

Comments to the legislative proposal of the Icelandic Parliament (Althingi) concerning the incorporation of Directive 2008/48/EC on consumer credit to the domestic legal order (umsögn um 220. Mál á þskj. 228 Neytendalán)

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These comments have been preceded by a previous note sent to the Parliament on June 2012 which content has been mostly ignored by the legislator.

In this paper I submit further comments on this legislative proposal. Since my view is that the proposal is biased towards the financial sector, I will approach this exercise from a consumer's perspective. This opinion does not represent the institution for which I work (University of Iceland) but is based on my specialised knowledge in the field of European law.

I will argue that the interpretation of EU/EEA consumer credit law by Icelandic authorities and other institutions in the area of financial services and consumer protection: 1) shows a deep and biased misunderstanding of the goal of the European legislation which is to provide consumer protection by disclosing ex-ante the total cost of the credit and 2) tries to legitimate the abusive practice of indexing the capital to the consumer price index (*verðtrygging*) (making consumers bear all the consequences of inflation and allowing consolidating interest into capital giving way to compound interest and interest on interest and usury rates) through mere information. This, I argue, is contrary to the requirement of fairness in the consumer credit market that the European legislators pursue. And, in my humble opinion, it is clearly an abuse of law since there is not even a legal basis in Iceland for doing so, only rules from the Central Bank which go beyond the scope of the law. The conclusion is twofold: *verðbætur* are another sort of interest (interest reflects the loss of value of capital over time) and they have to be calculated according to the rules of the Directive 2008/48 at least for non-secured credit (other than mortgage). As *verðtrygging* is calculated now, it is misleading for consumers and it gives way to anatocism (interest on interest) not disclosed to consumers and thus illegal in the light of EU/EEA law.

At the end of the study I reflect on other criticism to current European consumer credit law, pointing out legislative options for the Icelandic parliament. Last but not least, there is a summary of current international principles and good practice of consumer credit law published by international institutions and a debate on ethical banking, free-interest money and loans and a need for financial and monetary reform already acknowledged by leading economists of the IMF.

1. Consumer loans in the EU/EEA legal order are dealt with in the Consumer Credit Directive 2004/48 which is now being incorporated into the Icelandic domestic system. The Consumer Credit Directive 2008/48 aims at full harmonization see Article 22 (1), which does, however, not mean that the field

of consumer credit is also exhaustively harmonized. For example, mortgage loans are excluded from the scope of the Consumer Credit Directive 2004/48, see Article 2 (1) and (2) lit. a). With the new Mortgage Credit Directive Proposal,¹ the Commission has put forward its first comprehensive proposal in this field of law. The Proposal is currently in circulation for commentary and opinions and has to be adopted by the European Parliament and the Council.

2. This new proposal on mortgage credit products from the European Commission follows however the main lines already established concerning the main issue explored here: the paradigm of information and disclosure duties and the general ethic of protection which does not allow unfair practices and unfair contractual terms even if they are disclosed ex-ante to the consumers in the pre-contractual phase. This proposal also obliges creditors to disclose the annual percentage rate of charge (APRC) used in Directive 2008/48/EC and the total cost of the credit to the consumers. Details of the APRC calculation method are given in Annex I and provisions for amending the methodology are laid down in order to be able to take market developments into account.

3. Although European law treats separately consumer credit and mortgage loans, it is not forbidden to put them under the same regulatory framework in national law. As it was stated in June in my previous report, it is very advisable for the Icelandic parliament to continue its tradition of offering consumer protection for all consumers without differentiating non-secured or secured loans (consumer credit or mortgage loans). Iceland has the national powers to do so which is confirmed by Scandinavian tradition a recent ruling of the Court of Justice of the EU.² This is a very positive aspect of the legislative proposal of the Icelandic Parliament (*Neytendalán*) now under examination. Another good aspect is that it provides a new regulation of a recent problem of small loans which is protective of consumers interests and installs a ceiling on interest.

4. However the legislative proposal put forward before the Althingi contains a fundamental error and follows a wrong approach. It considers that price-indexation of loans (*verðtrygging*) is a clause allowed by the Directive 2008/48 as falling outside the scope of the APRC. In fact, all economic actors in Iceland know that this practice, combined with the so-called annuity payments, put the cost of the inflation on the side of consumers giving way to unfair abusive practice and usually not disclosed to consumers. Similar to revolving credit, this practice consolidates interest due and non-paid into the capital and gives way to an extreme form of anatocism - interest on interest- which is a kind of usury when practiced as it is done in Iceland. This is wrong for two reasons which will be explored below.

4.1. Future inflation and its impact on the contract and financial obligations in detriment of consumers is impossible to calculate and predict in advance but falls under the scope of APRC rules.

I send one example annexed. While consumers sign for a mortgage loan of 20 millions, they end up paying 169 millions after 40 years (annual interest rate of 4,5% and inflation around 5,8%).

¹ COM (2011) 142 Proposal for a Directive of the European Parliament and of the Council on credit agreements relating to residential property. Text with EEA relevance. See status of the legislative process at the Legislative Observatory of the European Parliament at

<http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?id=590659>

² CJEU, case C-602/10 SC Volksbank Romania. See judgment of 12 July 2012 at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2012-07/cp120099en.pdf>

But there is a problem here. As inflation is uncertain, the total cost is impossible to predict, to calculate –and thus to disclose- in advance. However the consequences of the inflation are directly passed to consumers. In this sense, allowing price-indexation of the capital in this way violates the provisions of Directive 2008/48 which require that the total cost of credit is disclosed before the signature of the contract with very few restrictive exceptions.

EU/EEA consumer credit law is based on ex-ante control and requires an obligation to disclose information on total cost of credit. This is the main principle and aims to promote responsible lending and prevent over-indebtedness of consumers. Directive 2008/48 states very clearly that the lenders must disclose in advance the total amount and total cost of credit, the duration of the agreement, and a detailed list on the cost of the credit and related costs. Directive 2008/48 harmonises fully this aspect. It is not possible to escape the mandatory rules of the Directive by claiming that “verðtrygging” is a different sort of cost which falls outside the APRC.

This is proved by looking at the website of the European Commission which contains some documents on practical application of the Annual Percentage Rate of Charge (APRC) in relation to consumer credit.³ There we find a final report done for the European Commission on 2009 by an expert Dr. Gloria Soto (Faculty of Economy, University of Murcia, Spain) (Study on the calculation of the annual percentage and Rate of charge for consumer credit agreements - so called APRC). It is very clear in that report that the obligation to provide total cost is articulated through the APRC. Indexation of payments is viewed by the European legislator as applicable only to variable borrowing rates (when interest is not fully established at the conclusion of the credit agreement, because it might change according to an index or reference rate or other events). At any case the indexation permitted under the calculations of APRC for variable interest in the European legislation does never refer the principal of the loan. The same applies to the analysis of the assumptions used for the calculation of the APRC, the set of examples for the calculation of the APRC provided and the EXCEL simulator for the calculation of the APRC coherent with the new Directive.

To help Member States to correctly apply the Consumer Credit Directive, the Commission published on 8 May 2012 Guidelines on the application of the Directive 2008/48/EC in relation to costs and the Annual Percentage Rate of Charge.⁴

On 14 November 2011 the Commission adopted the Directive amending Part II of Annex I to the Directive on Credit Agreements for Consumers.⁵ This new Directive provides a modified set of assumptions necessary for the calculation of the Annual Percentage Rate of Charge.

Total cost of a loan for consumers must be calculated inside the APRC, not outside.

The same approach and definition of total cost is offered in the proposal on mortgage credit put forward by the European Commission in 2011. In this document we find the legal argumentation of

³ All information on financial services and consumer protection provided by the European Commission is available at http://ec.europa.eu/consumers/rights/fin_serv_en.htm

⁴ The Guidelines provide comprehensive explanations how to delineate the total cost of credit, in particular to be included in the calculation of APR, and how to apply assumptions as amended by the Directive 2011/90/EU. See guidelines at http://ec.europa.eu/consumers/rights/docs/guidelines_consumer_credit_directive_sw2012_128_en.pdf

⁵ Commission Directive 2011/90/EU of 14 November 2011 amending Part II of Annex I to Directive 2008/48/EC of the European Parliament and of the Council providing additional assumptions for the calculation of the annual percentage rate of charge Text with EEA relevance. *OJ L 296, 15.11.2011, p. 35–37.*

the Commission why full harmonisation, consistency and interpretation is needed across Europe and what it means “total cost”:

For reasons of legal certainty, the Union framework in the area of credit agreements relating to residential immovable property should be consistent with and complementary to other Union acts, particularly in the areas of consumer protection and prudential supervision. Essential definitions of terms such as 'consumer', 'creditor', 'credit intermediary', 'credit agreements' and 'durable medium' as well as key concepts used in standard information to designate the financial characteristics of the credit, such as the total cost of the credit to the consumer, the total amount payable by the consumer, the annual percentage rate of charge and the borrowing rate, should be in line with those in Directive 2008/48/EC so that the same terminology refers to the same type of facts irrespective of whether the credit is a consumer credit or a credit relating to residential immovable property. Member States should therefore ensure in the transposition of this Directive that there is a consistency of application and interpretation.⁶

In order to promote the establishment and functioning of the internal market and to ensure a high degree of protection for consumers throughout the Union, it is necessary to ensure the comparability of information relating to annual percentage rates of charge throughout the Union. The total cost of the credit to the consumer should comprise all the costs that the consumer has to pay in connection with the credit agreement, except for notarial costs. It should therefore include interest, commissions, taxes, fees for credit intermediaries and any other fees as well as the cost of insurance or other ancillary products, where these are obligatory in order to obtain the credit on the terms and conditions marketed. As the annual percentage rate of charge can at the pre-contractual stage be indicated only through an example, such an example should be representative. Therefore, it should correspond, for instance, to the average duration and total amount of credit granted for the type of credit agreement under consideration. Given the complexities of calculating an annual percentage rate of charge (for instance, for credits based on variable interest rates or non-standard amortisation) and in order to be able to accommodate product innovation, technical regulatory standards could be employed to amend or specify the method of calculation of the annual percentage rate of charge. The definition of and methodology used for calculating the annual percentage rate of charge in this Directive should be the same as those in Directive 2008/48/EC in order to facilitate consumer understanding and comparison. Those definitions and methodologies may, however, differ in the future should Directive 2008/48/EC be modified at a later date. Member States are free to maintain or introduce prohibitions on unilateral changes to the borrowing rate by the creditor.⁷

'Total amount to be reimbursed' shall be calculated as the sum of the credit amount and the total cost of the credit.⁸

Art. 3: 'Total cost of the credit to the consumer' means the total cost of the credit to the consumer as defined in Article 3(g) of Directive 2008/48/EC.⁹

The European Parliament has examined already at a preliminary stage this proposal of the Commission on mortgage credit and confirms this approach. Consumers must be informed of total cost in advance¹⁰

⁶ COM (2011) 142 on p. 16 (recital 11). 52

⁷ COM (2011) 142 Recital (23) on p. 19

⁸ COM (2011) 142 on p. 52

⁹ COM (2011) 142 on p. 26.

