based of past cases for the case that most closely resembles the current situation.

### **Nonprogrammed decisions**

Nonprogrammed decisions are those problems that are not well understood, not highly structured, tend to be unique, and do not lend themselves to routine or systematic procedures. The key to understanding these decisions is to remember that they happen infrequently, and because they happen so rarely, there is little precedent for decision-making. A merger is an example of the kind of event that requires management decision-making and happens so rarely that neither standardized nor routine decisions are available.

Nonprogrammed decisions rely heavily on the decision-making abilities of managers since there is no routine solution available. Management will make use of data from past problems and performance, examining historical analogy-how others in the past have solved similar problems. Managers look for principles and solutions that *may* apply in the current situation but must be ever mindful that past solutions and problem-solving methodologies *may not apply* now. There may well be something in the past problem that was unique or special to that problem that makes deriving a solution for the current problem impossible. Additionally, managers may review how similarly situated companies are currently solving similar problems to discern ways of dealing with the difficulties currently facing their organization.

Managers, particularly at higher organizational levels, make many nonprogrammed decisions during the course of defining the goals of enterprise and running its daily activities. Because nonprogrammed decisions are so important to business and so common to the managerial position, a manager's effectiveness and future promise to the business will often be judged according to the quality of his or her decision-making. Business has created training programs in decision-making to help train managers because they make so many nonprogrammed decisions. Many managers elect to seek advanced educational degrees in business, and much of this education teaches problem analysis and decision-making. One of the most popular ways of developing analytic abilities and managerial decision-making is the case study. The case study is a written history of a business problem and the manner in which management solved it. A good case study does not pretend to teach a unique solution, although it may be valuable to see how that solution worked in a specific situation. The greatest benefit to be derived from a case study is to learn how a decision was made and a solution selected. The decision-making methodology can then be applied to other problems.

### **Levels of decision-making in an organization**

Just as there are different kind of business decision-making, there are different levels of decision - making within a business. These are the strategic, administrative and operational levels of decision-making in an organization.

#### **Strategic decision-making**

Strategic decisions are those that determine the goals of the entire business organization, its purpose and direction. It should be noted here that the strategic decision-making function is largely the task of top management. Top management has the "big picture" of all the elements of a complex business enterprise, and it must be able to *integrate* all aspects of a business into a coherent whole. The decision made at this level also determine how the business will relate to external environments. Because strategic policies affect the entire business, they can best and must be made at the highest level within an organization. These policies and goals are not very specific because they must be applied to all levels and departments in a company. Strategic decisions are usually nonprogrammed in nature.

The *general* decision to produce a breakfast cereal or to enter a new market are examples of strategic decisions.

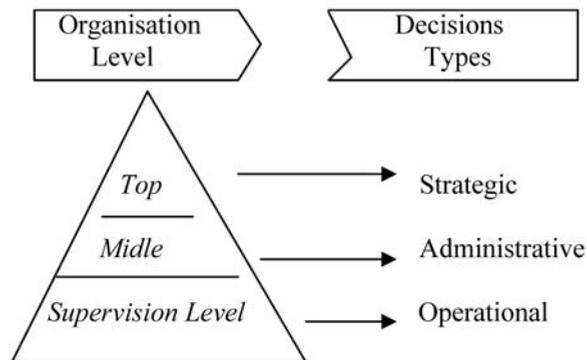
### Administrative decision-making

Administrative decision-making are those made on a lower level than the previously discussed strategic decisions. They are usually made by midlevel management, such as divisional or departmental managers. These decisions concern the development of tactics to accomplish the strategic goals defined by top management. Although top management's strategic decisions are nonspecific because they are applied to all departments within the organization, administrative decisions express corporate goals in a *specific* departmental manner. Administrative decisions are therefore more specific and concrete than strategic decision and more action oriented. The decision to produce a specific kind of cereal, in this case a fruit-and-fiber breakfast cereal, is an example of this kind of administrative decision.

### Operational decision-making

Operational decision are made on the lowest or supervisory level within the company and concern the course of daily operations. These decisions determine the manner in which operations are conducted - operations designed to accomplish the tactical decisions made by mid-management. These decisions concern the most effective and efficient way to accomplish the goals stated on the administrative level. Setting a production schedule and determining the appropriate level of raw materials inventories are examples of operational decisions. In our continuing example of the breakfast cereal, an operational decision would be to produce each week 10,000 boxes holding 12 ounces.

Figure 1. is a graphic representation of the levels of decision-making shows for each part of the organization.



Pt. 1. Levels of decision-making in an organization

## **Styles of decision-making**

Just as there are different kinds of decisions, there are different kinds of decision-making styles. The corporate culture that was discussed in the last chapter will influence the acceptable decision-making style in the company.

One style may be more acceptable than others, and decision-makers who show the desired style will be rewarded and promoted to even higher business position. The task of the new manager is to determine the most effective decision-making style. This can be done by observing the styles of established executives in the specific company. A manager whose style of decision-making is different from that of company will often encounter great difficulty in having his managerial decisions accepted.

### **The "smoother" or problem avoider**

The problem avoider (PA) seeks to preserve the status quo and acts to keep from making changes. This manager functions to maintain current conditions, and although this may not be the *stated* goal of managerial decisions and actions, it will be the practical results. When confronted with difficulty, the PA will either reconcile the conflicts in the reported data with a rationale that seeks to "smooth over" any conflict or ignore it completely. This the PA is often called a smoother. This manager may not recognize problems in the business environment and will be able to come up with rationales for supposed problems that demonstrate that they are not really problems at all. He or she may appear blind to business difficulties and will be the person who most resists business changes, even when the changes are obviously for the best interest of the company.

The PA, in the desire to preserve the status quo and avoid making changes, will give great effort and value to intensive preplanning studies. These studies will present and justify organizational efforts designed to minimize change. Problem avoiders are good people to keep an organization on a calm and even course, and this *may be* the most effective decision-making style in industrial environments in which there is little need for change. However, if the business is conducted in a dynamic, changing environment, a more active approach will almost be more effective for problem-solving. Such a manager will be known as a problem solver.

### **The problem solver**

The problem solver is the most common managerial style. Most managers expect to be confronted with problems and to solve those problems in the normal course of doing business. There is no hesitation to make changes when there is an indication that such changes are good and necessary. There is no prior commitment to make changes, however, until it has been determined by means of research and scientific analysis if the data that changes are necessary. It is recognized that change without necessity is gratuitous, a waste of organizational resources. Such gratuitous changes serve to foster an

illusion of progress while merely confusing everyone. Change is made more acceptable when those affected by the changes understand the *reasons* for those changes.

The problem solver accepted that modern business operates under conditions of risk and uncertainty. This means that business is often in a very turbulent environment with the imperative to adapt to changed circumstances. Business that fails to adapt suffers decline, ceases to be productive and profitable, and may eventually die. It has been observed that the marketplace is unforgiving of a business that fails to change when confronted with necessity to do so. The problem solver accepts the risk and makes decisions that help deal with the uncertainty. These managers deal with problems as they arise and do not seek to preserve the status quo unless the current situation is better than any possible change.

The only criticism we may advance of the problem solver is that this kind of manager is preoccupied with the current problems. This person is generally always in a primarily *reactive mode*, reacting to problems as they arise. Often these problems could be better dealt with if they had been anticipated - when they were smaller and more efficiently managed. The problem solver rarely anticipates problems but is very effective in dealing with them once they have become known.

### **The problem seeker**

The problem seeker, as the name implies, actively seeks out problems and attempts to deal with them before they emerge as major difficulties for a business. This manager is enthusiastically involved with future planning and the creation of contingencies. The problem seeker not only recognizes the need for change but also believes that the best way to deal with change is to anticipate it, not merely react to current needs. This kind of managerial decision-maker makes use of data analysis, not merely to understand the present, but also to project the future. The problem seeker is a corporate champion of research and will devote many hours of dedicated work trying to understand the implications of research data for the company's future.

Although this preoccupation with the future of the company may seem to lead to a neglect of current needs and situation, the problem seeker has a vital role in planning the future of the company. There are two major points in favour of the decision-making style of the problem seeker: (1) It is often easier and more efficient to deal with small problems before they become big ones. (2) It is not enough for a company to change; it must change in the right direction to survive in the rapidly changing contemporary environments of business. The problem seeker is a major corporate resource in planning for the future, but it is obvious that a company must be able to change *both* in response to current problems *and* in response to anticipated future problems.

One of the major distinguishing features of these types of decision-makers is the ability to deal with conditions of risk and uncertainty. The problem avoider seeks to minimize risk and eliminate uncertainty by promoting the status quo, a totally known condition. The problem solver recognizes the need to risk change and function in an environment of uncertainty in which there are unknown conditions and the possibility of

unanticipated results. The problem seeker accepts the greatest amount of risk and uncertainty in actively seeking to deal with problems *before* they have emerged and become known. We now turn a general description of the different levels and types of risk and uncertainty to better understand the conditions under which managerial decisions are made.

## Summary

The decision-making process is the sequence of events taken management to solve managerial problems. It is a systematic process that follows sequence of problem identification, alternative solutions generation, consequences analysis, solution selection and implementation, evaluation, and feedback.

Liner thinking is a simplistic approach to problem-solving that assumes that each problem has a single solution; and, once implemented, a solution will remain and should be evaluated only for how well it solves the problem.

Systematic thinking is more contemporary and complex approach to problem-solver that solutions not only solve the problem but also impact on the rest of the organization and should be evaluated on how well they solve the problem (intended results) *and* affect the total organization.

The problem seeker actively seeks out problems before they emerge and will anticipate their significance. This manager will enthusiastically devote corporate resources to solving these problems before they can assume major significance. This manager anticipates rather than merely reacts.

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### HOMICIDE MOTIVES

#### Abstract

*The "Homicide murders" by Aleksandar B. Djurić is dedicated to the research of a significant theoretical and practical relationship of criminal motives in the criminal law. Correct understanding of the delinquency motive (and its motivation as well) is imperative in upgrading the operation quality of public-law organs and courts in the sphere of criminal jurisprudence, especially related to the legal qualification of criminal offenses and meting out punishments for their commitment. However, the public-law doctrine does not offer uniform resolutions of the concept of criminal motives, their classification, the compulsory quality of their determination and legal procedural identification, etc. The actuality of investigating this component of the subjective aspect of delinquency and its motives is related to the reform of criminal legislation, implying the Serbian Criminal Legislation as well.*

**Key words:** *criminal motive, motivation, delictual fault, intention, deliberate offense, in willful negligence, with possible intentional fault, murder in the first degree (willful homicide), murder in the second degree (manslaughter through negligence).*

### УМЫШЛЕННЫЕ УБИЙСТВА

#### Абстракт

*Данная статья посвящена исследованию важных теоретических и практических мотив проблемы взаимоотношений в области уголовного права. Правильное понимание мотивов преступности (равно как и его мотивации), это необходимо для улучшения качества деятельности всех конституционных органов и судов в сфере уголовной юриспруденции, особенно в юридической квалификации преступления и наказания за их исполнением. Однако, в доктрины уголовного права, нет единства в решении вопроса о концепции уголовной мотивы, их классификация, их обязательное выявление и раскрытие и так далее. Уровень значимости исследований компонентов субъективного преступности, а также его мотив, связанный с реформой уголовного законодательства в этой области и сербской уголовного законодательства.*

**Ключевые слова:** *уголовный мотив, мотивировка, мотивация, вина, умысел, преднамеренность, умышленное убийство.*

# УМИШЉАЈНА УБИСТВА

## Апстракт

*Чланак је посвећен истраживању важног теоријског и практичног односа проблема мотива у кривичном праву. Правилно разумевање мотива делинквенције (као и његове мотивације), неопходно је због побољшавања квалитета делатности државноправних органа и судова у сфери кривичне јуриспруденције, а нарочито код правне квалификације деликата и одмеравања казне за њихово извршење. Међутим, у кривичноправној доктрини нема јединства у погледу решења питања појма криминалних мотива, њихове класификације, обавезности утврђивања и процесног откривања итд. Степен актуелности истраживања такве компоненте субјективне стране делинквенције, као и његових мотива, повезана је са реформом кривичног законодавства, а у том смислу и српског кривичног законодавства.*

*Кључне речи:* криминални мотив, мотивираност, мотивација, кривица, намера, умишљај, умишљајно убиство.

## 1. Introduction

The following empirical, comparative law research of the criminal acts in Ukraine and Serbian criminal jurisdiction practice has been carried out with the aim of clearer perception of the criminal motive phenomenon. The research was done on the territory of the Regional Court of Kiev and the District Court of Nis.

The subjects of the research were the facts relevant for determining the content of criminal motives of the concrete criminal affair.

The scope of the research included the practical fulfilling of the legal norms in Ukraine and Serbian criminal legislation that regulates the content and the importance of the criminal motives for the establishing of guilt in legal practice. The research also included the analysis of the justification of the scientific attitudes about criminal motives and criminal motivation.

We analyzed the most frequent forms of the incrimination from chapter II of the Special part of the Ukraine Criminal Code - ***Crimes against Human Life and Health***, and particularly willful homicide - (a) murder; (b) murder in the first degree (b-1) of two or more people, (b-2) under-age child or pregnant woman, (b-3) fiancé or fiancée, (b-4) committed with extreme fierceness, (b-5) committed in the way dangerous for a larger number of people, (b-6) out of utilitarian motives, (b-7) out of hooligan motives, (b-8) murder of a close relative of a person who performs official or civil service with the aim of preventing or disabling of undertaking measures or performing the official and civil service, (b-9) committed with the aim of concealing another crime or enhance its committing, (b-10) committed with rape or violent satisfaction of sexual drives in unnatural way, (b-11) ordered murder, (b-12) committed according to the previous agreement of a group, (b-13) committed by a person who has already committed an offence, not including the murder regulated in article 116-118 of this Code (article 115 of the Criminal code of Ukraine); and (c) Murder committed in the state of intense psychological excitement (article 116 of the Criminal Code of Ukraine); as well as the incriminations from the chapter 13 of The Special Part of the Criminal Code of

Serbia - *Criminal Acts against Life and Body*, and especially willful homicides - (a) murder (article 113. of the Criminal Code of Serbia); (b) murder in the first degree committed in (b-1) cruel and perfidious way, (b-2) in cold-blood, violent way, (b-3) by a willful endangering of another person's life, (b-4) during committing a criminal act of banditry or robbery, (b-5) out of a personal benefit, with the aim of committing or concealing another criminal offence, out of cold blood revenge or other base motives, (b-6) murder of a civil servant or a military person while on duty, (b-7) murder of a child or a pregnant woman, (b-8) murder of a member of murderer's own family, who he abused previously, (b-9) willful murder of more people if it is not a murder in an instant or infanticide during delivery or a murder out of mercy ( Article 114 of the Criminal Code of Serbia); and (c) murder in an instant ( Article 115 of the Criminal Code of Serbia ).

The main aims of our research are: (1) analysis of the criminal law data existing in the criminal case documents ad act relevant for establishing the content of the criminal motives; (2) analysis of the contents and practical relevance of the concrete criminal motives and the establishment of the criminal motives in accordance with legal measures, in the criminal proceedings concerning the criminal case in question; (3) analysis of the contents and the establishment of the types of criminal motivation in accordance with the legal measures in the criminal proceedings concerning the criminal case in question.

Bearing in mind that the research was done for a period of five years 1992-1997, when the Criminal Code from 1960 was valid in Ukraine and the Criminal Code from 1997 with changes and additions was valid in Serbia together with the Organic Law from 2003 researched incriminations from the irrevocable judicial acts of these states were legally classified in the sections of the Criminal law not valid at present. That is why the numeration of the sections of the analyzed incriminations shown in the tables doesn't match the numeration of the sections of the analyzed incriminations of the irrevocable judicial acts-verdicts.

## 2. Research results

Empirical basis of our research on the territory of Ukraine consists of 157 criminal cases of willful homicide (article 115-116 of the Criminal Code of Ukraine) with 235 guilty people, found guilty of committing these incriminations or for complicity. These criminal cases were analyzed by the division of the Regional Court of Kiev. On the territory of Serbia there were 35 criminal cases of willful homicide (article 113-115 of the Criminal Code of Serbia) with 48 persons found guilty of committing these incriminations or for complicity. These cases were analyzed by the division of the District Court in Nis, during the period of 6 years, from 1992 till 1997 (table 1).

We also analyzed all the criminal law provisions connected with the willful homicides from the Criminal Code of Ukraine (article 13 of the Criminal Code of Ukraine - completed and uncompleted crime, article 14 of the Criminal Code of Ukraine- planning of the crime, article 15 of the Criminal Code of Ukraine - the attempt to commit the crime, article 16 of the Criminal Code of Ukraine - criminal law responsibility for the attempted uncompleted crime, article 17 of the Criminal Code of Ukraine - voluntary desistance from the crime that was not completed, article 18-19 of the Criminal Code of Ukraine - subject of the crime and the existence of the previous sentencing, article 20 of the Criminal Code of Ukraine - limited consciousness, article 21 of the Criminal Code of Ukraine – criminal law responsibility for the crimes committed under the influence of alcohol, narcotics etc., article 26-27 of the Criminal Code of Ukraine - complicity and different kinds of complicity, article

28 of the Criminal Code of Ukraine - committing the crime by a group of people, group formed according to a previous agreement, organized group or criminal organization, article 29 of the Criminal Code of Ukraine - criminal law responsibility of the accomplice, article 30 of the Criminal Code of Ukraine - criminal law responsibility of the organizers and the members of the organized group of the criminal organization, article 31 of the Criminal Code of Ukraine - voluntary desistance of the accomplice, article 32-35 of the Criminal Code of Ukraine- repetition, plurality of the offences or recidivism of the crime, article 36, part 3, articles 37-38, and article 39, part 2 of the Criminal Code of Ukraine - criminal law responsibility for the excessive self-defense, putative defense and exceeding the limits of the necessity, article 65 of the Criminal Code of Ukraine- general rules about the establishment of punishment, article 66-67 of the Criminal Code of Ukraine - mitigating and aggravating circumstances for the establishment of punishment, article 68 of the Criminal Code of Ukraine - establishment of punishment for the crime that was not completed and for the crime committed in complicity, article 69 of the Criminal Code of Ukraine - mitigating of the punishment prescribed by law, article 118 of the Criminal Code of Ukraine - willful homicide by excessive self- defense and exceeding the limits of necessity, article 120 of the Criminal Code of Ukraine- incitement of suicide, article 121 of the Criminal Code of Ukraine - willful serious bodily injury, article 122 of the Criminal Code of Ukraine - willful medium bodily injury, article 123 of the Criminal Code of Ukraine - willful serious bodily injury inflicted in the state of intense psychological excitation and other willful incriminations from the group of the crimes against human life and health) and Serbian Criminal Code (article 19, part 3 and article 20, part 3 of the criminal code of Serbia - willful murder by excessive self-defense or exceeding the limits of necessity, article 24 of the Criminal Code of Serbia - deviated limitation of consciousness, article 27 of the Criminal Code of Serbia - responsibility for a serious consequence, article 30-32 of the Criminal Code of Serbia - responsibility for attempted criminal act and voluntary desistance, article 33-37 of the Criminal Code of Serbia – complicity in a criminal act, )participation, incitement and help), article 55 of the Criminal Code of Serbia - establishment of the punishment for e repeated offence, article 56 of the Criminal Code of Ukraine - prolonged criminal offence, article 117 of the Criminal Code of Serbia - murder out of mercy, article 19 of the Criminal Code of Serbia- inciting of suicide and help in suicide, article 121 of the Criminal Code of Serbia - serious bodily injury, article 122 of the Criminal Code of Serbia - light bodily injures, article 123 of the Criminal Code of Serbia- participating in a fight, article 124 of the Criminal Code of Serbia - threatening with a dangerous weapon in a fight or argument, and other willful incriminations from the group of criminal offences against life and body).

**Table 1. The number of criminal cases for which a sentence was delivered from 1992-1997**

**(1-a) The Regional Court of Kiev**

<b>YEAR</b>	<b>THE NUMBER OF CRIMINAL CASES (article 115-116 of the CC of Ukraine)</b>	<b>THE NUMBER OF THE ACCUSED-GUILTY</b>
1992	30	42
1993	15	27
1994	26	40
1995	22	36
1996	34	53
1997	30	37
total	157	235

**(1-b) The District Court of Nis**

YEAR	THE NUMBER OF CRIMINAL CASES (Article 113-115 of the Criminal Code of Serbia)	THE NUMBER OF THE ACCUSED-GUILTY
1992	6	9
1993	4	5
1994	6	8
1995	5	7
1997	7	11
1998	7	8
total	35	48

Analysis of the data of the people found guilty of willful homicide contains following information (Tables 2-7): (1) number of the people found guilty of committing or complicity in committing willful homicide; (2) the sex of the accused; (3) marital status of the accused; (4) education of the accused; (5) social status of the accused; (6) previous conviction of the accused- repetition of an offence; (7) influence of the criminal motives on the content of the plea of guilty the degree of guilt establishment in preliminary investigation proceedings and criminal proceedings; (8) influence of the motives on the legal change of classification and on establishing the content of guilt in preliminary investigation proceedings and criminal proceedings; (9) kinds of criminal motives and types of criminal motivation.

Of 235 people accused for willful murder on the territory of Kiev, the majority of people are 18-25 years old, 81 or 31.46% (male sex 78 or 33.19%, and female sex 3 or 1.27%) while from 12 people charged with willful homicide, majority of the accused is 14-18 years old, 4 or 33,33%. The majority of the accused 18-25 years old is not married (65 or 27.65%) and the second group is 25-30 years old and they are married (21 or 8.93%) and in the end the accused who are 40 or more years old, and who are divorced (11 or 4.68%)-table 2-a.

On the territory of Nis, out of 48 people accused for willful homicide, the majority is 18-25 years old, 18 or 37.13% (male sex 17 or 35.07% and female sex 1 or 2.06) while out of 6 persons of female sex accused for willful homicide, the majority of people is 25-30 years old, 2 or 4.15%. The following group consists of people who are 25-30 years old and who are married (6 or 54.54%) and finally the accused older than 40 who are divorced (3 or 60%) - table 2-b.

**Table 2. Age, sex and marital status of the accused for willful homicide**

**(2-a) Article 115-116 of the Criminal Code of Ukraine**

AGE	NUMBER OF THE ACCUSED-GUILTY	SEX		MARITAL STATUS		
		male	female	married	not married	divorced
file number 1-6 (1992-97)	total 235					
14-18	41	37	4	-	41	-
19-25	81	78	3	13	65	3
26-30	44	43	1	21	18	5
31-35	25	25	-	10	8	7
36-40	13	12	1	4	6	3
over 40	31	28	3	13	7	11

**(2-b) Article 113-115 of the Criminal Code of Serbia**

AGE	NUMBER OF THE ACCUSED-GUILTY	SEX		MARITAL STATUS		
		male	female	married	not married	divorced
file number 1-6 (1992-97)	total 235					
14-18	8	7	1	-	8	-
19-25	18	17	1	1	16	1
26-30	11	9	2	6	4	1
31-35	4	3	1	2	2	-
36-40	2	2	-	1	1	-
over 40	5	4	1	1	1	3

Out of the total number of the accused, the majority of them has finished high school (133 or 56.59% on the territory of Kiev, and 26 or 54.16% on the territory of Nis, and the minority has graduated at university (9 or 3.82% on the territory of Kiev or 2.08 on the territory of Nis), The social status of the accused for willful homicide shows that the majority of the accused is unemployed (119 or 50.63% on the territory of Kiev or and 34 or 70.83% on the territory of Nis) while 102 or 43.40% are employed on the territory of Kiev and 15 or 31.25% on the territory of Nis (table 3).

**Table 3. Age, level of education, social status of the accused for willful homicide**

**(3-a) Article 115-116 of the Criminal Code of Ukraine**

AGE	LEVEL OF EDUCATION				EMPLOYMENT	
	primary	secondary	high school	university	employed	unemployed
file number 1-6						
14 - 18	35	6	-	-	19	22
19 - 25	28	45	8	-	28	53
26 - 30	6	32	4	2	22	22
31 - 35	1	20	2	2	10	15
36 - 40	1	10	1	1	9	4
over 40	4	20	4	4	14	17
total	75	133	19	9	102	119

**(3-6) Article 113-115 of the Criminal Code of Serbia**

AGE	LEVEL OF EDUCATION				EMPLOYMENT	
	primary	secondary	high school	university	employed	unemployed
14 - 18	7	1	-	-	-	8
19 - 25	6	11	1	-	4	14
26 - 30	4	6	1	1	6	6
31 - 35	1	3	-	-	2	2
36 - 40	-	2	-	-	1	1
over 40	1	3	1	-	2	3
total	19	26	3	1	15	34

People who are guilty of willful homicides are usually multiple recidivists (table 4). The repeated offences were most often on the territory of Kiev during 1993, 23 or 9.78% and on the territory of Nis during 1996, 6 or 12.05%. The period with the smallest number of repeated offences was 1996 in Kiev, 3 or 1.27% and in Nis 1992, 3 or 6.25%. First repeated offence in Kiev occurred only in two cases in 1997 and in Nis in 7 cases, for the period 1992 and 1997.

**Table 4. REPEATED OFFENCES OF WILLFUL HOMICIDE**

**(4-a) Article 115-116 of the Criminal Code of Ukraine**

YEAR	NUMBER OF THE ACCUSED-GUILTY	REPEATED OFFENCES		
		total 235	single	multiple
1992	42	-	5	33
1993	27	-	23	58
1994	40	-	18	26
1995	36	-	7	18
1996	53	-	3	10
1997	37	2	9	20

**(4-6) Article 113-115 of the Criminal Code of Serbia**

YEAR	NUMBER OF THE ACCUSED-GUILTY	REPEATED OFFENCES		
		total 235	single	multiple
1992	9	1	3	5
1993	5	-	4	1
1994	8	1	4	3
1995	7	2	1	4
1996	11	2	6	3
1997	8	1	4	3

Ukraine federal legislator regulates willful homicide committed by a person who has already committed offence, not including the murder regulated in the article 116-118 of this Criminal Code (article 115 of the Criminal Code of Ukraine). Very dangerous recidivist or special recidivist is a guilty person who has previously committed one or more offences regulated by article 115 of the Criminal Code of Ukraine. Under the expression 'person who has previously committed willful homicide' legislator implies: (1) that the previous crime and the new crime were committed by the same person in different time periods; (2) that the criminal law acts of the previous and the new crime were not caused by the same criminal intent; (3) that each of the committed offences has as a result willful homicide, attempted willful homicide or complicity in willful homicide - qualified in article 14, part 1 or article 15 or article 27 of the Criminal Code of Ukraine; (4) the first out of previous murders is qualified or has been qualified according to article 115 of the Criminal Code of Ukraine; (5) at the moment of committing the second or the next offence the period of prescription of legal action was not over for the first crime or for that crime the recidivists sentence is not yet over; (6) the second crime for which

legislator uses the term next offence contains elements of the incrimination from article 115 of the Criminal Code of Ukraine.<sup>1</sup>

Identical to Serbian, criminal proceedings in Ukraine put accent on the necessity of establishing motives of criminal offences. In accordance with article 64, part 2 of the Code of Criminal proceedings of Ukraine, crime motives must be established and proved during carrying out and executing the acts in preliminary criminal proceedings criminal proceedings. Also, the motives of the committed crime must be produced in the accusing judicial act (article 223 of the Criminal Proceedings Code of Ukraine) and in judicial act of verdict. (article 334 of the Criminal Proceedings Code of Ukraine).

