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Journal of Applied Research in Finance

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- Conference Session Chairs;
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- Public Finance,
- Behavioral Finance.

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Schedule

Deadline for Submission of Papers:	15th June 2014
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Effects of Chinese Investment (FDI) and Service Trade on Economic Community of West Africa States (ECOWAS) Economic growth

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Abstract

This paper explored effect of Chinese investment and service trade on ECOWAS countries economic growth. The paper uses an amplified cumulative production function growth model. Granger causality and co-integration test were used in the empirical analysis, employing Augmented Dickey-Fulls (ADF) and stationary test, the variables proves to be integrated of the order one (1) at first difference. The granger method has been performed to test the hypothesis that causality is running from Chinese investment to ECOWAS countries economic growth while there is no causal relationship between Chinese FDI and bilateral service trade.

The analysis is carried out using Ordinary Least Square method, on times series data covering the period 1979 – 2000. The focus shows ECOWAS countries – China bilateral trade enhance western African countries economic growth. Yet it should be a reinforcing of the policy priority for ECOWAS countries to make sure this tie and the upcoming Chinese Foreign investment will be profitable, in term of transfer and acquisition of advanced technology.

Keyword: Foreign Direct Investment (FDI), service, trade, ECOWAS, growth.

JEL Classification: F14, C52, O47, O55

1. Introduction

In developing countries, trade and investment (FDI) are often regarded as significant catalysts for economic growth. FDI is seen as a significant vehicle of technology transfer from developed countries to developing countries. It also strengthens domestic investment and facilitates advancement in human capital and institutions in the host countries. International trade is also viewed as an instrumental in advancement of economic growth. Trade is also seen as facilitating more efficient services and production of goods by shifting production to countries that have comparative advantage in producing them.

According to Kotabe *et al.* (1998) service trade, which has been largely ignored in many previous researches, represents nowadays approximately 25% of the total value of global trade with growth in this sector being faster than the world trade in goods. According to Wymbs (2000), the remarkable enhancement in the globalization of services is due to a number of factors: service suppliers following clients; the result of the GATT, the opening of closed markets; advances in information and communication; the trend towards service outsourcing and the demand of services to match economic development. Despite this, it seems that theoretical developments in international marketing strategy have not kept swiftness with which the rapid globalization of services as grown (Lovelock 1996, Reardon, Erramilli and Dsouza 1996, Cicic 1999, Erramilli and Rao 1993)

With regards to Africa, and China, their formal trade started in late 1950s. During that time, major partner were those countries in North Africa. Currently, most African countries have become pertinent in exporting primary goods and importing consumer capital goods and services from china. In term of service, the trade service represents 14% of total exports service in 2006 (compared to 1% in early 1990s).

China focuses on the African continent with not only a need for industrial resources, but with the cash to play competitively. Its strategy can be said to be premised on a notion of economic development with Chinese characteristics that encourage African states to build their economies through trade and investment in infrastructure. The core objective of this study is to examine the effect of Chinese investment (FDI) and its service trade on ECOWAS economics. The basis of this study consists of using modern economic instrument for a weighted evaluation of the Chinese investment on ECOWAS economic growth and also highlights the limitation of this service trade and finally recommendations to enhance this trade.

Conclusion and recommendation

Present paper attempts to investigate the effect of service trade and Chinese Investment on ECOWAS countries economic growth. The study takes care of the issues of structural change in the economy by choosing the appropriate time period. We built our modified growth model from basic growth model, where the factor included is ECOWAS GDP, Chinese Direct Investment, Trade, Human capital, Gross Capital Formation and Employment, among which GDP is the dependent variable. Granger causality analysis shows that the Chinese FDI inflows to ECOWAS countries is due to the western African labor force dynamism, and contribute to the West African countries economic development. Granger causality shows its contribution on ECOWAS development in term of improvement of public infrastructure and private sector in western Africa.

Contrarily The OLS estimation reveals that the labor force and Chinese FDI are not significant while the bilateral trade variable, human capital and Gross Capital Formation explain the Economic growth of West Africa countries. The trade shows that, the tertiary sector, which has been abandoned since the independence of African countries, is recovering by the bilateral trade between China and ECOWAS countries.

Trade and corporate social responsibility have helped to reduce Africa poverty and brought about a lot of competition which has been profitable for the African people in term of the improvement of purchase power and the accessibility of the goods, at good price. However as a limit, the study suggests that on human capital development, language barriers and cultural differences weigh heavily against the transfer of technological skills and education from Chinese to ECOWAS citizens. Because cheap Chinese labor is often used, large industrial projects rarely transfer skills to local African populations. ECOWAS countries' rampant corruption has also proven to be a serious cultural obstacle that must be overcome if West Africa is to successfully leverage its demands vis a vis China.

In order to establish a proper cooperation between China and ECOWAS countries, the following steps are necessary. Firstly ECOWAS countries lies in developing the capacity to better manage its own policies toward China's engagement. ECOWAS should develop credible, accountable and transparent institutions; a free-market system that encourages investment, diversification, and competition is unlikely to emerge. West African should focus on how China's engagement in Africa fits into the broader picture of international engagement. In particular, ECOWAS Countries have an opportunity to diversify their development by balancing Western assistance with that of China but needs to better understand how each type of aid can be beneficial, and what sectors, in order to implement a successful strategy. Greater emphasis should be placed on building human capital and overcoming language and cultural barriers to facilitate the transfer of business knowledge and technology to a wider array of the ECOWAS population.

Reference

[1] Balencies, J-M. 2005. *La presence chinoise en Afrique. Dans les entreprises francaises de l'Afrique*, 17ème rapport, 2006, Conseil français des investisseurs en Afrique. Le MOCI, Paris, France.

[2] Blunch, N.H. 1999. Sector growth and the Dual Economy model: Evidence From Cote d'Ivoire, Ghana, and Zimbabwe, World Bank Policy Research Working Paper No. 2175.

[3] Borensztein, G.A. 1998. How Does Foreign Direct Investment Affect Growth? *Journal of International Economics*, 45(1): 115 - 135.

[4] Cicic, M.P. 1999. A Conceptual Model of the Internationalization of Services Firms. *Journal of Global Marketing*,12(3): 81 - 106, http://dx.doi.org/10.1300/J042v12n03_06

[5] De Mello, L. 1997. Foreign Direct Investments in Developing Countries and Growth: A selective Survey. *The Journal of Development Studies* 34(1997):115-135 http://dx.doi.org/10.1080/00220389708422501

[6] Drabek, Z.A. 1998. The new liberalism: Trade Policy Developments in Emerging Markets. *Journal of World Trade*, 32(5): 241 - 69.

[7] Erramilli, M.R. 1993. Service Firms' International Entry-Mode Choice: A Modified transaction cost approach, Journal of Marketing, 57(3): 19 - 38, http://dx.doi.org/10.2307/1251852

[8] Fosu, O.E. 2006. Bounds Testing Approach to Cointegration: An Examination of Foreign Direct Investment Trade and Growth Relationships, *American Journal of Applied Sciences*, 3 (11): 2079-2085

[9] Grossman, G. *Innovation and Growth in the Global Economy*. The MIT Press,1991.

[10] Igue, J. 2005 Impact de la Chine et de l'Inde sur les economies africaines cas du Benin du Burkina Faso, et du Ghana. Centrede Développement, OCDE, Paris.

[11] Zhang, K.H. 2001. 'Does Foreign Direct Investment Promote Economic Growth?. *Evidence form East Asia and Latin America Contemporary Economic Policy*, 19(2): 175 - 185.

[12] Karim, M. *FDI and Economic Growth in Malaysia*. MPRA Paper no14999 .

[13] Laaria, M. 2013. Leadership challenges in the implementation of ICT in public secondary schools, Kenya, *Journal of Education and Learning*, 2(1): 32 - 43 http://dx.doi.org/10.5539/jel.v2n1p32

[14] Lee, Y.S. 2005. Foreign Direct Investment and Regional Trade Liberalization: A viable Answer for Economic Development? *Journal of World Trade*, 39(4): 701 - 717.

[15] Madisson, A. 1998. *Chinese Economic Performance in long Run,* Paris OECD http://dx.doi.org/10.1787/9789264163553-en

[16] Mansell R. 1985. The Service Sector and Western Economic Growth, *Canadian Public Policy,* 11(s1): 354 - 360.

[17] UNIPEP, U.N. (.). Service sector as an engine of Growth: Case of the ECOWAS Sub Region.

[18] Hansen, H., Rand, J. (2006), On the Causal Links between FDI and Growth in Developing Countries, *The World Economy*, 29, 21 - 42.

[19] Rodriguez, F. 1999. *Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-Country Evidence* NBER Working Paper No.7081,1999 .