On this point of total cost disclosure, we fall inside the rules of maximum harmonization. EU/EEA Member States can only deviate on two conditions as the recent case-law of the ECJ suggests: if the issue falls outside the scope of the fully harmonised provisions of the Directive (ie: sanctions for infringement of informational duty provisions) and, obviously, if is intended to increase consumer protection.¹¹

On the basis of those arguments this thesis is advanced. Although it would be possible to argue that the final cost of loan is not known at the time of signature to the creditor, European legislation principles established by Directive 48/2008 clash frontally with the practice of verðtrygging of Icelandic loans. In Iceland the principal, the amount borrowed is born and meant to be always indeterminate but securely linked to inflation giving way to nominal repayment percentage of ie. 846%. In Icelandic practice, the initial consumer credit or mortgage becomes simply an ancillary excuse for the main purpose of the agreement which is a very different one: the opaque contract imposed by creditors upon consumers by linking the principal of the loan to inflation (which gives way to astronomic profit through the magic of compound interest and anatocism).

While it is clear that the price of money in Iceland (and thus the interest) is higher due to the risks inherent of a volatile micro-currency outside the euro-zone and that interests will be naturally higher than in continental Europe; the legislation must be correct from the point of view of EU/EEA consumer credit law. If the cost of borrowing money in Iceland is high, it must be disclosed to consumers so that they can commit to their future financial obligations responsibly.

If the price of credit was transparent in Iceland, we would envision an average APRC between 20-30% as price of credit. As a report done for the European Commission says, there are significant variations across Member States in the price of credit. Average APRC for new lending ranged from 31 per cent per annum in Estonia to just under 7 per cent in Finland in 2008.¹² Instead the Housing Financing Fund of Iceland¹³, a public institution offering mortgage loans, discloses interest rates lower than 5% while mentioning, in a separate line, that there is an indexation clause (consumer price index)¹⁴. How can the consumer know the effect of indexation on the contract? He/she cannot, that is the problem.

¹⁰ It has suggested the amendment by referring to "total loan cost": 'Total loan cost' means the total cost of the credit to the consumer as defined in Article 3(g) of Directive 2008/48/EC. See European Parliament, Committee Draft Report of 29 July 2011 and Amendments of 6 October 2011 to the proposal put forward by the Commission available at <http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?id=590659>

¹¹ CJEU, case C-602/10 SC Volksbank Romania. See judgment of 12 July 2012 at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2012-07/cp120099en.pdf>

¹² On the economic impact of the Consumer Credit Directive see Final Report done by GHK in November 2009 entitled: Establishment of a Benchmark on the Economic Impact of the Consumer Credit Directive on the Functioning of the Internal Market in this Sector and on the Level of Consumer Protection. Report available at: http://ec.europa.eu/consumers/rights/docs/ccd_benchmarking_study_en.pdf

¹³ The Housing Financing Fund (HFF) is an independent government institution granting mortgage loans to individuals, municipalities, companies and organizations to finance housing purchase and construction work. The fund is financially independent and funds its lending and operations by its own income. The purpose of the fund is to ensure housing security and equality for all Icelanders through lending and organization of housing affairs and special investments in order to increase people's opportunities of obtaining and leasing housing on controllable terms. See <http://www.ils.is/english/about-hff/>

¹⁴ See information disclosed by Housing Financing Fund about its credit at <http://www.ils.is/english/mortgage-loans/-hff-loans-to-homebuyers/>

Lets see the example provided in the document annexed entitled “The explosive loan machine” by Guðmundur Ásgeirsson. In this example we clearly see how a principal of 20 million ISK, with an interest rate of 4,5% and inflation forecast of 5,98% gives way to a final payment of 169,127,914 ISK.

With a CPI-indexed annuity repayment plan, as calculated by Icelandic banks the payments done after 40 years are :

Total payments based on indexation: 83,946,153

Total payments based on capital: 103,946,153

Total payment for interest: 65,088,161ISK

Invoice fees: 93,600

Grand total of 169,127,914

If a mortgage of 20 millions become at the end of 40 years 169 millions, it is not possible to say that the main purpose of the contract was the payment of 20 millions with an 4,5% interest rate and that the indexation is just a cost of the loan. What has happened to the capital? Usually the capital remains stable, it is the interest that grows. In Iceland consumers see capital grow and multiply exponentially.

For these reasons, it is not possible to argue that the indexation of the principal is incidental. In the light of the EU/EEA consumer credit legislation, it is not an extra cost that can be calculated outside the interest rate. The indexation of the principal is the main interesting feature of the contract for the creditor as it brings the initial 20 millions to a principal of 103,946,153millions, more than four times.

There is no legal basis in European consumer credit legislation to sustain the argument of the financial institutions that this price indexation of the principal to consumer index (*verðtrygging*) is a separate cost of the credit that can be left outside the APRC. The argument does not hold. This *verðtrygging*, the price of money over time due to inflation, falls under the APRC scope. No other country in the European Union faces this failure of information concerning cost of credit vis-à-vis consumers.

For all the above reasons, Icelandic legislative proposal fails to pass the test of “assisted informed consumer” based on the paradigm of ex-ante information and validity of private contract law.

The total amount and total cost of credit per year is impossible to disclose in the case of *verðtryggt* loans as they are offered and calculated in Iceland. Consumers ignore their future financial obligations in the pre-contractual phase. The principal of the loan grows and all information given to consumers at pre-contractual stage is misleading in the medium and long-term. Consumer associations have also confirmed that, on many occasions, the banks have given payment plans where inflation was simply calculated as non-existent or 0%. The APRC they get is wrong.

As the total principal of the loan is always indeterminate in detriment of the bank, as long as consumers are not duly informed of their financial obligations according to the European standard APRC rules; it can be argued that the consent given by the consumer is defective and, as such, it can

lead to the partial or total nullity of the contract. This is private law, a misled consent given under mis-representation, mistake or abuse can be challenged before courts and relief can be granted on that terms both in European contract law and in Icelandic law.¹⁵

The Court of Justice of the European Union has already adopted such an approach. In the case *Schulte* back in 2005 the Court held that '[t]he Member States must therefore ensure that . . . a bank which has not complied with its obligation to inform the consumer [in accordance with the Doorstepselling Directive] bears the consequences of the materialisation of those risks so that the obligation to protect consumers is safeguarded'.¹⁶ As Vanessa Mak has noted: "the ECJ through this extensive interpretation imposes a standard of consumer protection on the Member States that goes much further than is customary in their national laws."¹⁷ Whether this is valid for internal market situation or for entirely domestic situations is open for interpretation.

More recently, in the case 602/10 *SC Volksbank România SA*, judgment of 12 July 2012, the Court has answered the following questions in the light of the full harmonisation character that the Directive on consumer credit 2008/48 introduced (see its article 22(1)).¹⁸ For the Court of Justice a differentiation must be made between unsecured consumer credit now fully harmonised (which allows no flexibility for issues harmonised) and other secured consumer credit waiting harmonisation (where Member States enjoy margin of manouver through regulation). A second differentiation is done between the key issue of prohibiting certain charges and the price of credit or level of charges.

1. May a Member State broaden the material scope of application of the Directive to matters excluded from its scope, for example, in order to cover consumer credit agreements secured by immovable properties? Yes.

Referring to credit agreements which fall within the directive's scope –unsecured consumer credit – the directive provides for a full and imperative harmonisation which, as regards the matters specifically covered by that harmonisation, precludes the Member States from maintaining or introducing national provisions other than those which it contains.

2. May a Member State broaden the temporal scope of application of the Directive to consumer credit agreements concluded before this law entered into force? Yes.

¹⁵ A recent case judged by the Supreme Court of Iceland confirms the importance of responsible lending and borrowing in Iceland. In this case there was a both defect of due informed consent by third parties who guaranteed the loan and malpractice by the bank (a negative evaluation of the payment capacity done by the creditor was nevertheless ignored and a loan was given). The Supreme Court relieved partly the guarantee for that loan for third parties and criticised the bank for such a bad praxis on the basis of Art. 36.2 of Contract Law which says: "Við mat skv. 1. mgr. skal líta til efnis samnings, stöðu samningsaðilja, atvika við samningsgerðina og atvika sem síðar komu til." This is a fairness assessment of the contract independent of the quality of the parties (individuals or legal persons). See comments in the press and judgment from the Supreme Court at:

http://www.mbl.is/frettir/innlent/2012/11/01/fekk_lan_tho_ad_hann_gaeti_ekki_efnt_skuldbindingar/

<http://www.haestirettur.is/domar?nr=8391>

¹⁶ ECJ, Case C-350/03, *Schulte v. Bausparkasse Badenia* [2005] ECR I-9215 at [100].

¹⁷ Vanessa Mak, Two levels, one standard? The multi-level regulation of consumer protection in Europe, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, pp. 21-42, specially on p. 34.

¹⁸ CJEU, see judgment at

<http://curia.europa.eu/juris/document/document.jsf?text=&docid=124988&pageIndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=14682>

3. May a Member State prohibit creditors to impose certain charges on consumers even if the Directive does not specify them (for consumer credit agreements outside the scope of Directive)? Yes.

Here the Court is asked about the categories of reference indices to which the variable interest rate in those agreements may refer. The dispute in the main proceedings essentially concerns the validity of the clause headed 'risk charge', which appears in credit agreements concluded before the date of entry into force of Roumanian legislation (OUG 50/2010) and whose title, following a change after that date, is now 'credit administration charge'.¹⁹ The bank challenges the Roumanian legislation prohibiting these charges.

