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Reconsidering the Independence of the European Central Bank

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Abstract

We argue that the doctrine of the economic advantages of central bank independence cannot be uncritically transferred to the European Central Bank (ECB). To our opinion, it is the State, not its central bank, who bears the ultimate responsibility for the purchasing power of its paper money. Now, the ECB is not the central bank of a single State but an association of States – the 19 Member States of the 'Eurozone' – whose decisions demand unanimity. As a de-facto result, the ECB is as independent as a public administration can be. Now, the agreement on the European Monetary Union (EMU) as part of the Maastricht Agreement is an incomplete contract written in the form of a complete contract. It cannot be read to the letter. Furthermore, as long as EMU is in its stadium nascendi, president and governors of the ECB have to do 'whatever it takes' to get EMU moving. Consequentially, they must assume the role of a subsidiary government of the 19 EMU member States. Understandably, the European Commission (EC) is pondering over a "deeper and completed" European Union. Exactly this is also the answer given by contract theory. At this point, however, Albert Hirschman knocks at the door with his book *Exit, Voice, and Loyalty.*

Keywords: Maastricht Agreement, European Monetary Union, European Central Bank, deeper and completed European Union, time consistency, incomplete contracts, transaction cost economics, credible commitments.

JEL Classification: E 40, E 42, E 58, K 33 F02

I. Preliminary Remarks

You have to be a specialist in International Law, esp. European Law to fully understand the complex contractual agreements on the European Monetary Union (EMU). It is hidden in the shape of one of the Protocols attached to the Treaty on the European Union, namely as 'Protocol (No 4): On the Statute of the

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European System of Central Banks and the European Central Bank'. The following paper concentrates on the legal situation as seen by an economist. It is purely narrative/argumentative. No statistical evidence is added. No theorems are proved.

II. The Idea of Central Bank Independence

Lerner (1947) writes: 'The modern state can make anything it chooses generally acceptable as money …' The trick is done if the state '… is willing to accept the proposed money in payment of taxes and other obligations to itself …'.

Lerner's trick works smoothly in modern tax states through whose stomach go more than 50 per cent of GDP, and whose central banks are state agencies. Paper money is in any form of cash de-facto government zero bonds. An obvious problem is that the government of the modern tax state may be tempted to make excessive use of this convenient source of revenue, and cause inflation. The government avoids this by the credible commitment not to serve itself on its printing press. That is achieved by passing a'central bank law' stating that

1. only one institution, the central bank, has the right to issue notes;[1]
2. the management of the central bank shall not seek or take instructions from the government ('central bank independence');[2] and
3. the central bank is given the statutory mandate to 'maintain price stability.'[3]

[1] Established by the Treaty on European Union of 1992, Title III, Article 13 as one of the following seven institutions: the European Parliament, the European Council, the Council, the European Commission, the Court of Justice of the European Union, the European Central Bank and the Court of Auditors.

[2] Article 130 (Instruction Autonomy of ESCB and ECB): 'When exercising the powers and carrying out the tasks and duties conferred upon them by the Treaties and the Statute of the ESCB and of the ECB, neither the European Central Bank, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Union institutions, bodies, offices or agencies, from any government of a Member State or from any other body. The Union institutions, bodies, offices or agencies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the European Central Bank or of the national central banks in the performance of their tasks.'

[3] Article 127 (Objective of ESCB and ECB): 'The primary objective of the European System of Central Banks (hereinafter referred to as "the ESCB") shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 119.

There exists an extensive literature on this contention.[4] It claims that the government's commitment is not only made credible by the 'independence' of the central bank but also by the reputation of the members of its central bank management board, in particular its president, to stand for 'stable money.' However, central bank laws are not carved in stone. In pre-euro Germany, e. g., its central bank law could have been changed by a simple majority of the Bundestag.[5] In other words, German voters were able to prevent its government from infringing the independence of its central bank by the implicit threat to throw its representatives out of office. Thus we argue: In the final analysis, the government's promise to 'maintain price stability' is guaranteed by the threat potential of its voters. However, that does not apply to the members of the European Commission, who are not elected by European constituents. Therefore, the above three constitutional principles had to be extended by a fourth, namely that the central bank must not grant credit to the governments of any member state. As for the rest, the ECB is as independent of those who bear the ultimate responsibility for it's doing as a public administration can be.