Going through the criminal cases related to the article 115-116 and article 113-115 of the Criminal Code of Serbia, we carried out analysis of the content and the degree of establishing of criminal motives in accusing and criminal acts of verdict (table 5). Depending on the intensity and the degree of the establishing of the criminal motives in analyzed criminal cases, we classified the motives for willful homicide in three groups: (1) directly labeled; (2) indirectly labeled; (3) unlabeled.

The results of the research show the same trend of the Ukraine and the Serbian legal criminal practice - in the majority of the committed willful homicides the content of the criminal motives is not established. Consequently, in preliminary criminal proceedings the state organs of Ukraine have directly established and in the arraignment labeled the criminal motives in 35 cases or 8.53% while state organs of Serbia established and labeled in arraignment the criminal motives in 36 cases or 7.51%; in 213 cases or 51.95% the state organs of Ukraine indirectly established and labeled in arraignment the criminal motives while the same was done by the state organs of Serbia in 243 cases or 50.73%; in 162 criminal acts or 39.51 the state organs of Ukraine didn't establish, nor label the criminal motives in arraignment, while the same wasn't done by the state organs of Serbia in 200 cases or 41.75%. In criminal proceedings the state organs of Ukraine have directly established and labeled in arraignment the criminal motives in 25 cases or 8.03% and the state organs of Serbia in 29 cases or 7.33%; the state organs of Ukraine have indirectly established and labeled the criminal motives in 167 cases or 53.69%, while the same was done by the state organs of Serbia in 193 cases or 51.46%; Ukraine state organs didn't establish, nor label the criminal motives in 119 cases or 38.26%, while Serbian state organs the same didn't do the same didn't do in 153 cases or 40.80%. The fact that raises special concern is that state organs of both states didn't establish, nor label in judicial acts the criminal motives of the guilty of willful homicide, age 35-40.

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<sup>1</sup> Оценко С.С., НАУКОВО-ПРАКТИЧНИЙ КОМЕНТАР ДО КРИМІНАЛЬНОГО КОДЕКСУ УКРАЇНИ, 4-ге видання КИЇВ, 2005, стр. 228-229.

**Table 5. The influence of the criminal motives on the degree of entering the plea of guilty of the accused-guilty and the degree of the establishment of the guilt of the sentenced-guilty person**

**(5-a) article 115-116 of the Criminal Code of Ukraine**

YEAR	THE DEGREE OF ENTERING THE PLEA OF GUILTY			THE DEGREE OF ESTABLISHMENT OF THE CRIMINAL MOTIVES IN THE ACCUSING JUDICIAL ACT			THE DEGREE OF ESTABLISHMENT OF THE CRIMINAL MOTIVES IN THE VERDICT		
	completely	partly	doesn't enter a plea of guilty	directly	indirectly	established	directly	indirectly	established
1992	4	18	19	10	37	27	6	24	14
1993	8	33	40	14	87	55	9	68	41
1994	7	11	26	5	36	27	4	32	19
1995	-	11	14	4	25	14	4	21	11
1996	1	3	9	-	12	10	1	8	9
1997	1	16	14	2	16	29	1	14	25
total	235			410			311		

**(5-6) Article 113-115 of the Criminal Code of Serbia**

YEAR	THE DEGREE OF ENTERING THE PLEA OF GUILTY			THE DEGREE OF ESTABLISHMENT OF THE CRIMINAL MOTIVES IN THE ACCUSING JUDICIAL ACT			THE DEGREE OF ESTABLISHMENT OF THE CRIMINAL MOTIVES IN THE VERDICT		
	completely	partly	doesn't enter a plea of guilty	directly	indirectly	established	directly	indirectly	established
1992	1	4	4	11	40	29	8	34	20
1993	1	2	2	7	45	28	5	36	22
1994	1	2	5	6	42	32	5	36	22
1995	1	3	3	8	46	26	7	37	19
1996	1	2	8	-	43	36	3	28	31
1997	-	4	4	4	27	49	1	22	39
total	48			479			375		

For the case K-82/92 criminal judicial Division of District Court in Nis didn't establish the motive of the committed criminal offence. As a matter of fact, in the irrevocable verdict reached 31.08.1992 the court decided that the accused V.C. is guilty because in the period from 15.04.1989 till 30.07.1991. as a person in charge of the bank, B, by abuse of authority, gained illegal profit by creating 19 internal money orders of false content and verified them by her signature, and used them to direct a certain sum of money from savings books and current accounts of the citizens to her own saving book and current account and in that way profit of 90.000 dinars, by which she committed offence- abuse of authority (article 242, part 1 of the Criminal Code of Serbia). Court has done a judicial qualification of the offence and concluded that the accused V.C. committed a deliberate offence according to the plea of guilty of the accused, statement of the representative of the injured party- bank, T.M., as a witness, and by reading the minute book of the court. As a matter of fact, the accused has confessed to the deed completely and explained that she acted in the same way as described in the wording of a sentence. She said that her material situation was good. Only after the proceedings started did the accused pay the compensation to the bank. In the statement of the representative of the bank as an injured party, the court has concluded that the accused worked in the bank as an individual reporter on the preparation of the material and that in that period she committed the offence in the way that was described. The witness stated that the accused was in wealthy financial situation and that the usurped property was compensated only after the beginning of the criminal proceedings. By analyzing the record of the control of the transactions of current accounts and the savings book of the accused V.C., the court has decided that the offence was committed in the way described in the wording of a sentence. On the basis of the evidence the court has in the explanation of the verdict come to the conclusion that the acts of the accused have all the characteristics of the criminal act of abuse of authority and that the offence was deliberate. The court neither asked the accused why she committed the offence nor found out the reason of her committing the offence and not paying compensation before criminal proceedings.

Analyzing the facts of the statement of the accused and witness T.M., and the facts from the record of the banking transaction of the current account and the savings book of the accused V.C. we reached the following conclusions: (1) the accused was in a good financial situation at the time of the committed criminal offence; (2) the accused has paid compensation only after the criminal offence was revealed and after the beginning of the proceeding; (3) the accused has committed a deliberate offence with the intention of gaining illegal profit; (4) the motive for committing the offence was utilitarian.

The question that arises is how the court reached the conclusion that the committed a deliberate offence, without previously revealing the motives of the criminal behavior. In the same way it is illogical to qualify this offence as abuse of authority without previously establishing existence of the utilitarian motive.

Analyzing the case from this sample, we arrived at conclusion that the court during establishing the motive and the degree of guilt for the majority of offences concerning illegal profit. We think that the judicial practice is wrong. Having in mind that the majority of offences of illegal profit have been motivated by the utilitarian motive, the court has to establish, in each case, not only the specific elements of incrimination but also the criminal motive. The complete and precise establishing of all elements of the committed offence and the content of the criminal motives is a condition for a precise legal qualification of the

offence. Also, it is necessary to establish the motive, because it carries the quality of deliberate or willful guilt.

In the case K-64/92 by a verdict of the District court in Nis dating from the 18<sup>th</sup> of November 1992, the court has reached the decision that the accused P.Z. committed a criminal offence of murder (article 47, part 1 of the Criminal Code of the Republic of Serbia). As a matter of fact, the court has wrongly qualified the criminal offence, because the criminal motive of the offence was not established. From the statement of the witnesses S.M. and C.T. it is evident that the accused borrowed the woodworker from the late S.S. on October the 1<sup>st</sup>, 1990, and promised to give it back on October the 1<sup>st</sup> 1991. After the agreed period was over S.S. has twice asked the machine back from the accused P.Z. From the statement of the witnesses N.N, M.S. and P.J. it is evident that the accused had no intention of giving back the machine he borrowed, and when the deceased S.S. said that he would sue him, the accused threatened to kill S.S. if he does that. The witness K.K. and A.A. stated that after that the accused followed a couple of times the deceased S.S. and threatened to kill him and his family with his gun. On the critical day the deceased S.S. came to the house of the accused at 9a.m. together with the authorities to take back the machine he lent by court execution. On that occasion the accused stated that he would immediately hand over the machine and told the court executors and S.S. to wait for him in the yard. After a while the accused came back carrying in his right hand the gun of trade mark "zastava 7.65mm", came on the distance of 3m from S.S., and shooting once hit him in the left part of forehead, and then right after S.S. fell on his back the accused approached him and from the distance of half meter shot once again shooting him at the middle of forehead.

The court concluded that the offence was committed in the described way by hearing the court executors A.S. and M.R., statements of the witnesses C.S., Z.Z. J.N. and N.R., as well as evidences gathered on the basis of the investigation that was carried out and the reconstruction of the criminal incident. The report of the experts of forensic medicine B.D. shows that the death consequence happened violently from the first shot and the expert in psychiatry in his statement said that the accused was completely responsible. At the court's question why he killed S.S. the accused replied he didn't know. The accused said that he didn't want to return the borrowed machine to S.S. because the business was going well. When the court asked him about the reason for his threatening to the deceased the accused said that he did it with the intention of keeping the borrowed machine although he was aware that the machine wasn't his property. On the basis of the gathered evidence and actual position, the court has concluded in the explanation of the verdict that the accused committed the crime offence willful homicide by recklessness.

Criminal Court didn't deal with the problem of gathering evidence for the motive of the committed criminal offence although from the statement of the witnesses, from the evidence gathered by investigation and reconstruction of the criminal offence, from the report of the experts of forensic medicine and psychiatry, from the way of committing the offence and the statement of the accused the conclusion that can be made is that this is the case of the first degree murder (article 47, part 2, item 4 of the previous Criminal Code of Serbia and article 114, part 1, item 5 of the Criminal Code of Serbia) where our legislator overlooked the utilitarian motive as a qualifying circumstance.

The justification for not establishing criminal motives exists only in those cases when the court concludes that the person that committed the offence was at the moment completely mentally incompetent. We think the weaker professional capabilities of some

judges for establishing the criminal motives mustn't be valid for decision whether or not to analyze and establish the motives of the criminal offences in concrete cases processed in court.

According to article 367 of Code of Criminal Proceedings in Ukraine, when the facts of the criminal case in question aren't established with the highest degree of knowledge-veracity, the judicial act pronounced in the higher instances of the trial is liable to change and revision. Anyway, our research of those criminal cases for which the criminal motives aren't established shows the existence of the traditional attitude of the Ukraine and Serbian judicial practice and in higher instances of trial the content of the criminal motives is not determined for willful homicide. Also, a large number of criminal incidents in which criminal motives are established and labeled indirectly or abstractly shows insufficient level of education of the judges of the criminal court in the demarcation between criminal motives and other subjective elements of the criminal offence. Criminal motives are rather often identified with emotions, habits or beliefs of the guilty of willful homicide. The question remains how and on what basis the Criminal Court could establish intentional or willful guilt, fix the length of punishment of imprisonment for the guilty and deliver a sentence of guilty, without previously establishing the content and intensity of the criminal motives.

The statistic fact that is very obvious and worrying concerns the wrongly established content of the criminal motives in the analyzed criminal cases. This, as a consequence had a large number of changes of qualification of the committed offences, but during this new qualification the court has also made some substitution of the criminal motives by other criminal law elements of the committed offence (aim, motive or cause of the criminal offence, emotional state of the guilty person, or the injured person etc). In that way the judge has skillfully tried to conceal the non-existence of the established criminal motives that are the basis for the existence of incriminations from article 115-116 of the Criminal Code of Ukraine and article 113-115 of the Criminal Code of Serbia. This was a frequent trend in Ukraine and Serbian Criminal law practice (table 6).

**Table 6. The influence of the motives on the change of legal qualification and on the quality of the establishing the content of guilt in criminal proceedings**

**(6-a) Article 115-116 of the Criminal Code of Ukraine**

YEAR	CHANGE OF LEGAL QUALIFICATION IN CRIMINAL PROCEEDINGS (total number 26)	THE INFLUENCE OF THE MOTIVES ON THE CHANGE OF LEGAL QUALIFICATION IN CRIMINAL PROCEEDINGS	INFLUENCE OF THE MOTIVE ON THE CONTENT OF GUILT (total number of willful murderers 17)	THE ESTABLISHMENT OF THE MOTIVES IN COURT, FOR THE GUILT IN WILLFUL MURDERS
1992	31	24	5	4
1993	50	38	5	4
1994	13	9	2	1
1995	10	9	-	-
1996	11	8	2	2
1997	11	6	3	1

**(6-b) Article 113-115 of the Criminal Code of Serbia**

<b>YEAR</b>	<b>CHANGE OF LEGAL QUALIFICATION IN CRIMINAL PROCEEDINGS (total number 25)</b>	<b>THE INFLUENCE OF THE MOTIVES ON THE CHANGE OF LEGAL QUALIFICATION IN CRIMINAL PROCEEDINGS</b>	<b>INFLUENCE OF THE MOTIVE ON THE CONTENT OF GUILT (total number of willful murderers 17)</b>	<b>THE ESTABLISHMENT OF THE MOTIVES IN COURT, FOR THE GUILT IN WILLFUL MURDERS</b>
1992	6	5	5	2
1993	10	8	4	1
1994	3	2	2	1
1995	2	2	1	1
1996	2	1	2	2
1997	2	1	3	1

Out of the total number of 157 criminal cases in Ukraine (Kiev) for the analyzed period, court changed the qualification of the criminal acts in 126 cases or 78.34% of the cases, while in 94 or 59.87% of cases the change of qualification was caused by a legal nature of the criminal motives. In Serbia, from the total number of 35 criminal cases (the city of Nis) for the analyzed period, the change of qualification was done in 25 or 71. 42% of the cases, while in 19 or 54.28% of the cases the change of qualification was caused by a legal nature of the criminal motives.

Consequently, in the case number 2-37/92, the previous legal qualification was willful homicide of the injured person J. according to the article 93, part a, e, z of the Criminal Code of Ukraine and willful homicide of the injured person B. according to section 93, part a, e, z of the Criminal Code of Ukraine. During the criminal proceedings the court concluded that in the concrete criminal incident the willful homicide of the injured J. and B. is not out of utilitarian motives (article 93, part a of the Criminal Code of Ukraine) and the court has done a change of qualification of the criminal incident but didn't establish the criminal motives of the new legal qualification.

Out of the total number of 235 people found guilty in Kiev, 17 were found guilty of willful murder from section 115-116 of the Criminal Code of Ukraine, and for the 12 guilty-sentenced people (5.10%) the court ascertained the content of the criminal motives in the concrete criminal incident. The court didn't establish the following criminal motives: (1) in seven cases-utility (88%); (2) in three cases- concealing the criminal offence or facilitating the carrying out of the offence (25%); (3)once- the motive of terror (8.5%) and the motive of revenge (8,5%). From the total number of 48 guilty people accused in Nis, 17 were sentenced for committing willful homicide from article 113-115 of the Criminal Code of Serbia and for 8 guilty-sentenced people (16.66%) the court ascertained the content of the criminal motives of the concrete criminal incident.

In all cases where the motive appears as a qualifying, or a circumstance creating privilege, there is a more serious or lighter kind of the basic criminal offence. Consequently, the motive influences the enlargement or lessening the quantum of the intentional or willful guilt, as well as the more severe or mild punishment. However, the Serbian legislator very rarely prescribes the content of motives which appear as qualifying, or circumstances giving privilege. That is the reason why judge of the

criminal court must in each concrete case, according to his belief and experience find out whether the motive of the concrete criminal incident was in accordance with social, ethical and valid legal norms or not. Also, the judge has to perform legal qualification of the offence precisely and exactly, and one condition for successful realization of this is knowledge of the content of motive of the concrete criminal incident. For example, if the person A committed murder because of money, than this is murder in the first degree (article 114, part 1, item 5 of the criminal Code of Serbia), but if the person committed murder in the state of intense excitation, for which he was not responsible, but was caused by attack or a serious insult from the murdered person, that will be privileged kind of murder - murder in an instant (article 115 of the Criminal code of Serbia). The motives of the qualifying circumstance can be utility, cruelty, cunningness, enmity, hatred, blood or ruthless revenge and other, while motives of privilege include love, humanity, sacrifice, pity, altruism, friendship, mercy and other motives in accordance with legal and ethical norms of a state community. Serbian legislator uses the term base motives for all other motives contradicting social and legal norms of behavior and the motives that guide the delinquent behavior.

In comparative criminal law practice there are several ways for establishment and qualification of the motives. Firstly, when speaking about base motives, their existence is illustrated and eliminated in concrete cases in criminal practice by listing in judicial act. Secondly, a separate category of judicial practice includes the articles of judicial practice in which the nature of some criminal motives is more closely described. The most often are the articles on the motive of utility and base motives. Analyzing the motives in each concrete case, the court tries to find out whether the reasons were legal or illegal. The third category consists of court articles which give ethical mark to some kinds of motives. In that way the court ethically grades each motive in the negative as well as in the positive sense, giving it the quality of mitigating or aggravating circumstance. Finally, the fourth way of qualifying the motives consists in courts comparing the criminal motive of the concrete criminal offence with the social and ethical norms of behavior. This comparing helps the court to establish the ethical value of motives and their impact on the guilt and sentence.<sup>2</sup>

Content structure of criminal motives of willful homicide (table 7) is following: (1) utility (36.65%); (2) revenge (24.43%); (3) concealment (21.86%); (4) the rest (8.03%); (5) terror (6.43%); (6) jealousy (2.57%). Revenge for performed legal activity<sup>3</sup> participates in the total number of criminal motives with 4%.

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<sup>2</sup> Simić-Jekić Z., Utvrđivanje motiva dela i sudska praksa, Jugoslovenska revija za kriminologiju i krivično pravo nb. 1-2, Beograd, 1983, str. 119-120.

<sup>3</sup> author's remark: By the term LEGAL ACTIVITY we refer to the LEGALLY ALLOWED ACTIVITY OR ACT or a LEGAL ACTIVITY OR ACT official action.

**Table 7. Kinds of criminal motives and types of criminal motivation for willful murder**

**(7-a) Article 115-116 of the Criminal Code of Ukraine**

YEAR	KINDS OF CRIMINAL MOTIVES (total 311)						TYPES OF CRIMINAL MOTIVATION (total 311)		
	U T I L I T Y	T E R R O R	R E V E N G E	C O N C E A L M E N T	J E A L O U S Y	T H E R E S S T	I N T E N T I O N A L	I M P U L S I V E	O U T O F H A B I T
1992	21	5	7	7	-	4	24	17	3
1993	49	6	22	31	1	9	71	33	14
1994	25	4	10	12	-	4	34	13	8
1995	10	-	11	8	4	3	15	17	4
1996	3	1	5	6	1	2	7	8	3
1997	6	4	21	4	2	3	9	21	10

**(7-b) Article 113-115 of the Criminal Code of Serbia**

YEAR	KINDS OF CRIMINAL MOTIVES (total 375)						TYPES OF CRIMINAL MOTIVATION (total 375)		
	U T I L I T Y	T E R R O R	R E V E N G E	C O N C E A L M E N T	J E A L O U S Y	T H E R E S S T	I N T E N T I O N A L	I M P U L S I V E	O U T O F H A B I T
1992	25	6	8	8	-	5	30	20	4
1993	59	7	27	37	1	10	86	40	17
1994	30	5	12	14	1	5	41	17	10
1995	12	1	13	10	5	4	18	20	5
1996	4	1	7	7	1	2	8	10	4
1997	7	4	25	6	2	4	10	24	11

During the process of establishing the utilitarian motive in willful homicide (article 93, part a of the previous Criminal Code of Ukraine or article 115 part 2 of the valid Criminal Code of Ukraine), the Criminal Court of Ukraine labeled utilitarian

motives by following terms: out of utility (criminal offence 2-79/94), with selfish purpose (criminal offence 2-21/93), with utilitarian interest (criminal offence 2-206/97).

Also in the case number 2-1/92 the court decided that the accused K. committed under aggravating circumstances murder of G out of utility, with the aim of obtaining the property of the murdered, while in case 2-42/7, the court amplifies the fact that the guilty P. and J. committed a willful homicide of V. out of utilitarian interest, with extreme fierceness, while committing the act of robbery.

In some criminal offences there is concurrence of criminal motives. Accordingly, in the case 2-46/97 the court decided that the guilty person K, a multiple recidivist, with murdered person G with extreme fierceness, under aggravating circumstances murdered person S. and then attacked with extreme fierceness life of two people, emphasizing that the criminal offences were committed out of utilitarian aims and utility.

The opinion of court in these cases is unacceptable and unreasonable because the description of the committed offences, undoubtedly points to the motive of utility.

The Ukraine legislator, by expression willful homicide out of utilitarian motives (article 115, part 2, item 6 of the Criminal Code of Ukraine) means illegal deprivation of life with the aim of obtaining any material benefit for himself or another person. The material benefit is obtained by committing the crime, while forms of appearance of material benefit may be: acquiring ownership of the murdered person's property – jewelry, works of art, etc, or getting ownership of the immovable property of the murdered person, immovable and movable family relics, etc), getting profit of property character by committing murder (acquisition of property rights, acquiring or losing the rights of actual governing and using property, illegal acquisition of property rights, etc), liberation from financial debt or expense by committing murder (Cessation of the obligation of paying the debt, exoneration of the property from the financial debts of the murdered person etc) murder ordered for money, or other material gain. For existence of this criminal offence it is not necessary that the guilty person acquired material gain in reality by committing willful homicide out of utility.<sup>4</sup>

Identical attitude to Ukraine judicial practice can be found when establishing the hooligan motive (article 115, part 2, and item 7 of the Criminal Code of Ukraine). Judges of the Criminal Court instead of term hooligan motive use terms hooligan coercion or hooligan determination. Why coercion or determination and not motive? Motive includes determining factors (interests, needs, coercion, etc) divers and versatile. If the court found out the determining factors of the hooligan motive, why didn't it ascertain the content of the motive *causa criminalis*? For a complete and unambiguous determination of the content of the willful or intentional guilt in a concrete criminal case, it is necessary to ascertain the content of the criminal motives which together with other elements influence the degree of guilt. We agree with Sergejevic who thinks that the court must in each concrete criminal act establish criminal motives with the highest degree of veracity, and in preamble of the judicial act, verbally define and describe the content of the established motives.<sup>5</sup>

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<sup>4</sup> Ценко С.С., НАУКОВО-ПРАКТИЧНИЙ КОМЕНТАР ДО КРИМІНАЛЬНОГО КОДЕКСУ УКРАЇНИ, 4-те видання КИЇВ, 2005, стр. 222-223.

<sup>5</sup> Sergej~ P., *Iskustvo re~i na sude.* – M., 1988, str. 115-116.

According to the opinion of the Ukraine legislator, murder out of hooligan motives is a willful homicide committed not respecting moral, social, and legal norms of the community, murder committed by violating human and civil rights and freedom, murder committed without cause in brutal and ruthless way.<sup>6</sup>

In criminal cases that have legal qualification of willful homicide (article 115, part 1 of the Criminal Code of Ukraine) and murder in the first degree (article 115, part 2 of the Criminal Code of Ukraine), the content of the criminal motives of committed crimes is not completely ascertained. The described negative attitude of the Ukraine judicial practice about determining the content of criminal motives in criminal proceedings is confirmed by statistic data that in 2 out of 5 criminal incidents the court doesn't establish the criminal motives. This attitude of the judicial practice is strengthened by linguistically imprecise criminal law provisions about some incrimination in criminal legislative organs of Ukraine. So that the legislator in the article 115, part 1-3,5,8-13 of the Criminal Code of Ukraine prescribes murder in the first degree not giving precise description and kind of criminal motives. In accordance with the attitude of the Supreme Court of Ukraine from 01.05.1994, number 1, part 10, it was decided that the incrimination from the article 115, part 2, item 3 of the Criminal Code of Ukraine, can be committed only out of the motive of revenge because of performed legal action of the injured<sup>7</sup>, while in part 11 it is stated that the incrimination from the item 1, part 2 of this article can be committed either from diverse criminal motives which represent aggravating circumstances for establishment of guilt and fixing of penalty, or that the actual cases of this incrimination can be legally qualified as incriminations of any item of the part 2, article 115 of the Criminal Code of Ukraine.<sup>8</sup>

According to the attitude of the Ukraine legislator, willful homicide from the article 115, part 2, item 8 of the Criminal Code of Ukraine is unlawful deprivation of life of a person that performs legal act considered official or civil service, as well as the willful homicide of the injured out of revenge for performance of a lawful official act or civil service. Willful murder from article 115, part 2, item 1 of the Criminal Code of Ukraine is unlawful murder of two or more people which is connected to a single willful guilt and committed at one place without considerable time lapse between the beginning of the criminal law proceedings, while murder from item 2, part 2, of the same article represents unlawful murder of an under-age child or pregnant woman for whom the guilty person-murderer knew he is under-aged /pregnant at the moment of committing the unlawful act.<sup>9</sup>

Willful homicide with extreme fierceness (article 115, part 2, item 4 of the Criminal Code of Ukraine is unlawful murder by causing physical and psychological pain to the injured or to the people close to the injured (straining, breaking, cutting or burning of the human body, multiple intentional wounding during committing unlawful acts which represent bodily sufferance of the injured, long-term deprivation from eating

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<sup>6</sup> Qcenko S.S., НАУКОВО-ПРАКТИЧНИЙ КОМЕНТАР ДО КРИМІНАЛЬНОГО КОДЕКСУ..., стр. 223.

<sup>7</sup> Zbirnik postanov Plenumu Vrhovnogo Sudu Ukraїni (1963-1997 roki). Iz zmin. i dop. Za stanom na 8 lwtoho 1998 roku. – Simferopolx: Tavriq, 1998, str. 180.