Some interesting points of the Courts reply:

Directive 2008/48 provides for obligations relating to the information required to be supplied by the creditor as regards, inter alia, bank charges in so far as they form part of the total cost of the credit within the meaning of Article 3(g) and in connection with consumer credit agreements falling within the scope of Directive.

The directive does not, on the other hand, contain substantive rules relating to the types of charges that the creditor may levy. (para. 65)

It is, moreover, apparent from recital 44 in the preamble to Directive 2008/48 that, in order to ensure market transparency and stability, and pending further harmonisation, Member States should ensure that appropriate measures for the regulation or supervision of creditors are in place in connection with consumer credit agreements falling outside the scope of Directive. (para. 66)

Parties agree that the national legislation at issue in the main proceedings limits the number of bank charges that can be included in credit agreements, but it does not impose requirements curbing the rate of charge, since no limit is laid down as regards the amount of the charges that are authorised by the national provision at issue in the main proceedings or as regards interest rates in general. (para. 78)

The EU Treaty rules concerning the freedom to provide services must be interpreted as not precluding a provision of national law that prohibits credit institutions from levying certain bank charges. (para. 83)

4. May a Member State allow consumers to have direct recourse to a consumer protection authority, which may then impose penalties on creditors for infringement of national measures without having to use beforehand the out-of-court resolution procedures? Yes.

The conclusion seems to be, for the time being, that Icelandic legislator has this margin of manouver:

¹⁹ Clause 3.5 of the general conditions of the credit agreements at issue in the main proceedings, which is headed 'risk charge', provided that, for the making available of the credit, the borrower may be required to pay the bank a risk charge, calculated on the basis of the balance of the loan and payable monthly throughout its term. Clause 5 of the agreements' general conditions, which is likewise headed 'risk charge', specified that that charge is equal to 0.2% of the balance of the loan and that it must be paid monthly on the due dates throughout the term of the agreement.

- for unsecured consumer credit, maximum harmonisation through Directive 2008/48 which obliges to calculate and disclose total cost of credit following European standards (APRC rules). Here it is argued that *verðtrygging* cannot be an extra cost and falls inside the scope of APRC mandatory rules and has to be disclosed as such.

- for secured consumer credit (mortgages), no harmonisation yet so freedom to legislate as long as internal market legislation is respected. Here all the freedom to limit or stop *verðtrygging* even for contracts existing on the date when that national measure entered into force (fundamental rights test in the field of contract law obliges a justified general interest goal which prevails over private interest of parties, respect of principle of proportionality and legitimacy of policy intervention).

4.2. Substantive unfairness in a contract cannot be legitimised by ex-ante information. Abuse cannot be justified by transparency. This is not a proper defence in European law. It can be argued that unbalanced contracts where all the damage done by inflation is passed to consumers who become slaves of their financial obligations by consenting a hidden indexation of capital to inflation and providing a kind of “blank check” to the banks violates the main goal of the European legislation which is to ensure a high protection of consumers by requiring fairness in the credit market.²⁰

Unfairness is usually understood as a significant imbalance of rights and obligations and violation of good faith to the detriment of consumers.²¹ Fairness applies not only to disclosure information in the pre-contractual stage but also to substantive content and consequences of clauses during and after the contract.

Regarding fairness, the position of the Court of Justice of the European Union has been somehow unclear. National courts must apply the test of fairness in local context but in the case *Oceano* it decided a clause was unfair if it was not beneficial for consumers. This would mean that transparency is not a defence for substantive unfair clauses or contracts.²²

Willem and Morgan Taylor offer a very good insight in the limits of transparency concerning unfairness. For them it is very important to clarify in European law and in national law the general ethic of protection and to determine whether a high level of protection is achieved. Are we only providing protection through “assisted informed consent”?²³ Misleading actions and omissions, aggressive practices are clear to everybody because they restrict freedom of choice and autonomy. But, they argue, if we look at European consumer law as a whole and take into account that legislation has already been adopted concerning unfair terms and unfair practices, it is clear that protection must go beyond transparency. In their view, behavioural economics support the same conclusions. Economic and social impact on consumers of unfair substantive outcomes must open

²⁰ Recently the Financial Services Authority in the UK has issued an initiative called “Treating customers fairly” which is accessible at: <http://www.fsa.gov.uk/doing/regulated/tcf>

²¹ Chris Willett and Martin Morgan-Taylor, Recognising the limits of transparency in EU consumer law, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, at . 154.

²² Ibid. at p. 155. See also CJEU, Joined cases, *Oceano Grupo Editorial* and *Salvat Editores* and *Freiburger Kommunalbauten GmbH Baugesellschaft & Co. KG*, n. 10. For a deeper discussion see C. Willett, *Fairness in Consumer Contracts*. Aldershot: Ashgate, 2007.

²³ Chris Willett and Martin Morgan-Taylor, Recognising the limits of transparency in EU consumer law, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, at . p. 160.

the eyes of legislators and judges. The paradigm of ex-ante information does not offer enough protection when unfairness is at stake.²⁴

In this regard scholarship also points out that nowadays we have a concept of fundamental rights based on a "social state" (not a liberal state which refrains from all intervention in economic life). The purpose of the State is considered to direct the process of social and economic development towards an aim of fairness and justice in the distribution of benefits,²⁵ considering thus consumer rights as fundamental rights (property rights).

As stated before, the *verðtrygging* practice, combined with the annuity payments mechanism, also means that financial institutions are systematically and regularly consolidating interest as new capital, thus calculating interest on interest (*vaxtavexti*) and exponentially growing compound interest (anatocism) without a proper legal basis neither in European law nor in Icelandic law (Act. 38/2001) as it will be explained below. This is contrary to good faith and fair dealing and commercial advertising practices required by European consumer legislation.

In fact, it has been proved above how this practice of *verðtrygging* (*verðbætur*) is really just a specific form of interest, and must therefore be handled the same way according to the directives and consumer credit legislation.²⁶ *Verðtrygging* must be incorporated under the APRC definition.

This means in practice that the proposal now discussed by the Icelandic parliament is distorting the goal of consumer protection of Directive 48/2008 by making a wrong use of the provisions designed, in reality, for variable interest rates. No other country in Europe has *verðtrygging* so that is why the European legislation does not mention specifically this problem. No one in Europe can really envision a situation with the principal of the loan (specially a house loan) grows geometrically with time by the magic of compound interest making consumers repay nominal amounts of up to 846% the principal borrowed (a loan of 20 millions becomes 169 millions).

In EU consumer contract law, directives have adopted rules controlling the fairness of most of their standard terms. The same applies to the body of emerging European contract law. The Guiding Principles of European Contractual Law (PECL)²⁷, a soft-law private initiative led by academics, are built around three notions: freedom of contract, contractual fairness and contractual certainty. "Contractual Fairness" generates a "general duty of good faith and fair dealing" which requires that "each party is bound to act in conformity with the requirements of good faith and fair dealing from the negotiation of the contract until all of its provisions have been given effect.

²⁴ Ibid. At pp. 162-163.

²⁵ Monika Jagielska and Mariusz Jagielski, Are consumer rights human rights? in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, pp. 336-353, at p. 343.

²⁶ The problems regarding calculation of APR when facing the risk of unknown rates of variable cost factors, are not entirely specific for Iceland. This problem is the same whether the variable costs is due to "verðtrygging" or other type of indexation such as FX-linkage, which is known to exist in domestic consumer credit in several other countries.

²⁷ See book Edited by Association Henri Capitant & Société de législation comparée, *European Contract Law Materials for a Common Frame of Reference: Terminology, Guiding Principles, Model Rules*, July 2009 and http://www.sellier.de/pages/en/buecher_s_elp/europarecht/589.european_contract_law_materials_for_the_cfr.htm

Fairness as an explicit legal concept and requirement in the field of financial services has finally appeared on the Proposal for a Directive of the European Parliament and of the Council on credit agreements relating to residential property²⁸.

On p. 17, recital 16 we read the aim of the future legislation:

The applicable legal framework should give consumers the confidence that creditors and credit intermediaries are acting in the best interests of the consumer. A key aspect of ensuring such consumer confidence is the requirement to ensure a high degree of fairness, honesty and professionalism in the industry.

Articles 5 and 6 of the same proposal establish requirements in terms of the honesty, fairness and competence of creditors and credit intermediaries serving consumers. They make the Member States responsible for ensuring compliance with these requirements, while the Commission reserves the right to specify the requirements for knowledge and competence.

For this reason the European Parliament has proposed amendments to recital 5 of the Commission Proposal with a new paragraph added to Article 1:

This Directive develops a more transparent, efficient and competitive internal market, through consistent, flexible and fair credit agreements relating to residential immovable property, while promoting sustainable lending and borrowing and hence providing a high degree of protection to consumers.

New article 5 1. Member States shall require that, when granting, intermediating or advising on credit and, where appropriate, ancillary services to consumers, the creditor or the credit intermediary acts honestly, fairly and professionally. When offering their products or implementing the contract the creditor or credit intermediaries shall act in the best interests of the consumer.²⁹

For all these reasons, Icelandic proposed legislation on consumer loans (both secured and unsecured) does not pass a fairness test. The goal of consumer protection legislation is precisely to protect the weakest party of transactions (consumers) not to serve the financial interest of banks and financial institutions. The proposed legislation, if passed, will make legal what is now a dubious practice based on a regulation passed by the Central Bank.

As the European coalition for responsible credit has declared:

Strict usury laws are required so that the amount of money the financial industry can extract from those who need credit is limited. Such politics will make credit safer and consequently prevent hazardous investment products which are based on usurious credit rates and irresponsible lending practices.³⁰

²⁸ See p. 10 of Proposal COM(2011) 142 final where it says: Articles 5 (conduct of business obligations when providing credit to consumers) and 6 (minimum competence requirements) stipulate important conditions for both creditors and credit intermediaries in order to ensure a high degree of professionalism in the provision of mortgage credit, such as an obligation to act in the best interests of the consumer and requirements with regard to having appropriate knowledge and competence.

²⁹ Article 5 of the Commission proposal is more limited in scope. It says: Member States shall require that, when granting, intermediating or advising on credit and, where appropriate, ancillary services to consumers, the creditor or the credit intermediary acts honestly, fairly and professionally in accordance with the best interests of the consumer.