[20] Schlichting, Deborah A. 1997. Foreign Direct Investment in the Asia-Pacific Regions:Overview of Recent Trends and Patterns. *Asia Pacific Journal of Marketing and Logistics*, 9(3): 3-15.

[21] Solow, R. 1957. Technical change and the aggregate production function *Review of Economics and Statitistics*, 39 (1957): 312-320 http://dx.doi.org/10.2307/1926047

[22] Wood, A., and Berge, K. 1997. Exporting Manufactures: Human Resources, Natural Resources, and Trade Policy, *The Journal of Development Studies*, 34(1): 35 - 59.

To what extent does the Central Bank Bailout induce to Banks Moral Hazard and a Higher Liquidity Risk Appetite? Evidence of Tunisian Behavior

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Abstract

In this paper, we investigate the effects of bank liquidity needs on the monetary authority's reaction. Based on time series decomposition by filter Hodrick Prescott methods, and over the period stretching between January 1990 and December 2010. We find that the liquidity resources are unsteady and insufficient, whereas liabilities are higher and unsteady. Based on MCO regression and lagged operator technic, we study the efficiencies of the Tunisian central bank interventions. It was found that, in Tunisia, the lender of last resort intervenes in the monetary market not by giving assistance to illiquid banks, but to avoid inflation. The bank liquidity need is in some way neglected by monetary authorities although it has a short term and steady effect on the central bank reaction. At any moment, the central bank resolves this problem by injecting liquidity as a temporary solution. It's recommended to central bank to distinct between banks bailout strategy and monetary policy to bring the bank to investigate on liquidity gap resources. Results also, implicitly show that in Tunisia, the lender of last resort abusive reaction may create incentives for banks to take on excessive risk and moral hazard problem between banker and monetary authorities. Indeed, liquidity shortage risk remains the responsibility of banker management and in the crises situation of the central bank incentive due to the negative externalities associated with bank failures.

Keyword: liquidity resources shortage, a short term and steady effect, the lender of last resort, inflation.

JEL Classification: G21, G24, E58

1. Introduction

The 2007–2009 crisis showed that liquidity risk stemming from collective reactions by market participants can exacerbate financial instability. These developments have induced policymakers to focus on this risk, as part of the macro-prudential approach (De Larosière Report, 2009). Getting a better grip on such dynamics requires an understanding of bank liquidity determinants features witch range from insufficiency to instability. In practice, liquidity risk is analyzed, managed and regulated from the perspective of banks' funding positions (e.g. by supervisors) or on the level of the financial system as a whole (by central banks) (Staub 1999). According to Borio (2006), this approach leads us to analyze the central bank intervention to overcome banks liquidity needs and the cause behind the liquidity shortage. Dating back to Bagehot (1873) and Fischer (1999) the importance of a lender of last resort (LLR) has been stressed by many economists, but there is much less consensus on the nature of its role. The purpose of this paper is to analyze in the first section bank liquidity futures, and to provide a monetary model for understanding the role of an LLR in liquidity risk management. In the second section, based on this model, we ask whether the Tunisian central bank bailout is efficient or not.

Conclusion

In this paper, we devoted much attention to time series decomposition, adjusted for long-term growth trends. This is in contrast with the earlier studies which are based on only volatility method. Our first main result shows that the liquidity need has a short and long-term effect on the central bank intervention. The situation

results mainly from banker bad management. Results of the Hodrick Prescott filter support the presence of unsteady bank resources and a customer's seasonal behavior. In the same way, foreign currencies are unstable and insufficient especially in recent years due to economic, political instability and indebtedness European crises. Our results allow us to draw the following main conclusions: Liquidity need remains a serious problem for banks and for central banks. A key result coming out of our model is that, Academicians have shown that the joint existence of a lender of last resort (LLR) and of a stock market is usually considered the sign of a developed financial infrastructure. However, stock markets and banks may also complement each other. A securities market may play a role similar to that of a LLR by being of assistance to a bank, which faces possible liquidity shortages. This may be a line for future research. We examine which of these two institutions best prevents a bank's liquidity shortage while allowing the optimal allocation of the Tunisian bank's resources.

Reference

[1] Abbes, M. 2013. Volatility transmission and herding contagion during the global financial crisis, *International Journal of Managerial and Financial Accounting*, 5(2): 138–161.

[2] Acharya, V., Gromb, D., and Yorulmazer, T. 2012. Imperfect competition in the interbank market for liquidity as a rationale for central banking, *American Economic Journal, Macroeconomics*, 4, 184–217.

[3] Agénor P.R., and El Aynaoui K. 2010. Excess liquidity, bank pricing rules, and monetary policy, *Journal of Banking and Finance*, 34: 923–933.

[4] Aghion, P., Bolton, P., and Fries, S. 1999. Optimal design of bank bailouts: the case of transition economies. *Journal of Institutional and Theoretical Economics*, 155, 51–70.

[5] Allen, F., and Gale, D. 2000. Financial contagion, *Journal of Political Economy*, 108, 1–33.

[6] Allen, F., Carletti, E., and Gale, D. 2009. Interbank market liquidity and central bank intervention. *Journal of Monetary Economy*, 56, 639–652.

[7] Alsakka, R., and Gwilym, O. 2013. Rating agencies' signals during the European sovereign debt crisis: Market impact and spillovers, *Journal of Economic Behavior and Organization*, 85, 144–162.

[8] Antinolfi, G., Huybens, E., and Keister, T. 2001. Monetary stability and liquidity crises: the role of the lender of last resort. *Journal of Economic Theory*, 99, 187–219.

[9] Bagehot, W. 1873, *Lombard Street: A Description of the Money Market*, London, H.S. King.

[10] Berger, A., and Humphrey, B. 1997. Efficiency of financial institutions: International survey and directions for future research, *European Journal of Operational Research*, 98 (2): 175–212.

[11] Bervas, A. 2006. La liquidité de marché et sa prise en compte dans la gestion des risques, Banque de France, *Revue de la stabilité financière*, 8, 67–84.

[12] Bordo, M., 1989. *The lender of last resort: some historical insights.* NBER working paper No 3011.

[13] Bordo, M.D. 1990. The lender of last resort: alternative views and historical experience. Federal Reserve Bank Richmond Economic Review, 55, 18–29.

[14] Borio, C.E.V. 2006. *The Macroprudential Aproach to Regulation and Supervision: Where Do we Stand?*, Paper prepared for the special volume celebrating the 20th anniversary of Kredittilsynet.

[15] Çetin, U., Jarrow, P. and Protter, P. 2004. Liquidity risk and arbitrage pricing theory, *Finance and Stochastics*, 8(3), 311–341.

[16] Chen, Y. 1999. Banking panics: the role of the first-come, first-served rule and information externalities, *Journal of Political Economy*, 107(5): 946–968.

[17] Cifuentes, R., Ferrucci, G., and Shin, H.S. 2005. *Liquidity risk and contagion*, Bank for International Settlements.

[18] Circulaires de la BCT aux banques N°2010-05 du 25 février 2010 et N°2010-07 du 30 avril 2010.

[19] Cooper, R., and Ross, T. 1998. Bank runs: liquidity costs and investment distortions, *Journal of Monetary Economics*, 41, 27–38.

[20] Diamond, D.W., and Dybvig P.H. 1983. Bank Runs, Deposit Insurance, and Liquidity, Journal of Political Economy, 91(3): 401-419.

[21] Diamond, W, and Rajan, G. 2002. *Liquidity Shortages and Banking Crises*, NBER Working Paper No. w8937

[22] Drehmann, M.N. 2010. *Funding Liquidity Risk: Definition and Measurement*, BIS Working Papers, p316.

[23] Dubernet, M. 1997. *Gestion Actif-Passif et Tarification des Services Bancaires*, Economica, Paris

[24] van den End, Jan Willem and Tabbae M. 2012. When liquidity risk becomes a systemic issue: Empirical evidence of bank behavior, *Journal of Financial Stability*, 8(2012): 107–120.

[25] Engle, R.T., and Bollerslev, F. 1986, Modelling the Persistence of Conditional Variances, Econometric Reviews (incl. Comments from Diebold Geweke, Pantula, Zin, and Hendry's An Excursion into Conditional Varianceland), *Economic Review*, 5(1): 1–50.

[26] Engle, R.F. 1982. Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation. *Econometrica: Journal of the Econometric Society*, 987–1007..

[27] Fischer, S. 1999. *On the Need for an International Lender of Last Resort*, mimeo

[28] Freixas, .X. 1999. The Lender of Last Resort in Today Financial Environment , ELSO puscles del Centro de Recerca En Economia Internacional, N°4.

[29] Freixas .X., Parigi, B., and Rochet, J.C. 2000. Systemic Risk, Interbank Relations and Liquidity Provision by the Central Bank, *Journal of Money, Credit and Banking*, 32(3): 611–638.