<sup>8</sup> Ibid, p. 180

<sup>9</sup> Qценко С.С., НАУКОВО-ПРАКТИЧНИЙ КОМЕНТАР ДО КРИМІНАЛЬНОГО КОДЕКСУ УКРАЇНИ, 4-ге видання КИЇВ, 2005, стр. 220-221, 224.

and drinking, psychological abuse, cynicism, cruelty while committing criminal law offence etc) while for willful homicide committed in the way dangerous for life of larger number of people, the same part of the same article, item 5, the guilty- murderer committed murder in the realistic way or by means which endanger not only the life of the injured but also other people's lives.<sup>10</sup>

Ordered willful homicide (article 115, part 2, item 9 of the Criminal Code of Ukraine) is considered committed independently from the fact whether the guilty person reached the goal by the criminal act or not, while the same crime from the item 10 of the same part and article is committed at the time of rape in the following cases: (1) when it is committed at the same time as the attempt of rape or the act of rape, with the aim breaking the victim's resistance; (2) when it is committed at the same time as the attempt of rape or performing the act of rape, or at a certain time after rape out of the motive of revenge because of the active defense of the injured<sup>11</sup>.

Ordered willful homicide, (article 115, part 2, item 11-12 of the criminal code of Ukraine) consists of an agreement of at least two sides on committing the murder or planning the murder. main characteristics of cooperation or agreement are: (a) the object of agreement-death of one or more people; (b) contracting parties- ordering party or person who is interested for committing murder and the person who commits murder, or – the person that actually commits criminal act of murder; (c) basic content of the agreement- the person who commits murder takes on the obligation of committing of unlawful act of the murder of the injured, while the ordering party obliges to performing or not performing the action that helps committing the willful homicide. This kind of willful homicide is usually committed out of the motive of utility.<sup>12</sup>

Under the term willful homicide committed according to the previous agreement of a group, we understand a murder in whose committing are involved at least two accomplices, according to a previous plan and agreement for its committing, while willful homicide committed by an organized group refers to unlawful murder committed by a specially organized criminal group (article 115, part 2, item 12 of the Criminal Code of Ukraine). Criminal group founded with the aim of committing precise criminal action has strictly divided criminal roles (organizing, instigating, helping, committing criminal act). During the act of committing willful homicide by a criminal group all the co-accused accomplices in the incrimination have the status of the accomplices who committed the murder independently from their contribution in the criminal act of murder. Finally, murder in the first degree can be done by a recidivist, except incriminations described in the articles 116-118 of this Criminal Code<sup>13</sup>.

In the criminal case 2-7/87, the prosecutor qualified the act of the guilty N according to article 19 and 93, part a, g, z of the criminal code of Ukraine, showing that the accused N committed murder out of utility with the aim of robbery. Criminal proceedings have shown that the offence was committed by complicity (article 19 of the Criminal Code of Ukraine), but not out of the motives of utility and revenge (article 93, part z of the Criminal Code of Ukraine) of the previously committed offence of robbery.

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<sup>10</sup> Ibid, p. 221-222

<sup>11</sup> Ibid, p. 224-225

<sup>12</sup> Ibid, p. 225-227

<sup>13</sup> Ibid, p. 227-229

That is why a change of qualification of the offence was performed, and in accordance with that, the court returned a verdict of guilty.

Analyzing the criminal cases we came to the conclusion that the occurring forms of the incrimination from article 93, part e, of the previous Criminal code of Ukraine or article 115, part 2, item 5 of the valid Criminal Code of Ukraine can be committed either out of the motive of sadism or revenge, while occurring form of incrimination from the article 93, part z of the valid Criminal Code of Ukraine can be motivated by concealment or facilitating of the performing of the offence or by a violent satisfaction of the sexual drives.

In the case 2-67/93, the guilty person L was accused for a willful homicide of K with extreme fierceness out of the hooligan motive- qualification according to the article 93, part e of the Criminal Code of Ukraine. The section of the court of Appeal didn't establish the motives of the criminal incident, and also didn't deny the existence of the hooligan motive according to the already mentioned legal qualification of the public prosecutor. From the documents of the proceeding we came to the conclusion that the accused L. under the influence of alcohol, committed willful homicide with extreme fierceness in the apartment of the injured K because of an argument over a bottle containing 1l of vodka. He committed the murder by hitting with hammer and causing severe bodily injures and sufferance of the injured which caused bodily suffering and violent death of the injured. According to the report of the expert, pathologist O., fifty blows of hammer were delivered in the area of head which caused fracture of the skull, and one hundred was delivered in the area of chest, stomach and shoulders which caused severe bodily injures of the lung lobes, damaging of the vital organs and rib cage, pleura, bruises, and finally the violent death of the accused. In the first phase of the attack the accused gave the injured 4 blows on the head and 11 blows in the chest which disabled the victim to run or to defend. After a pause of 30 minutes, the accused continued to injure the victim, and this phase lasted 120 minutes without stopping. When the injured K started calling for help, the accused covered his face with a pillow and hindered the breathing of the injured. The cause of the violent death of the accused are bodily injures, sufferance, pain which were caused by the incriminated person's acts. The court expert, psychiatrist N, in his report found out that the accused L. was in the state of complete responsibility before and after the offence and that the drunken state didn't have considerable influence on the lessening the capabilities of reasoning and deciding.

The accused L was at the time of the hearing in front of the Section of the Court of Appeal, as well as in the preliminary criminal proceedings, stated that during inflicting the bodily injures by hammer he felt pleasure and that he doesn't feel regret because of committed crime. All the objective and subjective circumstances of the committed incrimination, according to our opinion, point to unscrupulousness, ruthlessness, cruelty, cunningness, perseverance of the accused-guilty for willful homicide under aggravating circumstances. The previous life of the accused shows that he was not a person with a criminal past, that there were no inclinations toward criminal behavior, that he was neither alcoholic, nor drug addict, that he was a father of the two under-aged children, that he was in a successful marriage for 25 years. The wife of the accused said that her husband L. didn't show inclinations toward aggression and violence that he drank alcohol moderately, that he was a gentle father and manly, responsible husband. The injured K. knew the accused L. but there were no disputes or

arguments between them until the day of the opinion of the public prosecutor and the Section of the Court of Appeal, we think that the sadistic motives caused this terrible crime.

In the case 2-151/96 the guilty person M. was accused for willful homicide, article 93, part z of the Criminal Code of Ukraine. M. met the injured K of female sex on the street T.S. at Kiev, for the first time. He invited her to drink a half liter bottle of vodka at the park T.S. and she accepted. During the consummation the accused M. made a proposition of a sexual intercourse to the injured K. which she refused categorically. Then M. physically attacked the injured K, with the aim of performing a violent sexual intercourse, but the sexual act didn't take place because the injured K was constantly offering resistance. M. broke the resistance of the injured K, by hitting her on the head three times with a bottle of vodka which caused fracture of the skull and instant violent death of the injured. The violent sexual act didn't take place. Having in mind the fact that the court didn't establish the existence and content of the criminal motives of this crime; the question remains how the court accepted the legal qualification of the public prosecutor (article 93, part z of the earlier criminal code of Ukraine or article 115, part 2, item 9 of the valid Criminal Code of Ukraine) and established the existence of the willful homicide with the aim of concealing another criminal offence or enhancing perpetration. We think that in this case the content and the degree of willful guilt are shaped by the sexual motives- the violent performing of the sexual intercourse.

In the next part of the analyses of the criminal cases of the Regional Court of Kiev we reached the conclusion that the occurring forms of incriminations from the article 93, part g, d, e, z and article 94 of the valid Criminal Code of Ukraine, or article 115, part 1, item 1-4,9 12 of the valid criminal Code of Ukraine, are most often shaped by the motives of revenge and jealousy. Regrettably, in judicial practice these motives weren't or were abstractly established. Consequently, in the case 2-75/92 the section of the Court of Appeal performed a new qualification of the article 93, part a, e of the Criminal code of Ukraine and changed it into article 93, part e of the Criminal Code of Ukraine because it didn't establish the motive of the criminal behavior. In the verdict, the traditional, stereotype kind of explanation way was used for to describe the cause of the committed crime. This kind of explanation was used for all criminal incidents for which the court wasn't establishing and didn't establish the criminal motive- the crime committed on the basis of personal unfriendly relations of the accused B and the injured. Analyzing the court documents we came to the conclusion that the motive of the committed offence was revenge. The similar situation can be found in the case 2-17/94 where the court qualified the criminal incident under the article 93, part e of the Criminal Code of Ukraine concluding in the verdict that the crime was a reason of the personal relationship of the accused and the injured. Analyzing the court documents of this criminal case we came to the conclusion that the criminal offence was committed out of the motive of jealousy.

It is not a rare case that the court describes in the verdict the emotional state of the accused-guilty person instead of describing the criminal motives of the guilty person in the moment of committing the murder. For example, in the case 2-38/92, the criminal incident was qualified according to article 93, part g, d of the Criminal Code of Ukraine. In the verdict, the court concluded that the accused committed a willful homicide of his mother and sister on the basis of embitterment.

In some criminal cases the court qualifies the criminal motives as the Objective causes of criminality. For example, in the case number 2-145/97, the accused M, committed the criminal offence from the article 17 of the Criminal Code of Ukraine in relation to article 93, part e of the Criminal Code of Ukraine by throwing the grenade F1 through the window into the room of the injured was not in his room. The court reached the conclusion that the cause of the offence was the revenge of the accused M, and that the cause of committing the crime was the desire for revenge. This example confirms the justification of our hypothesis on the necessity of educating the court officials of the Regional court of Kiev in the domain of the criminal psychology referring to criminal motives and criminal motivation. Also, in the case 2-37/92 the legal qualification according to article 93, part g of the Criminal Code of Ukraine, the court concludes that the motive of murder of the injured M. and J. was enmity with the accused N.

The similar way of establishing the criminal motives can be found in the cases that have legal qualification according to article 94 of the previous Criminal Code of Ukraine, or according to article 115, part 2, and item 12 of the valid Criminal Code of Ukraine. Often, the court classifies conflicts, fights, drunken state of the perpetrator under the term criminal motives. Our opinion is that all these are only concrete situations in life that represent the consequence of criminal motives that the court didn't establish. We think that in this way the court doesn't establish the criminal motives, but only conceals the lack of their establishing. In our judicial practice the situation is identical.

On the basis of all this we made conclusions about the basic characteristics of establishing the criminal motives in Ukraine and Serbian judicial criminal practice:

(1) the replacement of the criminal motives by the aim of the criminal offence (for example, committed willful homicide with the aim of utility);

(2) Replacement of the criminal motives by emotional state of the accused or injured at the moment of committing the criminal offence (for example, on the basis of embitterment, under the influence of improper behavior of the injured, etc);

(3) Replacement of the criminal motives by objective elements of the occurring forms of the criminal offence (for example, the words of the injured that were referring to the perpetrator were the cause of the fight);

(4) Replacement of the criminal motives by the causes or reasons for the committed crime (for example, the accused had reasons for revenge);

(5) Replacement of the criminal motives by objective life situations which existed at the time of committing the criminal offence (for example in the argument, fight, on the basis of unfriendly personal relations);

Willful homicide out of utility (article 93, part a of the previous criminal Code of Ukraine or article 115, part 2, item 6 of the Criminal code of the criminal Code of Ukraine) are the most frequently committed in connection to banditry, while willful homicide out of the motive of concealment are most often committed in connection to robbery.

If we look at the content of the criminal motivation (table 7) then the intentional motivation occupies the first place (51.5%), impulsive motivation occupies the second place (35%) and finally, motive of habit (13.5%). The perpetrators of willful homicide up to 30 years old usually have the intentional motivation, while among perpetrators older than 30 the impulsive and motivation of habit are more often.

Impulsive motivation is specially analyzed by the Ukraine legislator in the case of willful homicide committed in the state of intense psychological excitation, that suddenly happened because of illegal violence or serious humiliating committed by the injured (article 116 of the criminal Code of Ukraine). In this case there is a willful homicide committed under mitigating circumstances and in the following cases: (a) willful homicide committed in the state of extreme psychological excitation; (b) the state of psychological excitation was caused suddenly by illegal violence or serious humiliating committed by the injured; (c) violent death of the injured person was committed. Under the expression the state of intense excitation the legislator refers to a state of physiological affect in which the power of reasoning was lessened while the emotions are intensified (fury and anger). The phenomenon of reduced consciousness appears, but the intensity of the reduction of consciousness doesn't completely exclude the possibility of reasoning-understanding of the real and legal meaning of the act and the possibility of deciding- governing and controlling of one's own actions. With the aim of solving the question of the quality of the physiological affect criminal court can use the help of an expert in psychology or psychiatry while during making the decision about the degree of the influence of physiological affect on the content of guilt the court has the responsibility to take into consideration all the individual psychological traits of the character of the accused person. The sudden appearance of an intense psychological excitation shows that the physiological affect appeared instantly as an immediate reaction to the incidents that happened unexpectedly for the personality of the accused-perpetrator (for example, state of extreme excitation can appear in parents after they hear that their under-aged daughter has been raped by the boys from the senior grades). By the term illegal violence the legislator refers to a physical (inflicting of bodily injures-straining, breaking, mutilating, burning, bending, etc of certain parts of the victims body) and psychological violence (endangering or threat of moral or material damage). By the term serious humiliation the legislator refers to a willful disrespect for the honor and dignity of a person, performed by a gesture, verbally or by an act of uncivilized form or by serious humiliation, degradation and insulting of one's personality. Illegal violence and serious humiliation can be committed against the personality of the guilty person-perpetrator or against the person close to the guilty person-perpetrator.<sup>14</sup>

In the case K-11/93, the court qualified the committed offence as a privileged murder by an irrevocable verdict of the District Court in Nis on May the 16<sup>th</sup>, 1993. On April the 1<sup>st</sup>, 1989, at 9a.m. in the street C. at the large market in Nis, when the accused N.N. was passing by the market stand of the injured T.T. the injured swore at him and the accused warned him to stop with the insults. However, the injured continued to swear, calling N.N to fight with him. N.N. continued to walk not paying attention to swearing and calling for fight, when the injured approached N.N. from the back, jumped in front of him and after a couple of insults and provocation slapped N.N. on the face with an open palm. Right after the second slap N.N. took out the jack-knife from his right pocket and stabbed the injured T.T. in the chest inflicting a wound which soon caused the death of the injured by which he committed a murder in an instant (article 48 of the Criminal code of Republic of Serbia)

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<sup>14</sup> Ibid, p. 229-231

When establishing the motive of the committed crime the court analyzed the evidences from the records of inquiry on the spot and the reconstruction of the criminal incident, from the statement of witnesses R.R, J.J, M.M, and the statement of the experts in forensic medicine, B.D. and the statement of the expert in psychiatry B.K, as well as the evidences from the statement of the accused. From the statement of witnesses the court got the impression that the injured T.T. was a person of an impulsive character. In the village, as well as at the market he was constantly arguing with people, swore at them, humiliated them and sometimes he attacked them physically although nobody gave him reason to behave that way. According to the statement of witnesses the injured and the accused didn't know each other, and they weren't in unfriendly relations.

From the statement of the accused we can see that he didn't know the injured, and they didn't have arguments before. N.N. stated that the injured insulted him and swore at him before inflicting of injury, that he called him to fight and threatened him. That is why the accused was upset and nervous and that affect situation was the only reason why he acted that way toward the deceased. Also, the accused said that he regretted the committed murder, that he was aware that he could wound the injured with the knife but that he didn't want to kill him. At the court's question why he carried the knife, the accused said that a couple of months before he was beaten by drunkards while he was walking along the street C. in which was the big market. Since then he constantly carried the knife because he was afraid for his life. From the report and opinion of the experts in forensic medicine it is obvious that the death consequence happened violently as a consequence of stabbing the knife in the area of chest, which caused the injure of the left auricle, so that timely medicine help wouldn't prevent the death consequence. In the same way, from the statement of the court expert on psychiatry who analyzed the psychological state of the accused N.N. it can be seen that the accused N.N. was responsible at the time of committing the offence.

The decision about committing the offence was made at the moment of an intense psychological excitation, suddenly without previous thinking. That psychological state of the accused was caused by the behavior of the injured, meaning that the accused was brought into the state of intense excitement without his guilt. Although he was aware that he could kill the injured, the accused N.N. didn't think about the consequences of his act, so he committed the offence under the influence of affect. The court expert in psychiatry points out that at the time of committing the offence the capability of the accused to understand his actions and to control his behavior was lessened, but not considerably lessened. On the basis of the evidence and the actual position the court concluded that the accused N.N. committed criminal offence of murder in an instant by being brought into a state of intense excitation by the behavior of T.T., which influenced and decided his incriminated behavior. The fact is that the injured T.T. by his own guilt (by serious insults, verbal and physical attack of the accused) caused the intense psychological excitation of N.N. which caused psychological excitement and overwrought psychological state so that the reasoning capabilities of the accused were lessened. The accused was aware that his actions could produce the death consequence but accepted it anyway. Another fact that the court proved was that the injured started calling for help after inflicting the wound to the injured since he became aware that the life of T.T. was in danger. The court concluded that the motive of the

offence was of a pathological character, because it occurred under the influence of state of affect, while the offence was committed by recklessness.

In this criminal incident, the court didn't ascertain the content of the affect or whether it was a physiological or pathological affect, and its effect on the content of the willful guilt. Contrary to pathological, physiological affect doesn't exclude responsibility and willful guilt. That is why it is contradictory and illogical that in this case the court establishes the existence of the pathological motive, and then concludes that the murder was committed by recklessness. On the other hand, the court expert in psychiatry has in his report and opinion clearly informed the criminal court that in this criminal incident there was a physiological affect. We think that there is a physiological affect in this case and impulsive criminal motivation.

In the verdict of the Supreme court of Serbia Kz. I. 1377/71 reached on the 14<sup>th</sup> of December, 1991. it is concluded that in all cases that include insults or attacks which didn't provoke aggressive instant reaction of the insulted or attacked person (as in this example), there is no possibility of treating later reactions even if it was the continuation of the provoked reaction, since it was not a reaction allowed by law. Also, the verdict of the District Court in Belgrade K. 172/91 reached on the 11<sup>th</sup> of July, 1991 and the verdict of the Supreme Court of Serbia Kz. 635/91 reached on the 8<sup>th</sup> of October, 1991, stress that if the attack of the injured has stopped at the moment when the accused shot, and the reaction of the accused happened as a consequence of the state of intense psychological excitation which was not provoked by the behavior of the injured the offence is classified as a murder in an instant<sup>15</sup>.

In the case of using of disproportionate force in self-defense there is a state physiological excitation on the part of the perpetrator and this state was provoked by attack of the injured person at the life and integrity of the perpetrator. By an irrevocable verdict k-75/95 reached on the 15<sup>th</sup> of December, 1995 the court stated that the accused C.S. committed crime offence- murder committed by the use of disproportionate force (article 47, part 1 of the Criminal Code of Serbia, in connection to the article 9, part 3, of the Criminal Code of Serbia). After a short argument and dispute between the accused, the injured J.J. took a hammer from the table nearby and started to walk toward the accused, swaying simultaneously up and down with the intention of striking the accused. The accused succeeded to avoid the strike by bodily maneuver and then to warn the injured not to attack him. The injured J.J. swayed again with the intention of hitting the accused, but the accused stopped him by shooting from a gun. The bullet hit the heart of the injured, which caused instant, violent death. After gathering evidence and establishing the actual position, the court concluded that the accused C.S. was in the state of intense psychological excitation during committing the offence and that in that state of affect, realizing his life was endangered, he committed the incrimination-murder. The state of intense excitation of the accused was provoked by a sudden, verbal and physical of the deceased J.J. or the injured person. From the report and the opinion of the court experts in psychiatry, the court concluded that the pathological state of intense excitation, in which the accused was, didn't cause drastically reduced

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<sup>15</sup> Jovanović Lj. and Jovašević D., Praktikum za krivično pravo II, Posebni deo, Beograd, 1996, str. 69-70.

responsibility. The motive of the offence was the fear for life, and the act was committed by recklessness.

It is still not clear how the accused-perpetrator could be responsible and commit murder by recklessness, by the use of disproportionate force in self-defense while being in the state of pathological affect. This is contradictory. We think that in this criminal incident there is physiological affect and impulsive criminal motivation.

By the verdict of the Supreme Court of Serbia, Kz. I 924/88 it is decided that when a murder committed by the use of disproportionate force in self-defense, provoked by the attack of the deceased coincides with the murder in an instant, then the act as the murder from the article 47, part 1 of the Criminal Code of the Republic of Serbia with the possibility of applying provision on the use of disproportionate force in self defense.<sup>16</sup>

The topic that occurs as a consequence of analyzing the criminal cases of the Regional Court of Kiev and the District Court of Nis is the scientific analysis of the importance and the role of the court in determining and assessing the quality of the motives of the committed criminal offence. According to article 124 of the Constitution of Ukraine, identically with the Constitution of Serbia, only the court can and must perform the jurisdictional function in the state. The court bears complete responsibility for the quality and the degree of the ascertained content of all criminal law facts about the concrete criminal incident, gathered in preliminary proceedings and criminal proceedings. All the criminal law facts of the concrete criminal incident the court must ascertain with the highest degree of knowledge-veracity, and reach the decision in the form of an individual judicial act.

Individual judicial act of reprobation must include, with veracity, the criminal motives and the criminal motivation of the concrete criminal incident. Only when the content of the criminal motives and the quality of the criminal motivation are established with veracity it can be said that practically all the major principles of material and criminal adjective law have been respected and that the justice is completely enacted in judging and reaching the verdict. The elements that can help in establishing the criminal motives of the concrete criminal offence, individually or as a group, are all the other facts of the committed criminal offence ( for example, time, place, way in which the offence was committed, the aim of the criminal offence, emotions, inclinations and habits of the perpetrator, etc). The quality of the legal qualification, of the ascertainment of the content and the degree of guilt, of fixing of the criminal penalty for the committed crime offence, of the penalty and post-penalty treatment of the guilty-accused person, of policy of punishing of the state in question depend on the quality of ascertainment of the criminal motives and the criminal motivation in criminal proceedings, in each individual case.

### **3. Suggestions for Serbian criminal legislation**

On the basis of everything that was already stated, we suggest a concrete regulating of the criminal motives in our criminal legislation:

(1) Prescribing the content motives and perform a strict classification of the motives, separating them in classes (negative and neutral) and subclasses; the negative motives are antisocial (criminal motives, while the neutral are the ones who are on the border between the negative (criminal) and the positive (not criminal) motives and which are still not

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<sup>16</sup> Ibid p. 69-70.

entirely accepted in legal and social norms of our society, and which represent the product of civilization and are regulated in the economically highly developed countries (for example, the motive of altruism or pity, or mercy); the criminal motives represent psychological, willing factors which influence the content and the degree of guilt, but also cause undertaking and realization of all the actions (performing or not performing) which are included in the criminal law act; the criminal motives are also the normative factors having in mind the fact that they are a basis for pronouncing the ethical, legal reproof which the criminal court addresses to the accused-guilty person.

- legally defining the motives of utility as an acquired character trait and immoderate, egoistic aim without reason or greed for acquiring material or immaterial gain; classifying them in the utilitarian behavior in the first degree (the criminal motive as a legal facultative qualifying circumstance), and the utilitarian behavior in the second degree (the criminal motives as a separate element of the criminal offence), and the utilitarian behavior in the third degree (the criminal motive as legal facultative aggravating circumstance);

- precise determining of the linguistically-legal meaning of the law term “base motives” or replacing it by the term “criminal motives”;

- defining the motives of hatred as a racial, ethnic or nationalistic, religion, enemy or other forms of hatred;

- defining the motives of terror as atrocity, cruelty, brutality, unscrupulousness, negligence, insolence, arrogance, and vandalism;

- prescribing and defining the motives of revenge and bestiality;

- prescribing and defining the motives of perfidy, malice, envy and venom;

- prescribing and defining of the motives of sadism;

- prescribing and the sexual motives;

- prescribing and defining the career motives as nepotism and adulation;

- prescribing and defining the motives of helping or enhancing the committing of the criminal offence;

- prescribing and defining the motives of concealment of the guilty person and the motives of concealing of the attempted or committed crime offence;

(2) Precise prescribing of the content of the criminal motives which are a separate element of the incrimination, legal qualifying circumstance, legal mitigating circumstance, for all the incriminations which contain intentional or willful guilt;

(3) In the incriminations which, as their body element have the behavior of the passive subject established as the cause of committing the criminal offence by the active subject, make linguistically precise the content of the behavior of the passive subject and the motivating influence of that behavior on the committing of the criminal law act by the active subject; in these cases analyze the possibility of regulating the behavior of the passive subject as a legal, restrictive, facultative basis of unlimited mitigating of punishment including the release from punishment;

(4) The Criminal Division of the Supreme Court of our country, should define, with the help of the native doctrine, the precise material and the rules of proceeding for establishing the criminal motives of the concrete criminal items in the criminal proceedings, as a part of the procedure for the establishment of guilt; we think that the solving of the questions we mentioned can be enhanced by paying greater attention to the importance of the judicial practice as the source of law ( in other words, the law must prescribe the rule for judges, who would by respecting it by obliged to create, during the proceeding and reaching

of verdict, the special and general , material and the principles of the proceeding for the criminal motivation and the criminal motives on the basis of the previous decisions of the court res iudicata);

(5) Exacting the law on the criminal motivation. The verification of the explained view can be found in the work of M. Zvonarevic, who, by analyzing the motives in forensic psychology, created the characteristic psychological profiles of delinquency for intentional, or willful criminal offences according to the content and kind of the motives: utility, revenge, help to the others, duty, defense- of oneself or others, sexual pleasure, curiosity-inquisitiveness. The criminal motivation is, undoubtedly, the most important individual psychological factor and it represents, in many cases, the pith of the process in which the court experts make opinion about the case. The court experts, however, must still keep the necessary level of flexibility in their work, which is adjusted, above all to the individual characteristics of each perpetrator and its offence.