³⁰ See presentation at <http://www.responsible-credit.net/index.php?id=1980&viewid=42474>

In fact, I have strong reservations against this proposal on the basis of legality, fundamental economic rights and legitimacy. It seems to me that the legislator will, in fact, legalise “usury” under the guise of the incorporation of Directive 2008/4. If this is done willingly, this means the Parliament is abusing its legislative power by allowing substantive unfair practices to escape the scrutiny of European law which clearly prohibits abuse when it comes from the initiative of private operators. Abusive practices will be legalised and embedded into law. The bad conscience of the legislator can be proven by the fact that, to the best of public knowledge, Iceland has not discussed formally the legality of this practice with the European Commission in the framework of negotiations for accession to the EU. Probably this is not done so because this *verðtrygging* problem and how is currently implemented in Iceland is very difficult to justify in European consumer law.

5. Absence of legal base in Iceland for indexing principal of loan to inflation. In fact, there is simply no proper legal base for the indexation of the principal to the consumer price index. The Act on interest and indexation nr. 38/2001 provides for an indexation of payments, not the principal. It is only a regulation of the Central Bank, which misinterprets the law with a regulation that allows the Icelandic magic of indexing principal (Regulation nr. 492/2001).

Although the Central Bank has tried to argue that indexing principal and indexing payments lead to similar results³¹ this is not true. As Marino G. Njálsson has pointed out:

Áhvilandi lán með verðbættum höfuðstóli er því hærra en sama lán, ef höfuðstóllinn er ekki verðbættur. Ekki var spurt um greiðslubyrði eða heildargreiðslur heldur hvort verðbættur mættu leggjast á höfuðstól. Því er ljóst að reglur Seðlabankans leiða ekki til sömu efnislegu niðurstöðu. Í annan stað, þá heimilar lögmatísreglan, eins og hún er skýrð út af Seðlabankanum, stjórnvaldinu ekki að breyta merkingu laganna, þó svo að hlutirnir séu ekki orðaðir eins. Lög nr. 38/2001 heimila að verðtrygging nái til greiðslu. Hvergi í lögnum er vikið að því að verðtryggja höfuðstól. Á þessu tvennu er munur. Sjá lögspekingar Seðlabankans ekki mun á höfuðstóli og greiðslu, þá erum við í slæmum málum.³²

6. Verðtrygging – legality pending assessment by courts in Iceland

A case has been already brought by the Consumer Association *Samtök heimilana* against the House Financing Fund (*Íbúðalánasjóður*) before the District Court of Reykjavík on the 18th October 2012 regarding the *verðtrygging* on a mortgage loan.³³ Their arguments are built on Act nr. 121/1994 on consumer loans.

In this regard it is worth noting that news from 6 October 1993 and 26 July 1994 published in the national newspaper *Morgunblaðið* reflect that Icelandic banks knew that house mortgages offered violated the provisions of consumer credit legislation adopted in Iceland from 11 January 2001.³⁴

³¹ See explanations given by Central Bank at <http://sedlabanki.is/lisalib/getfile.aspx?itemid=8964>

³² See blog <http://marinogn.blog.is/blog/marinogn/entry/1187812/>

³³ As the association explains in their webpage:

Í stefnunni er byggt á lögum um neytendalán (nr. 121/1994), en stjórn samtakanna telur sýnt að verðtryggðir lánasamningar brjóti gegn skýrum ákvæðum laganna um upplýsingagjöf um heildarlántökukostnað til neytenda, og kunnir þar með að vera ólöglegir. Hér er um að ræða fyrsta málið sem höfðað er vegna verðtryggingar neytendalána á Íslandi. Ríkislögmaður mætti fyrir hönd Íbúðalánasjóðs í þingfestingu og fékk átta vikna frest til að skila greinargerð, eða nánar tiltekið til 13 desember næstkomandi.

See <http://www.heimilin.is/varnarthing/frettirhagsmunasamtokin/1516-thingfest-gegn-ils>

³⁴ See the article at <http://www.gagnauga.is/index.php?FI=Frettir&ID=4760>

Another recent case in the district court of Århus in Denmark of 26 September 2012 is interesting because it is the first time this issue is confronted with Scandinavian/European consumer credit law and how Icelandic method of indexing loans with price-consumer index fare in the eyes of independent judges not biased by Icelandic political and economical context.³⁵ The Danish judge rejects a petition by LÍN (*Lanasjóður Íslenska Náms*) claiming the repayment of a credit with price-indexation clause on several grounds. The Court considers that the debt is most closely related to the Island, and that the action is governed by Icelandic law in accordance with Article 4 of the Convention of 19 June 1980 on the law applicable to contractual obligations, implemented in Danish law by Act No. 188 of 9 May 1984. The choice is crucial to the defendant's objection that the payment must be made in ISK. On the substance, it expresses some fundamental doubts about the legality of the claim. The court finds that LÍN's statement of the two ordinary repayments and additional repayments on the bond that forms the basis for the claim are expressed with too much ambiguity for the claim to succeed. There is no amount of correlation between the debt instrument providing annual installments, the last reported price of the Icelandic krona (ISK) and the calculated repayments. It is also unclear to what extent and at what rate, in accordance with the debt instrument provisions and regulations, the claim has changed according to the consumption price index.

While the case is sent to Iceland due to the rules on jurisdictional competence of Icelandic judges, the perplexity of the Danish judge confronted to the claim describes very well the perplexity of all European legal and economic scholars to whom I expose the problem of *verðtrygging* in Iceland.

7. The limits of European consumer credit law and the paradigm of "assisted informed consumer"

EU regulation of consumer credit relies on a regulatory framework where the central banks influence the interest rates fighting against inflation and where some countries have created special regulators

³⁵ The Court declares:

Rettens begrundelse og afgørelse

Gældsbrief nr. _____, er ubestridt underskrevet af _____, der ligeledes kan erkende at skyldes hovedstolen. Gældsbriefet er udfærdiget på islandsk, underskrevet på Island af to parter, der på underskriftstidspunktet var bosiddende på Island, og angiver hovedstolen i islandske kroner. Retten finder herefter at gældsbrief har sin nærmeste tilknytning til Island, og at sagen derfor skal afgøres efter islandsk lov, jf. artikel 4 i konventionen af 19. juni 1980 om, hvilken lov der skal anvendes på kontraktlige forpligtelser, gennemført i dansk ret ved lov nr. 188 af 9. maj 1984. Lovvalget er blandt andet afgørende for sagsøgtens indsigelse om, at betaling skal ske i islandske kroner.

Uanset, at der ikke under sagens forberedelse er foretaget nogen belysning af islandsk ret, finder retten, at Lanassjóour Íslenska Náms' opgørelse af de to ordinære afdrag og tillægsafdraget på gældsbriefet, der danner grundlag for den nedlagte påstand, er forbundet med en sådan uklarhed, at Lanassjóour Íslenska Náms ikke kan få medhold i nogen del af den nedlagte påstand.

Retten bemærker herved, at der ikke er nogen beløbsmæssig sammenhæng mellem de i gældsbriefet fastsatte ordinære afdrag, den seneste oplyste kurs på islandske kroner og de beregnede afdrag, samt at det er uklart, i hvilket omfang og med hvilken sats, der i henhold til gældsbriefets bestemmelser er sket regulering efter ændring i konsum-prisindekset.

For så vidt angår tillægsbetalingen, har Lanassjóour Íslenska Náms ikke redegjort for, ud fra hvilken indtægt, afdraget er fastsat, eller om afdraget er fastsat skønsmæssigt, herunder sandsynliggjort at det har været berettiget at skønne over indtægten. Også vedrørende tillægs afdraget er det uklart, i hvilket omfang og med hvilken sats, der er sket regulering efter ændring i konsumprisindekset.

Herefter vil sagsøgte, _____ være at frifinde.

in the area of financial services and credit (such as the Financial Services Authority in the UK). A network of consumer protection authorities coordinate themselves.

EU/EEA consumer credit law follows what Norbert Reich has called a half-harmonisation approach. There are uniform standards in areas and problems justified by the internal market needs but there are minimum rules, if any, concerning other areas where domestic law is sovereign – influenced by constitutional traditions.³⁶ For instance: there is a requirement of effective remedies for breach of information duties in some European directives but there are obviously different remedies and enforcement mechanisms in all 27 Member States of the EU. Another thing is important to remember as Vanessa Mak has noted. Purely domestic transactions can be subject to different level of consumer protection if legislation has no effects on the internal market.³⁷ Regulation of financial markets is shaped by local factors so that the scope of the maximum harmonisation in Directive 2008/48 does not pre-empt legislative powers from Member States for many other important issues.

New proposal on mortgages from the European Commission proposes some extra steps and constitutes an amelioration in some regards compared with Directive 2008/48.³⁸ According to the Commission the proposal:

- establishes the principles for a regulatory and supervisory framework for credit intermediaries. This framework provides for the authorisation and registration of credit intermediaries, subject to compliance with certain requirements on entry into the business and on an ongoing basis, and for the establishment of a passport regime. The requirements apply to all credit intermediaries, whether they are tied or not in order to ensure a high degree of professionalism in the industry;
- stipulates that non-credit institutions must be subject to adequate authorisation, registration and supervision;
- requires Member States to ensure that appropriate administrative measures or sanctions can be taken in the case of non-compliance with the Directive;
- requires Member States to establish out-of-court redress bodies for the resolution of disputes between creditors and consumers and between credit intermediaries and consumers.

This might be better but not enough. As Vanessa Mak has explained, European Directive 2008/48 is entirely focused on information in a pre-contractual phase while protection is strongly needed in post contractual phase: rights of withdrawal, remedies for mistakes or non-disclosure, damages, force-majeure, etc.³⁹

The most important criticism is, however, towards the paradigm of an “assisted informed consent model”. The information test is not appropriate to deal with all problems and cannot be seen as the

³⁶ Norbert Reich, From minimal to full to ‘half’ harmonisation, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, p. 4.

³⁷ Vanessa Mak, Two levels, one standard? The multi-level regulation of consumer protection in Europe, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, pp. 21-42, specially on p. 25.