[30] Freixas, X. 1999. Optimal bailout, conditionality and constructive ambiguity. LSE Financial Market Group Discussion.

[31] Genotte, G., and Pyle, D. 1991. Capital Controls and Bank Risk. *Journal of banking and Finance*, 15, 805–824.

[32] Goodfriend, M., and King, Robert G. 1998. Financial Deregulation, Monetary Policy, and Central Banking. *Federal Reserve Bank of Richmond Economic Review*, 74 (May/June 1988), 3–22.

[33] Goodhart, C.A.E. 1987. *Why do banks need a Central Bank?*, Oxford Economic Paper, N° 39, p. 75–89.

[34] Goodhart, C.A.E. 1995. *The Central Bank and the financial system*, Cambridge, MA: MIT Press

[35] Goodhart, C. 2008. La gestion du risque de liquidité, Banque de France, *Revue de la stabilité financière* 11 (2008): 41–46.

[36] International Monetary Fund. 2012. *World Economic and Financial Surveys*, Global Financial Stability Report, Restoring Confidence and Progressing on Reforms.

[37] Lee, S. 2013. Systemic liquidity shortages and interbank network structures, *Journal of Financial Stability*, 9(1), 1–12.

[38] Maggina, A.G. 2009. Management control: a review, *International Journal of Managerial and Financial Accounting*, 1(3): 225–234.

[39] Marini, F. 2003. Prêteur en dernier ressort et solidarité de place, *Cahiers d'économie politique*, 2(45): 123–137.

[40] Matz, Leonard, and Peter Neu, eds. 2006. Liquidity risk measurement and management: A practitioner's guide to global best practices. Vol. 408. John Wiley and Sons.

[41] Minsky, H.P. 1977. *A theory of Systemic Fragility*, in: Altman, E., and Samaets, A. (dir.), Financial Crisis-Institutions and Markets, in a Fragil Environment, Wiley, New York

[42] Minsky, F. 1993. *Finance and Stability: The Limits of Capitalism*, Levy Economics Institute Working Paper No. 93 , http://digitalcommons.bard.edu/hm_archive/43

[43] Miron, J. 1986. Financial panics, the seasonality of the nominal interest rate, and the founding of the Fed, *The American Economic Review*, 76(1): 125–140.

[44] Mishkin, F. 1998. *Systemic Risk, Moral Hazard and the International Lender of Last Resort*, NBER and Columbia University, April. paper No. 237.

[45] Poorman, F. Jr., and Blake, J. 2005. *Measuring and Modeling Liquidity Risk: New Ideas and Metrics*, Financial Managers Society Inc. White Paper.

[46] Powo Fosso, B. 2000. Les determinants des faillites bancaires dans les pays en developpement: Le cas des pays de l'Union Economique et Monetaire Ouest-Africaine (UEMOA), 1–33.

[47] Rapport annuel de la banque central, plusieurs numéros

[48] Rapport du FMI No. 12/2412012 Fonds monétaire international Tunisie: Évaluation de la stabilité du système financier International Monetary Fund, Publication Services.

[49] Rochet, J.C. and Tirole, J. 1996. Controlling Risk in Large Value Payment Systems, *Journal of Money, Credit and Banking*, 28, 832–861.

[50] Staub, M. 1999. *Aspects of Systemic Risk in Banking*, Dissertation, Basel.

[51] Tarishi, M. 2012. Imperfect interbank markets and the lender of last resort, *Journal of Economic Dynamics and Control*, 36, pp. 1673–1687

[52] Thornton, H. 1802. *An Enquiry into the Nature and Efects of Paper Credit of Great Britain*, London, Hatchard

[53] Van Norden 2004. Filtres pour l'analyse courante, Actualité économique, 80(2-3), 523–546.

[54] www. cmf. org. tn, www. fitchratings. com. tn

[55] www.apbt.org.tn

[56] www.axiscapital.com.tn

[57] www.bct.gov.tn

[58] www.ladocumentationfrançaise.fr/revues -collection/problèmes - économiques/marché interbancaire

[59] www.portail.finances.gov.tn

'There is as much reality in a man as work energy'
(C. Rădulescu-Motru, Personalismul energetic, 1928)

Co-Participatory Romanian Governance Model, Way Out of the Economic and Social Crisis of Romania?

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Abstract:

The need of a coherent pattern to get out of the crisis on a sustainable development makes the cybernetic organisational models to be necessary in addition to the classical ecometrics models which measures the flows without taking into account the structural type reports. The next model of governance through the co-participation of the stakeholders and by delegating the responsabilities on the networks of competence, with actions and specific expertise which can colaborate through IT means.

The coherence of the models is given by the ensemble sustainability which is based on a triangulated category, where any commutative diagram is generated by three cycles, and every cycle is generated by three comutative diagrams, creating in this way, a self-sustainable ensemble. The final theoretical model is a triangulated category of a dissipative systems, that are in a counterpart(ed) relation, wich formes a balanced vector, of fractal structures which developes a symetric system.

The description of this system of a participatory governance is given in this paper, the model being useful not only for ensuring the policies coherence and the public governance, but also for financing the governmental programs.

Keywords: co-participative governance, stakeholder, pyramidal state system, triangulated category, comutative diagram, dissipative system, counterpart relation, fractal structures.

JEL Classification: M15

1. Current situation in Romania

For more than two decades, Romania pays a huge price for the favor of having been accepted in the Euro-Atlantic structures. The globalization process imposed by the European Union member leading states and accepted by the states of Eastern Europe, allowed the development of some processes of transition from socialism to capitalism with a pronounced experimental character, whose results are difficult to estimate. Under these circumstances, Romania was forced to accept radical transformation processes in all key sectors of the economy, such as industry, agriculture, services, health and education. Gradually, a large part of the national wealth vanished or became the property of private companies or states with the consent or connivance of state politicians and policymakers, all these leading to the present situation. It should be noted the disastrous situation of the industry that in the early 90s would incorporate 26 strategic organizations/units with more than 200,000 employees while now in these organizations there are only 11,500 people working.

The power sector with a contribution of over 35% of the budget was partially privatized in pieces or in bulk, as government officials decided, but not after the rigorous criteria of the contemporary managerial act.

Some privatizations were carried out with gross violation of the fundamental law - the Constitution of Romania - (public wealth of the subsoil, the air space, waters with hydropower of national interest, beaches, territorial sea, natural resources of the economic zone and the continental plateau, as well as other assets established by the organic law, are subject exclusively of public property) - lead to the significant decrease of the national wealth

National wealth is a complex socio-economic category that reflects the value of the potential human development of a country at a given moment. National wealth is the support of the development and existence of life on earth. It represents all the material and spiritual goods accumulated, the natural and human resources as well as of the financial resources a nation has at a certain moment. One can state that national wealth represents all goods of any kind that a nation has at a given time. These goods are actually the products of human labor stored, including the value of renewable and non-renewable natural resources.

National wealth is a complex, dynamic and self-regulating cybernetic system.Its complexity is reflected in its component subsystems and the connections between them are reflected in the recent World Bank study on the value of national wealth: 64% - human capital, 20% - natural capital, 16% - physical capital.

The evolution of mankind did not take place on the basis of a well-defined strategy, but it allowed to be carried by the enticing, often misleading wave of the scientific and technical progress, which has enabled the creation and priming of some 'bombs': the nuclear bomb, poverty and environmental pollution.

Modern society tries to abandon the current predatory development model and replace it with one of sustainable development that protect the wealth of nations and the environment which can result not only in our current needs satisfaction but also of those of the generations to come, under the circumstances of an environmental management.

Mankind must not stop economic growth but correct it, to become sustainable, sustainable, equitable intergenerational and ecological.

PID (sustenable domestic product) = GDP - Negative balance of the national wealth (NBNW) The negative balance of the national wealth (NBNW) can be calculated:

NBNW	=	Natural resources losses	+	Human capital losses	- +	Ecological environment losses	+	Foreign trade losses	+	Defense expenditures

There is an optimal situation in economy when PID = GDP, so when NBNW = 0.

In the modern sense, the concept of 'human capital' belongs to the Nobel Prize winners for economics Theodor W.Schultz and Gary Backer [Baker (1990)]. Thus, human capital represents the productive, intellectual capacity, of the individual as a result of his professional training.

Professor Mircea Bulgaru defines human capital as the particular human capacity, which expresses the totality of physical, intellectual, occupational, physical and moral capacity of a community to gain knowledge, experience and skills and to innovate and invent in order to create material goods, spiritual as well as other human values put at the service of humanity (Bulgaru 2003).