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### FINANCIAL OPTION TRADING STRATEGIES

#### Abstract

*Financial derivatives market (both exchange traded and over the counter) is the most innovative investment sector. Novel hedging and arbitrage strategies are emerging daily, with very complex payout scenarios and multi-factor credit and market risk exposures. Nevertheless, financial options remain popular trading tools, as they afford the option buyer the element of transaction choice in the future. This paper provides an overview of fundamental option trading concepts as well as a wide range of most popular trading strategies with their applications, risks and benefits.*

**Keywords:** *financial derivatives, financial options, option trading, option strategies, hedging, arbitrage, volatility trade*

**JEL classification:** *G11, G15*

### ИНВЕСТИЦИОНЕ СТРАТЕГИЈЕ ФИНАНСИЈСКИХ ОПЦИЈА

#### Апстракт

*Тржиште финансијских деривата (како берзантско тако и приватно) је тренутно најиновативнији инвестициони сектор. Нове hedging и арбитражне стратегије се креирају свакодневно, с врло сложеним исплатним сценаријима и multi-факторским кредитним и тржишним ризицом. Упркос томе, финансијске опције остају популарна инвестициона стратегија, пошто купцу пружају елемент избора у будућој трансакцији. Овај рад даје преглед темељних појмова трговања финансијским опцијама, као и широк спектар најпопуларнијих стратегија трговања, с њиховим апликацијама, ризицима и предностима.*

**Кључне речи:** *финансијски деривати, финансијске опције, трговање опцијама, стратегије трговања опцијама, hedging, арбитража, волатилност.*

**ЈЕЛ класификација:** *G11, G15*

#### 1 Introduction

Financial derivatives are securities that derive their value from the price of an underlying asset (interest rate, equity, commodity etc.). They can be broadly classified as single settlement (Futures, FRAs, Options), or multiple settlement instruments (e.g. Swaps, Caps, Floors, Collars). On contract settlement, the principal amount is typically

not exchanged (i.e. there is no actual delivery of the underlying asset); instead the cashflows between the counterparties are based on the price difference, calculated on a notional amount. They offer market exposure without actually owning the asset, hence provide hedging and investment strategies where direct market participation is either undesirable or impractical. Due to the lack of principal exchange, the initial capital requirements for derivatives trading are significantly lower, providing the investor an opportunity for “gearing” (derivative position risks and benefits are potentially many times the level of actual investment). Amongst the wide variety of derivative products, options remain a very popular investment choice. They are traded both on organized exchanges and over the counter (OTC) and are subject of this paper.

## 2. Definition of options and their users

Option contract gives the buyer the right but not the obligation to enter into a transaction specified today at a future date. The buyer will obviously use it to his advantage and only exercise the option if it is beneficial compared to the prevailing market conditions at expiry. As in the event of exercise the option seller must fulfil the obligation at loss, to compensate for the risk he charges premium payable up-front. Clearly all the buyer can lose is the cost of the premium if option expires unexercised, whilst the seller has unlimited exposure. Hence his view of the market must be opposite. Options are valuable tools used for hedging and speculation.

*Hedgers* use options as a form of insurance. If they believe that the price of an asset they will require in the future will increase, they buy an option that allows them to fix the purchase price today. If their expectations prove correct, they will exercise the option. However, if they can transact more cheaply in the market, they will simply abandon the option. Similarly, an option to sell an asset in the future at price agreed today provides protection against the price fall. Should the prices rise, the option would be abandoned and the asset sold more profitably in the market.

*Speculators* take their positions purely to make profit from expected market moves. They neither require, nor own an underlying security and aim to close out their position by reversing the option contract prior to expiry. Alternatively, they can sell options with the view that they will not be exercised, expecting to keep the premium.

*Arbitrageurs* aim to profit from pricing discrepancy between different products or strategies. As combinations of different option strategies can replicate other contract payouts, it is theoretically possible that their combined cost would be different, allowing for risk-free profit. However, in practice, supply and demand would quickly eliminate any arbitrage opportunities.

## 3. Option Contract Specifications

The option contract gives the buyer or *holder* the right but not the obligation to transact with the option seller or *writer* in the future. The following parameters are agreed at the outset:

- *Expiry date* – the date on which the option contract lapses, hence the option cannot be exercised beyond this point. *American options* can be exercised at any point until expiry, whilst *European options* can be exercised at expiry only. A more recent alternative, *Bermudan option*, can be exercised at predetermined dates until expiry.
- *Option type* - whether the option is a *call option* (the right to buy) or a *put option* (the right to sell). This yields four possible scenarios:  
*Long call* (option holder's position) - the right to buy an underlying.  
*Short call* (option writer's position) - an obligation to buy an underlying  
*Long put* (option holder's position) - the right to sell an underlying.  
*Short put* (option writer's position) - an obligation to sell an underlying
- *Underlying* - an asset (interest, rate, bond price, equity index, stock, commodity etc.) from which the option derives value.
- *Strike price* or *strike rate* - the level at which the future transaction can take place, chosen by the option buyer to reflect the amount of required protection/exposure.  
*At-the-money* (ATM) option has strike price equal to the market forward price (price of an outright contract with same parameters)  
*In-the-money* (ITM) option has strike price that is more favourable than the forward price  
*Out-of-the-money* (OTM) option has strike price that is less advantageous than the forward price
- *Intrinsic value* – for ITM option, the difference between the option strike price and the current market price. For an OTM option it is zero rather than negative, as option without value would not be exercised.
- *Option premium* - the cost of the option contract, based on its intrinsic value and
- *Time value* which is the built in cost of the premium that allows for uncertainty of exercise. It is greater for longer-dated options and reduces to zero at expiry.

#### 4. Option trading strategies

This paper introduces a wide range of commonly used option strategies, categorized by the investor motivation into:

- directional trades
- volatility trades and
- arbitrage strategies

**Directional trades** are entered into by investors with a definite view of the direction the market is likely to take. *Bullish* traders use strategies that exploit rising market, whilst *bearish* traders expect the market to decline.

**Volatility trades** are utilised by investors with no view on market direction, but an expectation of fluctuations. Trading strategies are chosen depending on how large the fluctuations are anticipated to be.

**Arbitrage trades** exploit the price discrepancies between the options and the underlying asset price, or between different strategies.

Even though some of the trading strategies appear complex, all can be constructed using four basic option types (long call, short call, long put and short put), some in combination with the sale or purchase of the underlying asset.

Strategies using only one type of trade (call or a put) are called *spreads*, whilst those involving both calls and puts are called *combinations*.

Spreads can be further divided into:

- *horizontal spread*, whereby options of the same strike, but different expiry are used
- *vertical spread*, using options of the same expiry, but different strike
- *diagonal spread*, involving options of different strike and expiry

## 5. Four basic option contracts

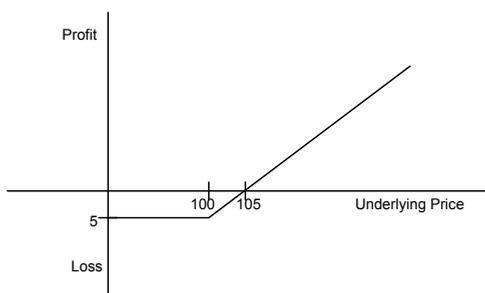
**Long Call**- directional, bullish, suffers from time decay - constructed by buying a call.

A borrower, expecting an interest rate increase, would purchase a call option which would guarantee a fixed rate of borrowing (strike rate + premium) for a future period. Should the rates fall below the strike rate, the option would be abandoned, as the borrowing can be arranged more cheaply directly in the market.

Maximum risk: premium

Maximum reward: unlimited

Breakeven: strike + premium



**Figure 1.** Long call position

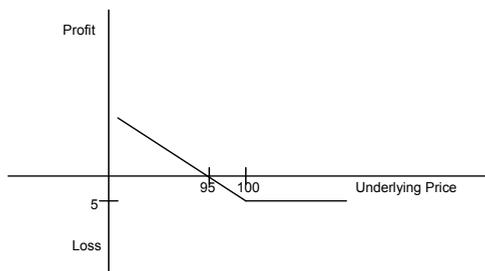
**Long put** – directional, bearish, loses value due to time decay – constructed by purchasing a put

An investor, expecting an interest rate decline, would purchase a put option which would guarantee a fixed investment return (strike rate - premium) for a future period. Should the rates increase beyond the strike rate, the option would be abandoned, as the investment can be arranged more favourably directly in the market.

Maximum risk: premium

Maximum reward: strike - premium

Breakeven: strike – premium



**Figure 2.** Long put option strategy

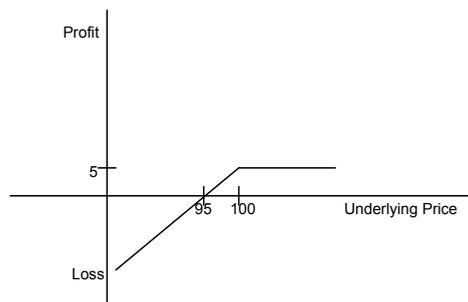
**Short put** – directional, neutral to bullish, gains value due to time decay – sale of a put

A speculator, expecting an interest rate to increase or stay the same, would sell a put option which would guarantee a profit in a form of option premium. Should the rates fall below the strike rate, the option would be exercised by the option buyer, exposing the seller to virtually unlimited loss.

Maximum risk: strike - premium

Maximum reward: premium

Breakeven: strike – premium



**Figure 3.** Short put option strategy

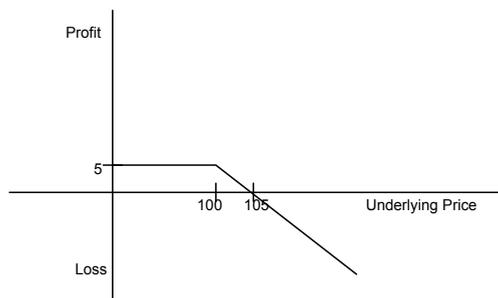
**Short call** – directional, neutral to bearish, gains value as time passes – sale of a call

A speculator, expecting an interest rate to decline or stay the same, would sell a call option which would guarantee a profit in a form of option premium. Should the rates rise above the strike rate, the option would be exercised by the option buyer, exposing the seller to virtually unlimited loss.

Maximum risk: unlimited

Maximum reward: premium

Breakeven: strike + premium



**Figure 4** Short call option strategy

## 6. Option strategies

Table 1 summarizes the main options strategies, some are detailed below.

<b>Motivation</b>	<b>Trade Type</b>	
	<b>Bullish</b>	<b>Bearish</b>
<b>Directional</b>	Long Call	Long Put
	Short Put	Short Call
	Bull Spread	Bear Spread
	Synthetic Long	Synthetic Short
	Synthetic Long Call	Synthetic Short Call
	Synthetic Short Put	Synthetic Long Put
	Diagonal Bull Spread Cylinder	Diagonal Bear Spread
<b>Volatility</b>	<b>More Volatile</b>	<b>Less Volatile</b>
	Long Straddle	Short Straddle
	Long Strangle	Short Strangle
	Short Butterfly	Long Butterfly
	Ratio Back Spread	Ratio Spread
		Horizontal Spread
<b>Arbitrage</b>	Conversion	
	Reversal	
	Box	

**Table 1.** Option strategies categorised by motivation behind the trades

### **6.1 Bull spread** – Buy a low strike call (put) and sell a high strike put (call)

Trade undertaken when the investor is unsure about the price movements, but is expecting them to rise. It offers both downside protection and limited profit.

*Constructed with calls:*

Maximum risk: net initial debit (premium paid and received)

Maximum reward: strike difference – net debit

Breakeven: lower strike + net debit

*Constructed with puts:*

Maximum risk: strike difference – net credit

Maximum reward: net initial credit (premium paid and received)

Breakeven: higher strike – net credit

### **6.2 Synthetic long** – Purchase of a call and sale of a put with same strike and expiry

A trading strategy used for hedging a short futures position, or where an outright purchase of a futures contract is impractical. It exactly replicates the long futures position, thus benefiting from the price increase.

Maximum risk: strike +/- net premium (debit or credit)

Maximum reward: unlimited

Breakeven: strike +/- net premium

### **6.3 Diagonal bull spread** – Sale of a short dated call and purchase of longer dated further OTM call

A very speculative strategy with a limited profit and virtually unlimited exposure. Undertaken when the view is that the underlying price is going to rise in the short term, and subsequently move in the opposite direction. The profit/loss depends on the relative movements of short long dated call options, hence a payout is difficult to predict. The highest profit is always expected at the strike of the shorter dated option.

Maximum risk: dependent on relative premium movements

Maximum reward: limited, at short-dated expiry

Breakeven: dependent on relative premium movements

### **6.4 Cylinder** – Purchase a low strike put and sell a high strike call together with the purchase of underlying

A strategy used by the owners of the underlying when the price is expected to move in either direction, but is more likely to decrease. Hence there is need for downside protection, achieved by a purchase of a put, the cost of which is offset by the sale of a higher strike call.

Maximum risk: capped by put

Maximum reward: floored by call

Breakeven: underlying price +/- net premium

### 6.5 Short straddle – Sale of a call and a put with same strike and expiry

A strategy used when very small movements in the underlying price are expected, in either direction. Constructed by selling both call and the put with the same strike and expiry.

Maximum risk: unlimited

Maximum reward: both premiums

Breakeven: lower: strike - both premiums  
higher: strike + both premiums

### 6.6 Long strangle – Purchase of a call and a put with different strike but same expiry

A strategy used when large movements in the underlying price are expected, but the investor is unsure about the direction. Constructed by purchasing a call and a put with the different strike and same expiry. Cheaper alternative to a straddle, as breakeven points are further apart, hence the underlying volatility has to be higher for the investor to achieve profit.

*If call strike is higher than the put:*

Maximum risk: both premiums

Maximum reward: unlimited

Breakeven: lower: lower strike - both premiums  
higher: higher strike + both premiums

*If call strike is lower than the put:*

Maximum risk: both premiums – strike difference

Maximum reward: unlimited

Breakeven: lower: higher strike - both premiums  
higher: lower strike + both premiums

### 6.7 Short butterfly – Sale of a low strike call/put, purchase of two mid-strike calls/puts and sale of high strike call/put

A strategy used when relatively large movements in the underlying price are expected, but the investor is unsure about the direction. Achieved by a sale of a low strike call/put, purchase of two mid-strike calls/puts and sale of high strike call/put. Compared to strangle and straddle, it has a limited profit, but a lower cost and loss potential in a very limited range centred around the middle strike.

Maximum risk: (high strike – mid) or (mid – lower strike)  
minus initial credit

Maximum reward: net initial margin credit

Breakeven: lower: higher strike – net credit  
higher: lower strike + net credit

### 6.8 Ratio back spread

A strategy used when large movements in the underlying price are expected; with the large down movements being more likely (when constructed with puts), or more

likely increases (when constructed with calls). Profitable only if the underlying price moves down (puts) or up (calls), with limited exposure.

Construction:

*Call*: sale of low strike call and purchase of two or more high strike calls

*Put*: sale of high strike put and purchase of two or more low strike puts

Risks and Rewards:

*When constructed with calls*:

Maximum risk: strike difference - initial debit

Maximum reward: unlimited

Breakeven: higher strike + initial debit + strike difference

*When constructed with puts*:

Maximum risk: strike difference + initial premium debit

Maximum reward: breakeven value

Breakeven: lower strike – initial debit – strike difference

## 7. Option pricing

Option pricing is outside the scope of this paper. However, it is important to emphasise that the underlying concept is based on probability that the option will expire in the money, assuming that the investor is risk neutral. The amount of premium the option seller requires is based on the probability that the option will be exercised and the expected loss this would incur. It takes into account:

*Strike Price* – the more favourable the strike, the higher the premium

*Volatility* – the more volatile the underlying asset, the more likely the option will expire in the money and the higher the premium

*Option maturity* – the longer the maturity the more time the option has to become profitable, hence premium is higher

*Interest rates* – the relationship between interest rates and option premiums is not straightforward, and is individual for each option type and underlying combination

## 8. Discussion

Options as a trading concept are easy to understand and apply. However, their pricing is not, as it is contingent on making the following assumptions:

- The underlying asset does not pay dividends or accrue interest
- The option is European style (no early exercise)
- The risk-free interest rate is constant over the life of the option
- Spot movements on different dates are independent
- The volatility of the asset price is constant over the life of the option
- There is very low probability of large spot movements
- The underlying asset price is log-normally distributed
- There are no costs/taxes and trading is continuous
- Short selling of securities (selling securities that we do not own at inception) is permitted.

Hence, option trading requires caution and should be combined with adequate hedging strategies, particularly when more exotic contracts are used.

## 9. Conclusions

Options are useful trading tools when there is a need for market movement protection, with potential for speculation and occasional arbitrage. Virtually any scenario can be catered for using only four option positions (long call, long put, short call and short put) in combination with the long or short position in the underlying asset. Various strikes and expiry dates can be chosen to exactly match requirements. However, these are risky derivative instruments with a high gearing ratio (large exposure compared to the initial investment), which can benefit as well as hurt the investor. Understanding the risk and benefits is crucial when entering into option trades, bearing in mind that the brokerage and transaction costs have to be incorporated into profit/loss forecasts.

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## THE ROLE OF AGRARIAN SECTOR IN ECONOMIC GROWTH OF SERBIA<sup>1</sup>

### Abstract

*The current volume and structure of agricultural production, its high extensiveness and fluctuation and low productivity, together with inefficient organization of production and payment operations and inefficient strategies of all types of agriculture enterprises which insufficiently take market signals into account – are the basic factors that prevent the domestic producers from becoming competitive in the food and agriculture products. Serbia has great potential in farming sector, that is not entirely exploited. With appropriate farming politics, agriculture can contribute significantly to economical progress of the country.*

**Key words:** *agrarian sector, competitiveness, strategy, economic growth.*

## УЛОГА АГРАРНОГ СЕКТОРА У ЕКОНОМСКОМ РАСТУ СРБИЈЕ

### Апстракт

*Тренутни обим и структуру пољопривредне производње карактерише, висока екстензивност, флукуација и ниска продуктивности, заједно са неефикасном организацијом производње и платног промета и неефикасним стратегијама код свих врста пољопривредних предузећа која недовољно утичу на тржиште - то су основни фактори који спречавају домаће произвођача да постану конкурентни у производњи хране и пољопривредних производа. Србија има велики потенцијал у пољопривредном сектору, који није у потпуности искоришћен. Са одговарајућим пољопривредном политиком, пољопривреда може значајно допринети економском напретку земље.*

**Кључне речи:** *аграрни сектор, конкурентност, стратегија, економски раст.*

### Introduction

Improvement of performance in agricultural complex in Serbia requires establishment of trade oriented companies, that involves a sequence of structural changes

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<sup>1</sup> The paper represents a part of research on project 149007 „Multifunctional Agriculture and Rural Development in Function of Republic of Serbia's Accession in EU“, financed by MS RS.

directed towards business efficiency improvement and market demand adaptation. Changes in structure inside companies are internally or externally orientated, both to increase effectiveness. Successful positioning on farming product market in Serbia requires adequate information on changes in the region and its market to decrease risk and uncertainty.

Market risk cannot be eliminated, but it can be reduced and comprehended by market research. Based on domestic market characteristics and adjoining countries reference to Serbian farming products, it is required to work on product's quality and image improvement. Consequentially, the country should stimulate promotion of domestic farming products abroad, as well as rationalize appropriate marketing emersion on the market.

Adjustment to market requirements should involve changes in production process structure and production modulation in quantity, quality and competitiveness. Based on our production capacities and comparative conveniences it is needed to project a strategy of technological progress and development of agriculture, village area, food industry and offensive export orientation. Competitiveness on a well-organized market of goods and services has the irreplaceable role of filter in efficiency of technological development, whereas the country should direct and encourage technological development intensity in global interest <sup>5</sup>.

Serbia has great potential in farming sector, that is not entirely exploited. With appropriate farming politics, agriculture can contribute significantly to economical progress of the country. For its coherence and effect on other sectors, agriculture is of great significance for development in Serbia, as it employs directly or indirectly a large number of people, partakes significantly in foreign trade, supplies with alimantal security of population, and contributes to rural development and ecological balance.<sup>2</sup> Agriculture in Serbia is facing many problems that are among others, results of restrictions occurred during economical climate and farming politics that was led after The Second World War until disintegration of Social Federative Republic of Yugoslavia and just as much, results of difficulties that arose during the last fifteen years and difficulties in market economy adaptation<sup>6</sup>. Agriculture in Serbia is concerned with consequences of centrally planned economy in partial ownership rights and land usage. For development, politics that stimulates productivity by restructuring and investing is needed, which implies clarification of ownership rights and obligations and establishment of efficient land market, crediting and inputs necessary for farming companies.

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<sup>5</sup> Mandal, S. (2004): *Technological development and politics*, Faculty of Economy, Belgrade, p.110.

<sup>2</sup> Mihailović, B., Hamović, V., Parausić, V. (2009): "Knowledge Economy and Innovations as Factors of Agrarian Competitiveness", 113th Seminar of the European Association of Agricultural Economists (EAAE) – *The role of knowledge, innovation and human capital in multifunctional agriculture and territorial rural development*. Editors: Danilo Tomić, Zorica Valjiljević, Drago Cvijanović. Publisher: Institute of Agricultural Economics, Belgrade. December, 9th-11th 2009. Belgrade, Serbia, page 414.

<sup>6</sup> *Agricultural strategy in Serbia*, Ministry of Agriculture, Forestry and Water Management, Belgrade, 2004, p. 8.

Up to present time, role of farming companies reflected in:<sup>3</sup>

- Size economy of farming companies enabled appliance of contemporary techniques and realization and development of seed production;
- Concentration of expert staff enabled science and agriculture development and it's transfer to agricultural holdings;
- Farming companies were trigger buttons for establishment and development of food industry in same organizational frames of agro-industrial conglomerate;
- National and later on, social ownership, as a base for establishing state influence on farming companies, has granted them role of cheap goods manufacturers in function of self-sufficiency of elemental food products preservation, strategic stability of the country and social security of citizens;
- The concept of agricultural development, that enabled direct administrative control of farming flows gave those companies mediatory role between agricultural holdings on one side and input manufacturers of food industry on the other.

As all other companies, they have legal obligation of accounting book keeping, VAT (Value Added Tax), property and income taxation, so from the formally-legal aspect they are in far worse position then the agricultural holdings. The stress falls on production structure that is less laboring intense and with relatively high degree of specialization in particular manufacturing units. Farming companies have relatively high presence of agricultural regulations application (compared to agricultural holdings), where the size of the holding is not one of the restrictive factors.

Their organizational structure is very complicated and often overly outspreaded and conditioned by business function development level and it's numerousness, by it's formally-legal position, production specialization and similar.

Agricultural companies still dispose of certain storage space and farming product processing capacities, considering that their expansion thrived towards large business systems of conglomerate type, that implied food industry development within company framework. Most of the food industry had separated itself organizationally from agricultural companies into individual business systems, though some storage and product processing capacities stayed within companies.<sup>4</sup>

Few, highly developed agricultural giants in Serbian economy (PKB Corporation, Delta Agrar etc.) make only small islands in the vast sea of mainly traditional, rural agriculture. The necessity of their existence shouldn't be seriously

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<sup>3</sup> Mihailović, B., Hamović, V., Parausić, V. (2009): "Knowledge Economy and Innovations as Factors of Agrarian Competitiveness", 113th Seminar of the European Association of Agricultural Economists (EAAE) – *The role of knowledge, innovation and human capital in multifunctional agriculture and territorial rural development*. Editors: Danilo Tomić, Zorica Valjiljević, Drago Cvijanović. Publisher: Institute of Agricultural Economics, Belgrade. December, 9th-11th 2009. Belgrade, Serbia, page 414.

<sup>4</sup> Mihailović, B., Hamović, V., Parausić, V. (2009): "Knowledge Economy and Innovations as Factors of Agrarian Competitiveness", 113th Seminar of the European Association of Agricultural Economists (EAAE) – *The role of knowledge, innovation and human capital in multifunctional agriculture and territorial rural development*. Editors: Danilo Tomić, Zorica Valjiljević, Drago Cvijanović. Publisher: Institute of Agricultural Economics, Belgrade. December, 9th-11th 2009. Belgrade, Serbia, page 415.

reasoned, considering that it is more than clear that only these systems can supply with larger production (naturally and quantitatively) and application of scientific solutions, especially, technical-technological inventions. Complex business systems include large number of organizational units, that are characterized by relatively big scope of individual business decision making. In most cases complex business system includes numerous individual economy operating companies, that have their own legal and economical status (trading account). Ownership is what coheres these companies into complex business system, namely interests of majority shareholders.

### **Serbian agricultural products export as economic growth factor**

Current state of economic and agricultural base of Serbia is characterized, before all, by technological-economic retrogression of major installed capacities, dominant presence of traditional industrial production (so called – standardized products), pretty dispersive export assortment (without any recognizable product) which additionally up to now was oriented to convertible buyers and placed on limited destinations and moreover represents an aggravation.<sup>5</sup>

The biggest foreign-trade deficit in trading with agricultural products was registered in 2001 and amounted to 255 million €. During 2006, Serbia had exported the agricultural products and foodstuff to the amount of 1,26 billion dollars, or 18,2 % more than in 2005. Surplus in exchange of agricultural products/foodstuff with foreign countries amounted to 355 million dollars<sup>6</sup>. The export of food and agricultural products composed almost fifth part of total Serbian export. As it was added in the report, mostly maize was exported (170,7 million dollars), than followed sugar (154,3 million dollars), while fruit and vegetable were exported to the amount of 326 million dollars. As for import, the highest participation in import of agricultural products had a tobacco and tobacco products (total value was 99,5 million dollars), than raw coffee (50 million dollars) and bananas (34,8 million dollars). Favourable results of Serbian agriculture in foreign trade were a consequence of preferential status on EU market and liberalism of trade on the Balkan.<sup>6</sup>

Since Preferential Status in trade with EU became valid, Serbia constantly make surplus in interchange of agricultural – food products with this association. The preferential status provides export on EU market for 85% agricultural products, free of all tributes, while baby beef, wine and sugar are in quota regime. In total interchange of Serbia with the world in 2004 concerning agricultural – food products, EU participated with 49,2%. In the same year, percentage of agrarian products export on EU market in total export of agricultural – food products from Serbia was 53%. In trade with EU concerning agriculture there is a constant surplus since 2000. On the other hand, total export of agricultural products from

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<sup>5</sup> Mihailović, B., Subić, J., Simonović, Z. (2009): “Strategy elements of export improvement in agro-economy of Serbia”, *Economia Seria Management*, Vol 12, broj 1 special/2009, The proceedings of the ninth international conference “Investments and economic recovery” Bucharest, may 22-23, 2009., page 87.