³⁸ Proposal COM(2011) 142 final

³⁹ Vanessa Mak, Two levels, one standard? The multi-level regulation of consumer protection in Europe, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, pp. 21-42, specially on p. 40.

only mechanism for consumer protection. Transparency only cannot be a legitimising factor. Too many different specialists contest EU consumer protection model rejecting assumptions based on the information paradigm. Other more protective approaches based on a better ethic of consumer protection are possible in EU law.⁴⁰ Scholarship has proved the limits of transparency and requires the European institutions to offer better and clear protection against substantive unfair practices and consequences, matters of consent notwithstanding.⁴¹ The criticism against consumer credit law and its neoliberal approach has become more open after the financial crisis. Consumer protection cannot be only a mechanism for market integration because real social protection is needed in Europe.⁴²

Demands for a better European consumer credit law abound. Scholarship affirms that the new empowered consumer that the EU envisions has not emerged in real world.⁴³ Directives aim to a high level of consumer protection and this is the context of Directive 2008/48. Transparency can legitimise different price of credit but, over a certain threshold, it cannot legitimise simple abuse because consumers have no bargaining power concerning abusive clauses and unfair terms. Scholarship on behavioural economics proves that, most of the times, confronted to the unbalance of power, they consent because they have no other choice.⁴⁴ Disclosure of information does not remedy fundamental asymmetry of information and lack of choice and there is a need for a more interventionist approach.⁴⁵

All these arguments are entirely applicable to the problem of indexation of capital through *verðtrygging* in Iceland. If consumers agree is because there is no other choice around.

Furthermore, European current legislation ignores important issues such as the consequences of financial services being services of general interest for the population (financial inclusion/exclusion), the sustainability of the current financial model where credit has become a substitute for wages for middle-class families, the specific needs of small and medium enterprises (SMEs) and vulnerable consumers. For all these issues it is necessary to reconsider whether the current framework of controlling unfair and abusive practices is enough to provide consumer protection or whether it is necessary to adopt more positive action to increase the current absence of protection. The Icelandic legislator has a golden opportunity to engage in policy-making to remedy all these fundamental gaps.

8. Emerging international principles and best practices for regulation in the area of consumer finance

Scholarship has already signalled the best international practices and principles which should guide all countries in the regulation of financial services for a better consumer protection.⁴⁶ The financial crisis has only exposed the failure of the current model where consumer credit has led to a model for

⁴⁰ Chris Willett and Martin Morgan-Taylor, *Recognising the limits of transparency in EU consumer law*, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012, pp. 21-42, pp. 143-163; specially at p. 143.

⁴¹ Ibid. Chris Willett and Martin Morgan-Taylor, *Recognising the limits of transparency in EU consumer law*, at pp. 147-149.

⁴² Devenney, James; and Kenny, Mel. *Consumer Credit, Debt and Investment in Europe*. Cambridge University Press, 2012, at p. vii, 21 and 22.

⁴³ Devenney, James; and Kenny, Mel. (eds) *European Consumer Protection*. Cambridge University Press, 2012, at pp. 441 and 448.

⁴⁴ Chris Willett and Martin Morgan-Taylor, *Recognising the limits of transparency in EU consumer law*, at pp. 147-149.

⁴⁵ Catherine I. Garcia Porras and Willem H. van Boom, *Information disclosure in the EU Consumer Credit Directive: opportunities and limitations*, in Devenney, James; and Kenny, Mel. *Consumer Credit, Debt and Investment in Europe*. Cambridge University Press, 2012. pp. 21-55, see specially p. 21-22.

⁴⁶ Iain Ramsay, "Consumer credit regulation after the fall: international dimensions". *Journal of European Consumer and Market Law* (2012) 1:24-34, specially p. 24-25.

wages.⁴⁷ The failure of the information paradigm has been proved by behavioural economics (consumers do not take rational decision concerning debt), with the consequence that we should shift from legislation based on autonomy of private parties towards a soft model of paternalism with minimum standards and some fundamental prohibitions and even interest rate ceilings.⁴⁸ While there is no natural level of consumer credit right or wrong within a society, the most important point is that credit must be sustainable, enhance individual capacities and deal with issues such as social inclusion/exclusion.⁴⁹

The OECD has drafted a preliminary version of a document entitled High Level Principles on Financial Consumer Protection which clearly states that ‘financial consumer protection should be an integral part of the legal and regulatory framework’ and that ‘financial consumers should be treated equitably, honestly and fairly at all stages of their relationship with financial providers’.

The World Bank has also adopted a code of Good Practices which “*seek to state measures that evoke general agreement among regulators*”. This institution searches inspiration in sources such as EU, UK and US regulations and practices - in that order.⁵⁰

Last but not least the United Nations has given directions in this field.⁵¹ We refer to the paper of a scholar who gives due account of the best international principles and practices in this area of financial services, consumer protection aiming for fairness and stability and summarises what we have learned after the financial crisis started.⁵²

9. The way ahead – increasing consumer protection in the financial sector in Iceland

Together with general issues indicated at the section above, European consumer credit law (Directive 2008/48) has not harmonised these specific issues for which there legal autonomy for the Icelandic legislator (it is implicit that legislation will ameliorate position of consumers, not deteriorate their legal standing and substantive rights):

- Over-indebteness (the assumption is that ex-ante information will protect consumers from themselves but it is quite predictable that ex-post policy making will appear at European level because of the tragic consequences of the financial crisis on households and small companies in peripheral countries of Europe)
- Interest-ceilings (currently in force in countries such as France)

⁴⁷ Ibid, p. 27

⁴⁸ Ibid p. 28-29.

⁴⁹ See Amartya Sen's, Nobel-Prize-winning economist's book, *The Idea of Justice*, Harvard University Press, 2009 Martha Nussbaum, Price Principe de Asturias in Spain 2012, *Creating Capabilities: The Human Development Approach*, Harvard University Press, 2011. Sensitivity to real-world justice in people's lives is what Amartya Sen and Martha Nussbaum argue for and describe as the "capabilities" conception of justice.

⁵⁰ World Bank, Good Practices for Consumer Financial Protection:Consultative Draft (2011)100. See document at: www.siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/Good_Practices_Financial_CP.pdf

⁵¹ UN Department of Economic and Social Affairs, Guiding lines for the protection of consumers (1999 version). See link: http://www.un.org/esa/sustdev/publications/consumption_sp.pdf (Spanish)

⁵² See paper of Mauricio Baquero Herrera, Estabilidad Financiera Y Comercio Justo De Servicios financieros. Los principales trabajos de la Arquitectura FinancieraInternacional encaminados a la protección de los consumidores financieros en laera de las turbulencias. Document available at: http://www.academia.edu/1826.013/Estabilidad_Financiera_v_Comercio_Justo_de_Servicios_Financieros

- Explicit usury prohibitions (regulating or prohibiting interest on interest or anatocism by compound interest)(although they fall in general consumer law under the prohibition of unfair clauses and unfair commercial practices)
- Cost of credit (where principal of the loan remains stable with some exceptions)

Based on the most recent literature on the topic⁵³, a good institutional and legal framework to protect consumers in the field of financial services would be based upon the following lines of public law:

- Regulation of their activities through licenses with supervision by Financial Services Authority and other public institutions (ie: Competition Surveillance Authorities).
- Responsible borrowing and lending through better legislation: this means reform at the crossroads of financial services and consumer law in order to guarantee financial stability and sustainable growth. Consumer credit law could become a sort of *lex specialis* in contract law, both at national and European level.
- Taking seriously and protecting consumer's economic rights so that legislation is not biased towards financial institutions⁵⁴ (ie: reform of law of guarantees, overindebtedness and personal bankruptcy which is fair towards consumers indebted in good faith which fall into trouble due to external circumstances such as financial crisis, loss of income, change of family status, loss of mental or physical health, etc.).
- Ombudsman for general supervision in the field of debt, credit, debt and over-indebtedness and for signalling systemic problems which call for regulatory/legislative action⁵⁵
- Consumer Protection Authority with proper jurisdiction to resolve problems affecting consumers and financial institutions through Alternative Dispute Resolution (mediation, conciliation or arbitration mechanisms)⁵⁶
- Support for associations (NGOs) defending consumer rights and incorporating their input into regulatory/legislative agenda
- Consumer empowerment (improving education and information or financial literacy)
- Codes of conduct for the financial sector industry and ethical banking

⁵³ Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003452.027> and

Devenney, James; and Kenny, Mel. *Consumer Credit, Debt and Investment in Europe*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003469>

⁵⁴ As Iain Ramsay has exposed, existing studies of international standard setting underline the difficulties facing consumer influence at the regional and international level. This is specially acute problem in the EU. See Iain Ramsay, "Consumer credit regulation after the fall: international dimensions". *Journal of European Consumer and Market Law* (2012) 1:24–34. See also Consumers International, *Decision Making in the Global Market: Trade Standards and the Consumer* (2005). ALTER-EU highlighted the dominance of financial interests in the expert committees of the EU. ALTER-EU, *A captive Commission - The role of the financial industry in shaping EU regulation* Brussels (2009) 3 –23 <greenpeace.org/eu-unit/Global/eu-unit/reports-briefings/2009/11/a-captivecommission-5-11-09.pdf>.

⁵⁵ See Thomas, David and Francis Frizon for The World Bank Global Program on Consumer Protection and Financial Literacy, *Resolving disputes between consumers and financial businesses: Fundamentals for a Financial Ombudsman*, Consultation Draft June 2011. Volumen 1 and 2.

⁵⁶ See Consumer Financial Protection Bureau in the USA (although it has jurisdiction regarding mortgage loans).

Based on the same literature⁵⁷, another pillar would be built upon substantive private contract law with a system of remedies and enforcement before courts (procedural law) along these lines:

- Providing a defence and a test of unfair contracts and reversal of proof similar to the UK for all issues falling outside European directives⁵⁸
- Creating a remedy of invalidity redress with power of judges to intervene when test of fairness is violated or when a breach of European consumer law happens (ie: clause of interest non disclosed or disclosed with a mistake would lead to partial invalidity of contract and non-application of clause)
- Awarding possibility of financial damages or compensation for victims of abusive practices in the financial sector (and even criminal law sanction to prevent systemic abuse and fraud) and adapting enforcement to their own needs⁵⁹
- Making better use of current injunction system allowing consumer associations to challenge systemic abusive practices. The Administration should support this system sharing regulatory enforcement powers with private organisations previously accredited to defend consumer interests.
- Remediating the excessive reliance on individual litigation ex-post (when problems have arise) by focusing on prevention measures and allowing public interest litigation (solving problems between consumers and institutions before they escalate into gigantic debt is better in the long term)⁶⁰
- Increasing access to justice for collective interests (providing legal standing or procedural rights for consumer associations concerning problems affecting big numbers of consumers – collective actions)
- Promoting legal aid and legal advice for most vulnerable or for those in financial need in the field of consumer credit and debt.