Human Capital - peculiarities arising from the biological and social nature of the human being:

- it replicates naturally, biologically, by gradual replacement of some generations with others,
- in a lifetime it acquires greater value by acquisition of knowledge, abilities and skills that enhance its creative value,
- it continuously changes its state, behavior and structure,
- it is both the producer of the material and spiritual goods, and the consumer,
- it has cost and value, which enables quantifying and evaluating its economic analysis,
- Human economic value, that is the value of what man produces for society as material goods and spiritual values, fined with what society loses by attrition of human capital caused by poor health and loss of work ability and its compensation by health care,

- man's social value, understood as quality of life, material and spiritual well-being, pleasure of living, tending towards that ideal of 'being healthy', of 'living well' and 'living long',
- it represents the spiritual part of the human capital,
- it represents the creative potential of a nation, that is its scientific-cultural potential,
- it is formed and it accumulates continuously and can be considered a creative human capital created by past and present generations,
- Intellectual capital - part of the human capital - is the spiritual part of the human capital,
- it represents the creative potential of a nation, that is its scientific and cultural potential,
- it is formed and it accumulates continuously and can be considered a creative human capital created by past and present generations.

For a sustainable and efficient management of the entire capital, the proper management of human capital is very important so we propose Professor F. Colceag's 'Co-participatory governance model'.

Conclusions

The draft was sent to the Club of Rome, OECD and World Future Forum. The Model of Country looks strikingly, in terms of historical expertise, social diagnosis, motivation and benchmarks of good practice (taken from the experience of the British system) with Mihai Eminescu's Organic State theory.

The Model of Country is not merely a theory, but mostly a textbook, a kind of machine that its author teaches one how to build and use it, Florian Colceag taking advantage of the XXI century research tools. Romania's real recovery solution is 'the model of country'.

Financial and monetary value is only one of the values underlying the model of country project. In Romania, the fact that the brand values, the values of knowledge and community values are not appreciated, but impaired, put us in an extremely fragile situation in the face of Europe and the world, since a country can rebuild its economy based on the prestige of a brand, certain knowledge or community values. The latter, for instance, shows a good internal organization, which means that people not only support one person or another, but their ideas, principles, solutions, inventions.

Crisis management - we are facing crisis at present - the only solution is self-organizing programs, implementation of the Caux Round Table Principles, a preamble and a set of seven general principles and six sets of principles dedicated to the relations with interested groups, special principles aiming at State responsibility, the companies' responsibility towards employees, owners and investors, suppliers, competitors and communities.

References

[1] Baker, G. 1990. *Human capital a Theoretical and Empirical Analysis*, Columbia University Press, New York.
[2] Bulgaru, M. 2003. *Mileniul trei – disperare şi speranţă* (In Romanian), Revista Română de Statistică Publishing House, Bucharest.
[3] Bernard, C. 1986. *Theory and Function of the Executive*, Cambridge Harvard University Press.
[4] Colceag, F. 2010. Modelul de țară, statul organic, In Romanian, Available at: www.certitudinea .ro
[5] George, W. 2003. *Authentic Leadership*, Jossey Boss, San Francisco.
[6] Rizea, M. 2008. De la falimentarea sectoarelor strategice, la managmentul potentialului intelectual national, Academia Nationala de Informații Publishing House, Bucharest.
[7] Rădulescu Motru, C. 1999. *Psihologia Poporului Roman*, Paideia Publishing House, Bucharest,
[8] Senge, P. 1990. *The Fifth Discipline*, Currency Doubleday, New York.

International Funding in the Context of Strategies to Attract Foreign Investment

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Abstract

Globally, the trends manifested phenomenon refers investment. The deepening interdependence among national economies is particularly pronounced expansion of international investment in many forms that takes.

An important role is played by means of financing international financing can be a factor in the development of foreign investment. International funding is distinguished by the fact that the debtor and creditor belonging to different national economies by their governments, banking and financial institutions or companies or individuals.

A national financial market cannot be parted from the international market, the supply and demand for capital in the international financial market as part of financial assets available in the country are invested in another country, and many of the needs for funds operators in a country covered external resources.

Offer external capital is related to international development strategy and resources, the external debt problem and ultimately global economic climate, the business cycle in developed countries. International resources, which must complete its own public or private, that they come from the governments of capital exporting countries or international governmental organizations as well as banks, insurance companies, businesses, individuals.

Keywords: foreign capital, strategy, resources, world economy, international financial markets, International funding in the context of strategies to attract foreign investment.

JEL Classification: G21, G24, E58

1. Introduction

Investment means any use of an asset as capital, in order to obtain profit in a future period.

If the parties to the investment are from countries other than the country in which the investment is made , this is called international investment/ foreign investment.

International investments may take the following forms:

- Purchase of shares and / or bonds of a foreign market or issued by a company in another country,
- Establishment of a new company or opening a branch in another country,
- Granting financial credit of a trader from another country or a foreign economic entity operating on its own market,
- Acquiring or merging with a foreign firm,
- Capital investment participation in the formation of joint ventures.

International statistics show, however, the game inflows and outflows of funds (dividends, interest or maturity), for many states, it was negative annual balances, leading to their scarcity. Romania aims at making connections with the international market through both private and government capital exporters and the international financial institutions and development organizations (IBRD, EBRD, Development Finance Corporation - CIF, European Investment Bank - EIB, other banks UN and regional bodies), the use of external resources is illustrated by the external debt paid and the present.

As the demand for external capital, there are many ways to attract capital in the financial market:

- Financing of direct investment,
- External borrowing,
- Financial support for development,
- Placement of securities issued by operators within a country 's capital market of a country or in multiple markets,
- Entry of domestic securities exchanges in other countries.

- Equally important is the withdrawal of funds from those countries considered politically and economically unstable and speculative, to the international capital market, so that, paradoxically, offers the poor countries 'rich'.

To achieve international financing investment are important these types of financing and foreign lending , but essential for Romania have direct investments , because those who invest abroad seeking financial and monetary profits or benefits as an extension of the they have in their own country , influencing and working with the local economy.

Funding arrangements and investment lending abroad are similar to those charged for any investment project: the creation and growth of own funds and debt financing. Creating a foreign investment capital required is:

- The resources obtained international capital market (which can also realize the great transnational companies in the form of securities issued bonds placed on various foreign markets).
- The resources from capital market investment in the recipient country and there are two situations; whether it is a developed country financial resources are capital market and financial institutions in the country; if it is a less developed country, the investor may receive funding privileges of some local development companies or international financial institutions.
- Funding by increasing their funds are contributions due to new equity and quasi - equity and specific action of venture capital companies
- Venture capital firms are specialized financial institutions with equity financing to companies investing abroad.

Loans to foreign investment may be short-term and medium-term and long-term debt based on ability and possibilities of redemption, they acquire credits in local currency or foreign currency from banks and non-banks. Eurocredits have both role in international trade, but also in the development of large projects such as construction projects and equipment purchases or can be secured to a line of credit or loan renegotiation of earlier.

Conclusions

Policies aimed at influencing the location decision of foreign investment - is the inner circle of policies to attract foreign investment. Policies affecting foreign direct investment, but have not been designed in order to attract these investments is the outer circle of the policy framework for foreign investment. Policies that directly or indirectly affect foreign investment are directly determined by the specific context of each country, as such their contents vary from country to country and over time, if the same country.

The core policies on foreign investment is essential because foreign investment can not be made only where permitted. However changes on foreign investment policies have asymmetric effect on decision's investment location 'foreign'. Changes in the sense of favoring foreign investors may cause an increase in these investments, but this is not guaranteed, nor in direct proportion to the extent they promote at the same time, changes in the restricted sense, especially radical such as nationalization, determines clearly a reduction in foreign investments.

Since the mid 80's, the vast majority of countries have introduced measures to liberalize foreign direct investment framework, measures had positive effects on investment inflows. Globalization and liberalization of foreign investment have boosted each other, this phenomenon continues today.

This has given multinational companies a wide range of potential growing increasingly similar in different countries as part of a global trend towards investment liberalization policies of the inner and outer circle have become increasingly important .

Currently, foreign investors assess the investment climate of a country, not only through foreign investment policies, but also in terms of organizational macroeconomic policies.

Among the policy measures which may have a direct effect on foreign investors include membership in regional integration organizations, as this has an effect on a key economic factor, namely market size and its growth prospects.

In fact, because of this factor belonging to such an organization could be considered as an economically determining itself. Regional integration organizations can cover a wide range of integration measures, which include the reduction of customs duties between members, to harmonize policies in various fields. A concrete example in this regard would be the 20% reduction in the purchasing power of wages.

Policies on foreign investment, both in terms of attracting (entry) foreign investment and in promoting outward (expansion), which are part of the inner circle are becoming more similar in developed countries, this phenomenon occurred more often advance of regional integration.