<sup>6</sup> Mihailović, B., Subić, J., Simonović, Z. (2009): “Strategy elements of export improvement in agro-economy of Serbia”, *Economia Seria Management*, Vol 12, broj 1 special/2009, The proceedings of the ninth international conference “Investments and economic recovery” Bucharest, may 22-23, 2009., page 87.

Serbia to EU is just 0,7% of EU15 total import, or 0,2% of EU25 total import, while total import of agricultural products in Serbia from EU15 is 0,5% of its export, i.e. 1,0% of EU25 export.

Statistical data about size and structure of agricultural products export from Serbia indicates on domestic agro-economy non-competitiveness, from the price and non-price marketing elements point of view. Although officially statistics indicates on positive trends in foreign trade exchange of agricultural-food products from Serbia, started in 2002, it is important to point out that this is primarily the result of bigger raw-material export (cereals and sugar).

### **Methods for realization of long-term developmental strategy**

Long-term export strategy aims at optimal utilization of disposable productive capacities, increase the size of agricultural production, change productive structure according to demand in favour of more intensive productions, final and high-quality products. There has to adjust to international market when it is about productive structure modifications and production adjustment concerned with quantity, quality and competitiveness. According to our productive capacities and comparative advantages, it is necessary to project the strategy of technological progress, agriculture and rural development, food industry and offensive export orientation. The competitiveness on well organized goods and services market has non-replaceable role of efficient technological development filter, and it is up to a state to direct and support an intensity of technological development in general interest.<sup>7</sup>

The methods for realization of long-term development strategy can be separated in four groups:<sup>8</sup>

- long macro-programs – developmental politics,
- agrarian politics measurements,
- institutional solutions or coordination and development direction,
- science and staff education, as well as organization of professionally-consultative department.<sup>9</sup>

In *permanent macro-programs* pertain all programs on which should permanently and systematically worked on according to established plans and which are necessary for agricultural production development and providing the industries with raw material etc. Necessity for defining the permanent macro-programs became as a result of very clear defining of all necessary goals. It is important for changes to extend in 3 ways:

- structure change (producers, property and institutions) which encircles land reform, institutions in agriculture, privatization in agriculture and management of forest and water resources,

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<sup>7</sup> Mandal, Š. (2004): *Technological development and politics*, Faculty of Economy, Belgrade, page 110

<sup>8</sup> *Strategy of Serbian agriculture*, Ministry of Agriculture, Forestry and Water Management, Belgrade, April 1997, page 98

<sup>9</sup> Mihailović, B., Subić, J., Simonović, Z. (2009): “Strategy elements of export improvement in agro-economy of Serbia”, *Economia Seria Management*, Vol 12, broj 1 special/2009, The proceedings of the ninth international conference “Investments and economic recovery” Bucharest, may 22-23, 2009., page 88.

- development of market and its mechanisms which encircle: suitable measurements of economic politics in market economy, agricultural markets, price politics and other measurements of agrarian politics for market support, as well as credit market,
- rural development and environment preservation encircles: rural development and questions of agricultural environment.<sup>10</sup>

*The measurements of agrarian politics* are the most significant for realization of long-term development strategy. Because of its natural characteristics of land, climate and water resources, Serbia has great potential in agricultural sector, which has not been totally used. Along with adequate agrarian politics, the agriculture can give significant contribution to economic development of the country.<sup>11</sup> For its connectivity and influence on other sectors it is extremely important for development of Serbia, considering that employs, directly or indirectly, numerous people, participates significantly in foreign trade, provides food safety for the inhabitants and contributes to rural development and ecological balance. Agriculture in Serbia faces many problems, which are, among other factors, the result of limits ensued in conditions of economic environment and agrarian politics led in period after the World War II till SFRY collapsed, difficulties in adjusting to market economy<sup>12</sup>. The agriculture in Serbia has been loaded by consequences of central-plan economy concerning property and land utilization. For the development is necessary which can influence on productivity growth by re-structuring and investing, which furthermore implies clear proprietary rights and formation of efficient land market, credits and inputs. Regardless of the fact whether the economy is market oriented, the role of state politics is significant. It also could be said that, if the economy is more market oriented, the role of the state is bigger, i.e. its agrarian politics measurements. The agrarian politics is the most significant in methods for realization of the strategy and developmental aims.

*Institutional solutions* of agrarian subsystem in market economy have main role in achievement of developmental goals. Their large role is determined by specificities of agricultural production. Large number of institutions in which jobs are being doubled does not contribute to long-term development. The main thing is that Ministry deals with all jobs related to agriculture as specific and the most important field of Serbian economy, including all that is underlined in developmental policy, than agrarian policy: prices, export, import, stockpiles, and to have full insight in work of financial institutions evolved in agriculture<sup>13</sup>. Structure of the ministry is not entirely adapted to needs of market economy neither its

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<sup>10</sup> Mihailović, B., Subić, J., Simonović, Z. (2009): "Strategy elements of export improvement in agro-economy of Serbia", *Economia Seria Management*, Vol 12, broj 1 special/2009, The proceedings of the ninth international conference "Investments and economic recovery" Bucharest, may 22-23, 2009., page 89.

<sup>11</sup> Mihailović, B., Hamović, V., Parausić, V. (2009): "Knowledge Economy and Innovations as Factors of Agrarian Competitiveness", 113th Seminar of the European Association of Agricultural Economists (EAAE) – *The role of knowledge, innovation and human capital in multifunctional agriculture and territorial rural development*. Editors: Danilo Tomić, Zorica Valjiljević, Drago Cvijanović. Publisher: Institute of Agricultural Economics, Belgrade. December, 9th-11th 2009. Belgrade, Serbia, page 416.

<sup>12</sup> *Strategy of Serbian agriculture*, Ministry of Agriculture, Forestry and Water Management, Belgrade, 2004, page 8.

<sup>13</sup> *Strategy of long-term agricultural, rural and food-industry development*, Ministry of Agriculture, Forestry and Water Management, Belgrade, April 1997, page 128.

capacities are enough for many authorizations with which it deals. Actually, the ministry deals with larger authorizations than some well based ministry in EU, because it has additional tasks for conducting of agricultural sector through transitional process which involves privatization and development of functional agricultural market. Also, integration into EU and accession to WTO demand additional means and capacities. Unfortunately, the ministry has a lack of analysis capacity and based on it, formulation of the most adequate policy which would entirely comply with desirable goals. Also, there is a distinguished lack of capacities for adequate implementation and especially conduction of the given policy.

For development of science, staff education and organization of professional-advising department, it is necessary to provide suitable legal basis, especially Law on professional-advising department, quality control and etc. Today, more than ever, development of agriculture leans on science research results and their practice application. Research is under authority of Ministry of Science and Environmental Protection.<sup>14</sup> Researches in the field of agriculture are conducted by large network of public institutions, institutes and universities and are mostly directed toward improvement of production. Economic research, at the level of husbandry, market analysis, or analysis and estimations of economic policy is poorly developed. Profitability of agriculture and food industry should be improved by support of suitable research and application of given results. Research programs should comply with the needs of family commercial husbandry so that results of these researches increase the concurrency of this group of producers and increase their market position. These researches should be oriented toward the user because inapplicable research (research whose results do not come to producer) do not deserve to be invested at, not even one dinar.<sup>15</sup>

### **Co-operatives in function of agrarian development in Serbia**

Forming co-operatives of agriculture producers on the principles of contemporary co-operative society creates the necessary conditions for achieving satisfactory production and economic results. Such concept is possible to apply to forming a whole production chain, beginning with primary production, over getting a number of half-products, to the highest degree of finalization.<sup>16</sup> Agriculture producers co-operative, built on the principles of contemporary co-operative society, can be seen as a business system – an enterprise with all its business functions that could be realized through services, actually through the employed with appropriate specialities. Producers

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<sup>14</sup> Mihailović, B., Subić, J., Simonović, Z. (2009): “Strategy elements of export improvement in agro-economy of Serbia”, *Economia Seria Management*, Vol 12, broj 1 special/2009, The proceedings of the ninth international conference “Investments and economic recovery” Bucharest, may 22-23, 2009., page 90.

<sup>15</sup> *Strategy of Serbian agriculture*, Ministry of Agriculture, Forestry and Water Management, Belgrade, 2004, page 41

<sup>16</sup> Mihailović, B., Hamović, V., Parausić, V. (2009): “Knowledge Economy and Innovations as Factors of Agrarian Competitiveness”, 113th Seminar of the European Association of Agricultural Economists (EAAE) – *The role of knowledge, innovation and human capital in multifunctional agriculture and territorial rural development*. Editors: Danilo Tomić, Zorica Valjiljević, Drago Cvijanović. Publisher: Institute of Agricultural Economics, Belgrade. December, 9th-11th 2009. Belgrade, Serbia, page 417.

would be bringing objects of work in it, means for work and their work, and the co-operative, on the other side, would be providing all other services necessary for successful functioning of the production: commercial – the supply of production materials, product sales, marketing; financial – finding loans for fixed assets, finding loans for current assets; accounting – doing accounts for the economy; logistics – putting things in stock, transport, distribution.

From the aspect of available resources, organization, technique, technology and governing, it is assumed that the co-operative is more functional than family economies. From the above mentioned reasons, viewing co-operatives of agricultural producers from such aspect would be significant, both in theory and in practice for the needs of planning and organization under different circumstances of decision-making. For example, organizational model of the co-operative of agricultural producers should be organized in such a way that producers do not transport fruits from redemption station, but they should be able to surrender it directly from the yard. Such concept imposes finding optimal fruits transport programme, with clearly defined quantities, from greater number of starting points to destinations. The ultimate destinations can be refrigeration plants, some processing capacities or sales centers. The number of starting points will depend on the number of fruit producers that are members of the co-operative, as well as on the number of locations and their planted fruits. The optimal transport programme, which will enable efficient transport and distribution of products with rational use of the means of transport and lowest transport expenses, can be reached by applying methods of linear programming.<sup>22</sup>

Judging from the mentioned reasons one of the tasks of co-operatives would also be defining models for planning transport organization on the scale of a part of business system that deals with the transport of products from producers to stock and processing capacities or sales centers.

The mentioned goals require defining information needs and basis for making a mathematical model for planning transport organization. This, among other things, includes determining of maximum possible volume of production of each member of co-operative, determining number and capacity of means of transport that co-operative has or possesses, or can use, determining stock, processing and sales capacities, determining mutual distance of all transport points and calculation of the expenses of transport per capacity unit.

On the basis of the above mentioned parameters the following should be done: making a mathematical model for planning transport organization, setting logical model for planning transport organization, testing mathematical model on a sample of fictitious business system. So as to reach the goal, it is necessary to realize several secondary goals and these are:

- Carrying out system analysis of the existing state of affairs in co-operatives of agricultural producers, with special emphasis on their production, organizational and ruling structure;

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<sup>22</sup> Dimitrijevic, B., Ceranic, S., Rajic, Z., Djuric, D. (2006): *Organisational model of networking of fruit producers*, Economy of agriculture, Topic number (13-67), Belgrade, page 489.

- Defining information need and basis for constructing model for needs of the organization and governing co-operatives of agricultural producers;
- Determining goals, criteria and parameters needed for defining models of co-operative of agricultural producers;
- Defining models of co-operative of agricultural producers on the basis of particular possible relations of production, organizational and governing structure;
- Carrying out comparative analysis of the defined model with the existing models of the functioning of co-operatives of agricultural producers;
- Examining possibilities and obstacles of implementation of the defined model under real circumstances;
- Testing of the model.

## **Conclusion**

In Serbia has to be established the market mechanisms, which by technological and productive-economic bond of all participants in production process to final consumption markets, is provided. However, mostly the turnover has a monopoly, more conceived if the agricultural producers are un-organized and if not exist productive organizations – cooperative movements. Thereby, in global strategy of market mechanisms development should provide the unity of production/processing/turnover and final consumption markets<sup>3</sup>. This should create bigger economic interest, though agricultural producers and all participants in the production would work and produce more quantitative and more qualitative.

In previous period dominated a production orientation which did not respect the market requirements. Agricultural enterprises in Serbia lost the brand and traditional markets. A way out of crisis requires a constitution of market – oriented enterprises, implying a number of structural changes, directed toward improvement of business efficiency and adjustment to market requirements.

Natural conditions and productive possibilities of the region, within the production realization is planned, should at most use and develop, primarily by measurements which direct influence would be in function of production and which effects would directly influence on its size and quality. Changing the production characteristics, its applicative export – determination, there has been created necessary conditions for its more favourable social treatment and its acceptance as a significant factor of economic stabilization, also evident and potential source of significant foreign exchange inflow. Basic factor that can effect negatively on programmed export of agricultural products is domestic prices' faster growth of these products in relation to the world one and transport too, with assumption that needed production level is going to be achieved. However, if neutralize partially their negative effects by determined measurements, it will be made conditions for free growth of agricultural products' size. All other factors, occurred periodically as limits in this export (except the measurements of agrarian protectionism), primarily were subjective, therefore their removal lies in better preparation and organization of production and export.

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## CAPITAL STRUCTURE AND ITS IMPACT ON PROFITABILITY: A STUDY OF LISTED MANUFACTURING COMPANIES IN SRI LANKA

### Abstract

*Capital structure is one of the most complex areas of financial decision making due to its interrelationship with other financial decisions variables. Capital structure is the composition of debt and equity capital that comprise a firm's financing its assets and can be rewritten as the sum of net worth plus preferred stock plus long-term debts. In this study an attempt has been made to analyze the capital structure and its impact on profit earning capacity during 2003 to 2007 (05 years) financial year of listed manufacturing companies in Sri Lanka. The results shows that debt to equity ratio (D/E) ratio is positively and strongly associated to all profitability ratios [gross profit ratio (GPR); operating profit ratio(OPR); and net profit ratio(NPR)] except return on capital employed (ROCE) and return on investment (ROI). Debt to assets (D/A) ratio is positively and strongly associated to OPR, NPR and ROCE. Similarly capital gearing (CG) ratio is also positively correlated to GPR and NPR. Further, interest coverage (IC) ratio is significantly correlates to ROCE and NPR. Further capital structure has a great impact on all profitability ratios except ROCE and ROI. The outcomes of the study may guide entrepreneurs, loan- creditors and policy planners to formulate better policy decisions in respect of the mix of debt and equity capital and to exercise control over capital structure planning and thereby to control and reduce bankruptcy costs.*

**Keywords:** Capital Structure; Profitability; Manufacturing Companies

**JEL Classifications:** M1; M4: M41

### Introduction

Of all the aspects of capital investment decision, the capital structure decision is the vital one since the profitability of an enterprise is directly affected by such decision. Hence, proper care and attention need to be given while determining the capital structure decision. In the statement of affairs of an enterprise, the overall position of the enterprise regarding all kinds of assets, liabilities are shown. Capital is a vital part of that statement (hereafter called Balance Sheet). So, virtually, capital structure is a part of financial structure. The term 'capital structure' of an enterprise, is actually, a combination of equity shares, preferences shares and long-term debts. This term may be defined in two senses, viz. Narrow and wider. According to Bierman and Smidt (-----) and Guthman and Donglalls (-----) capital structure is the relative proportion of the various kinds of

securities a company has used. The opinions of Taylor (-----) and Venhorne (-----) regarding capital structure is that is the total sum of outstanding long-term securities, both equity and debt. Weston and Bringham (1978) define it as the permanent financing of the firm represented by long-term debt plus preferred stock and net worth. Though there are different views about the total nature of 'capital structure' it is obviously true from the fact that everybody has agreed about the common items, i.e. total of equity and long-term debt which represent the permanent source of financing of a company. Therefore, capital structure may be defined as the permanent source of capital in the form of long-term debt, preference shares, ordinary shares, reserve and surplus.

### **Theories of Capital Structure**

The literature of finance is replete with analysis of the corporate financing decision with regard to the optimal mix of debt and equity [Wilson, (1974) as quoted by Hoque, (1987)]. The more important theories in this regard are found those of David Durand, Ezra- Soloman, Modigliani and Miller, Schwartz, Childs and the like [Hoque,A.K.M.Z, (1989)]. Out of these theories a short description of the first three is given below. Basically there are three schools-one advocated by Ezra-Soloman and the other by Modigliani and Miller which is just opposite to the Soloman's theory. The third one i.e the David Durand's theory occupies the middle position between the first two.

#### **Ezra Soloman's Approach – The Traditional Approach**

Soloman [as quoted Mahmud and Bhattacharjee (1989)] who led traditional view point believes that a judicious use of debt increase the value of a firm and reduce the cost of capital. He is in the opinion that there is a definite impact on firm's total market value when leverage is charted. According to the traditional, until gearing reaches at an optimal point, the financial risks of debt is more than the benefit offered by the introduction of that debt.

#### **Modigliani-Miller Approach**

Modigliani-Miller (Hereafter referred to as MM) (1958; 1959 and 1963) who in a series of justly famous article provided a rigorous justification for the Net Operating Income (NOI) method. M&M analysis implies that firms are indifferent concerning the method of financing (all combinations of equity and debt are equally good) if there are no taxes, vat with corporate taxes, firms should be financed with virtually all debt. However, the MM model assumes away many factors that can imply that a particular blend of debt and equity financing is but for a given firm (Lawrence, 1986). If we want to draw a conclusion of MM analysis, this can be done by giving the following two summarised results of the same.

1. The only benefit of debt financing (relative to equity financing) is the reduction in corporate income taxes due to the tax deductibility of debt interest.
2. There are no disadvantages of debt financing relative to equity financing (Lawrence, 1986).

## **David Durand Approach**

David Durand [Weston and Brigham, (1978)] identified the two extreme cases such as Net Income Approach (NI) and Net Operating Income Approach (NOI). Under the NI approach independent of the capital structure, but the weighted average or overall cost of capital decline and the total value (value of equity plus value of debt) rises, with increase use of gearing. Under the NOI approach, the cost of equity increases, the weighted average cost of capital remains constant and the total value of the firm also remains constant as gearing is changed. Thus, if the NOI approach is the correct one, gearing is an important variable and debt policy decisions have a significant influence on the value of the firm. However, if the NOI approach is the correct one, then the firm's management need not be too concerned with financial structures because it simply does not greatly matter.

## **Standard Ratios of Capital Mix**

The question of evolving or proper ratio or debt-equity is not merely academic, as the consequences flowing from it are vital and have a direct bearing and the profitability of the undertakings and the image they project (Hoque, 1989). But practices are different from theory. Practically what we see is that there are no universally acceptable ratios. Moreover, no uniform ratios are also indicated by researches but it is true that, any wrong fixation of debt-equity ratio tends to escalate the losses or decrease the profits earned by the undertakings. Leo (1979) has suggested same ratios for the selected industries to express standard of debt-to-net-worth. These are as follows (1) The Capitalisation Standard (debt capacity is expressed in terms of the balance sheet relationship between long-term and the total of all long-term resources, i.e., total capitalisation); (2) The Earnings Coverage Standard (it is also become customary to express the limits of debts in terms of income statement data); (3) The Cash Adequacy Standard (It is based on the concept that debt limits should be determined by a measure of the risk of the firm's running out of cash, particularly in session period considered in the light of the stockholders managements willingness to bear risk in the interest of future profitability).

## **Literature Review and Previous Studies**

The essence of financial management is the creation of shareholder value. According to Ehrhard and Bringham (2003), the value of business based on the going concern expectation is the present value of all the expected future cash flows to be generated by the assets, discounted at the company's weighted average cost of capital (WACC). From this it can be seen that the WACC has a direct impact on the value of a business (Johannes and Dhanraj, 2007). The choice between debt and equity aims equity to find the right capital structure that will maximized stockholder wealth. WACC is used to define a firm's value by discounting future cash flows. Minimizing WACC of any firm will maximize value of the firm (Messbacher, 2004). Debt policy and equity ownership structure 'matter' and the way in which they matter differs between firms with many firms

with few positive net present value project. Ross's (1977) model suggests that the values of firms will rise with leverage, since increasing the market's perception of value.

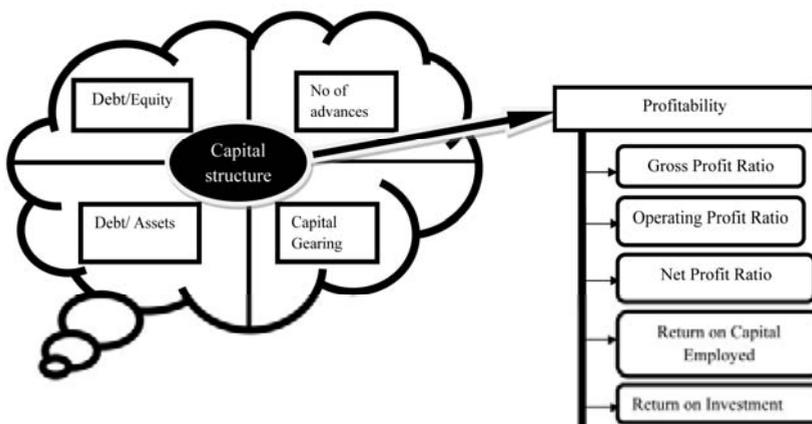
In their second seminal paper on corporate capital structure. Modigliani and Mill (1963) show that firm value is an increasing function of leverage due to the tax deductibility of interest payments at the corporate level. In the 30 years since, enormous academic effort has gone into identifying the relevant costs associated with debt financing that firms presumably trade off against this substantial corporate tax benefit. Although direct bankruptcy costs are probably small, other potentially important factors include personal tax, agency cost, asymmetric and corporate control considerations. Surveys of this literature include Bradley, Jarrell and Kim (1984), Harris and Raviv (1991), Masulis (1988) and Miller (1977).

Early empirical evidence on the trade-off theory [e.g., Bradley, Jarrell and Kim, (1984)] yield mixed results. However, recent studies examining capital structure response to change in corporate tax exposure. Mayer (1986) argues that the trade-off theory also fails to predict the wide degree of cross-sectional and time variation of observed debt ratios. Return on stock increases for any announcement of issue exchange offers. Overall, 55 percent of the variance in stock announcement period returns is explained (Masulis, 1998). Under some conditions capital structure does not affect the value of the firm. Splitting a fund into some mix of shares relating to debt, dividend and capital directly add value to the company (Gemmille, 2001). Uddin (1993) has drawn a conclusion in such a way that there is no relationship between capital structure and return on investment. Price-earnings ratio and earnings per share i.e., capital structure is independent of these issues. He, of course, mentioned that a 'real world' it is absolutely surprising.

Sina and matubber (1998) observed the adverse position in the industry's managerial performance, profit earning capacity, liquidity etc that are the result of operational inefficiency, effective credit policy, improper planning and controlling of working capital, increased cost of raw materials, labour and overhead. Choudhury (1993) mentioned that the decreased use of debt tends to decrease profitability of a company. Because due to lack of adequate finances it has to give up some of the profitable opportunities and vice-versa. Banu (1990) stated that the capital structure of a firm has a direct impact on its profitability. She suggested that the concerned financial executives should put emphasis on various aspects of capital structure. Otherwise the capital structure of the enterprise will be unsound producing adverse impact on its profitability. Rahman (1995) identified the various aspects of problem of the sugar mills in Bangladesh and particularly of Kushtia Sugar Mills Ltd. Based on the above literature, we can say that several studies have been done on this area, but a comprehensive study has not yet been conducted, especially in manufacturing sector. Hence, this paper is an attempt to evaluate the capital structure and its impact on profitability of the listed manufacturing companies in Sri Lanka

### **Conceptual Frame Work**

After The Careful Study Of Literature Review, The Following Conceptual Model Is Formulated To Illustrate The Relationship Between Capital Structure And Profitability.



**Figure-1: Conceptual framework**

Above conceptualization model shows the relationship between capital structure and profitability of listed manufacturing companies.

### **Objectives**

The main objective of the study is to find out the capital structure and its impact on profitability in listed manufacturing companies in Sri Lanka and specific objectives are:

1. To identify the profitability of Listed Manufacturing companies over the 05years during 2003 to 2007.
2. To find out the relationship between capital structure and profitability.
3. To recognizes the capital structure.

### **Hypotheses**

The following hypotheses are formulated for the study.

1. Capital structure and profitability is significantly correlated.
2. Capital structure has an impact on profitability.

### **Methodology**

#### **Scope**

The scope of the study is listed manufacturing companies on Colombo Stock Exchange (CSE), Sri Lanka. Thirty one companies are listed under manufacturing sectors.<sup>1</sup> Hence, out of thirty one, only thirteen companies are selected for the study

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<sup>1</sup> Handbook of Listed Companies (2007). Colombo Stock Exchange, Colombo, Sri Lanka.;p.19.

purpose as random. The companies include (1) Abans Electrical Ltd (ABANS); (2) Acl Cables Ltd (ACL); (3) Acme Printing and Packaging Ltd(ACME);(4) Central Industries Ltd (CIND); (5) Dipped Products Plc (DIPP); (6) Kelani Cables Ltd (KCAB); (7) Lanka Aluminium Industries Ltd (LALU); (8) Parquet (Ceylon) Ltd (PARQ); (9) Printcare PLC (CARE); (10) Pelwatte Sugar Industries Ltd ( SUGA ); (11) Royal ceramic lanka Ltd (RCL); (12) Samson International Ltd (SIL); (13) Tokyo Cement co ( Lanka) Ltd (TKYO).

## Data Sources

In order to meet the objectives of the study, data were collected from secondary sources mainly from financial report of the selected companies, which were published by Colombo Stock Exchange in Sri Lanka.

## Reliability and Validity

Reliability coefficients:  $\alpha_1$  = Capital structure;  $\alpha_2$  = Profitability

Capital structure		Profitability	
No. of Samples	= 13	No. of Samples	= 10
No. of Items	= 04	No. of Items	= 05
$\alpha_1$	= 0.560	$\alpha_2$	= 0.670

The reliability value  $\alpha_1 = 0.560$  ;  $\alpha_2 = 0.670$  were substantially higher than the prescribed acceptance value [Cronbach, (1951); Nunnally and Bernstein, (1994); Bagozzi and Yi, (1988)]. Secondary data for the study were drawn from audit accounts (i.e., income statement and balance sheet) of the concerned companies; therefore, these data may be considered reliable for the purpose of the study. Necessary checking and cross checking were done while scanning information and data from the secondary sources. All these efforts were made in order to generate validity data for the present study. Hence researcher satisfied content validity.

## Mode of Analysis

The following capital structure and profitability ratios are taken into accounts which are given below.