As far as Icelandic problems in the field of financial services, these are my specific recommendations:

It would be very advisable for the Icelandic Parliament to legislate on the consequences of the lack of disclosure of the right information to the consumers (as it is the case with many contracts *verðtrygging* without ex-ante disclosure of risk and financial consequences of future inflation). The

⁵⁷ See literature mentioned above: Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003452.027> and Devenney, James; and Kenny, Mel. *Consumer Credit, Debt and Investment in Europe*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003469>

⁵⁸ UK allows regulator to require firms to establish consumer redress schemes when systematic problems or complaints have arisen.

⁵⁹ Peter Rott, Effective enforcement of consumer law: the comeback of public law and criminal law, in Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003452.027> pp. 64-81, especially at p 65 and 81.

⁶⁰ Cristina Poncibó, A modernisation for European consumer law? Devenney, James; and Kenny, Mel. *European Consumer Protection*. Cambridge University Press, 2012. Cambridge Books Online. <http://dx.doi.org/10.1017/CBO9781139003452.027> pp. 43-63, on p. 55.

solution to leave it to the national judicature on the basis of contract law has created uncertainty so far. It should take a stand and declare that partial nullity or total nullity of the contract will follow – whatever is more favourable to consumers. At the end of the day it is consumers who should have the last choice when the right information about their financial obligations is not provided rightfully to them.

A real effective institution with powers to protect and defend consumer interests with injunctions is necessary in Iceland. The legislative proposal mentions *Neytendastofa* as the institution that will represent consumers. *Neytendastofa* has been involved in the drafting of the legislation and is not neutral in this regard. Our experience since first consumer law was imported in this country from Europe shows how this institution 1) lacks the necessary regulatory powers and/or 2) decides not to use the powers being captured by other external interests. Specially after the financial crisis in 2008, *Neytendastofa* has miserably failed in their mission of protecting consumer interests in Iceland. One may wonder the effectiveness of such institution from the perspective of tax-payers. Why should we finance a failed institution? It seems better to start anew. The regulatory and supervision powers need to be improved dramatically. I suggest the creation of a true and new Consumer Agency in this country with the due budget and human resources and with a section specially dedicated to financial services, credit and debt.

As regard financial inclusion and access to credit by all sectors of population, other strategies can be followed. These include the promotion of ethical banking, cooperative-lending, interest-free money and loans. We need to take a much broad perspective in consumer credit and financial services.

Although time constraints do not allow me to go deeper into this issue today and I am not an economist, research points in a good direction. It seems that banks can operate successfully while not charging interest on its loans. While ethical banks in Europe have already appeared (Triodos in Holland and in Spain), the Swedish JAK Medlemsbank (Members' Bank) is very unique as it operates following free interest money and has been called the safest bank in Sweden.⁶¹ Interest –free banking system also operates in the Islamic work and lessons can be learned from that model for Europe.⁶²

The creation of free-interest money has been recently supported by two leading economists of the International Monetary Fund.⁶³ These authors advocate Irving Fisher's original 1930s proposals for banking reform, which remove the ability of banks to create money and which are the inspiration for many other advocates of monetary reform in the USA.⁶⁴ In view of the IMF economists, interest-free money would reduce debt, making the banking system safer and stopping the instability in the money supply. This means, in short, taking the 'issuing power' of money back from privately-owned banks (and central banks who serve their interests) and placing it firmly under public control. I invite all economists to explore the science of money and interest further ahead and reevaluate whether the theories of Silvio Gessell can work for us. Silvio Gessell is an economist who influenced Keynes

⁶¹ See blog from Ph.D. candidate in economy Ana Carrie, Trinity College, Dublin. <http://www.feasta.org/documents/review2/carrie2.htm>

⁶² Hamid Zangeneh and Ahmad Salam, Central Banking in an Interest-Free Banking System. *JKAU: Islamic Econ.*, Vol. 5, pp. 25-36 (1413 A.H./1993 A.D.) See document at: http://www.kau.edu.sa/files/320/researches/50880_21017.pdf

⁶³ Jaromir Benes and Michael Kumhof, The Chicago Plan Revisited. IMF Working Paper WP 12/202. <http://www.imf.org/external/pubs/ft/wp/2012/wp12202.pdf>

⁶⁴ American Monetary Institute and Stephen Zarlenga. See <http://www.monetary.org/>

and advanced the theory of the free economy. He advocated the lowest (nominal) interest rate possible as a means of avoiding crises and the necessary correlative to the introduction of 'free money' and the introduction of 'free land' where taxes would be replaced by rental fees to the State and women would receive monetary compensation from the State for bringing up new citizens...⁶⁵

Signed by M. Elvira Méndez Pinedo, doctor in European Law at Reykjavík 2nd November 2012

⁶⁵ See summary of political economy of Silvio Gesell at <http://www.ces.org.za/docs/Gesell/en/neo/index.htm>

THE EXPLOSIVE LOAN MACHINE

A Model of Icelandic Mortgage Loan Structure

LOAN CRITERIA

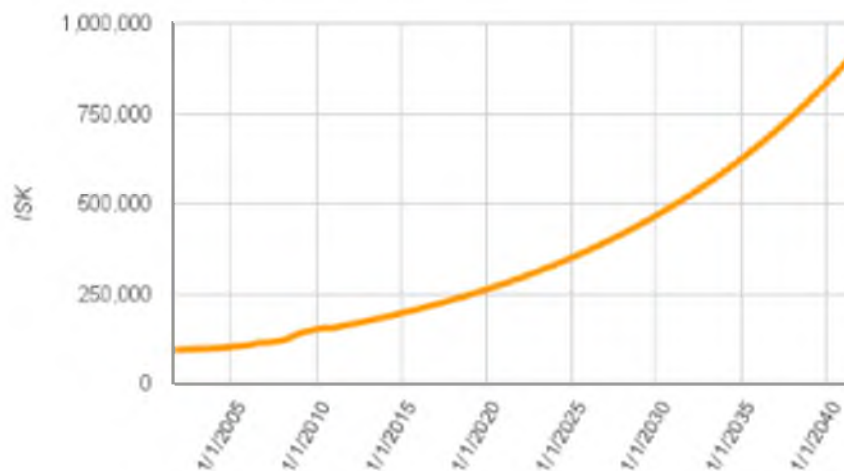
Loan principal	ISK	20,000,000
Stamp duty	1.5%	300,000
Borrowing fee	1.0%	200,000
Paperwork cost	ISK	5,900
Cash disbursement	ISK	19,494,100

Borrowing date		1/7/2001
First payment		1/8/2001
Loan term	years	40
Instalments	#	480
Invoice fee	ISK	195

Annual interest rate		4.50%
Inflation forecast		5.98%
Base CPI		212.6
Historical inflation rate		5.98%

Total nominal repayment	169,127,914
Nominal repayment pcnt.	846%
Annual percentage rate	10.65%

Monthly payments



Remaining principal (CPI-indexed)



CPI-indexed annuity repayment plan, as calculated by Icelandic banks

Instalments		Index rate	83,946,153		103,946,153	65,088,161	93,600	169,127,914
#	7/1/2001		Indexation			Interest	Invoice fee	Total
1	1/8/2001	214.2	150,517	20,150,517	15,025	75,564	195	90,784
2	1/9/2001	214.9	65,802	20,201,294	15,130	75,755	195	91,080
3	1/10/2001	216.3	131,506	20,317,670	15,286	76,191	195	91,672
4	1/11/2001	217.7	131,407	20,433,791	15,442	76,627	195	92,264
5	1/12/2001	218.5	75,033	20,493,382	15,558	76,850	195	92,603
6	1/1/2002	219.5	93,720	20,571,544	15,688	77,143	195	93,026
7	1/2/2002	221.5	187,297	20,743,153	15,890	77,787	195	93,872
8	1/3/2002	220.9	-56,146	20,671,117	15,906	77,517	195	93,618
9	1/4/2002	221.8	84,154	20,739,365	16,030	77,773	195	93,998
10	1/5/2002	221.9	9,343	20,732,678	16,098	77,748	195	94,041
11	1/6/2002	221.8	-9,336	20,707,244	16,151	77,652	195	93,998
12	1/7/2002	222.8	93,287	20,784,380	16,285	77,941	195	94,421
13	1/8/2002	223.0	18,643	20,786,738	16,361	77,950	195	94,506
14	1/9/2002	221.8	-111,769	20,658,608	16,333	77,470	195	93,998
15	1/10/2002	222.9	102,374	20,744,649	16,477	77,792	195	94,464
16	1/11/2002	224.1	111,592	20,839,764	16,627	78,149	195	94,971
17	1/12/2002	223.7	-37,168	20,785,969	16,660	77,947	195	94,802
18	1/1/2003	223.9	18,569	20,787,878	16,737	77,955	195	94,887
19	1/2/2003	224.7	74,216	20,845,357	16,860	78,170	195	95,225
20	1/3/2003	224.3	-37,078	20,791,419	16,893	77,968	195	95,056
21	1/4/2003	226.7	222,287	20,996,813	17,138	78,738	195	96,071
22	1/5/2003	227.0	27,763	21,007,438	17,225	78,778	195	96,198
23	1/6/2003	226.6	-36,987	20,953,226	17,258	78,575	195	96,028
24	1/7/2003	226.8	18,478	20,954,446	17,339	78,579	195	96,113
25	1/8/2003	226.5	-27,695	20,909,412	17,381	78,410	195	95,986
26	1/9/2003	226.3	-18,448	20,873,583	17,431	78,276	195	95,902
27	1/10/2003	227.9	147,458	21,003,610	17,619	78,764	195	96,578
28	1/11/2003	229.0	101,293	21,087,284	17,771	79,077	195	97,043
29	1/12/2003	229.3	27,602	21,097,115	17,861	79,114	195	97,170
30	1/1/2004	230.0	64,350	21,143,604	17,982	79,289	195	97,466
31	1/2/2004	230.1	9,185	21,134,807	18,058	79,256	195	97,509
32	1/3/2004	229.4	-64,240	21,052,509	18,071	78,947	195	97,213
33	1/4/2004	230.7	119,201	21,153,639	18,241	79,326	195	97,762
34	1/5/2004	232.0	119,098	21,254,496	18,413	79,704	195	98,312
35	1/6/2004	233.9	173,916	21,409,999	18,634	80,287	195	99,116
36	1/7/2004	235.7	164,619	21,555,984	18,847	80,835	195	99,877
37	1/8/2004	234.6	-100,513	21,436,624	18,830	80,387	195	99,412
38	1/9/2004	234.6	0	21,417,794	18,900	80,317	195	99,412
39	1/10/2004	235.6	91,214	21,490,108	19,052	80,588	195	99,835
40	1/11/2004	237.4	164,040	21,635,096	19,269	81,132	195	100,596
41	1/12/2004	237.9	45,526	21,661,353	19,382	81,230	195	100,807
42	1/1/2005	239.0	100,068	21,742,039	19,545	81,533	195	101,273
43	1/2/2005	239.2	18,178	21,740,672	19,634	81,528	195	101,357
44	1/3/2005	239.7	45,404	21,766,442	19,750	81,624	195	101,569
45	1/4/2005	241.5	163,304	21,909,996	19,973	82,162	195	102,330
46	1/5/2005	242.0	45,321	21,935,344	20,088	82,258	195	102,541
47	1/6/2005	240.7	-117,727	21,797,529	20,056	81,741	195	101,992
48	1/7/2005	242.4	153,808	21,931,281	20,274	82,242	195	102,711
49	1/8/2005	242.7	27,118	21,938,125	20,374	82,268	195	102,837
50	1/9/2005	243.2	45,154	21,962,905	20,493	82,361	195	103,049
51	1/10/2005	246.9	333,828	22,276,240	20,883	83,536	195	104,614
52	1/11/2005	248.4	135,209	22,390,566	21,088	83,965	195	105,248
53	1/12/2005	248.0	-36,022	22,333,456	21,134	83,750	195	105,079
54	1/1/2006	248.9	80,972	22,393,294	21,290	83,975	195	105,460
55	1/2/2006	249.7	71,907	22,443,911	21,438	84,165	195	105,798
56	1/3/2006	249.5	-17,960	22,404,513	21,501	84,017	195	105,713
57	1/4/2006	252.3	251,192	22,634,204	21,824	84,878	195	106,897