What are the consequences? To answer this question, we have to realize that the agreement on the European Union (including the European Monetary Union) is an incomplete contract even though it is written in the form of a complete contract.

III. The European Monetary Union: An Incomplete Contract Written in Form of a Complete Contract

1. *The Meaning of Complete and Incomplete Contracts*[6]

In case of a complete contract the terms of the contract are completely stated and verifiable for all possible contingencies as assumed, for example, in the time-state preference theory of Arrow and Debreu. That is the ideal case. In real life, contracts are more or less incomplete. In such a case, "[the] parties to a contract do not know all possible contingencies, and in any event it would be too costly to write provisions for all contingencies into the contract. Thus, decision makers can find it advantageous to enter into cooperative exchange relation-

[4] See *Kydland/Prescott* (1977) and among others the works of *Barro/Gordon* (1983), *Blackburn/Christensen* (1987), *Persson/Tabellini* (1990). For a survey see *Persson/Tabellini* (1990) as well as Ch. 3 in the book of collected articles edited by *Persson/Tabellini* (1994). These are works of the "new classical macroeconomics", according to which in the short-run, despite the hypothesis of rational expectations, room remains for monetary stabilization policy. We announce our doubts about this approach.

[5] Deutsche Bundesbank Gesetz of July 30th, 1957.

[6] *Macneil* (1974), *Hart/Holmstrom* (1987), *Furubotn/Richter* (2005).

ships and will seek specially adapted contractual devices. The resulting "relational contracts" (the term was introduced in *Macneil* 1978) are relevant to most generic agency relationships – including distributorships, franchises, joint ventures, and employment contracts." (*Furubotn/Richter* 2005).

The problem is that in case of incomplete contracts specific investments of the parties may play a role after contract conclusion. They may invite ex post opportunistic behavior of parties, whose ex ante specific investments are relatively low. *Williamson* (1985), who introduced the term "opportunism", defines it as "self-interest seeking with guile". The concept plays an essential role in his theory of incomplete contracts, his Transaction Cost Economics (*Williamson* 1971).

Legal enforcement and self-enforcement complement each other with the aim 'to design workable order-preserving mechanisms for adapting to disturbances' (*Williamson* (2005). Attentive actors agree before they come to terms on a governance structure that they regard suitable. Market and hierarchy are two of the imaginable types of possible governance structures. It is important to see that the choice of an efficient governance structure does not result from constrained optimizing of some target function. It may rather be understood as a form of boundedly rational or 'suitable' choice from a set of governance structures (see *Furubotn/Richter* 2005). Among the "efficient governance structures" are "markets" and "hierarchies."

Williamson (1985) applied his transaction-cost-economics argument in defense of vertical integration. *Trachtman* (2008, Ch. 5) points out that this concept is also applicable to international law.

2. Safeguarding Adherence to Price Stability

The 'Maastricht Agreement' on the European Union is a long-term international contract written in form of a complete contract. It came into force Nov. 1st, 1993 and was modified October 2nd, 1997. Its members agreed to pool parts of their sovereignty. For lack of a superior world authority that could guarantee or enforce international agreements, such contracts have to be self-enforcing. Furthermore, the Maastricht Agreement is a peculiar construct insofar as its members agreed not to enforce their claims against each other by the usual means of international law,[7] but by the jurisdiction of the European Court of Justice. In other words they decided to give up their right to enforce international contractual claims, for instance, by retaliatory measures. Furthermore, a subset of 19 EU member States agreed to transfer their monetary sovereignty to the European Monetary Union (EMU), as part of the EU, in return for representation in the European Central Bank (ECB). However, since the definitive money

[7] That is, by reference to the Vienna Convention on the Law of Treaties (VCLT).

of the EMU consists of zero government bonds,[8] adherence to the promised price stability by EMU member States requires additional safeguards regarding their national budgetary and economic policies. Two options exist:

a) A market option: The EU relies on market incentives. The national governments of EMU member States are disciplined by the interest rate they must pay for borrowing money on the capital market (selling national government bonds). To work efficiently, they must adhere to a 'no-bailout-clause' (as laid down in Article 104b.1 – The Community is not liable for the debts of its members) – that is, the ECB must not buy government bonds at ultra low rates. In that case would only the non-market option apply.

b) A non-market option: The EU relies on a list of command and punishment incentives. That requires a catalogue of reference values observable under penalty of their violation and the strict monitoring by the European Commission of the national budgetary situations and the stock of national government debts.