For developing countries, membership of a regional integration organization requires at least a partial harmonization of policies on foreign direct investment (Cernat and Vrânceanu 1992).

In the context of increasing policy convergence on FDI in more countries, measures favoring businesses are becoming increasingly important. These measures include investment promotion, incentives, insurance postinvestiţie services, improving business infrastructure, reducing transaction costs in doing business. Such measures are not new but they have gained new momentum in recent years as a means to compete in attracting foreign investment.

However, measures to facilitate business have become increasingly sophisticated, increasingly aimed at individual investors, even if it involves high costs and other staff.

Among these measures is remarkable 'after investment' services due to increased share of reinvested profit in total investment flows and satisfied because investors are the best advertisement for the business climate in a country. Financial or fiscal incentives are also used to attract investors, even if they are important especially when other arguments on the decision to invest are already satisfied (Dăianu 2002).

Once there is an appropriate political and legal framework for foreign investment, economic factors begin to play a distinct role in the decision to invest.

These economic factors are divided into three groups, corresponding to the main reasons for determining foreign investment:

- Providing resources or assets,
- Insurance markets,
- Ensuring efficiency.

In previous decades was relatively easy to distinguish the types of FDI, corresponding to each of these reasons. From the historical point of view, the existence of natural resources was the most important factor in attracting foreign investment to countries that lacked capital, skilled labor, know-how and infrastructure required for exploitation (extraction, processing and sale) of these resources natural. The importance of this factor in itself has not decreased but the importance of the primary sector in world output has declined.

In addition, developing countries appeared large firms, often owned by the state, with capital and ability to extract and sell natural resources. These changes have made the participation of multinational companies in the field of natural resource extraction to occur more through non-financial arrangements, and less direct investment, although one can not speak of a decline in FDI in natural resources.

The size of the domestic market, in an absolute sense or relative to population size and degree of solvency of its claim, was another factor that caused investment to traditional insurance markets. One of the main reasons for regional integration organizations lead to increased foreign investment is that large markets allow market access for many companies and enables each of them to benefit from economies of scale while high rates stimulates growth markets both foreign investors and the domestic ones. The most serious problem of the Romanian economy at the moment is, in my opinion, the existence of an economic structure incapable of ensuring a high degree (even to the average European) investment multiplier, reflected in a low potential for producing value added and respectively, of its market capitalization.

Type structure of the economy is mostly subcontractors to the company and foreign companies with manufacturing and assembly component more important than research and innovation, agriculture and related domains were fluctuating meteodependente contributions and consumption is up more than 50% subordinate import.

The internal capitalization is restricted by tax type antiantreprenorial of Corut and political cronyism and inefficiency of the stock market.

For these reasons, I think we can hope in an effective and fair financing in terms of long-term interest until you pass a reform of the economic structure. Such reform should start from identifying the factors of national comparative advantage that can be converted into factors of competitive advantage. Not until after the analysis is

completed should realiazată a strategy to attract foreign capital in the directions and activities that are consistent with the national strategy of asset recovery factors and not by accident , and short term effect of unilateral will of the foreign investor.

Of course, such an approach may be possible only if the Romanian economic environment is competitive internationally (fiscal, institutional, forward) and while the Romanian economic policy has a strategy and bargaining power.

What can Romania to secure financial resources in terms of increased competition and higher costs of borrowing ?

Some main directions can be identified:

First and most important is recognizing the need to change the development model from one based too heavily on external financing to one based on domestic savings. In recent years, domestic saving has been discouraged by the abundance of cheap foreign capital too. The situation was similar to that in the southern European continent, who was fooled by cheap interest rates at which they lend a European market overly optimistic regarding individual risks. Increasing levels of domestic savings will mean a growth of interest on deposits by banks, which have the effect of increasing the cost of credit.

A higher cost of credit negatively affecting economic growth because both investment and consumption are reduced. This effect however is mitigated by a more rigorous qualitative selection of investment projects and consumer credit and real estate must be made both by banks, private investors and public institutions.

How competition for funds will increase European and even global, Romania should strive to improve their attractiveness to investors by further reforms to improve the business environment. Romania might even enjoy a relative advantage because it has already exceeded the first phase of austerity and macroeconomic indicators achieved significant correction phase that other countries just preparing to initiate. European dynamics can create investment opportunities for countries like Romania, provided that there is here a convincing business environment and prospects for improvement.

The public authorities have an important role in the success of the transition to a new model of financing the economy. They must follow on the one hand reduce deficit spending and so that as many financial resources that can be mobilized to turn to the private sector who create growth and jobs. On the other hand, public authorities need to increase efficiency in using the funds they have available both the investment and the quality of public services.

Finally, remember that Romania is still able to attract billions of euros of EU funds; if only this source if it could be harnessed to solve the whole problem of financing the economy in coming years. Reorganization and modernization of the Ministry of Public Finance unit of renouncing the current (but outdated) view of the budget by passing philosophy in designing the budget as an accounting account in its design as an instrument of state economic policy both within the national economic environment as and Community.

Broaden the framework of governmental economic consulting the organization and functioning of institutionalized and paid a National Advisory Council created by the participation of Romanian and foreign experts (other than those of the IMF).

Correcting wrong measure to reduce the budget package by increasing the number of staff employed at NAFA and European Affairs to increase the share of revenue collection and to accelerate the process of accessing funds. (Romania has the lowest number of personal tax collector in Europe reported both in population and in the number of business).

Realignment of funding priorities by shifting agriculture in the first place and reduce or even temporary waiver of little or no investment brings jobs and value added services (parks, swimming pools, gyms, churches, paving rural roads etc).

Transition to a partial shift action of exports to extra areas in order to gradually reduce dependence (over 70 %) compared to only four or five markets of European countries in danger of recession, so the low import demand Romania.

Introducing luxury tax / wealth of European type possibly while reducing taxes on labor(social security contribution).

References

[1] Cistelecan, L. 2002. *Economy, efficiency and investment financing,* Economic Publishing House, Bucharest.

[2] Ciobanu, G. (eds.). 2010. Microeconomics. (Manual of Political Economy Department, Faculty of Economics, Babes-Bolyai University), Risoprint Publishing House, Cluj-Napoca.
[3] Georgescu, F. 2012. The active management of the company's treasury, a solution for avoiding the crisis situations. *Journal of Applied Economic Sciences*, VII, 3(21): 209 - 227.
[4] Moisuc, C., Pistol, L. and Gurgu, E. 2006. *International Economics,* Foundation 'Romania of Tomorrow' Publishing House, Bucharest.
[5] Matei, V., Constantinescu M., and Iacobescu A. 2006. *International Economics*, Vol I, II, Universitaria Publishing House, Craiova.
[6] Moise, Simona, and Antonescu Mihai. 2008. Tax Aspects regarding taxing the incomes of Non-Residentes in Romania, *Journal of Applied Economic Sciences*, VIII, 2(4).
[7] Moise, Simona. 2005. Tendencies of the attracting strategies of foreign investments in automotive industry of Romania, *Annals of the University of Craiova,* Economical Sciences.
[8] Moise, Simona. 2005. Qualitative Tendencies and Changes in Automotive Industry*, Economical Annals of the University of Petroşani*, vol. 5, pp. 223.
[9] Moise, Simona. 2003. *Considerations regarding foreign investments in the automotive industry in Romania,'* Session of scientific communications, Working papers, Faculty of Accounting and Finances, Spiru Haret University, Craiova.
[10] Moise, Simona. 2004. Impact of the exchange rates fluctuations over profit at multi-national companies, *Session of scientific communications*, Alba Iulia, 2004.
[11] Moise, Simona. 2004. *Capital investments in automotive industry in Romania*, Tribuna Casim Magazine, 2, 2004, Scientific Communications.
[12] Moise, Simona. 2008. *Risk management versus corporate governance – Control, communication and transparency*, International Conference on Business and Information Technologies,Craiova, Octombrie, 2008 (autor) European Research Centre for Business Administration and Managerial Studies, Reprograph Publishing House, Craiova.
[13] Moise, Simona. 2009.*The role of financial diagnosis in the Medium Sized Companies performance,* The 3rd International Conference on „Further Challenges for a Competitive Management' Craiova, Romania, 23 – 24 Octombrie 2009 European Research Centre for Business Administration and Managerial Studies Reprograph Publishing House, Craiova.
[14] Spulbăr, C.M., Gherghinescu, O. and Spulbăr, T. 2009. Globalization and performances in banking activity'. *The Young Economists Journal*, 1(12): 50-60.

Reviews on Accounting of Revenues Associated to the Production Cost of the Work in Progress

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Abstract:

Revenues associated to the production cost of the work in progress are revenues which do not generate monetary income in the very next period; as sources of virtual enrichment for the enterprise, they are valued, for reasons of prudence, at the level of the production costs.