**Table-1: Calculations of Capital Structure and Profitability Ratios**

Capital Structure Ratio	
Debt/ Equity Ratio	= Long term debts/ Shareholders' funds or net worth
Debt/ Assets Ratio	= Total debt/ Total assets
Capital Gearing Ratio	= Net worth or Equity Capital/ Fixed interest bearing securities
Interest Coverage Ratio	= Net profit before interest and taxes / Fixed interest charges
Profitability Ratio	
Gross Profit Ratio	= Gross Profit/ Net Sales X100
Net Profit Ratio	= Net Profit Before Tax/ Net Sales X100
Operating Profit Ratio	= Profit from Operating Activities / Net SalesX100
Return on Capital Employed	= Profit after Interest and Taxes/ Capital Employed X100
Return on Investment	= Profit after Interest and Tax / Total AssetsX100

Multiple regression analysis was performed to investigate the impact of capital structure on profitability which the model used for the study is given below.

Profitability = f (GPR; OPR; NPR; ROCE; and ROI)

It is important to note that the profitability depend upon debt/equity (D/E); debt/ assets (D/A); capital gearing (CG) and interest earned (IE). Since five profitability ratios gross profit ratio (GPR); operating profit ratio (OPR); net profit ratio (NPR); ROCE; ROI), the following six models are formulated to measure the impact of organizational growth on profitability.

$$\text{GPR} = \beta_0 + \beta_1(D/E) + \beta_2(D/A) + \beta_3(CG) + \beta_4(IC) + e \dots\dots\dots(1)$$

$$\text{OPR} = \beta_0 + \beta_1(D/E) + \beta_2(D/A) + \beta_3(CG) + \beta_4(IC) + e \dots\dots\dots(2)$$

$$\text{NPR} = \beta_0 + \beta_1(D/E) + \beta_2(D/A) + \beta_3(CG) + \beta_4(IC) + e \dots\dots\dots(3)$$

$$\text{ROCE} = \beta_0 + \beta_1(D/E) + \beta_2(D/A) + \beta_3(CG) + \beta_4(IC) + e \dots\dots\dots(4)$$

$$\text{ROI} = \beta_0 + \beta_1(D/E) + \beta_2(D/A) + \beta_3(CG) + \beta_4(IC) + e \dots\dots\dots(5)$$

Where

e-error term

Based on the above regression model GPR; OPR; NPR; ROCE and ROI are considered as the dependent variables where as D/E; D/A; CG and IC are the independent variables. The detail analysis is carried out with the help of above indicators.

## Results and Discussions

Banu (1990) stated that the capital structure of a firm has a direct impact on its profitability. She suggested that the concerned financial executives should put emphasis on various aspects of capital structure. Otherwise the capital structure of the enterprise will be unsound producing adverse impact on its profitability. Hence, capital structure indicators such as D/E; D/A; CG and IC should have a relationship with profitability indicators such as GPR; OPR; NPR; ROCE; ROE and ROI. The correlation analysis was carried out to test the relationship and the results are summarised in Table-2.

**Table-2: Correlation matrix for Capital Structure and Profitability**

Variables	D/E	D/A	CG	IC	GPR	OPR	NPR	ROCE	ROI
D/E	1								
D/A	0.978** (0.000)	1							
CG	0.984** (0.003)	0.198 (0.517)	1						
IC	0.907** (0.000)	0.862** (0.000)	0.006 (0.984)	1					
GPR	0.670** (0.004)	0.242 (0.426)	0.703** (0.007)	0.246 (0.418)	1				
OPR	0.915** (0.000)	0.617* (0.025)	0.395 (0.181)	0.259 (0.392)	0.039 (0.900)	1			
NPR	0.610** (0.007)	0.714* (0.006)	0.403* (0.012)	0.564* (0.045)	0.147 (0.632)	0.647* (0.017)	1		
ROCE	0.107 (0.727)	0.600* (0.030)	0.069 (0.822)	0.827** (0.000)	0.220 (0.471)	0.048 (0.877)	0.443 (0.129)	1	
ROI	0.194 (0.525)	0.064 (0.835)	0.161 (0.599)	0.052 (0.867)	0.473 (0.102)	0.086 (0.779)	0.102 (0.740)	0.060 (0.845)	1

\*Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

From the table-2 we can observe that D/E ratio is positively and strongly associated to all profitability ratios (GPR; OPR; NPR) except ROCE and ROI. D/A Ratio is positively and strongly associated to OPR, NPR and ROCE. Similarly CG ratio is also positively correlated to GPR and NPR.

IC is significantly correlates to ROCE and NPR. As we mentioned in mode of analysis, five models were formulated and the results are summarized in Table-3.

**Table-3: Predictor of Profitability – Model Summary**

Details	GPR	OPR	NPR	ROCE	ROI
D/E	1.428 (0.191)	1.413 (0.195)	1.453 (0.184)	0.603 (0.563)	0.469 (0.651)
D/A	1.198 (0.265)	4.058 (0.004)	0.821 (0.436)	1.321 (0.223)	0.262 (0.800)
CG	4.637 (0.002)	0.931 (0.379)	0.821 (0.440)	0.092 (0.929)	0.327 (0.752)
IC	0.586 (0.574)	2.969 (0.018)	0.377 (0.716)	3.278 (0.011)	0.269 (0.795)
Constant	<b>6.938</b> (t = <b>0.657</b> ; P = <b>0.530</b> )	<b>-145.773</b> (t = <b>-3.134</b> ; P = <b>0.014</b> )	<b>46.779</b> (t = <b>0.665</b> ; P = <b>0.525</b> )	<b>62.262</b> (t = <b>-3.385</b> ; P = <b>0.010</b> )	<b>21.956</b> (t = <b>0.481</b> ; P = <b>0.643</b> )
R	0.864	0.864	0.818	0.863	0.235
R <sup>2</sup>	0.747	0.747	0.669	0.745	0.055
Adjusted R <sup>2</sup>	0.620	0.620	0.504	0.618	-0.417
Standard Error	1.67330	7.367	11.152	3.241	7.223
F Value	5.899 (0.016)	5.898(0.016)	4.045 (0.044)	0.523(0.668)	0.117 (0.973)

Note: Figure in the Parentheses indicate P- value

The specification of the four variables such as D/E; D/A; CG and IC in the above model revealed the ability to predict profitability ( $R^2 = 0.747; 0.747; 0.669; 0.745$  and  $0.055$  respectively). In this model  $R^2$  value of above five profitability ratios denote that 74.7%; 74.7%; 66.9%; 74.5% and 55.5% to the observed variability in profitability can be explained by the differences in four independent variability namely debt to equity ratio; debt to assets ratio, capital gearing ratio and interest coverage ratio. The remaining 25.3%; 25.3%; 33.1% and 44.5% are not explained, because the remaining part of the variance in profitability is related to other variables which are not depicted in the model. An examination of the model summary in conjunction with ANOVA (F-value) indicates that the model explains the most possible combination of predictor variables that could contribute to the relationship with the dependent variables. For model 1- F value is 5.899 and respective P value is 0.016 which is statistically significant at 5 percent levels. In this case it reveals that GPR has a significant impact on CG at 1 percent levels (t = 4.637). Again considering model 2- F value is 5.898 (P=0.016) which is statistically significant at 5 percent levels, it indicates that OPR has a significant impact on D/A (t = 4.058) and IC (t = 2.969) at 1 percent levels and 5 percent levels. On the other hand, model 3, F-value is 4.045 and respective P value is 0.044 which statistically significant

at 10 percent levels. Model 4, we see that all of the corresponding F Value is insignificant in respect to their consequent P values. However, it should be noted here that there may be some other variables which can have an impact on financial performance, which need to be studied.

### **Concluding Remarks**

This paper examined capital structure and its impact on profitability: a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that D/E ratio is positively and strongly associated to all profitability ratios (GPR; OPR; NPR) except ROCE and ROI. D/A Ratio is positively and strongly associated to OPR, NPR and ROCE. Similarly CG ratio is also positively correlated to GPR and NPR. Further, IC ratio is significantly correlates to ROCE and NPR. Further capital structure has a great impact on all profitability ratios.

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**BUILDING CUSTOMER BRAND LOYALTY THROUGH  
PRODUCT DIFFERENTIATION IN A COMPETITIVE  
MARKETING ENVIRONMENT: A CASE OF MULTINATIONAL  
ORGANIZATION IN NIGERIA**

**Abstract**

*The survey focused on building consumer brand preference through product differentiation in the food and beverage industry a case of multinational organization in the south western part of Nigeria. The paper attempted to determine the attitude of consumers towards product differentiation. It also looked into the effects of product differentiation strategy on consumer purchase decision and the identification of the relationship existing between product differentiation and brand loyalty. A multistage sampling technique was used to select 120 respondents who were gainfully employed and categorized as decision makers. Both primary and secondary data were the sources of information collected for the study. A structured Questionnaire was used in the collection of the data, while likert scale was used to measure the variables of the study. Regression analysis along with spearman's rank correlation analysis was employed in finding out the relationships existing between variables while Kolmogrov Smirnov goodness of fit test was used to test hypotheses of the study.*

*The results showed that the factors of consumer purchase decision such as product image, product positioning and brand loyalty have positive relationship with product differentiation. Results of regression analysis showed that there is a 0.989 change for every unit change in product differentiation. Spearman's rank correlation coefficient ( $r_s = 0.875$ ) also showed a positive relationship between brand loyalty and product differentiation. It was also revealed that 95.06 percent of brand preference is explained by product differentiation. The study concluded that product differentiation has a significant relationship with consumer brand preference.*

**Key words:** brand loyalty, differentiation, image, positioning, strategy,

# ИЗГРАДЊА ПОТРОШАЧКОГ БРЕНДА КРОЗ ДИФЕРЕНЦИРАЦИЈУ ПРОИЗВОДА У КОНКУРЕНТНОМ ОКРУЖЕЊУ: СЛУЧАЈ МУЛТИНАЦИОНАЛНИХ ОРГАНИЗАЦИЈА У НИГЕРИЈИ

## Апстракт

*Истраживање је фокусирана на изградњу преференција потрошача брэнда кроз диференцијацију производа у индустрији хране и пића случај мултинационалних организација у југзападном делу Нигерије. У раду је покушано да се утврди став потрошача према производу диференцијације. То је такође гледао у ефекте стратегије диференцирања производа на одлуку куповине и идентификацију однос који постоји између диференцијације производа и брэнд лојалност. Вишестепене узорковања техника је коришћена за избор 120 испитаника који су радном односу и категоризују као доносиоци одлука. Примарног и секундарног подаци су извори информација прикупљених за студије. Структурисани упитник је коришћен у прикупљање података, док је Ликертове скала је коришћена за мерење променљивих студије. Регресиона анализа заједно са корелација ранга Спирманови анализе био је запослен да сазнаје односа који постоји између променљивих док Колмогров Смирнов доброта уклапају тест користи за тестирање хипотезе студије.*

*Резултати су показали да су фактори одлуке куповине, као што су слика производа, производа и позиционирање марке имају позитиван однос са диференцирање производа. Резултати регресионе анализе су показале да постоји промена 0,989 за сваку јединицу промену у диференцирање производа. Спирманови коефицијент корелације ранга ( $PC = 0.875$ ), такође су показали позитиван однос између марке и производа диференцијације. Такође је откривено да је 95,06 одсто брэнда преференција објаснио је диференцирање производа. Студија закључује да диференцирање производа има значајну предност потрошача однос са брэндом.*

**Кључне речи:** марке, диференцијација, имици, позиционирање, стратегије,

## 1. Introduction

One of the fall-outs of the advancement in technology is the level of awareness of human being all around the globe, particularly in the arena of product brands. Information flows like a stream of clean water just behind every home; widening the knowledge of every consumer in all areas of human endeavour inclusive of marketing. Today, globalization has made marketing activities to assume new dimensions with players becoming more and more sophisticated.

Bovee, Courtland, and Williams (1998) viewed marketing as a war and the market place is the battlefield. With this view, Graves (1997) posited that the essence of both corporate and marketing strategies is finding an advantage over competitors. This view

expresses that competition is the central issue in today's marketing environment, it means marketing environment is now being saturated by high level of awareness, and the ease by which information is available and disseminated across the globe has brought about a radical change in the marketing operation. Palmer (2000) viewed this change that customers are becoming increasingly diverse in their needs and aspirations, and less inclined to accept just any product. As a result Kotler (2001) saw that most firms find themselves in markets, which are becoming more fragmented in terms of the needs that customers seek to satisfy. Palmer (2000) put this market situation as where each buyer should be seen to have a unique set of needs in which the individual seeks to satisfy himself. Therefore, it is the task of the firms to tailor their product offerings to meet the needs of each of their customers, by producing satisfier.

Proctor (1990) in his work put it that product differentiation is a marketing strategy that seeks to create a difference in people's minds between a marketer's brand and rival brands that are serving the same mass market. In this premise, firms are strongly searching for an aspect where they would have a competitive advantage. In the quest for differential advantage firms were able to realize that an organization can benefit a lot by producing a strongly differentiated product or service from that of the competitor. In the attempt to build consumer patronage through product differentiation, the study addressed the following questions: what is the attitude of the consumers towards differentiation strategy? Will the strategy affect consumer purchase decision? Is there any existing relationship between product differentiation and product brand loyalty?

In the quest for the answers to these questions, the study was guided by the following objectives:

- (a) to determine the effect of product differentiation on consumer purchase decision.
- (b) to determine the effect of product differentiation on customer brand loyalty.
- (c) to determine the general attitudes of consumers towards product differentiation.

In order to guide the execution of the research study the research postulated the following hypotheses:

Ha: Product differentiation has no significant effect on consumer purchase decisions.

Ho: A significant relationship exists between product differentiation and consumer purchase decisions.

Ha: Product differentiation has no significant relationship with brand loyalty.

Ho: product differentiation has significant relationship with brand loyalty.

## **2. Theoretical Framework For Analysis**

### **2.1. Product Differentiation**

A good knowledge of consumer goods and markets is primal to a better understanding of what influences the consumers in their purchase decisions. Consumer goods, in the view of various authors are bought for personal satisfaction (Zikmund et al, 1997). However, in the process of acquiring such consumer products, Palmer (2000)

observed that customers are becoming increasingly diverse in their needs and aspirations, and less inclined to accept just any product offering. In today's economy the consumers are much more interested in the value of what they buy. They want to have something of value for their hard earned money. This was explained by Proctor (1995) he emphasized that product differentiation has a great role to play, he called this "Value chain" of a firm.

Paliwoda and Thomas (2002) saw that a firm has a series of functions and they saw value chain as a system of interdependent activities. According to them, value is the amount buyers are willing to pay for what a firm provides them. Therefore creating value for buyers, rather than cost is used to explain how companies, which offer value are able to charge a premium for this and differentiate themselves from competition. Value activities are the physically and technologically distinct activities a firm performs. Hence, the value activities are the building blocks of competitive advantage by which a firm creates a product valuable to its buyers. The economics of each value activity, as well as its performance, determine its contribution to buyers needs and enhance differentiation.

Paliwoda and Thomas (2002) further observed that in management there is nothing as "perfect knowledge" of any market situation nor is there ever any such thing as "perfect competition" where all companies activities in a market are equal. This means that strategy is not only to search for the best way to cope but also strategically position themselves against competitors in the various industries.

In the same vein, Thompson (1998) stated that strategy is really about thinking and creatively finding new positions and new opportunities for added value. Zikmund and D'Amico (1997) viewed that strategy entails commitment to certain courses of action and allocation of the resources necessary to achieve the identified goals. To this group of writers marketing strategy consist of a plan that identifies the basic goals and objectives to be pursued and how they will be achieved within an assignable time. In this premise value differentiation as a marketing strategy has relationship with product differentiation. Differentiation was viewed by Kotler (2000) as an act of designing a set of meaningful differences among products in order to distinguish the company offerings from competitors' offerings. Therefore product differentiation strategy is a marketing plan that makes a firm's product either tangible or intangible to stand out over and above rivals in terms of quality, and in all other value attributes and features in consumer's perception, Ma (2004) was not left out, in the arguments, in her own view product differentiation used to give products unique identities to distinguish them from their competitors, particularly between competitor's in the same market of the industry. Palmer (2002) believes that in order to reduce dependence on market forces, many firms have sought to differentiate their products. According to him, firms seek to achieve superior performance by adding value to products, which may be in form of better quality, offering new products which are novel to the competitors, improving the existing products, and making the product more accessible to the customers.

Sharing similar view, Thompson and Strickland (1996) noted that differentiation strategies became an attractive approach whenever buyer's need and preference are too diverse to be fully satisfied by a standard product. Furthermore they emphasized that for a company to be successful with a differentiation strategy, such company has to study buyers' needs and behaviors carefully to learn what buyers

consider salient, and what they are willing to offer for it. Thus, the company has to incorporate one or several attributes or features with buyer appeal into its product and service offering enough to set offering visibly and distinctively identify the product from the competitors. Culled from the opinion of these writers, competitive advantage results once a sufficient number of buyers become strongly attached to the differentiated attributes and features; hence the stronger the buyer appeals of the differentiated features, the stronger the company's competitive advantage.

Katz (1998) opined that when brand differentiation arises from physical differences in the products across firms a consumer who is sensitive to physical quality differences is likely to be sensitive to brand differences as well. In markets where brand differentiation stems from reputation effects, this positive correlation may arise when high quality characteristic such as reliability are difficult to observe before purchase. In fact product differentiation strategy is good but can only work for as long as it takes competitors to catch up. Sometimes a company can project its differentiation strategy by patenting its products. In other words for a differentiation strategy to be sustainable a company must continually invest in new product development and anticipates future trends.

In summary, product differentiation has been viewed as a good strategy when a firm defines the market as all actual and potential buyers of brands in a product category and offers them a common marketing mix. A firm that applies product differentiation strategy seeks to create a difference in peoples' minds between the firm's brand and rival brands that are serving the same market segment. Moreover if the features chosen to differentiate the brand are important and believable to the people in the market segment the product differentiation will certainly enhance customer patronage.

It is important to note that the epitome of product differentiation is branding, where the product is given an 'image' for it to sell itself at the point of purchase. Gravens (1997) specifies branding in his own view as the firm's strategy to make its products different from its competitors in such a way that customers can be convinced that they are superior. This thought is achievable by making the augmented value more meaningful to have a psychological effect on the customers.

## **2.2. Consumer Brand Preference**

A brand can be regarded as a name, term, sign, symbol or design or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors. Similarly Dibb (1997) was of the opinion that a brand is a name, term, symbol or any other feature to differentiate one seller's good or service as distinct from those of other sellers. Doyle (1993) describes brands as the very heart of marketing. He further stated that when a firm creates a strong brand, that company attracts customer preference and builds a wall of difference against competition. Therefore to borrow a leave from the previous discussion one can positively say that branding strategy provides consumers the opportunity to recognize the qualities of various brands in the product category. Through the process of brand switching due to perceived inability of some brands to satisfactorily actualize the brand promises (in terms of quality, time utility, place utility and added value) communicated to them in advertisement which makes consumers to switch brand and some times to substitutes. The proliferation of brands in today's economy has made the consumers to

be rational buyers, they make purchase decisions from time to time and stick to any brand that maximizes their satisfaction not only today but even in the future time. Realizing this, companies have no option than to ensure that, their brands are positioned in the mind of consumers in order to have a competitive advantage over their competitors.

Undoubtedly, any company that succeeds in doing this will obviously enjoy consumer brand preference. Frain (1999) asserted that sale takes place in the mind of buyer and any product and brand effort that does not begin and end with the satisfaction of the user is purely production oriented and not market oriented. Garnering true brand loyalty may require developing a relationship with customers that is more than product-based. In a market place where products and services are difficult to differentiate, customers may need an additional point of contact with a company to develop the commitment needed for true brand loyalty. One point of contact that may fulfill this requirement is through company ownership that is ownership of stock by the individual customer. Vogelheim, Schoenbachler, Gordon, and Gordon (2001) report anecdotal evidence that CEOs and CFOs of publicly traded companies believe that one advantage to individual tends to be brand loyalty to the products and services produced by companies in which they own stock. The customer who owns stock in a particular company does so because he/she believes in its potential for growth, strong management, and/or products and services. In order to be consistent in behavior, the investor is likely to use the products and services of firms in which he/she owns stock. This unique relationship between shareholder and company may be a viable contact point for firms to build brand loyalty. In contrast such effort does not bear fruit in the mind of consumers no matter the degree of advertising campaign. Apparently speaking it is the value a customer attached to a brand that will influence his decision to buy or not whether presently or in the future time. If positive, the satisfied customer will continue to patronize the satisfied product brand and build up brand loyalty and retention

Dibb (1997) explained that brand loyalty is a strongly motivated and long standing decision to purchase a product or service which has been built over a period of time due to customer satisfaction but much of the research on brand loyalty has been developed from the marketer's view and focused on the value of customer loyalty to the firm and how loyalty should be managed, less work has been done on the customer side asking why and how customers become loyal and remain loyal to brands (Schultz and Bailey (2000). Whereas brand loyalty is a direct result of the degree of confidence consumers have of the product in meeting up with their needs. May be that is the main reason why products that satisfied customers needs, continue to be highly patronized, they create a strong attachment to the brand, and the brand build a strong good will as it enhances company's profitability and future sustainability. Obviously, whenever consumers are fully satisfied by a particular brand due to added value benefits it becomes apparent that consumer brand loyalty will be established. As a result consumers will be ready even to pay premium price because the cost of trying or sampling other brands in the exercise will eventually lead to disappointment. This is considered higher by consumer in the value benefit analysis than the premium which guarantees maximum value benefit. This concept was noted by Szenderski (2000) when he stated that to deliver the entire promise is more important than getting the customers attention. Therefore enduring brands must ensure that they do not only gain strength by

providing real, tangible value but also build on what took them to the top in consumers mind or value benefits, apparently the customers will turn to be advocates.

### 3. Methodology

The survey was conducted in Southern part of Nigeria, it focused on building consumer brand preference through product differentiation strategy. The study employed the multistage sampling technique. That is selecting three states in the Southwestern Nigeria, namely Ogun State, Osun State, and Lagos State; one local government institution in each area was randomly selected and forty respondents were purposely selected in each local government institution who were classified as consumer decision makers.

In order to achieve the study objectives a structured research instrument using Likert scale to give freedom for the respondents to give their opinion on various statements measuring the variables of the study like brand loyalty, purchase decision, product positioning among others. The information gathered through questionnaire was tabulated and analyzed using statistical parameters such as regression analysis. Kolmogorov Smirnov (K-S) goodness of fit test was used to test the research hypotheses in order to determine the degree of correlation between the variables of interest.

### 4. Results And Discussion

#### 4.1. Product differentiation enhances consumer perceived image of a product

The results of Spearman's rank correlation coefficient in Table 1 on whether product differentiation enhances consumer perceived image of the product show a strong positive correlation between product differentiation and the image of the product. The result also revealed that the more a product is differentiated in a more meaningful way to consumers the higher the perception of the consumers on the product image. This further revealed that the coefficient of determination shows that any meaningful differentiation that is carried out in a product will explain about 53% increase in the image of product while other factors account for (47%). Culled from the results it means that product differentiation and consumers rating of product image are highly correlated.

**Table 1: Distribution of the Respondents as to consumer perceived product image**

Scales	Differentiated Product	Product Image	Differentiated Product (x)	Product Image Y	d X-Y	d <sup>2</sup>
Strongly Agree	46	53	2	1	1	1
Agree	50	49	1	2	-1	1
Agree	4	8	4	3	1	1
Undecided	9	0	3	4.5	-1.5	2.25
Disagree	1	0	5	4.5	0.5	0.25
Strongly disagree						

Source: Survey 2009

$$\begin{aligned} \sum d &= \sum d^2 = 5.5 \\ r_s^2 &= 1 - \frac{6 \sum d^2}{n(n^2-1)} \\ &= \frac{6(5.5)}{5(5^2-1)} \\ &= 1 - \frac{33}{120} = 1 - 0.275 \\ &= 0.725 \end{aligned}$$

Coefficient of determination  $r_s^2 = \frac{\text{Explained variation} \times 100}{\text{Total variation}} = \frac{1}{1}$

$$\begin{aligned} r_s^2 &= 0.725^2 \times \frac{100}{1} \\ &= 52.6\% \end{aligned}$$

Similarly, product positioning enhances consumer purchase decision. The result in Table 2 shows that the slope of 0.989 in the regression line is the amount of change that any unit change can create a strategic position for the product through differentiation. This means that while creating a unique position for the product in the minds of the customers, product differentiation enhances the image at the rate of 0.989 per calculated unit of differentiation. It apparently in every unit change in product differentiation, there is a 0.989 increased in product image in the minds of the consumers.

**Table 2: Distribution of the Respondents on product positioning in the mind of consumers**

Scale	Creating a unique position by differentiation x	Enhances product Y	Xy	X <sup>2</sup>	Y <sup>2</sup>
Strongly Agree	48	53	2544	2304	2809
Agree	54	49	2646	2916	2401
Agree	4	8	32	16	64
Neutral	4	0	0	16	0
Disagree	0	0	0	0	0
Strongly Disagree					
	$\sum X = 110$	$\sum Y = 110$	$\sum XY = 5222$	$\sum X^2 = 5252$	$\sum Y^2 = 5274$

Source –survey 2009

$$\begin{aligned} Y &= a + bx \\ b &= \frac{(\sum Y)(\sum X^2) - (\sum X)(\sum XY)}{n(\sum X^2) - (\sum X)^2} \\ b &= \frac{(110)(5252) - (110)(5222)}{5(5252) - (110)^2} \\ &= 0.233 \\ b &= \frac{n(\sum YX) - (\sum X)(\sum Y)}{n(x^2) - (\sum x)^2} \\ &= \frac{26110 - 12100}{2500 - 12100} \end{aligned}$$

$$\begin{aligned} & 26260-12100 \\ & = 0.989 \end{aligned}$$

$$\begin{aligned} Y &= a + bx \\ &= 0.233 + 0.989x. \end{aligned}$$

Furthermore, the spearman's rank correlation coefficient to determine the direction and strength of the relationship between creating a unique position for the product through differentiation and the increase in the image of the product as shown in table 3 revealed a very strong positive relationship between the independent variable and the dependent variable. Thus, the coefficient of determination of  $r_s^2$  68.06% means that product strategic positioning is explained through product differentiation by creating a unique image for the differentiated product which directly enhanced image of the product. Apparently, the simple implication of this is that marketers can improve on the competitive position by 68.0% with each unit variation in its differentiation since it creates a unique and strategic position for the product in relation to its rivals.