58	1/5/2006	255.2	259,912	22,872,292	22,158	85,771	195	108,124
59	1/6/2006	258.9	331,291	23,181,425	22,564	86,930	195	109,689
60	1/7/2006	261.9	268,353	23,427,214	22,910	87,852	195	110,957
61	1/8/2006	263.1	107,236	23,511,540	23,102	88,168	195	111,465
62	1/9/2006	264.0	80,348	23,568,786	23,268	88,383	195	111,846
63	1/10/2006	265.6	142,700	23,688,218	23,496	88,831	195	112,522
64	1/11/2006	266.2	53,459	23,718,181	23,638	88,943	195	112,776
65	1/12/2006	266.1	-8,901	23,685,642	23,718	88,821	195	112,734
66	1/1/2007	266.2	8,892	23,670,816	23,815	88,766	195	112,776
67	1/2/2007	266.9	62,182	23,709,183	23,968	88,909	195	113,072
68	1/3/2007	268.0	97,616	23,782,831	24,156	89,186	195	113,537
69	1/4/2007	267.1	-79,787	23,678,888	24,166	88,796	195	113,157
70	1/5/2007	268.7	141,698	23,796,420	24,401	89,237	195	113,833
71	1/6/2007	271.0	203,482	23,975,501	24,703	89,908	195	114,806
72	1/7/2007	272.4	123,731	24,074,529	24,924	90,279	195	115,398
73	1/8/2007	273.0	52,973	24,102,578	25,072	90,385	195	115,652
74	1/9/2007	273.1	8,820	24,086,326	25,175	90,324	195	115,694
75	1/10/2007	276.7	317,174	24,378,325	25,603	91,419	195	117,217
76	1/11/2007	278.1	123,216	24,475,938	25,829	91,785	195	117,809
77	1/12/2007	279.9	158,253	24,608,362	26,094	92,281	195	118,570
78	1/1/2008	281.8	166,868	24,749,136	26,370	92,809	195	119,374
79	1/2/2008	282.6	70,185	24,792,951	26,543	92,974	195	119,712
80	1/3/2008	282.3	-26,291	24,740,117	26,615	92,775	195	119,585
81	1/4/2008	286.2	341,419	25,054,921	27,083	93,956	195	121,234
82	1/5/2008	290.4	367,285	25,395,123	27,584	95,232	195	123,011
83	1/6/2008	300.3	864,802	26,232,341	28,632	98,371	195	127,198
84	1/7/2008	304.4	357,760	26,561,469	29,130	99,606	195	128,931
85	1/8/2008	307.1	235,339	26,767,678	29,499	100,379	195	130,073
86	1/9/2008	310.0	252,493	26,990,672	29,890	101,215	195	131,300
87	1/10/2008	312.8	243,517	27,204,299	30,273	102,016	195	132,484
88	1/11/2008	315.5	234,558	27,408,584	30,649	102,782	195	133,626
89	1/12/2008	322.3	590,079	27,968,014	31,427	104,880	195	136,502
90	1/1/2009	327.9	485,401	28,421,988	32,093	106,582	195	138,870
91	1/2/2009	332.9	432,905	28,822,800	32,704	108,086	195	140,985
92	1/3/2009	334.8	164,317	28,954,413	33,014	108,579	195	141,788
93	1/4/2009	336.5	146,853	29,068,252	33,306	109,006	195	142,507
94	1/5/2009	334.5	-172,570	28,862,376	33,232	108,234	195	141,661
95	1/6/2009	336.0	129,279	28,958,423	33,507	108,594	195	142,296
96	1/7/2009	339.8	327,127	29,252,043	34,013	109,695	195	143,903
97	1/8/2009	344.5	404,134	29,622,164	34,613	111,083	195	145,891
98	1/9/2009	345.1	51,531	29,639,082	34,802	111,147	195	146,144
99	1/10/2009	346.9	154,412	29,758,692	35,116	111,595	195	146,906
100	1/11/2009	349.6	231,345	29,954,921	35,521	112,331	195	148,047
101	1/12/2009	353.6	342,327	30,261,727	36,063	113,481	195	149,739
102	1/1/2010	356.2	222,248	30,447,912	36,464	114,180	195	150,839
103	1/2/2010	357.9	145,142	30,556,590	36,776	114,587	195	151,558
104	1/3/2010	356.8	-93,802	30,426,012	36,799	114,098	195	151,092
105	1/4/2010	360.9	349,203	30,738,416	37,362	115,269	195	152,826
106	1/5/2010	362.9	170,136	30,871,190	37,710	115,767	195	153,672
107	1/6/2010	363.8	76,468	30,909,948	37,946	115,912	195	154,053
108	1/7/2010	365.3	127,290	30,999,292	38,245	116,247	195	154,687
109	1/8/2010	364.1	-101,706	30,859,341	38,262	115,723	195	154,180
110	1/9/2010	361.7	-203,160	30,617,919	38,153	114,817	195	153,165
111	1/10/2010	362.6	76,090	30,655,856	38,391	114,959	195	153,545
112	1/11/2010	362.6	0	30,617,465	38,535	114,815	195	153,545
113	1/12/2010	365.3	227,697	30,806,627	38,967	115,525	195	154,687
114	1/1/2011	365.5	16,845	30,784,505	39,135	115,442	195	154,772
115	1/2/2011	366.7	100,942	30,846,312	39,410	115,674	195	155,279
116	1/3/2011	363.4	-277,237	30,529,665	39,203	114,486	195	153,884
117	1/4/2011	367.7	360,784	30,851,246	39,815	115,692	195	155,702