The EU decided in favor of the non-market option. For economists who believe in the working of the price mechanism, the introduction of maximum or minimum prices distorts resource allocation. De facto minimum interest rates of central banks invite its owner, the State, to get into further debt rather than to restructure its economy.

Monitoring and enforcement of reference values are agreed to take place by a long list of sanctions. The list conveys the impression that failure to observe the rules will not be taken too seriously. The capital markets reacted correspondingly "softly" to over-indebtedness of individual states. No significant risk premiums were demanded (*Issing* 1992). As was easy to foresee, the agreement turned out to be unenforceable against larger member states like France and Germany – initially its strongest promoters (Wikipaedia 2016). No account was taken of the at that time on-going debate on problems of the credibility of public commitments[9] mentioned above.

3. *EMU Compared with a Merger of Firms*

The 'Maastricht Agreement' is a typical incomplete international contract for reasons of lack of foresight. It therefore cannot be read to the letter – a fact, of which voters and possibly some of its authors had not been aware of beforehand. To their amazement, a seemingly endless series of infringements of the Maastricht Agreement resulted after the euro came into force. Examples are:

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[8] That are zero bonds on the name of an alliance of governments of EMU Member States.

[9] Or time consistency as described by *Persson* and *Tabellini* (1990, Part II).

– the disregard of the "No-Bail-Clause" of the agreement (Art. 103 EU Agreement) by the establishment of the European Stability Mechanism (EMS) in 2012;

– the unilateral extension of the tasks of the European Central Bank (Art 105 Agreement) by the declaration of the President of the ECB Draghi to do "whatever it takes to save the euro" (July 2012); [an announcement that dealt the final blow to the market option of safeguarding the national budgetary and economic policies of EMU member states.]

– the continuous violations of the Maastricht Criteria on sound fiscal policy according to which government debt should be limited to 60 % of GDP and annual deficits be no greater than 3 % of GDP.[10]

As above explained, parties to an incomplete contract try to protect themselves against ex-post opportunistic machinations of their counterparties, among other things, by contractual safeguards. In case of EMU, the ex-ante specific investments of Germany in the brand-name capital of its Deutschmark[11] made Germany vulnerable to the ex-post opportunism of other member states. For business firms in analogous situations, vertical integration would be the method of choice. It would be the efficient governance structure of the contractual relationship.

Efficiency in this sense "is not that of replicating ideal market results, but procedural efficiency in adjusting to an uncertain and changing environment" (*Burrows/Veljanovsky* 1981). Various economists like O. E. Williamson, V. P. Goldberg, P. L. Joskow describe empirical business examples of contractual governance structures that help limiting opportunist renegotiations and others among private parties (see *Williamson/Masten* 1995).

We shall follow *Trachtman* (2008) and compare the European Monetary Union with a merger of firms. Analyzed in the style of Oliver Williamson's transaction cost economics, an efficient governance structure of EMU demands that its Member States abandon their national sovereignty fully and merge into a federal state of Europe. The result would be what Williamson calls 'unified governance' whose advantage is 'that adaptations can be made in a sequential way without the need to consult, complete, or revise interfirm agreements'.[12] Though EMU is presently no State, it is only natural that the European Commission starts thinking about some farther-reaching centralization than that of its present consolidated legal personality.[13] Thus, in 2012 the European Commission published

[10] The 3 per cent deficit criterion of the Stability and Growth Pact ' … was 88 times broken without punishment'. (*Sinn* 2012, 144, own translation).

[11] By international comparison the high price stability of its Deutschmark (average inflation rate of 2.8 %).

[12] *Williamson* (1985).

[13] Since 1 Dec. Upon the entry into force of the Treaty of Lisbon.

'A Blueprint for a sovereignties- Launching a European Debate' (read: Direct access to the European Commission to financial control of national and regional authorities.),[14] whose intentions are taken up by Jean-Claude Juncker in his Political Guidelines of 15 July 2014. Juncker's ideas of deepening the EU or EMU come close to the limits of a civil agenda. They infringe with the cautious, voters reassuring intentions of EMU as expressed in the Delors Report of 25 years ago.