At the level of principle, we can discuss how to separate costs of the finished products for production in progress, particularly difficult problem seen in practice and which, in most cases, makes the productive entities either to give up the actual determination of production costs or to make an improvised calculation.

Given the existence of two types of production in progress at the beginning and end of the period, in order to separate the costs between the two elements it is necessary to use the stock assessment methods, as shown in IAS 2, respectively the weighted average cost method (WAC), the FIFO method and the standard cost method, methods used in theory and practice exclusively for evaluating stocks, other than those of finished products, let alone for the production in progress.

In our opinion, the issue is not the accounting method for revenues associated to the production cost of the work in progress, but the evaluation method of the output obtained and stored, especially when you get both finished products and products in progress.

Keywords: Production cost of the work in progress, revenue accounting, inventories, separation costs, weighted average cost, FIFO method, WAC, stock assessment, evaluation of acquired production, finished products, products in progress.

JEL Classification: M41, R32, E24, J3

1. Introduction

In full agreement with the opinion of Staicu (2010), the production of any trader is reflected, on the one hand, in different material assets, which is reflected in accounts coresponding to their proper nature, existing in the class of stock accounts, and on the other hand, in the income from these productions produced and delivered to the warehouse (deposit) of the entity for storage (stocking) until the capitalization to customers, as well as the unfinished one at the end of the period, which in our opinion outlines the appearance of variation in stocks

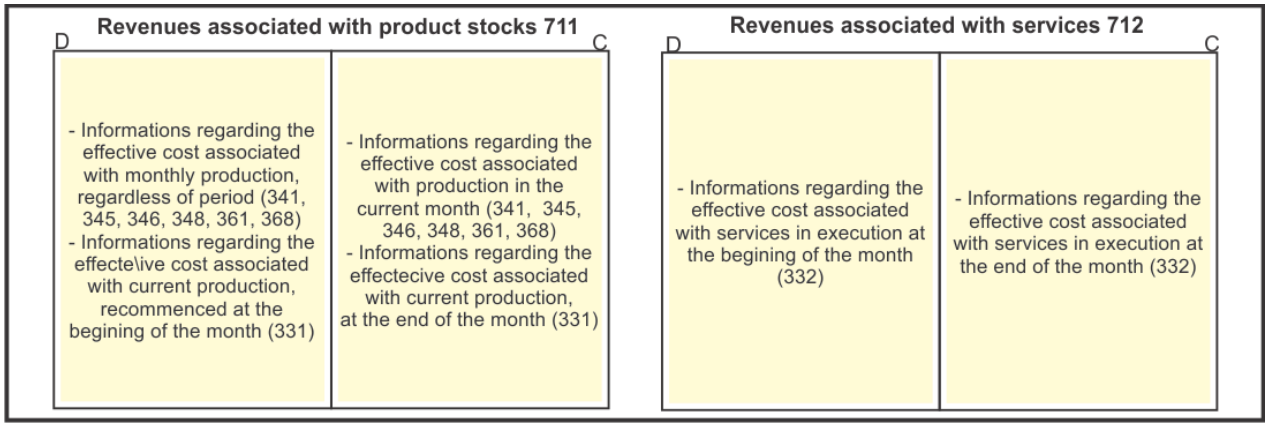
2.The evaluation method of the output obtained and stored

Thus, the variation of stocks of finished products can be a plus (for stocking, when the final stock is higher than the initial stock) or minus (for destocking, the final stock is lower than the initial stock). In other words, the income from stocks variations is calculated as the difference between the production cost of supplies and production in progress at the end of the period and the initial value of these stocks without taking into account the provisions made for impairment.

The variations of stored production are determined for each form of stored products (finished goods, semi-finished products, waste products) as well as for the production in progress. Revenues associated to the production cost of the work in progress are revenues which do not generate monetary income in the very next period; as sources of virtual enrichment for the enterprise, they are valued, for reasons of prudence, at the level of the production costs.

The income from stocked production influence the final outcome of the activity, recorded into the profit and loss account with plus or minus sign as it presents as a credit balance and, respectively, debtor one.

What the OMPF 3055/2009 brings new is that it separates the revenues associated with the costs of the completed production (account 711) from the revenues associated with the costs of services in progress (account 712) and whose economic content and mode of operation are presented according to the scheme below:



Summarizing the above, we can note that the difference between the creditor and the debtor turnover of account 711 'Changes in inventories' represents, at the end of each reporting period, the increase or diminution of the total cost, including price differences related to the own production both finished and in stock, a difference which is transferred to the income statement, but the influence it exerts is canceled in time (Scribd 2013).

Although speaking of income, the actual question is the determining the production costs which serve to the assessment of stocks obtained from own production and generate income upon their sale.

3. Separation of costs between finite production and work in progress

The calculation of production costs is an attribute of management accounting and, generally (Iacob 2007), is presented according to the scheme in Figure 1.

Ch. Horngren, S. Datar and G. Foster (2006), as it results also from the practice of SMEs in our country, from a study conducted on Australian companies in various industries (food, textiles, steel, chemicals, oil, printing and publishing, furniture and accessories, machines and computers, electronics) note that the determination method of the production costs vary considerably from one sphere of activity to another.

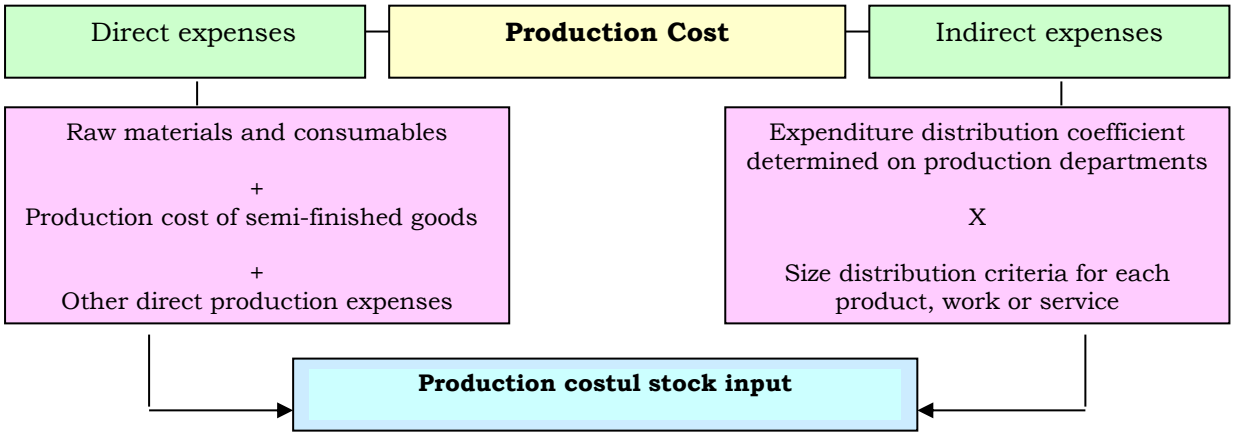


Figure 1. Construction of the production cost

In the context set, it is very difficult to bring to attention an effective calculation under the pretext of its validity for all kinds of activities. However, we can assert that at the level of principle, we can discuss how to separate costs of the finished products for production in progress, particularly difficult problem seen in practice and which, in most cases, makes the productive entities either to give up the actual determination of production costs or to make an improvised calculation.

Given the above statement, using the bookkeeping method on the example of SC EPSICOM SRL Craiova (manufacturer of integrated circuits for electronic boards), we started from three working assumptions (Iacob 2007), namely:

Hypothesis 1: there is no work in progress, neither at the beginning nor at the end of the period;

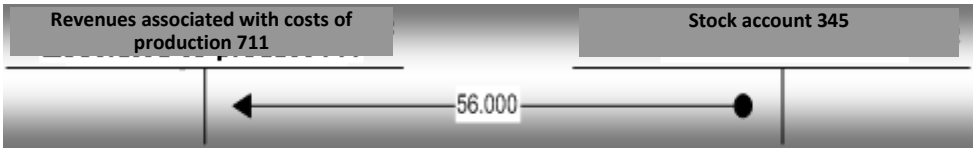
Hypothesis 2: there is no work in progress at the beginning of the period, but it appears at the end of the period;

Hypothesis 3: work in progress appears both at the beginning and at the end of the period.

Hypothesis 1. In month N, the production department manufactures 400 units of integrated circuits that are transferred in the products store. For manufacturing them there were recorded expenses worth 36,000 lei raw materials and 20,000 lei manufacturing costs, total 56,000 lei.

In this case, as the products are homogeneous and there is no running production, the unit production cost is 140 lei/pcs, of which 90 lei/pcs raw materials and 50 lei/pcs manufacturing costs.