**Table 3: Distribution of the respondents on product differentiation in the minds of consumers**

Scale	Create Unique position	Product image	Ranks x	Ranks y	d=X-Y	d <sup>2</sup>
Strongly Agree	48	53	2	1	-1	1
Agree	54	49	1	2	-1	1
Neutral	4	8	3.5	3	-0.5	0.25
Disagree	4	0	3.5	4.5	-0.5	0.25
Strongly Disagree	0	0	5	4.5	-0.5	0.25
					$\sum d=0$	$\sum d^2=3.5$

Survey 2009

$$r_s^2 = 1 - \frac{6 \sum d^2}{n(n^2 - 1)} = 1 - \frac{16(3.5)}{5(25-1)} = 0.825$$

Coefficient of determination

$$r_s^2 = \frac{\text{Explained variation}}{\text{Total Variation}} \times \frac{100}{1}$$

$$\begin{aligned} r_s^2 &= 0.825^2 \times \frac{100}{1} \\ &= 68.06\% \end{aligned}$$

### Consumer Brand Selection

Brand loyalty is another factor of product differentiation in which customer patronage is enhanced. The results in tables 4 and 5 show that a unit change in the physical quality of a brand has a positive correlation in consumer brand selection or preference. The spearman's rank correlation coefficient ( $r_s^2 = 0.975$ ). Shows a very strong positive correlation between creating a unique position for product in the mind of consumers through physical differentiation and brand selection. Furthermore, the coefficient of determination ( $r_s^2 = 95.06$ ) indicate that 95.06% of brand selection can be explained by product differentiation, especially in creating a unique strategic position for the product in consumers mind. It means that any unit increase in physical quality of

brand will influence consumer brand selection by as much as 95.06%. Apparently, marketers must ensure that product differentiation is meaningful and purposeful in terms of physical quality in order to positively sway consumer brand selection.

**Table 4: Distribution of respondents on product differentiation and brand loyalty**

Scale	Product Image Enhancement	Brand Loyalty	Ranked Values X	Ranked Values Y	d -x-y	d <sup>2</sup>
Strongly Agree	53	24	1	2	1	1
Agree	49	58	2	1	-1	1
Neutral	8	13	3	3	0	0
Disagree	0	12	4.5	5	0.5	0.25
Strongly Disagree	0	3	4.5	5	0.5	0.25
Total	110	110	15	15	∑d-0	∑d <sup>2</sup> - 2.5

Source - Survey 2009

$$r_s^2 = 1 - \frac{6 \sum d^2}{n(n^2 - 1)} = \frac{6(2.5)}{5(25-1)} = 0.875$$

$$r_s^2 = 0.875^2 \times \frac{100}{1} = 0.7656 = 76.56\%$$

**Table 5: Physical quality, brands and customer brand selection**

Scale	Differentiation creates a unique Place for product	Physical quality affects brand selection	Rank Values of x	Rank Values of Y	d -x-y	d <sup>2</sup>
Strongly Agree	48	31	2	2	0	0
Agree	54	55	1	1	0	0
Neutral	4	15	3.5	3	-0.5	0.25
Disagree	4	7	3.5	4	0.5	0.25
Strongly Disagree	0	2	5	5	0	0
Total	110	110	15	15	∑d-0	∑d <sup>2</sup> - 0.5

Source - Survey 2009

$$r_s^2 = 1 - \frac{6 \sum d^2}{n(n^2 - 1)} = \frac{6(0.5)}{5(25-1)} = 0.975$$

$$r_s^2 = 0.975^2 \times \frac{100}{1} = 95.06\%$$

## 4.2. Test of Hypotheses

### 4.2.1. Hypothesis i:

This states that a “product differentiation has no effect on consumer purchase decision”. Results in Table 6 showed that there is a positive significant relationship between product differentiation and consumer purchase decision. For the calculated value (0.47) is greater than the table value (0.13) at 0.05 level of significance.

**Table 6: Result of K-S test for the effect of product differentiation on consumer purchase decisions.**

Scale	Differentiation necessary (observed)	Observed proportion 2	Observed proportion cum 3	Ho proportion 4	Ho proportion cum 5	Absolute difference 3.5
Strongly Agree	46	0.42	0.42	0.20	0.20	0.22
Agree	50	0.45	0.87	0.20	0.40	0.47
Neutral	4	0.04	0.91	0.20	0.60	0.1
Disagree	0	0.08	0.99	0.20	0.80	0.19
Strongly Disagree	1	0.01	1.00	0.20	1.00	0.00

Source - Survey 2009

Calculated value  $O = 0.47$

t. value at 0.05 level of significance

$$D = \frac{1.36}{n} = \frac{1.36}{110}$$

$$= 0.13$$

$D = \text{Max}(TO)$

$D =$  maximum value of absolute difference between T and O

$T =$  The cumulative value of theoretical frequency

$O =$  Comparative (observed) value For the sample frequency

**4.2.1 Hypothesis ii:** This states that “there is no significant consumer attitude towards product differentiation” The results in Table 7 showed that there is meaningful positive consumer attitude towards product differentiation as the calculated value (0.38) is greater than the table value (0.13) at 0.05 level of significance.

**Table 7: Result of K-S test for consumer attitude towards product differentiation**

Scale	Consumer attitude to quality differences	Observed proportion 2	Observed proportion 3	Ho proportion 4	Ho proportion Cum 5	Absolute difference (3-5)
Strongly Agree	31	0.28	0.28	0.20	0.20	0.08
Agree	55	0.50	0.78	0.20	0.40	0.38
Undecided	15	0.14	0.92	0.20	0.60	0.32
Disagree	7	0.06	0.98	0.20	0.80	0.18
Strongly Disagree	2	0.02	1.00	0.20	1.00	0.00

Source - Survey 2009

Calculated value (observed) = 0.38

Table value at 0.05 level of significance = 0.13

**4.2.2 Hypothesis iii:** This states that “Product differentiation has a significant relationship with brand loyalty”. The results revealed that product differentiation has a significant relationship with brand loyalty as the value of 0.35 is greater than the table value (0.13) at 0.05 level of significance.

**Table 8: Result of K-S test for product differentiation and brand loyalty.**

Scales	Differentiation leads to brand loyalty (observed)	Observed proportion 2	Observed proportion 3	Ho proportion 4	Ho proportion Cum 5	Absolute difference (3-5)
Strongly Agree	24	0.22	0.22	0.20	0.20	0.02
Agree	58	0.53	0.75	0.20	0.40	0.35
Undecided	13	0.12	0.87	0.20	0.60	0.27
Disagree	12	0.11	0.98	0.20	0.80	0.18
Strongly Disagree	03	0.02	1.00	0.20	1.00	0.00

Source - Survey 2009

Calculation value of observed = 0.35

Table value = 0.13

## 5. CONCLUSION AND RECOMMENDATIONS

The results from this empirical research study show that product differentiation has a very significant effect on consumer purchase decision. Thus it is a veritable tool to combat competition, especially in fast moving consumer goods. Further, the result revealed that product differentiation enhances the consumers’ perceived image of the product and it plays a vital role in building consumer product loyalty and patronage. Through differentiation the survey concluded that a product could be well positioned in the mind of consumers. Hence it will be easier for the firm to combat competition and above all the product would sell itself.

The physical quality of the product can positively differentiates a product in the eyes of consumers and similarly promote itself. The survey pointed out that physical quality differences in brand, strongly affect consumers’ brand selection particularly at the market place. In furtherance the survey concluded that consumers have a strong positive attitude towards product differentiation. It is also germane to further conclude that the brand awareness and brand promise accompany by heavy cost of differentiation will certainly lead to brand equity, which is a great asset of the firm. Culled from the results and conclusions of the study, product differentiation is essential when the product is at maturity stage of its life cycle or when competition seems to swallow up a particular brand. Even when a product is performing well in the market, product differentiation will further help it to carve out a market niche for it, as it will eventually sway users of other brands through brand switching. Firms that have full resources should try product differentiation for it will help such firm to develop a core competence. Since consumers seemed to be sensitive to physical quality differences between brands, marketers should, ensure that brand promise is always fulfilled above the expectation of consumers in order to guarantee their continued brand loyalty. It is primal that marketers must ensure

post-purchase follow ups in order to monitor the level of consumer satisfaction from time to time and to ascertain that any change in consumer taste or needs will hinder the organisational growth.

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## AGRARIAN REFORMS IN UZBEKISTAN: RESULTS AND PROBLEMS

### Abstract

*Agrarian sector is at the centre of reforms because, Uzbekistan entered to the market economy as the agrarian-industrial country. As the results of reforms, 99% of agrarian product is made by non-governmental enterprises. Now, farms and household sector became the leading sector and the service infrastructure for them is also developing.*

*It is recommended that, in future, should be taken in care not the quantity of infrastructural enterprises, but their competence and the ability of adaptation. It is important, that, these infrastructural enterprises must also serve small farms and households, too. Coverage of all farms and households helps to be more effective.*

**Key words:** *agrarian reforms, agricultural production, service, infrastructure, farm, cooperative*

## АГРАРНЕ РЕФОРМЕ У УЗБЕКИСТАНУ: РЕЗУЛТАТИ И ПРОБЛЕМИ

### Апстракт

*Аграрни сектор је у центру реформи зато што је Узбекистан ушао у тржишну економију као пољопривредно – индустријска земља. Као резултат реформи, 99% пољопривредне производње је створено од стране предузећа која нису у државном власништву. Сада је сектор фарми и домаћинства постао водећи сектор и услужна инфраструктура за њега се такође развија.*

*Препоручује се да се у будућности треба водити рачуна не о броју предузећа из области инфраструктуре, већ о њиховој компетентности и способности за прилагођавање. Такође је важно да ова предузећа из области инфраструктуре морају пружати услуге малим фармама и домаћинствима. Покривање свих фарми и домаћинства помаже им да буду успешније у пословању.*

**Кључне речи:** *аграрне реформе, пољопривредна производња, услуге, инфраструктура, фарма, задруге*

## Introduction

“Our experience at previous period requires solving the matters related to the very important problems of the development of farming, especially the sustainability of farming enterprises, significantly, related to the increasing of their effectiveness”<sup>1</sup>.

### 1. Structural changes in agriculture

During this global crisis Uzbekistan's economy is showing 7-8 % increase every year. Even if, Gross agricultural product of Uzbekistan increased for 5.7 % in 2009, the share of agriculture in GNP of Uzbekistan is decreased: 18%<sup>2</sup> of the GDP was made by this field; this indicator was equal to 1/3 in the early years of independence. There for government is concentrating more on reforming the agriculture. As the result of the agrarian reforms made during the recent years of independence, more than 99% of the whole agricultural products were made by nongovernmental businesses and farming sector transformed into a leading sector. The infrastructure which serves to them was also recreated. At the mean time, besides cotton raw materials, wheat and silk, state order was taken off from all products and their prices were liberated. In one word, market relationship is being created and is getting developed in producing and selling of goods, and in infrastructure service.

Strengthening of economical reform in the field of agriculture requires liberalization of the relationships among the agricultural goods producers, their consumers and businesses, which serve farming sector.

The agriculture of Uzbekistan differentiates with its multispectrality. In the year of 2008 53.5%<sup>3</sup> of all agricultural products were produced in peasantry (planting), it means that agriculture of the country is specialized more on peasantry. We should mention that during the agrarian reforms, cotton monoculture was terminated and the component of the agricultural plants was reformed. Meanwhile (2008) the contribution of the cotton fields to the total planting area is 39.5%, wheat fields 42.3%, potato fields 1.7%, vegetable fields 4.5% and planting fields for the livestock sector 7.6<sup>4</sup>. During the reforms period main part, 84.4%, of the agricultural planting fields were concentrated for the farming sector. As the result of this farmers gained leading positions in producing some agricultural products (Table 1).

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<sup>1</sup> Islam Karimov. The world financial-economic crisis, aspects and measures of its prevention at the circumstance of Uzbekistan. Tashkent, “Uzbekistan” publication, 2009. page 22 (in Uzbek language).

<sup>2</sup> The speech of the President of Uzbekistan about the main results of 2009 and the preferred directions for the social – economical development of Uzbekistan \ Turkiston newspaper, on January 31, 2010.

<sup>3</sup> Agriculture of Uzbekistan. Statistical hand book. Tashkent 2009 P 16.

<sup>4</sup> Agriculture of Uzbekistan. Statistical hand book. Tashkent 2009 P 121.

Table 1 Dynamics<sup>5</sup> of the component of producing of main product types in the agriculture of Uzbekistan during 2000 and 2008 (By percentage)

Years and sector types	Cotton raw materials	Grain	Potato	Vegetables	Meat	Milk	Egg	Wool	Silk	Share in the total agricultural product
2000										
Agricultural enterprises	81.7	66.2	15.7	20.1	7.3	4.9	39.1	24.6	98.5	27.8
Farming sector	18.3	14.5	4.2	4.9	1.3	1.5	1.0	1.1	1.5	5.5
Household sector	-	19.3	80.1	75.0	91.4	93.6	59.9	74.3	-	66.7
2005										
Agricultural enterprises	33.7	27.0	3.0	9.1	3.4	1.1	37.1	17.4	57.3	14.0
Farming sector	66.3	55.5	5.0	13.7	2.1	2.1	3.6	3.0	42.7	24.3
Household sector	-	17.5	92.0	77.2	94.5	96.8	59.3	79.6	-	61.7
2006										
Agricultural enterprises	13.6	10.8	1.4	4.0	3.3	0.7	36.3	15.1	18.9	6.3
Farming sector	86.4	71.2	10.6	30.4	2.1	2.3	3.6	4.2	68.5	31.4
Household sector	-	18.0	88.0	65.6	94.6	97.0	60.1	80.7	12.6	62.3
2007										
Agricultural enterprises	1.0	1.8	0.5	0.9	2.6	0.4	33.7	12.2	2.8	2.5
Farming sector	99.0	79.5	15.0	33.4	2.4	2.5	4.0	5.1	84.2	33.4
Household sector	-	18.7	84.5	65.7	95.0	97.1	62.3	82.1	13.0	64.1
2008										
Agricultural enterprises	0.9	1.3	0.4	0.6	2.5	0.5	31.8	11.6	5.0	2.2
Farming sector	99.1	78.9	16.2	32.1	2.5	2.8	6.5	5.4	95.0	32.5
Household sector	-	19.8	83.4	66.5	95.0	96.8	61.7	83.0	-	65.3

It is seen from the Table 1 that, together with gaining the leading position in producing cotton raw materials, wheat and silk they achieved the increase in the volume of producing vegetables and cattle-breeding products.

Increase of the share of farming sector in producing mainly derived from the decrease of the share of agricultural businesses. Because of no significant changes in the producing structure, share of the household in the country's total agricultural product decreased to only 1.4%.

Structural changes, held in agriculture, created the basis for the development of new infrastructure.

<sup>5</sup> Agriculture of the Republic of Uzbekistan. Statistical hand book. Tashkent 2004 P 39 and Agriculture of Uzbekistan. Statistical hand book. Tashkent 2009 P 38-39.

## 2. Formation and development of agricultural infrastructure

Changes in producing component during the reforms period affected to the formation and the development of the production infrastructure of agriculture. For this case subsidiaries like Machine tractor parks (MTP), product preparation, oil – lubricating material suppliers, fertilizers suppliers and other infrastructural service subjects were created (Table 2).

The Table 2 shows us that in 2003-2008 creating of enterprises which make infrastructural services was in its highest point. From the quantity matter alternative MTPs and water users committees were most founded. Unlike this, the quantities of farming sectors which match to the same infrastructure object remain high. Especially, enterprises which make the agricultural products and info-consulting services are not enough.

Table 2 Dynamics\* of the quantity of infrastructure objects created in agriculture of Uzbekistan during 2003-2008

Types of objects rendering infrastructural services	Year and number of created infrastructure objects						Number of farmers respecting to one infrastructural object in 2008
	2003	2004	2005	2006	2007	2008	
Alternative MTP	127	266	366	619	292	1765	120.8
Association of water users	94	133	253	413	201	1189	131.3
Fertilizer selling subsidiaries	87	126	218	246	102	867	232.2
Oil-lubricating material suppliers' subsidiaries	90	133	244	335	125	1018	172.7
Mini banks	87	82	178	282	69	785	196.5
Agricultural product preparation subsidiaries	3	32	99	281	56	474	458
Information and consulting service rendering subsidiaries	2	14	61	115	40	234	704.8

\* The table was created by the author according to the information based on the Ministry of agrarian-water sector of Uzbekistan

We should mention that by 2007 almost of the cooperatives farms sectors had been transformed into farming sectors, so, creating the infrastructural businesses in those regions where they are located made it possible to increase the level of occupancy together with making various services. But the initial working circumstances of such infrastructures were not equal. E.g. according to the information given by MAWS (the Ministry of agrarian-water sector), at the march 1<sup>st</sup>, 2005 position of the money (amount

of 56.4 million UZS) for the newly created businesses who make and sell agricultural products was transferred to only three regions: Kashkadarya (41mln UZS), Namangan (10.3mln UZS) and Tashkent region (5.1mln UZS). Such businesses in the republic of Karakalpakstan and in other regions did not receive any amount of money. There was a modem connection in 121 of 257 created mini banks until March the 1<sup>st</sup> 2005; the rest of them did not have it. This can affect negatively to their work.

According to the given information, the significant part of the production infrastructural services made during 2001-2008 was used in peasantry (Table 3) and tends to increase.

Decrease of the share of household in capacity of services such as preparing the land for planting and gathering the harvest was the result of the increase of farmers' doing these jobs by their own technical means.

The share of the "repairing the agricultural means and technical service to them" in the total services provided decreased to 12.3%. This is related to the decreased number of tractors, trucks and other agricultural technical means in our country. If, in 2004, there were 106.4 thousand tractors in the tractor parks of all the agricultural sectors of the country, this number decreased down to 69 thousand in 2008.

Main reasons for decreasing of the share of the services such as cultivating the land and delivering of repair parts for the agricultural technic:

- The dispose of technical means from terminated cooperative farms to the farming (or alternative MTPs) sector
- Deletion of the unready technical means from the dispose of sectors
- Purchasing of unregistered new tractors and transport means by farming sector.

Table 3 The dynamics of the components of services rendered for the agriculture of Uzbekistan (By percentage\*)

The types of rendered services	Years						The difference between 2008 and 2004, %
	2001	2004	2005	2006	2007	2008	
Services: all	100	100	100	100	100	100	0
Of those: technological services rendered to household	64.5	64.7	60.9	61.2	59.5	66.3	+1.8
Preparing the land for seeding	34.7	25.2	22.2	19.7	21	25.1	-9.6
- Planting	0.1	0.9	1.8	3.3	2.3	3.3	+3.2
Looking after (grooving)	0.5	1.2	3.2	4.4	2.3	2.0	+1.5
- Harvesting	29	36.4	30.6	32.0	30.9	31.1	+2.1
Of those: wheat harvesting	24.2	34	28.3	29.5	28.1	30.2	+6
Protecting the agricultural plants from diseases and harms	0.1	0.6	1.0	0.8	1.4	3.5	+3.4
- Preparing the land for fertilization and fertilizing of it	0.1	0.4	2.1	1.0	1.6	1.3	+1.2
Repairing the technical means and rendering technical service	13.1	24.1	26.9	23.5	18.1	11.8	-7.3
Other services	16.5	11.2	11.2	15.3	22.4	21.9	+5.4

\*The table was created by the author according to the information based on State Statistics committee of Uzbekistan

Agriculture of Uzbekistan has some problems, affecting to the development:

- Still the monopolistic decision can be seen at pricing for the services rendering to the agriculture of our republic, and alternative service rendering businesses are not affecting to the monopolistic businesses by the competition.
- Due to the lack of agricultural technical means, some sector subjects are proposing more money to the service renders for their jobs to get the technological process done in optimal period.

To solve these problems, it is necessary to strengthen the financial-technical basis of alternative service rendering businesses, farmer and household sectors. Development of the infrastructural service market and creation of the competition conditions in that market is also important for increasing the producing efficiency of agriculture.

## Conclusion

It is recommended that, in future, should be taken in care not the quantity of infrastructural enterprises, but their competence and the ability of adaptation. It is important, that these infrastructural enterprises must also serve small farms and households too. Coverage of all farms and households helps to be more effective.

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## **RATING OF INVESTMENT ATTRACTIVENESS ON UKRAINE AGRARIAN AND INDUSTRIAL COMPLEX**

### **Abstract**

Some methodological features and bases both of understanding and formation of investments attractiveness of agricultural enterprises in agrarian sector of Ukrainian economy as well as some factors of its are presented in this article.

Investment attractiveness of the agrarian and industrial complex in Ukraine is viewed in the article. The ratings of investment attractiveness are analyzed. A number of factors, which have the negative influence on the attractiveness of the national agrarian and industrial complex, are determined.

## **РЕЈТИНГ ИНВЕСТИЦИОНЕ АТРАКТИВНОСТИ У УКРАЈИНИ АГРАРНИ И ИНДАСТРИЈСКИ КОМПЛЕКС**

### **Апстракт**

Неке методолошке карактеристике и основе оба схватања, као и формирање атрактивних инвестиција пољопривредних предузећа у аграрном сектору украјинске привреде, као и неки његови фактори су приказани у овом чланку.

Инвестиционе атрактивности аграрног и индустријског комплекса у Украјини се посматрају у овом чланку. Раст инвестиционе атрактивности је анализиран. Број фактора, који имају негативан утицај на атрактивност националног аграрног и индустријски комплекс, се одређују.

## **РЕЙТИНГ ИНВЕСТИЦИОННОЙ ПРИВЛЕКАТЕЛЬНОСТИ АПК УКРАИНЫ**

**Введение.** Мировые тенденции свидетельствуют о том, что за последние полгода инвестиционная привлекательность агропромышленного комплекса снизилась, однако не так существенно, как других отраслей экономики. При этом пока инвесторы занимают выжидательные позиции, не наблюдается массового вывода средств из АПК. Но и новых крупных вложений, равно как и ожидаемых М&А на мировых аграрных рынках, тоже пока нет.

Однако в случае резкого роста цен на *agricommodities*, которого, по оценкам экспертов, стоит ожидать к осени 2010, поведение фондов может круто изменится. При этом вслед за удорожанием продукции вырастет снова и стоимость

земли. Следовательно, вопрос минимизации расходов агропроизводства станет главным тезисом 2010 года для сельхозпроизводителей во всех странах мира [1].

Тема инвестиционной привлекательности украинского АПК сохраняет актуальность и в нынешних достаточно сложных экономических реалиях. Это во многом вызвано тем, что возможные инвестиции в данный сектор украинской экономики могут стать одним из наиболее действенных механизмов преодоления негативных влияний экономического кризиса, а также его последствий [2, с. 177].

Уровень развития инвестиционной привлекательности является одним из важнейших показателей общеэкономической ситуации и перспектив развития отрасли. Рост инвестиций является одним из основных факторов, способствующих подъему агропромышленного производства, решению проблем обновления технической и технологической базы, изношенности основных фондов в АПК, обеспечению устойчивого развития отрасли. АПК Украины привлекателен для инвесторов с точки зрения удобного географического положения, существования бизнес-инфраструктуры, наличия свободных производственных площадей и земельных участков, оснащенных инженерными, транспортными коммуникациями [3, с. 97].

В период ограниченности инвестиционных ресурсов инвестиционная привлекательность является базовым критерием, на основе которого формируются инвестиционная стратегия со стороны инвестора и инвестиционная политика государства. В связи с этим особенную актуальность приобретает вопрос определения рейтинга инвестиционной привлекательности АПК.

### **Методика исследования**

Для формирования методологических и методических основ оценки инвестиционной привлекательности агропромышленного комплекса необходимо установить наиболее значимые факторы, определяющие его инвестиционную привлекательность. Здесь немаловажную роль играет доступность статистической информации, поскольку она позволяет усилить практическую значимость предложенной модели для инвесторов при оценке инвестиционной привлекательности любых отраслей АПК. Так, нами в исследовании была использована информация, размещенная на официальной странице Минагрополитики [4].

Методика осуществленного исследования основывается на использовании монографического метода, с помощью которого проведен анализ подходов к пониманию сущности инвестиционной привлекательности АПК и факторов, формирующих её уровень. Метод индукции и дедукции, а также метод синтеза и анализа, позволили обобщить полученные результаты.

### **Результаты исследования**

Прежде чем планировать систему мероприятий для повышения инвестиционной привлекательности АПК, необходимо проанализировать

деятельность объекта вложений, все существующие методики оценки инвестиционной привлекательности.

Существует ряд серьезных препятствий для повышения рейтинга Украины, а именно:

1) диверсификация экономики крайне низкая, доходы в государственный бюджет поступают в основном из энергетического и сырьевого секторов, они же отвечают за рост ВВП;

2) существует временной лаг между принятием законов и осуществлением структурной, правовой и административной реформ;

3) естественные монополии не выводят предприятия на уровень самоокупаемости, и таким образом происходит субсидирование украинской экономики за счет средств налогоплательщиков.

Важное значение приобретает индекс восприятия коррупции (ИВК), который рассчитывается неправительственной международной организацией „Transparency International”, основанной в 1993 г. в Германии, имеющей отделения в 87 странах мира. ИВК публикуется ежегодно с 1997 г. и является индексом индексов, определенным согласно оценкам независимых исследовательских центров и институтов (по 102 странам мира). Правилами предусматривается, что его расчет должен основываться на результатах не менее трех независимых исследований (экспертных опросов). При отсутствии таких результатов страна не включается в проходящем году в перечень индексированных стран [5, с. 146].

Изменения в ИВК по годам имеют определенную инерционность. Поэтому показатели ИВК, свидетельствующие о том, что экспертами отмечено снижение уровня коррупции, не приводят к незамедлительному росту инвестиционной активности в стране, и наоборот. В Украине показатель ИВК начиная с 1998 г., имеет стойкую тенденцию роста.

Мы считаем, что главной целью инвестиционной политики Украины должно быть формирование механизма распределения инвестиционных ресурсов для обеспечения сбалансированного и гармоничного развития всех отраслей АПК. Опыт стран с развитой рыночной экономикой доказывает, что эффективность привлечения инвестиций в сельскохозяйственное производство обеспечивается при комплексном решении всех проблем, негативно влияющих на инвестиционную привлекательность.