Paragraph 17 of the Delors Report reassured in effect the voters that the EU (and thus EMU) would continue 'to consist of individual nations with differing economic, social, cultural and political characteristics.'(Delors Report of April 17, 1989).[15]

Viviane Reding, Vice-President of the European Commission, went further and asked in a lecture "Why we need a United States of Europe now" (Nov. 8th, 2012). In the long term, the European Commission appears to plan a full banking union plus a fiscal and economic union; all that, of course, on 'commensurate progress on democratic legitimacy and accountability.' Also, 'the burdensome unanimity requirements of the Council of Ministers of the EU into qualified majority requirements' should be changed' (ibid.). However, for lack of pooled sovereignty on Foreign and Security Policy as well as in Justice and Home Affairs, it would still be no full-fledged 'United States of Europe' as demanded by Viviane Reding. The European Union or its European Monetary Union would not even be able to defend its external borders (as realized now), not to speak of exerting severe political pressure on big neighbor countries (as demonstrated in the Ukraine affair). Leaving aside the weak points of a "deeper and completed" European Union, the difference between the merger of business firms and that of States (republics) is related to the difference between property rights of owners and employees of a firm as compared to the citizens of a state.

4. The Call for Deepening and Completing the European Union

To compare the integration of states with that of firms is problematic because firm owners usually possess absolute property rights while citizens of states (as employees) own only relative property rights (from citizenship or labor contracts). Of course, the market value of firms also depends on the quality of 'the network of specific investments that cannot be replicated by the market' (*Zingales* 1998). Since that value accrues to the owners of firms, its owners have a strong incentive to make sure that a newly integrated firm prospers and flowers after unification. Insofar merger (or integration) is the efficient governance

[14] Brussels, 30.11.2012; CON(2012) 777final/2.

[15] In other words, Delors did not plan to unify ('Americanize'/'Sovietize') the life style of EU citizens.

structure of their business undertakings.[16] This argument does not apply directly to the merger of States because citizens of a State (understood as a republic) possess no absolute but only relative property rights, which are very different from those of employees. Nevertheless, citizenship has for its holder an (expected) economic value. To safeguard or improve it is certainly part of the collective interests of a State's citizens. Still, citizenship is hard to compare with tradable goods. Emotional bonds between constituents play a major role. An example provides the German reunification of 1995. For West Germans, it was known to become a costly affair for a long time. They nevertheless agreed to the reunification of West- and East-Germany.

Jean-Claude Juncker's call for deepening and completing the European Union might go beyond any administrations' desire to "deepen" its access rights. It may express the personal desire of leading members of the European Commission (like its Vice President Viviane Reding) for its idea of a top-down establishment of something like the "Federal States of Europe"[17]– an ambitious task that by far exceeds the original idea of a European Common Market. But a formal political integration of EMU member states without the formation of an emotional bond between its citizens would neither suffice to overcome any euro crisis nor safeguard the purchasing power of the euro. In other words, it would be crucial for a sustainable "unified governance" of nation states that their constituents will "… unify wide areas of their economic and inner social structure to state-like homogeneity" (*Oppermann* 1999[18]). That implies, the residents of EMU member states must be willing to develop "… a common belief system [ideology], which embodies social norms consistent with the policies of the ruler."[19] Furthermore, the economic difficulties of the EMU area cannot be solved by monetary policy alone.[20] Fiscal policy and System policy (Ordnungspolitik), i. e., changes in the legal foundation of the national governance structures of EMU member States must be added (as between West- and

[16] Under certain conditions: Recurrent transactions between firms and idiosyncratic investment characteristics (*Williamson* 1985).

[17] Or other people like Ulrich Wilhelm, Intendant of the Bayerische Rundfunk, (FAZ, July 7th, 2012), the philosophers Jürgen Habermas, Nida-Rümelin, and the economist Peter Bofinger (FAZ, August 3rd, 2012). They also required the creation of a political union.

[18] Own translation from the German. Markus Spillmann speaks of a "complicated interlacement of supranational and national responsibilities" (Neue Zürcher Zeitung, 5./6. May 2012, p. 1; own translation).

[19] *North* (2005); see also *Greif* (1994).