Basically, this reasoning applies to all enterprises with homogeneous production and justify the application of the method of simple division for calculating the unit cost and, in terms of accounting, the revenues associated to the costs of production are recorded as illustrated below:



Hypothesis2. In month N+1, In month N, the production department manufactures 400 units of integrated circuits, but only 175 units are finished, which are transferred in the products store, the rest of 225 remaining in progress.

If raw material costs are incorporated at the beginning of the production process (so they will also rise in the amount of 36,000 lei), the manufacturing costs being incurred evenly throughout the manufacturing flow, they justify the recording of a lower level than for the previous month, respectively of 15,500 lei and it is considered after the evaluation that the finishing stage of production in progress is of 60%.

In order to calculate the cost, first of all we need to determine the products in progress equivalent finished in order to achieve the correct attribution of expenses using standard evaluation process for each cost component, as shown in Table 1.

Table 1. Calculation of equivalent units under hypothesis 2

Explanations	Physical units	Physical units charged	
		Raw materials	Production costs
Units entered into production	400		
Units of finished products	175	175	175
Products in progress (60% finished)	225	225	135 (225x60%)
Total units for the calculation	400	400	310

According to the table, costs separation between the finite production and the running one will be done according to the equivalent units, indicating that we shall determine two unit costs, one for raw materials and the other for manufacturing costs, as seen in Table 2.

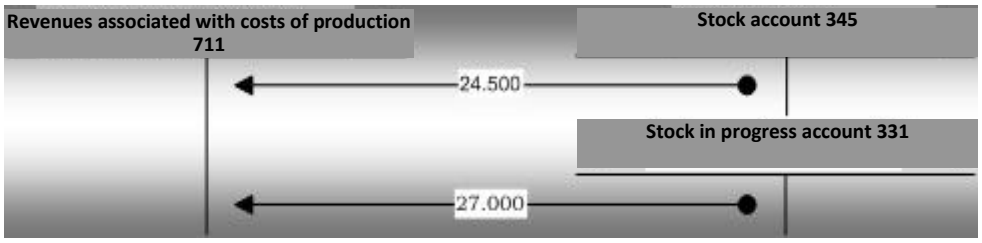
Table 2. Separation of costs between finite production and work in progress under hypothesis 2

	Total cost	of which	
Explanations	production	Raw materials	Production costs
Accrued expenses	51500	36000	15500
Units on which costs are distributed		400	310
Cost per equivalent unit		90	50
Cost associated to finished units	24500	(175 x 90) + (175 x 50)	
Cost of work in progress	27000	225 x 90	135 x 50

Total cost	51500

The use of the assessment rate for each component of production costs on the production in progress presents the advantage of eliminating errors in decisions, especially those related to pricing policy.

In terms of accounting, the income associated to the production in progress are recorded according to the scheme below:



If the size of indirect production costs would have been compared to the 400 units launched into production, without taking into account their degree of finish, the unit cost would have dropped from 140 lei to 128.75 and the error is obvious.

Hypothesis 3. In month N+2, there are a total of 225 units of integrated circuit in progress with a 60% completion rate and a number of 275 integrated circuits are released launched into manufacturing.

We admit that at the end of the month 400 units of finished product are obtained and 100 units are still in progress with a 50% completion rate. Regarding the expenses, we consider the following information: the value of the production in progress at beginning of period 27,000 lei, raw materials consumed during the month of 22,000 lei and 19,800 lei indirect production costs, total 68,800 lei.

Given the existence of two types of production in progress at the beginning and end of the period, in order to separate the costs between the two elements it is necessary to use the stock assessment methods, as shown in IAS 2, respectively the weighted average cost method (WAC), the FIFO method and the standard cost method, methods used in theory and practice exclusively for evaluating stocks, other than those of finished products, let alone for the production in progress.

The WAC method. The Weighted Average Cost method can be used to calculate the cost of equivalent units during the exercise having in view both the production in progress existing at the start and at the end of the period and the products finished and delivered to be sold.

WAC is obtained by dividing the total production costs by the total equivalent units which cross the manufacturing process of a reporting period. Therefore, what is important to set out is to determine the amounts of equivalent products and which, according to data under hypothesis 3, are shown as follows (Table 3):

Table 3. Calculating equivalent units for separation of costs under hypothesis 3 after WAC method

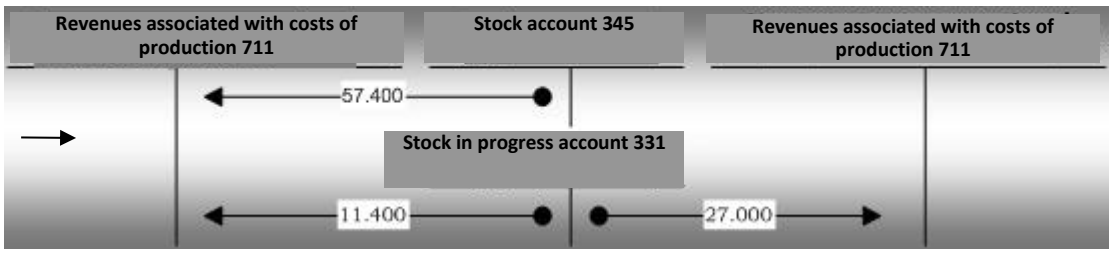
	Physical units	Physical units charged	
Explanations		Raw materials	Production costs
Work in progress at the beginning of the period.	225		
Units entered into production	275		
Total products in production	500		
Units of finished products	400	400	400
Products in progress (50% finished)	100	100	50 (100x50%)
Total units for the calculation	500	500	450

The calculation of equivalent units by using the WAC method is based on the total of equivalent units on which technological operations are performed by the end of the reporting period, whether they come from the previous period or from the current period.

The major problem which arises is to consider all the costs involved in carrying out the production carried out and according to which the separation on stages of progress of the production is done and the unit cost can be determined, as shown in Table 4, which leads to Recognition according to the scheme attached.

Table 4. Calculation of weighted average cost

	Total cost	of which	
Explanations	production	Raw materials	Production costs
{0>Producţia în curs de execuţie la începutul perioadei<}100{>Work in progress at the beginning of the period.	27000	20250	6750
Expense associated to the period	41800	22000	19800
Total expenses incurred		42250	26550
Units on which costs are distributed		500	450
Cost of equivalent units		84,5	59
Total cost production of which	68800		
- associated to finished products	57400	(400x84, 5) + (400x59)	
- associated to the production in progress at the end of period	11400	8450 (100 x 84,5)	2950 (50 x 59)
Total cost of production	68800		



FIFO method. Unlike CMP method, the FIFO method is characterized by its distinguishing between the products that are in progress at the beginning of the manufacturing period and the products launched in production during the period. The expenditures incurred during the current period and the units of products obtained during the same period are used to calculate the cost by equivalating the units on which there were carried out technological operations in the current period.

In the context set, the FIFO method involves the following calculations:

The cost of production in progress at the beginning of the period is attributed to the articles finished and transferred out of the department;

The cost of equivalent units executed during the period are charged as follows: First to the finished products from initial production in progress, then to the new items in the entered into manufacturing and finished, and finaly to the units in progress at the end of the period.

The FIFO method assumes that older units of products are the first to be finished.

Continuing the previous example, the calculation of the equivalent units, as specified, is presented in Table 5, where we can note the following:

- the first units of products considered to be finished during the period are the 225 physical units in progress in the beginning of the exercise;
- according to hypothesis 3 previously stated, we admitted that during the month N+2 400 units were finished products. If 225 were finished from the initial production in progress, it results that from the production of 275 units launched in manufacturing in month N+2 175 units were finished;
- at the end of the month production of 100 units remains in progress, which is the difference between the production launched in manufacturing (275) and the finished production obtained during the period of 175 units produced.

Table 5. Calculating equivalent units for separation of costs by FIFO method, according hypothesis 3

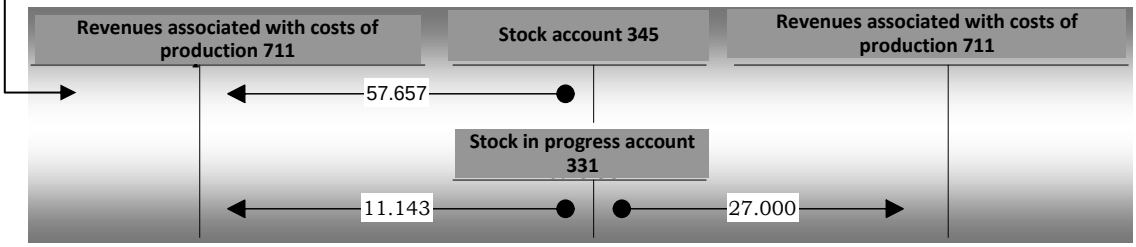
	Physical units	Physical units charged	
Explanations		Raw materials	Production costs
Products in progress at the beginning of the period (60% finished)	225		
Units entered into production	275		
Total products in production	500		
Finished goodsunits from initial stock	225	0	90 (225 x 40%)
Started and finished products	175	175	175
Products in progress at the end of the period (50% finished)	100	100	50 (100x50%)
Total units for the calculation	500	275	315

The equivalence of product units considers their finishing degree in the following sense: the 225 units in progress at the beginning of the period still need 40% to be finished, and those at the end of the period have a 50% completion rate. Therefore the 225 product units will not receive raw materials costs, but only manufacturing costs.