Следует назвать приоритетные задания относительно повышения инвестиционной привлекательности АПК Украины: повышение технического и технологического уровня в АПК; динамическое социальное развитие села на основе содействия развитию занятости и росту доходов сельского населения; оптимизация бюджетных инвестиций в АПК, реализация комплекса мероприятий по финансовому оздоровлению сельскохозяйственных организаций; усовершенствование законодательно-нормативной базы, способствующей развитию инвестиционной деятельности; формирование информационного банка данных об инвестиционных возможностях отраслей АПК; создание прозрачной системы управления инвестиционным процессом.

На нынешнем этапе для повышения инвестиционной привлекательности АПК особенно важным является улучшение материально-технического состояния АПК. Для повышения эффективности производства, увеличения объема выпуска конкурентоспособной продукции необходимо обновление производственных средств.

Сегодняшнее состояние сельскохозяйственного и тракторного машиностроения не позволяет поддерживать ресурсы села на должном уровне. Привлекательность АПК необходимо повышать путем возобновления инвестиционного потенциала сельскохозяйственных предприятий за счет повышения роли собственных источников – амортизации и прибыли. Для этого необходимо устранить диспаритет цен на продукцию сельского хозяйства, снизить налоговое давление, реструктурировать долги, включая их списание и пролонгацию.

Инвестиционная деятельность в значительной мере зависит от полноты и степени совершенства нормативно-законодательной базы. Одним из ключевых направлений поддержки инвестиционной деятельности есть мероприятия, проводящиеся согласно Программ экономического и социального развития АПК на 2005-2015 годы. В соответствии с этими программами реализуются больше 100 инвестиционных проектов. Наличие большого количества программ является недостатком инвестиционной политики, поскольку финансирование большинства из них невозможно в связи с ограниченностью бюджетных ресурсов. Для решения данной проблемы необходимо законодательно утвердить и построить четкую систему целевых программ, а также определить очередность их финансирования и минимальный объем бюджетных средств на их финансирование.

Одним из наиболее эффективных способов привлечения иностранных инвесторов является предоставление гарантий от политических и коммерческих рисков, защита которых должна быть закреплена законодательно.

С целью привлечения инвестиций в АПК необходимо развивать информационную бизнес-среду. Информация в инвестиционной деятельности имеет существенное значение, как для отечественных, так и для иностранных инвесторов. Необходимо информировать потенциальных инвесторов о существующих инвестиционных возможностях, экономических и нормативных условиях инвестиционной деятельности, об инвестиционных проектах и предложениях, а также формировать инвестиционный спрос и раскрывать емкость экономики.

Для развития информационной среды необходимо предоставлять информацию об АПК страны в целом в СМИ и глобальной сети Internet, принимать участие в инвестиционных семинарах, тематических конференциях, форумах, проводить выставки-ярмарки инвестиций с привлечением украинских и иностранных предпринимателей, финансовых и банковских структур, осуществлять PR-кампании для информационного обеспечения иностранных инвесторов, предоставлять информацию о предложениях относительно инвестиционных проектов.

С целью создания доступной информационной бизнес-среды нами был разработан инвестиционный паспорт АПК Украины, включающий следующие подразделы: экономическое развитие Украины; конкурентные преимущества страны; состояние региональной экономики; инвестиционная привлекательность АПК Украины; инвестиционный потенциал; инвестиционная активность страны; инвестиционные риски; условия инвестиционной деятельности; инвестиционные проекты АПК Украины [6, с. 7].

Для оценки инвестиционной привлекательности АПК нами также разработана методика бальной оценки инвестиционной привлекательности. Методика основана на применении бального подхода. При этом данные методики можно

рассматривать как два этапа оценки инвестиционной привлекательности АПК Украины.

1-й этап – анализ факторов, влияющих на инвестиционную привлекательность АПК, формирование показателей инвестиционной привлекательности и расчет удельного фактора каждого показателя.

2-й этап – рейтинговая оценка АПК.

Изложим основные положения методики бальной оценки инвестиционной привлекательности.

Рейтинг АПК определяется 14 позициями. Каждая позиция является фактором (показателем), который влияет на уровень инвестиционной привлекательности. Каждый показатель оценивается за бально-процентной шкалой группой экспертов.

Говоря об инвестиционной привлекательности можно выделить огромное количество факторов, её определяющих. При разработке данной методики перед нами стояло задание выделить наиболее значимые показатели инвестиционной привлекательности агропромышленного комплекса. Таким образом, на первом этапе нами было предложено 14 факторов, которые, по нашему мнению, имеют существенное значение для развития инвестиционной привлекательности АПК.

Степень сельскохозяйственной освоенности территории; обеспеченность водными ресурсами. Развитие экономики и АПК в частности в значительной мере, зависит от природно-климатических факторов.

Показатели темпа роста объемов производства продукции АПК и темпа роста объемов валовой продукции АПК, а также часть выручки от реализации продукции АПК в общем объеме выручки от всех видов экономической деятельности относятся к экономическим факторам и определяют производственный потенциал страны, что позволяет моделировать ситуацию и планировать предсказуемую прибыльность инвестиций с учетом других факторов.

Объем привлеченных инвестиций в основной капитал АПК и объем иностранных инвестиций в основной капитал АПК – прямые показатели, которые характеризуют инвестиционную привлекательность АПК Украины.

Уровень зарегистрированной безработицы в стране, уровень среднемесячных доходов населения, уровень среднемесячной заработной платы работников АПК, численность работников занятых на предприятиях АПК относятся к социальным факторам и имеют особенное значение при оценке инвестиционной привлекательности, поскольку отрасли экономики с развитой социальной сферой наиболее привлекательны для инвесторов.

Состояние дорог; уровень развития социальной и инженерной инфраструктур села являются позитивными моментами для привлечения инвесторов. Отсутствие инфраструктурной обеспеченности может стать серьезным препятствием для привлечения инвестиций и повышения инвестиционной привлекательности.

Говоря о повышении инвестиционной привлекательности, нельзя обойти вниманием организационный фактор, характеризующийся уровнем политической активности в стране.

Результативность инвестиций во многом обусловлена правовой защищенностью инвестора и надежностью законодательно-правового механизма [7]. Данный вывод дает основания для рассмотрения таких показателей, как налоговая

система льгот для инвесторов, уровень развития инвестиционной законодательной базы, а также уровень преступности в стране. Далее нами были рассчитанные части каждого показателя. Каждый учтенный показатель оценивался экспертами в баллах от 0 до 10. 0 баллов означал низкую степень важности фактора, 10 баллов – крайне важный показатель. Часть каждого показателя определялась в три этапа. Сначала подытоживались все баллы за данным видом показателя. Потом определялось процентное отношение оценки экспертов к максимальному бальному значению каждого фактора равного 250. Далее рассчитывалась часть данного фактора в процентах от максимально возможного значения. Максимальная часть может равняться 10. Рейтинг определялся по предложенным нами следующим 14 позициям (табл. 1).

**Таблица 1.**  
**Часть факторов инвестиционной привлекательности АПК за методикой бальной оценки\***

Фактор	Часть фактора %
Степень сельскохозяйственной освоенности; обеспеченность региона водными ресурсами	8
Темпы роста объемов производства продукции АПК	9
Часть выручки от реализации продукции АПК в общем объеме выручки от всех видов экономической деятельности	7
Объем инвестиций поступивших в основной капитал АПК	9
Объем иностранных инвестиций в основной капитал АПК	6
Уровень зарегистрированной безработицы в стране	5
Уровень преступности в стране	3
Уровень среднемесячных денежных доходов населения	8
Уровень среднемесячной заработной платы работников предприятий АПК	9
Численность работников занятых в АПК	8
Состояние дорог; уровень развития социальной и инженерной инфраструктур в сельской местности	8
Уровень политической активности в стране	5
Налоговая система льгот для инвесторов	8
Уровень развития инвестиционной законодательной базы	7

*\*Разработано на основании собственных исследований*

Второй этап являет собой методику определения инвестиционной привлекательности АПК Украины. С этой целью экспертами были оцененные показатели инвестиционной привлекательности АПК Украины за 2009 год, представленные в виде анкеты. Каждый показатель оценивался экспертами по бальной шкале и имел 5 вариантов ответа от 0 до 4. 0 баллов означал низкий уровень показателя, 4 балла – высокий уровень показателя. Средний балл экспертных оценок за каждым показателем умножался на процент части каждого показателя, далее выводился итоговый рейтинг инвестиционной привлекательности АПК путем деления суммы всех показателей на количество экспертов.

Максимальный рейтинг инвестиционной привлекательности согласно данной методике рассчитывается за формулой:

$$R_{\max} = \frac{4x_1 + 4x_2 + \dots + 4x_{14}}{n},$$

где:  $R_{\max}$  – максимальный рейтинг инвестиционной привлекательности;  $x_1, x_2, \dots, x_{14}$  – часть каждого фактора инвестиционной привлекательности;  $n$  – количество экспертов.

Рейтинг инвестиционной привлекательности АПК региона рассчитывается за формулой:

$$R_{\text{региона}} = \frac{(\sum \Pi_1 \cdot x_1) + (\sum \Pi_2 \cdot x_2) + \dots + (\sum \Pi_{14} \cdot x_{14})}{n},$$

где:  $R_{\text{региона}}$  – рейтинг инвестиционной привлекательности АПК региона;  $\Pi_1, \Pi_2, \dots, \Pi_{14}$  – средний балл экспертных оценок за каждым показателем;  $x_1, x_2, \dots, x_{14}$  – часть каждого фактора инвестиционной привлекательности;  $n$  – количество экспертов.

Максимальный рейтинг инвестиционной привлекательности, рассчитанный нами согласно данной методике, может равняться 16, это говорит о том, что отрасль инвестиционнопривлекательная, устойчивая и стабильная. Нами было опрошено 25 экспертов, 7 из них являются докторами экономических наук, 10 – кандидатами экономических наук, 8 – кандидатами сельскохозяйственных наук. Данные экспертов относительно оценки показателей инвестиционной привлекательности АПК Украины нами были изучены основательно в последующих научных работах.

## Выводы

Следовательно, методика экономической оценки анализа инвестиционной привлекательности АПК нуждается во внесении поправок и в новых подходах. С изменением экономических условий на рынке изменяется трактовка и применение разных показателей, поэтому возникает необходимость в более конкретном истолковании и методике определения показателей анализа и факторов влияния на них.

Специфика АПК обуславливает индивидуальный подход к анализу каждой позиции являющейся фактором (показателем), влияющим на уровень инвестиционной привлекательности АПК. Поэтому нами была разработана методика, согласно которой был определен рейтинг инвестиционной привлекательности АПК Украины, который составил 7, что свидетельствует об относительно низком уровне инвестиционной привлекательности.

Полученные результаты анализа инвестиционной привлекательности могут служить для потенциальных инвесторов как дополнительный источник информации при выборе объекта инвестирования.

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## APPLICATION OF MODERN TECHNIQUES TO ACHIEVING ACTUARIAL BALANCE OF PENSION FUNDS

### Abstract

*The functioning of defined benefit plans is a subject to strictly legal regulations related to achieving and maintaining actuarial balance to ensure the security of promised pension payments. The risk control process relating to the management of portfolio risk in order to provide appropriate relationship of assets and liabilities ("asset liability matching") may be included in modern techniques that are based on stochastic linear programming. The problem of managing assets and liabilities of the pension fund is a dynamic decision that is made in the fullness of uncertain parameters. Asset management includes the decision on the structure of the portfolio (yield of various financial instruments is uncertain), while liabilities which consists of the future payment of a pension depends on the actual current market value of these instruments.*

**Key words:** *defined benefit pension plans, actuarial balance, accounting standards, capitalization of pension funds, dynamic decision*

## ПРИМЕНА МОДЕРНИХ ТЕХНИКА У ПОСТИЗАЊУ АКТУАРСКЕ РАВНОТЕЖЕ ПЕНЗИЈСКИХ ФОНДОВА

### Апстракт

*Функционисање пензијског осигурања са дефинисаном надокнадом предмет су стрикне законске регулативе која се односи на постизање и одржавање актуарског баланса у циљу обезбеђивања сигурности исплате обећаних пензијских надокнада. У процес контроле ризика који се односи се на управљање портфолио ризиком у циљу обезбеђивања одговарајућег односа активе и обавеза («асет лиабилиту матичинг») могу да буду укључене модерне технике које се базирају на стохастичком линеарном програмирању. Проблем управљања активом и пасивом пензијског фонда представља динамичку одлуку која се доноси у обиљу неизвесних параметара. Управљање активом укључује одлуку о структури портфолија (принос од различитих финансијских инструмената је неизвестан), док пасива која се састоји од будућих исплата пензијских надокнада зависи од тренутне конкретне тржишне вредности тих инструмената.*

**Кључне речи:** *пензијско осигурање са дефинисаном надокнадом, актуарски баланс, рачуноводствени стандарди, капитализација пензијских фондова, динамичка одлука*

## Introduction

Instability in capital markets and lack of prudence in managing the assets of private pension funds (the use of excessively high discount rates, undiversified investing etc.) lead to a review of regulation of fund management sphere of private pension insurance.

In reaction to the difficulties encountered by many defined benefit pension plans after the stock market crash in 2000 year (deepened further by the crisis of mortgage loans) issued the new accounting standards and strict legislation which requires intensive control of actuarial surplus volatility of defined benefit pension funds and tolerant attitude towards the deficit [1, pp. 26].

### 1. New accounting standards

In part related to the pension IAS 19 new international standards IFRS (International Financial Reporting Standards) issued 2001 are the following rules:

- Unpaid pension benefits should be kept as a liability in the balance sheet of employers; according to the Directive of the European Parliament no. 2003/41/EC recorded obligations must express the actual value that belongs to the policyholders in the event that the company, plan sponsor goes bankrupt;

- Present value of defined pension contract is based on current pay, including salary growth, PBO (Projected Benefit Obligation "');

- Discount rate used in determining the present value of liabilities is determined by the yield curves of corporate bonds of high quality and is shown in the balance sheet;

- Indexation and other increase of a pension if they are defined by contract should be included;

- Value of pension fund assets should be determined by market prices;

- Actuarial gains and losses (including investment) that does not exceed 10% of fund assets (so-called "corridor") need not be included in the balance sheet; actuarial losses / gains above this value can be amortized during the life of employee; Based on the directive of the European Parliament no. 2003/41/EC funds with insufficient capitalization must make plan for their recovery.

The European Council in June 2002 passed a resolution binding all European countries to harmonize their national standards with IAS 19. A year ago the European Financial Reporting Advisory Group, EFRAG was founded in order to provide technical support to the European Council concerning the application of international standards in Europe. In 2005 the process was completed in the Member States of the European Union.

In United Kingdom there is a standard FRS 17 ("Financial Report Standard 17"), which largely agrees with IAS 19. The main difference consists in the fact that all actuarial gains and losses of investment required to be registered no matter how small they are [2, p. 12], while with IAS 19 an amount less than 10% of fund assets are not required to be recorded in the balance sheet and the income statement. In the UK the difference between expected and actual yields, as well as actuarial gains and losses are recorded in a special book, the so-called "Statement of Total Gains and Losses recognized" STRGL in order to avoid excessive volatility of major figures in the book.

In the United States Financial Accounting Standard 87 ("Financial Accounting Standard 87," FAS87 [2, p.14] is largely consistent with IAS 19. With FAS87 standard in determining the value of assets discount rate is taken from the market value of the yield curve as well as with FRS 17 and IAS 19, but they are allowed, and its specific adaptation that makes the difference. In addition, with FAS87 there should be in balance report presented the data of the present value of pension benefit with no adjustment to the growth of personal income ABO ("Accumulated benefit obligation"). This value is used in the abolition of the plan due to insolvency.

By Directive of the European Parliament no. 2003/41/EC relating to the management and supervision investment of pension fund assets is a subject of "prudent person" rule and not of quantitative restrictions<sup>1</sup>.

The risk control process relating to the management of portfolio risk in order to provide appropriate relationship of assets and liabilities ("asset liability matching") may involve and modern techniques. Presentation of one of such models will be presented later in this paper.

## 2. ALM model

Providing actuarial balance is the process of making decisions about the allocation of capital contributions, a pension indexation (adjustment to the growth of personal income) etc. that are optimal in a sense and depend on a number of limitations.

Modeling actuarial balance of the private pension fund assets may be committed by a linear programming [10, p. 6], but in the process of resolving the optimal value of the objective function beside the presence of one or more restrictions (which are given in the form of linear inequalities) there will be included restriction which expresses the probability of the existence of the loss or lack of liquidity of the pension fund. Quantitative analysis under uncertainty is the subject of probability theory, so that restrictions are not quite certain we can treat as a realization of random variables. Such an approach to solving problems is characterized by stochastic linear programming. Stochastic programming includes consideration of a large but finite number of realization of these random variables and the search for optimal solutions through the huge number of iterations, using available software programs.

The degree of liquidity is determined as the ratio of liquid assets and liabilities, ie. :

$$\text{degree of liquidity} = \frac{\text{liquid assets}}{\text{liability}}$$

Because of the uncertainty degree of liquidity can be expressed through the probability, for example.: The probability that the liquidity level after one year from today will be below 105% must be less than 0.5%. This will be a limitation in the application of linear programming techniques, which we call the restriction of probability, in contrast to the classical linear constraints.

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<sup>1</sup> A fiduciary must discharge his or her duties with the care, skill, prudence and diligence that a prudent person acting in a like capacity would use in the conduct of an enterprise of like character and aims

We'll take into consideration a large company that has its own pension plan. We will assume that this is a DB ("defined benefit") with predefined pension compensation and that the company acts as a sponsor of the plan. If the poor level of liquidity, the company has an obligation to plan sponsors, and to provide necessary funds.

Let  $\alpha(t)$  be the required level of liquidity. Probability that the degree of liquidity next year will be higher than a set level, we can express as:

$$P\{F_{t+1}^* \geq \alpha(t)\} \geq \gamma_t, \text{ whereby:}$$

$F_{t+1}^*$  - degree of liquidity before corrective payments from the sponsor  $\gamma_t$  - required level of reliability (eg.  $\gamma_t=0,95$ ).

If we express the degree of liquidity as the ratio of assets  $A_{t=1}^*$  to liabilities

$$\alpha_{t+1}, \text{ t.j. } \alpha = \frac{A_{t+1}^*}{L_{t+1}} \text{ come to the following terms:}$$

$$P\{A_{t+1}^* - \alpha L_{t+1} \geq 0 | (t, s)\} \geq \gamma_t.$$

First, we need to define the decision function (refer to the selection of securities, the necessary contributions, payments of plan sponsor), object function and linear constraints. To do this we introduce labels that will figure in them (  $t$  refers to time, and  $i$  to the instrument in the portfolio):

$Z_t$	corrective contribution of plan sponsor at the time $t$
$X_{i,t}$	investments in asset classes $i$ , at the beginning of the year $t$ ,
$c_{t+1}$	contribution rate for the year $t+1$ ,
$A_t$	amount of total assets at time $t$ ,
$A_t^*$	total value of assets at time $t$ before corrective contribution $t$
$\Delta_{it}^+$	value of assets purchased and the time $t$
$\Delta_{it}^-$	value of assets sold and the time $t$
$U_t$	lack of funds at the time $T$ compared to the initial rate
$r_{it}$	random yield of asset class $i$ in the year $t$
$W_t$	random total income of employees (active participants) in year $t$
$P_t$	random total pensions compensation in year $t$
$L_t$	random value of liquidity after year $t$
$k_i$	proportional amount paid for the transaction of $i$ - th assets
$\omega_i^l$	lower percentage limit value of the assets in the class $i$
$\omega_i^u$	upper percentage limit value of the assets in the class $i$
$c^l$	lower limit of percentage contribution
$c_u^l$	upper limit of the percentage contribution
$\alpha$	lower limit of liquidity

- $\gamma_t$  discount factor in year t
- $\lambda_Z$  penalty paid for the corrective contributions
- $\lambda_U$  penalty paid for insolvent being at the time T (the horizon).

The decision we need to make at the moment  $t \in \tau_0 = \{0, 1, \dots, T-1\}$  can be introduced by vector:

$$x_t = (Z_t, X_{1t}, \dots, X_{Nt}, c_{t+1}).$$

On the horizon (at the end of the plan) there is the only decision  $Z_t$ .

Variable  $A_t^*$  determines the value of assets prior to possible corrective contribution and is used for its determination: it must satisfy the following inequality  $Z_t \geq (A_t^* - \alpha L_t)^-$ .

Function  $(A_t^* - \alpha L_t)^-$  define as:

$$(A_t^* - \alpha L_t)^- = \max[0, -(A_t^* - \alpha L_t)].$$

It actually means that if  $A_t^* \geq \alpha L_t$  the corrective payment is not required by the plan sponsor. In the case that  $A_t^* < \alpha L_t$  the company has to pay additional funds to be held liquidity.

Constraints in linear programming can be divided into two groups [5, p. 8], and they are: Restrictions based on actuarial principles and restrictions based on legal regulations

Limitations that are based on actuarial principles:

$A_t = \sum_{i=1}^N (1 + r_{i+t}) X_{i+t} + c_t W_t - P_t + Z_t$ , which represents the total value of assets at the time t.

It should be noted that  $A_t = A_t^* + Z_t$ , which means that at our disposal are resources subsidized by the employer.

Here it is important to mention that  $X_{it}$  is the security that we bought at the time t-1, and therefore its value is multiplied with  $(1 + r_{it})$ . At the time t+1 we decide to sold some of them and buy some new instruments and that when we have to pay a fee for transactions, so it follows:

$X_{i,t+1} = (1 + r_{it}) X_{it} - \Delta_{it}^- + \Delta_{it}^+ - k_i (\Delta_{it}^- + \Delta_{it}^+)$ ,  $i=1, \dots, N$ , the value of investments in assets classes and the beginning of the year t+1.

As all assets should be allocated, we get the equation:

$$\sum_{i=1}^N (X_{i,t+1} + k_i (\Delta_{i,t}^- + \Delta_{i,t}^+)) = A_t.$$

Second are the rules relating to the legislation:

- upper and lower limit value of assets that can do classes and, expressed as a percentage of total assets:

$$\omega_i^l \sum_{j=1}^N X_{jt} \leq X_{it} \leq \omega_i^u \sum_{j=1}^N X_{jt}$$

- the highest and lowest rates of contribution limits makes the following restrictions:  $c^l \leq c_t \leq c^u$ ,

it is desirable that the degree of liquidity on the horizon can not be lower than that at the initial moment:  $A_T + U_T \geq F_0 L_T$ ,

We have already mentioned that the limit probability expressed by the relationship:

$$P\{A_{t+1}^* - \alpha L_{t+1} \geq 0 | (t, s)\} \geq \gamma_t \quad (1)$$

has qualitative character and that it should taken into account the amount of the loss, not only the likelihood that there will be a deficit.

To continue consideration express the amount of assets at the time before corrective means by the equation:

$$A_{t+1}^* = \sum_{i=1}^N (1 + r_{i+t+1}) X_{i+t+1} + c_{t+1} W_{t+1} - P_{t+1}$$

If we compare this equation with the equation

$$x_t = (Z_t, X_{1t}, \dots, X_{Nt}, c_{t+1}),$$

We notice that equation (1), in order to simplify further considerations, can be presented as follows:

$$\{\Pr(Bx - d \geq 0)\} \geq \gamma, \quad (3)$$

because  $A_{t+1}^*$  depends on the vector size  $x_t$ . Thus in relation (3) B and x are n dimensional vectors and d is scalar.

Equation (3) we will continue to transform, to reach desired results.

Let us suppose that M is a large enough number [5, p.5]. It refers to the possible loss. Introduce a binary random variable  $\delta^s$  which has value 0 when there is no loss and a value of 1 when there is a loss. Index refers to the scenario.

Therefore equation (3) is replacing by the system of relations:

$$B^s x + \delta^s M \geq d^s, s \in S \text{ and } \sum_{s \in S} p^s \delta^s \leq 1 - \gamma, \delta^s \in \{0, 1\}, s \in S.$$

Sum  $\sum_{s \in S} p^s \delta^s$  represents mathematical expectation that the loss (deficit) will occur. This value must be less than  $1 - \gamma$ .

Since the binary variable is not suitable for linear programming, we can introduce a linear non-negative variable  $y$ , which will be a loss.

So we come to the relation

$$B^s x + y^s \geq d^s, s \in S \quad (4) \text{ and } \sum_{s \in S} p^s y^s \leq \beta, y^s \geq 0, s \in S \quad (5).$$

Parameter  $\beta$  is the actual expected loss (value at risk) [8, p. 10].

Equations (4) and (5), we can summarize in one

In the event that  $B^s x \geq d^s \Rightarrow y^s = 0$  and if  $B^s x \leq 0 \Rightarrow y = d^s - B^s x^s$ , if we introduce a label  $(Bx - d)^- = \max\{d - Bx, 0\}$  inequality appears:

$$\sum_s p^s (B^s x - d^s)^- \leq \beta,$$

which is the mathematical expectation, so that the probability limit can be displayed in the form of:

$$E[(B^s x - d^s)^-] \leq \beta.$$

Finally, limit of probability would have the following form:

$$E[(A_1^* - \alpha L_1)^-] \leq \beta.$$

In the end let define the object function. The goal is to minimize total costs and contributions of active participants and corrective contributions of the company. Considering all mentioned above, we arrive at an expression for the object function:

$$E\left[\sum_{t=0}^T \gamma_t (c_t W_t + \lambda_z Z_t) + \gamma T \lambda_U U_T\right].$$

So at the moment  $t = 0$  will make such an investment decision  $x_t = (Z_t, X_{1t}, \dots, X_{Nt}, c_{t+1})$  that mathematical expectation of the amount of loss does not exceed the amount of pre-defined amount  $\beta$  with whatever scenario might happen. Thus we have made quantification of potential risks.

The optimal value of the function and allowed the actual loss are inversely proportional. With the increase of  $\beta$ , that is allowed shortage in the future the current value of investments reduces, and the optimal value of the object function is smaller.

## Concluding Remarks

The use of models in making strategic and tactical decisions in the asset management of pension funds is given different significance depending on the culture, legal framework and the portfolio manager's style [9, p. 17]. ALM models are especially accepted in the Netherlands and the United States, where it is considered a very powerful instrument with great influence on making correct decisions about the allocation of capital.

On the other hand, there are proponents of classical technique they consider ALM model only as "cosmetics", with no connection with the practice, on whose application the greater effort is taken in data entry, compliance with standards and other peripheral things, but in understanding the models.

Despite the existence of differences in attitudes about the need of advanced techniques in pension fund actuarial balance modeling on the basis presented above we can conclude that the strict regulations and accounting standards lead to their full justification.

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