[20] By such a colourful group of national economies as that of the Euro-Zone presently is, and probably will remain for a long time, is already a single monetary policy in 'normal' times anything else but simple. However, in and after times of crisis, is the heterogeneity of the currency area particularly pronounced, and do the limits emerge mercilessly. (NZZ, 17. Mai 2016, p. 19, own translation).

East-Germany since 1990). That requires more than a central bank can do, viz., also the right to levy taxes, exercise control of their finances and to change the legal structure of the economic system of EMU member states. Insofar the call of Jean-Claude Juncker for deepening the Economic and Monetary Union is understandable.

The question is, how Juncker's desire to 'deepen the Economic and Monetary Union' would be compatible with Delors's idea that EMU members shall continue 'to consist of individual nations with differing economic, social, cultural and political characteristics.' Rather, as pointed out by Delors, it would be necessary 'to develop an innovative and unique approach.'[21] However, the 'innovative and unique approach' of Delors, laid down in the Maastricht Agreement, consists of an extensive list of official orders and punishments. Its character bears more resemblance to the roadmap of a planned socialist economy than of a self-sustaining market economy. Delors gives a detailed description of administrative acts in case of financial misconduct without regard to the fact that the Maastricht Agreement is de facto only an incomplete contract between sovereign States. No appropriate measures are considered against the spillovers of business or financial crises starting outside EMU (like the financial crisis of 2007/08) or against sovereign defaults of EMU Member States (which to some came as a surprise[22]) and other disturbances. Completely unmentioned remain the competitive disadvantages of the productivity differences between the single EMU Member States.[23] Given that, the euro will hardly become a self-sustaining currency system like that of the US Dollar or the former Deutschmark. It will remain prone to interventions by European authorities, the governments of EMU Member States and the IMF.

[21] See Delors Report (April, 17, 1989), Ch. II, Section 1, paragraph 17.

[22] See *De Grauwe* (2014).

[23] The latter required an answer, because, in a monetary union, firms in states with low levels of productivity compete at eye level with highly efficient firms in the rest of the world (See *Richter* 2016). – Delors contradicts his above mentioned opinion (loc. cit. 1989) by writing: 'Comparing the EC and the US, one may observe that the 12 Member States' GDP per capital ranges from 47 in Portugal to 129 in Luxembourg, whereas, in the US, of nine census regions the range of per capita incomes is from 77 in the South-East to 111 on the West Coast.' … Overall these data suggest that the regional disparities in the EC are somewhat greater than in the United States, but not incomparably so.' But that is a misplaced comparison. For example the US-Dollar and its Federal Bank System were not introduced overnight as was the euro and its central bank.

IV. The Mandate of the Independent ECB to 'Maintain Price Stability'[24]

To the surprise of voters (and probably also to some authors of the Maastricht Treaty), who may have understood the term 'price stability'literary, redefined the Governing Council of the European Central Bank "price stability" following the doctrine of the principle of inflation targeting[25] as … 'year-on-year increases in the HICP for the euro area of below 2 %.' Furthermore, it was made clear from the outset that 'price stability is to maintain in the medium term.' (ECB, Annual Report 2000).[26]

A few years later, the Governing Council clarified that, "within [above] definition, it aims to maintain inflation rates below but close to 2 % over the medium term." (see, e. g., The Monetary Policy of the ECB, Frankfurt/M., 2004).

While the principle of price stability may be seen as the legal consequence of the nominalist principle, which underlies the German judicial system, this is not true for the principle of inflation targeting. As such it violates the German legal principle of nominalism.[27] Strangely enough, German lawmakers did not only refrain from protesting against the ECB's violation of the nominalist principle. They even underlined it by reviving the invalid indexation ban of the old Military Governments of Western Germany from 1948[28] by introducing its new Preisklauselgesetz (price-clause-law).[29]

[24] See: Article 130 (Instruction Autonomy of ESCB and ECB) of the Treaty on European Union in: official Journal of the European Union 2016/C 202/1.) 'When exercising the powers and carrying out the tasks and duties conferred upon them by the Treaties and the Statute of the ESCB and of the ECB, neither the European Central Bank, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Union institutions, bodies, offices or agencies, from any government of a Member State or from any other body. The Union institutions, bodies, offices or agencies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the European Central Bank or of the national central banks in the performance of their tasks.'