In the context set, the calculation of costs presents according the data in Table 6, and in terms of financial accounting, the cost of production obtained is reflected according to the diagram attached:

Table 6. Cost calculation according to FIFO method

	Total cost	of which	
Explanations	production	Raw materials	Production costs
{0>Producţia în curs de execuţie la începutul perioadei<}100{>Work in progress at the beginning of the period.	27000		
Expense associated to the period	41800	22000	19800
Units on which costs are distributed		275	315
Cost of equivalent units		80	62,857
Total cost production of which	68800		
- Associated to finished goods realized from the original stock	5657 + 27000	0	5657 (90 x 62,857)
- associated to the finished production of the current month	25000	(175 x 80) + (175 x 62,857)	
{0>Cost aferent produselor finite<}80{>Cost associated to finished units	57657		
- associated to the production in progress at the end of period	11143	8000 (100 x 80)	3143 (50 x 62,857)
Total cost of production	68800		



The FIFO method in its pure form very rarely applies. The method practiced in reality is a modified method, called the method 'by shop' (Langlois 2006) because it is used to calculate the cost of products produced in a production department and transferred to other departments.

For convenience, practically, the products entered in the next section (when we have a chain of operations) or delivered to warehouse goods are valued at the average unit cost, making the application of IAS 2 on the use of the FIFO accounting method to unnecessarily complicate the accountancy while the principle of continuity of methods is not respected.

By comparing the calculation methods of the costs associated with the two finishing stages of the production by the WAC method and the FIFO method, we get the following result (Table 7):

Table 7. Comparison of costs by method WAC and FIFO

	WAC (Table 43)	FIFO (Table 45)	Differences
The cost of finished units	57400	57657	+257
Cost of production in progress	11400	11143	-257
Total cost of production	68800	68800	

As it is seen, the cost of production in progress by the WAC method is higher by 257 lei than the one determined by the FIFO method. This difference is significant if are aggregated with differences of other products made by the company. The WAC method has the effect of increasing the value of production in progress stated in the balance sheet, and thus an increase in operating income and income taxes.

The difference of costs between the two methods is a consequence of the way of determining the equivalent units used in the production evaluation.

The FIFO method has the advantage that, on the one hand, it provides information on the evolution of unit costs from one period to another and thus we can compare the current period performances with a prior period performances, and on the other hand, it provides information useful for forecasting and control.

The WAC method produces a mixture of costs of successive periods, reason for which it hampers the comparability of data. However, the WAC method has the advantage of simplicity of calculations and of obtaining an average unit cost which is very significant when commodity prices significantly fluctuate from month to month.

Standard cost method. The WAC and FIFO methods become very complicated in the businesses that produce a wide range of products. The Standard cost method has the advantage to set out the quantities required to manufacture one unit of product and therefore standard unit costs can be affected by these standard amounts of resources to determine the standard cost per unit of product. Identification of the standard cost for each product avoids the inconvenience that it has the calculating of the actual cost of all products or the calculating the average cost.

For illustration, we resume the data used in the presentation of the FIFO method and we shall assume that the amount of standard costs is:

Raw materials ..... 74 lei/unit
Production expenses ..... 54 lei/unit
Standard unit cost of production ..... 128 lei/unit

To be more explicit, we remind the production situation during the month, namely:

♦Production in progress at the beginning of period 60% degree of finish that is consumed: - Direct materials 100% - production costs 60%	225 units
♦Products started to be processed during the month	275 units
♦Finished products at the end of the month	400 units
♦Products in progress, finishing degree 50% , for which is consumed: - Direct materials 100% - production costs 50%	100 units

Based on the above data, the standard cost of existing unfinished production at the beginning of the period will be:

Raw materials (225 units x 74 £)	16,650 lei
Processing costs (225 units x 60% x 54 lei)	7.290 lei
Total standard cost of the unfinished production at the beginning of the period	23,940 lei

We remind that the size of the actual expenditure incurred during the month was of 22,000 lei for expenses and of 19,800 for raw materials and production costs, total costs 41,800 lei.

As in the previous example, the calculation of the equivalent units, as specified, is presented in Table 8.

Table 8. Calculating equivalent units for separation of costs by the standard method, hypothesis 3

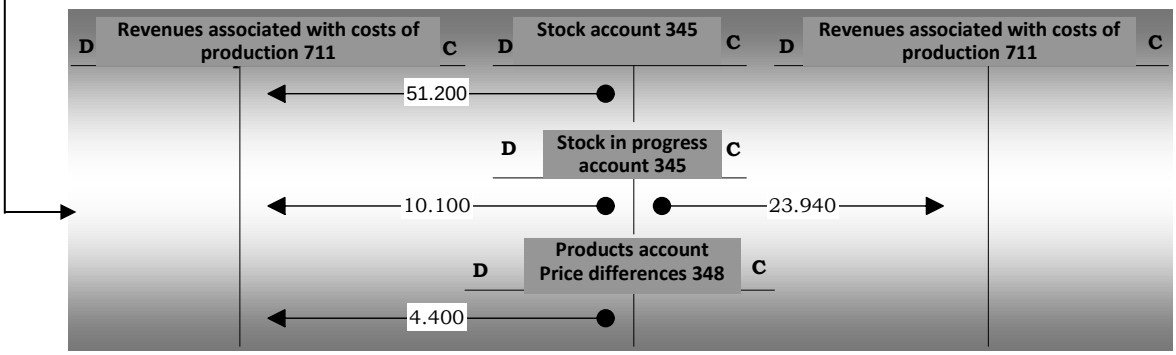
	Physical Units	Physical units charged	
Explanations		Raw materials	Production expenses
Products in progress at the beginning of the period (60% finished)	225		
Units entered into production	275		
Total products in production	500		
Finished goods units from initial stock	225	0	90 (225 x 40%)
Started and finished products	175	175	175
Products in progress at the end of the period (50% finished)	100	100	50 (100x50%)
Total units for the calculation	500	275	315

As can be seen, as in case of also the FIFO method too, the 225 units in progress at the beginning of the period still need 40% to be finalized, and those at the end of the period have a 50% completion rate. Therefore the 225 product units will not receive raw materials costs, but only manufacturing costs.

In the context set, the calculation of the standard costing and the cost differences is presented according to Table 9.

Table 9. Cost calculation according to FIFO method

Explanations	Total cost production	of which Raw materials	Production expenses
{0>Costul standard al unei unităţi<}0{>Standard cost of one unit	128	74	54
Production in progress at the beginning of the standard cost calculation made according to calculation	23940		
Standard current period expenses (275 x 74) + (315 x 54)	37360	20350	17010
Total standard cost (debit account 921, analytical cost of production), of which:	61300		
- associated to finished goods realized from the original stock	4860 + 23940	0	4860 (90 x 54)
- associated to the finished production of the current month	22400	(175 x 74) + (175 x 54)	
{0>Cost aferent produselor finite<}100{>Cost associated to finished units	51200		
- associated to the production in progress at the end of period	10100	7400 (100 x 74)	2700 (50 x 54)
Total production cost (credit account 921, analytical cost of production)	61300		
Determining differences standard expenses actual expenditures unfavorable differences	 37360 41800 + 4440	 20350 22000 + 1650	 17010 19800 + 2790



Although the standard cost method is much simpler to implement, as observed all price differences are recorded on the finished products.

4. Conclusions

In our opinion, not the accounting of revenues associated to the cost of production in progress is an issue, but how to measure the output obtained and stocked, especially when you have both finished products and products in progress.

Reference

[1] Horngren, Ch., Datar, S., and Foster,G. 2006. Contabilitatea costurilor, o abordare managerială (In Romanian), XIth Edition, ARC Publishing House, Chişinău.
[2] Iacob, C., Ionescu, I., and Goagără, D. 2007. Contabilitate de gestiune conformă cu practica internaţională, (In Romanian), Universitaria Publishing House, Craiova.
[3] Langlois, G. 2006. Comptabilité de gestion, Pearson Education Publishing House, Paris.
[4] Staicu, C. *et al.* 2010. Contabilitate financiară. Abordare în context european şi internaţional, (In Romanian), Universitaria Publishing House.