[25] See *Bernanke* et al. (1999).

[26] See also ECB press release entitled "A stability-oriented monetary policy for the ESCB", dated 13 October 1998.

[27] As in German tax law. *Stützel* (1979) dealt with various definitions of 'nominalism'(in German: das'Mark – gleich – Mark – Prinzip').

[28] § 3 Gesetz Nr. 61, Erstes Gesetz zur Neuordnung des Geldwesens (Währungsgesetz) vom 20. Juni 1948 (Amerikanisches Kontrollgebiet). On the assessment of this exceptional restriction of contractual freedom see, e. g., *Stützel* (1979).

[29] Gesetz über das Verbot der Verwendung von Preisklauseln bei der Bestimmung von Geldschulden (Preisklauselgesetz) of 7 September 2007 (BGBl. I S. 2246, 2247). It is a substitute for the old indexation-ban of § 3 Currency Law that had become invalid with the foundation of the European Currency Community in 1999 (See: Gesetz Nr. 61, Erstes

V. The ECB is an Implementing Agent of EMU

As mentioned above, the Agreement on the European Monetary Union (EMU), as part of the Maastricht Agreement, is an incomplete contract and cannot be read to the letter. Furthermore, as long as EMU is in its stadium nascendi, president and governors of the ECB are apparently expected by their direct superior The European Commission – and allowed by the European and the German Courts – to do 'whatever it takes' to get EMU moving. Insofar, they must assume the role of a subsidiary government of the 19 EMU member States for the special purpose to get EMU started. However, their decisions inevitably go beyond what is needed to safeguard 'price stability', and insofar may (and do) conflict with the legal principles and employment policies of EMU member States. The European Commission enters the picture only if EMU member States are endangered to get into state bankruptcy to help them to negotiate a financial aid program together with the ECB and the International Monetary Fund, who carry the burden as emergency helpers.[30] This division of labor understandably gets heavy fire from its critics. For instance, do all EMU member states wish to become more competitive in exchange for drastic industrialization? An all-around satisfying answer is hard to find. There are two ultimate solutions from the perspective of the European Monetary Union: One seems 'clear and easy,' the other is 'complicated and hard.' The seemingly 'clear and easy' answer is to organize EMU in analogy to a merger of privately owned firms (what Williamson calls 'Union'). The 'complicated and hard' answer is to continue what the European Union is doing now: by muddling through. Jean-Claude Juncker appears to prefer the seemingly 'clear and easy' answer by calling for a 'deepening and completing' of the European Union – an ambitious task, which would exceed by far Delors's original idea of a European Common Market. Juncker's preferences are understandable: Like any organization, the European Commission has the interest to start a life of its own. The question is, do the European people want to be ruled by such a 'deeper and completed' European Union in its present form? After 'Brexit' it might be advisable to reread Albert Hirschman: Exit, Voice, and Loyalty and ask oneself, whether the European Union of today is, in above sense, an efficient governance structure of an incomplete contract between public bodies.

Gesetz zur Neuordnung des Geldwesens (Währungsgesetz) vom 20. Juni 1948 Amerikanisches Kontrollgebiet).

[30] It organized loans to governments of Greece, Ireland, Portugal, and Cyprus.

References

Barro, R. J./*Gordon*, D. B. (1983): Rules, Discretion and Reputation in a Model of Monetary Policy. Journal of Monetary Economics, Vol. 12, pp. 101–121.

Bernanke, B. S./*Laubach*, T. H./*Mishkin*, F. S./*Posen*, A. S. (1999): Inflation Targeting. Lessons from the International Experience, Princeton: Princeton University Press.

Blackburn, K./*Christensen*, M. (1987): Macroeconomic Policy Games and Reputational Equilibria in a Contracting Model. Ricerche Economiche, Vol. 41, pp. 190–209.

Burrows, P./*Veljanovsky*, C. G. (1981): Introduction: The Economic Approach to Law. In: Burrows, P./Veljanovsky, C. G. (eds.), The Economic Approach to Law, London et al.: Butterworth.

European Central Bank (2001): Annual Report 2000. European Central Bank, Frankfurt am Main, Germany.

Friedman, M. (1959): A Program for Monetary Stability. New York: Fordham University Press.

Goldberg, V. P. (1976): Regulation and Administered Contracts. Bell Journal of Economics, Vol. 7, pp. 426–452.

Greif, A. (1994): Cultural Beliefs and the Organization of Society: Historical and Theoretical Reflection on Collectivist and Individualist Societies. Journal of Political Economy, 102, pp. 912–950.

Guzman, A. T. (2008): How International Law Works. A Rational Choice Theory. Oxford: Oxford University Press.

Hart, O. D. (1987): Incomplete Contracts. In: Eatwell, J./Milgate, M./Newman P., eds., The New Palgrave: A Dictionary of Economics, 2, London: Macmillan, pp. 752–59.

Hirschman, A. O. (1970): Exit, Voice and Loyalty. Responses to Decline in Firms, Organizations and States. Harvard University Press, Cambridge MA 1970.

Issing, O. (1992): Disziplinierung der Finanzpolitik in der Europäischen Währungsunion?. Deutsche Bundesbank Frankfurt a. M. (Manuskript).

Joskow, P. L. (1985): Vertical Integration and Long-Term Contracts: The Case of Coal Burning Electric Generation Plant. Journal of Law, Economics, and Organization, 1, pp. 33–80.

Keohane, R. O. (1984): After Hegemony. Cooperation and Discord in the World Political and the Competitive Contracting Process. Journal of Law and Economics, 28, pp. 297–326.

Keynes, J. M. (1936): VII. The General Theory of Employment, Interest and Money. London: Macmillan and Co., Ltd.

Kydland, F. E./*Prescott*, E. C. (1977): Rules Rather Than Discretion: The Inconsistency of Optimal Plans. Journal of Political Economy, 85, pp. 473–491.

Lerner, A. P. (1947): Money as a Creature of the State. American Economic Review, 37, pp. 312–317.

Macneil, I. R. (1974): The Many Futures of Contract. Southern Californian Law Review, 47, pp. 691–816.

North, D. C. (2005): Understanding the Process of Economic Change. Princeton: Princeton University Press.

Oppermann, Th. (1999): Europarecht. 2. vollständig überarbeitete Auflage, München: Beck.

Persson, T./*Tabellini*, G. (1990): Macroeconomic Policy. Credibility and Politics, Chur, London et al.: Harwood Academic Pub.

– (1994): Monetary and Fiscal Policy. Vol. 1: Credibility, Cambridge, MA: MIT Press.

Popper, K. R. (1957): The Poverty of Historicism. London: Routledge & Kegan Paul.

Reding, V. (2012): Why we need a United States of Europe now. Centrum für Europarecht an der Universität Passau, Passau, Germany, Nov. 8th, 2012.

Richter, R. (1989a): The Louvre Accord from the Viewpoint of the New Institutional Economics. Journal of Institutional and Theoretical Economics, 145, pp. 704–719.

– (1989b): Money. Lectures on the Basis of General Equilibrium Theory and the Economics of Institutions, Translated from the German by W. F. Stolper, Heidelberg et al., Springer.

– (2016): Whither 'New Institutional Economics'? European Business Organization Law Review, 17, pp. 541–554.

Simons, H. C. (1936): Rules Versus Authorities in Monetary Policy. Journal of Political Economy, 44, pp. 1–30.

Sinn, H. W. (2012): Die Europäische Fiskalunion: Gedanken zur Entwicklung der Eurozone. Perspektiven der Wirtschaftspolitik, 13, pp. 137–178.

Stigler, G. J. (1968), Art. "Competition" in: International Encyclopedia of Social Sciences, 3 New York: Macmillan, 181–182.

Stützel, W. (1979): Das Mark-gleich-Mark-Prinzip und unsere Wirtschaftsordnung. Baden-Baden: Nomos.

Trachtman, J. P. (2008): The Economic Structure of International Law. Cambridge, MA: Harvard University Press.

Williamson, O. E. (1985): The Economic Institutions of Capitalism. New York: Free Press.

Williamson, O. E./*Masten*, pp. E. (1995): Transaction Cost Economic. Aldershot: Edward Elgar.

Zingales, L. (1998): Corporate Governance. In P. Newman, ed., The New Palgrave Dictionary of Economics and the Law, 1, London: Macmillan, pp. 497–503.