118	1/5/2011	371.2	293,283	31,104,714	40,344	116,643	195	157,182
119	1/6/2011	374.1	242,690	31,307,060	40,813	117,401	195	158,409
120	1/7/2011	377.6	292,520	31,558,767	41,349	118,345	195	159,889
121	1/8/2011	379.5	158,589	31,676,007	41,713	118,785	195	160,893
122	1/9/2011	379.9	33,343	31,667,637	41,913	118,754	195	160,862
123	1/10/2011	380.9	83,247	31,708,971	42,181	118,909	195	161,285
124	1/11/2011	383.3	199,528	31,866,318	42,606	119,499	195	162,300
125	1/12/2011	385.2	154,291	31,978,003	42,973	119,918	195	163,086
126	1/1/2012	387.0	154,830	32,089,860	43,343	120,337	195	163,875
127	1/2/2012	388.9	155,371	32,201,888	43,717	120,757	195	164,669
128	1/3/2012	390.8	155,912	32,314,083	44,093	121,178	195	165,466
129	1/4/2012	392.7	156,454	32,426,444	44,474	121,599	195	166,268
130	1/5/2012	394.6	156,997	32,538,967	44,857	122,021	195	167,073
131	1/6/2012	396.5	157,541	32,651,651	45,243	122,444	195	167,882
132	1/7/2012	398.4	158,085	32,764,493	45,633	122,867	195	168,695
133	1/8/2012	400.4	158,630	32,877,490	46,026	123,291	195	169,512
134	1/9/2012	402.3	159,176	32,990,640	46,423	123,715	195	170,333
135	1/10/2012	404.2	159,723	33,103,940	46,823	124,140	195	171,158
136	1/11/2012	406.2	160,270	33,217,387	47,227	124,565	195	171,987
137	1/12/2012	408.2	160,819	33,330,979	47,633	124,991	195	172,819
138	1/1/2013	410.2	161,367	33,444,713	48,043	125,418	195	173,656
139	1/2/2013	412.1	161,917	33,558,587	48,457	125,845	195	174,497
140	1/3/2013	414.1	162,467	33,672,597	48,875	126,272	195	175,342
141	1/4/2013	416.1	163,018	33,786,740	49,297	126,700	195	176,192
142	1/5/2013	418.2	163,569	33,901,012	49,721	127,129	195	177,045
143	1/6/2013	420.2	164,121	34,015,412	50,149	127,558	195	177,902
144	1/7/2013	422.2	164,673	34,129,936	50,582	127,987	195	178,764
145	1/8/2013	424.3	165,227	34,244,581	51,018	128,417	195	179,630
146	1/9/2013	426.3	165,780	34,359,343	51,457	128,848	195	180,500
147	1/10/2013	428.4	166,335	34,474,221	51,901	129,278	195	181,374
148	1/11/2013	430.5	166,889	34,589,209	52,347	129,710	195	182,252
149	1/12/2013	432.6	167,445	34,704,307	52,799	130,141	195	183,135
150	1/1/2014	434.7	168,001	34,819,509	53,254	130,573	195	184,022
151	1/2/2014	436.8	168,557	34,934,812	53,712	131,006	195	184,913
152	1/3/2014	438.9	169,114	35,050,214	54,176	131,438	195	185,809
153	1/4/2014	441.0	169,671	35,165,709	54,642	131,871	195	186,708
154	1/5/2014	443.2	170,229	35,281,296	55,113	132,305	195	187,613
155	1/6/2014	445.3	170,787	35,396,970	55,587	132,739	195	188,521
156	1/7/2014	447.5	171,345	35,512,728	56,066	133,173	195	189,434
157	1/8/2014	449.6	171,904	35,628,566	56,550	133,607	195	190,352
158	1/9/2014	451.8	172,463	35,744,479	57,037	134,042	195	191,274
159	1/10/2014	454.0	173,023	35,860,465	57,528	134,477	195	192,200
160	1/11/2014	456.2	173,583	35,976,520	58,024	134,912	195	193,131
161	1/12/2014	458.4	174,143	36,092,639	58,525	135,347	195	194,067
162	1/1/2015	460.6	174,704	36,208,818	59,029	135,783	195	195,007
163	1/2/2015	462.9	175,265	36,325,054	59,537	136,219	195	195,951
164	1/3/2015	465.1	175,826	36,441,343	60,050	136,655	195	196,900
165	1/4/2015	467.4	176,387	36,557,680	60,568	137,091	195	197,854
166	1/5/2015	469.6	176,949	36,674,061	61,089	137,528	195	198,812
167	1/6/2015	471.9	177,510	36,790,482	61,616	137,964	195	199,775
168	1/7/2015	474.2	178,072	36,906,938	62,147	138,401	195	200,743
169	1/8/2015	476.5	178,634	37,023,425	62,682	138,838	195	201,715
170	1/9/2015	478.8	179,196	37,139,939	63,222	139,275	195	202,692
171	1/10/2015	481.1	179,759	37,256,476	63,767	139,712	195	203,674
172	1/11/2015	483.5	180,321	37,373,030	64,316	140,149	195	204,660
173	1/12/2015	485.8	180,883	37,489,597	64,871	140,586	195	205,652
174	1/1/2016	488.2	181,446	37,606,172	65,430	141,023	195	206,648
175	1/2/2016	490.5	182,008	37,722,750	65,994	141,460	195	207,649
176	1/3/2016	492.9	182,571	37,839,327	66,562	141,897	195	208,654
177	1/4/2016	495.3	183,133	37,955,898	67,135	142,335	195	209,665

178	1/5/2016	497.7	183,696	38,072,459	67,714	142,772	195	210,681
179	1/6/2016	500.1	184,258	38,189,003	68,297	143,209	195	211,701
180	1/7/2016	502.5	184,820	38,305,526	68,886	143,646	195	212,727
181	1/8/2016	505.0	185,382	38,422,022	69,479	144,083	195	213,757
182	1/9/2016	507.4	185,944	38,538,487	70,078	144,519	195	214,792
183	1/10/2016	509.9	186,506	38,654,915	70,682	144,956	195	215,833
184	1/11/2016	512.4	187,067	38,771,300	71,291	145,392	195	216,878
185	1/12/2016	514.8	187,629	38,887,638	71,905	145,829	195	217,929
186	1/1/2017	517.3	188,190	39,003,923	72,525	146,265	195	218,985
187	1/2/2017	519.8	188,751	39,120,149	73,149	146,701	195	220,045
188	1/3/2017	522.4	189,311	39,236,311	73,780	147,136	195	221,111
189	1/4/2017	524.9	189,871	39,352,402	74,415	147,572	195	222,182
190	1/5/2017	527.4	190,431	39,468,418	75,057	148,007	195	223,259
191	1/6/2017	530.0	190,990	39,584,351	75,704	148,441	195	224,340
192	1/7/2017	532.6	191,549	39,700,196	76,356	148,876	195	225,427
193	1/8/2017	535.1	192,108	39,815,948	77,014	149,310	195	226,519
194	1/9/2017	537.7	192,666	39,931,600	77,677	149,744	195	227,616
195	1/10/2017	540.3	193,223	40,047,146	78,347	150,177	195	228,719
196	1/11/2017	543.0	193,780	40,162,579	79,022	150,610	195	229,827
197	1/12/2017	545.6	194,337	40,277,894	79,703	151,042	195	230,940
198	1/1/2018	548.2	194,892	40,393,083	80,390	151,474	195	232,059
199	1/2/2018	550.9	195,448	40,508,141	81,082	151,906	195	233,183
200	1/3/2018	553.6	196,002	40,623,061	81,781	152,336	195	234,312
201	1/4/2018	556.3	196,556	40,737,836	82,485	152,767	195	235,447
202	1/5/2018	559.0	197,109	40,852,460	83,196	153,197	195	236,588
203	1/6/2018	561.7	197,661	40,966,925	83,913	153,626	195	237,734
204	1/7/2018	564.4	198,213	41,081,225	84,636	154,055	195	238,886
205	1/8/2018	567.1	198,763	41,195,352	85,365	154,483	195	240,043
206	1/9/2018	569.9	199,313	41,309,300	86,101	154,910	195	241,206
207	1/10/2018	572.6	199,862	41,423,061	86,843	155,336	195	242,374
208	1/11/2018	575.4	200,410	41,536,628	87,591	155,762	195	243,548
209	1/12/2018	578.2	200,957	41,649,994	88,346	156,187	195	244,728
210	1/1/2019	581.0	201,503	41,763,151	89,107	156,612	195	245,914
211	1/2/2019	583.8	202,048	41,876,092	89,875	157,035	195	247,105
212	1/3/2019	586.7	202,592	41,988,809	90,649	157,458	195	248,302
213	1/4/2019	589.5	203,134	42,101,294	91,430	157,880	195	249,505
214	1/5/2019	592.4	203,676	42,213,540	92,218	158,301	195	250,714
215	1/6/2019	595.2	204,216	42,325,538	93,013	158,721	195	251,929
216	1/7/2019	598.1	204,755	42,437,280	93,814	159,140	195	253,149
217	1/8/2019	601.0	205,293	42,548,759	94,622	159,558	195	254,375
218	1/9/2019	603.9	205,830	42,659,967	95,438	159,975	195	255,608
219	1/10/2019	606.9	206,365	42,770,894	96,260	160,391	195	256,846
220	1/11/2019	609.8	206,899	42,881,533	97,089	160,806	195	258,090
221	1/12/2019	612.8	207,431	42,991,875	97,926	161,220	195	259,341
222	1/1/2020	615.7	207,962	43,101,911	98,770	161,632	195	260,597
223	1/2/2020	618.7	208,492	43,211,633	99,621	162,044	195	261,860
224	1/3/2020	621.7	209,019	43,321,031	100,479	162,454	195	263,128
225	1/4/2020	624.7	209,546	43,430,098	101,345	162,863	195	264,403
226	1/5/2020	627.8	210,070	43,538,823	102,218	163,271	195	265,684
227	1/6/2020	630.8	210,593	43,647,198	103,099	163,677	195	266,971
228	1/7/2020	633.9	211,114	43,755,213	103,988	164,082	195	268,265
229	1/8/2020	636.9	211,634	43,862,859	104,883	164,486	195	269,564
230	1/9/2020	640.0	212,151	43,970,127	105,787	164,888	195	270,870
231	1/10/2020	643.1	212,667	44,077,007	106,699	165,289	195	272,183
232	1/11/2020	646.2	213,181	44,183,489	107,618	165,688	195	273,501
233	1/12/2020	649.4	213,693	44,289,564	108,545	166,086	195	274,826
234	1/1/2021	652.5	214,202	44,395,221	109,481	166,482	195	276,158
235	1/2/2021	655.7	214,710	44,500,450	110,424	166,877	195	277,496
236	1/3/2021	658.9	215,216	44,605,242	111,375	167,270	195	278,840
237	1/4/2021	662.1	215,719	44,709,586	112,335	167,661	195	280,191

238	1/5/2021	665.3	216,220	44,813,471	113,303	168,051	195	281,549
239	1/6/2021	668.5	216,719	44,916,887	114,280	168,438	195	282,913
240	1/7/2021	671.7	217,216	45,019,823	115,264	168,824	195	284,283
241	1/8/2021	675.0	217,710	45,122,269	116,257	169,209	195	285,661
242	1/9/2021	678.3	218,202	45,224,214	117,259	169,591	195	287,045
243	1/10/2021	681.6	218,692	45,325,647	118,270	169,971	195	288,436
244	1/11/2021	684.9	219,178	45,426,555	119,288	170,350	195	289,833
245	1/12/2021	688.2	219,663	45,526,930	120,316	170,726	195	291,237
246	1/1/2022	691.5	220,144	45,626,758	121,353	171,100	195	292,648
247	1/2/2022	694.9	220,623	45,726,028	122,398	171,473	195	294,066
248	1/3/2022	698.2	221,100	45,824,730	123,453	171,843	195	295,491
249	1/4/2022	701.6	221,573	45,922,850	124,517	172,211	195	296,923
250	1/5/2022	705.0	222,044	46,020,377	125,590	172,576	195	298,361
251	1/6/2022	708.4	222,511	46,117,298	126,672	172,940	195	299,807
252	1/7/2022	711.9	222,976	46,213,602	127,763	173,301	195	301,259
253	1/8/2022	715.3	223,437	46,309,276	128,864	173,660	195	302,719
254	1/9/2022	718.8	223,896	46,404,308	129,975	174,016	195	304,186
255	1/10/2022	722.3	224,351	46,498,684	131,095	174,370	195	305,660
256	1/11/2022	725.8	224,803	46,592,392	132,225	174,721	195	307,141
257	1/12/2022	729.3	225,252	46,685,419	133,364	175,070	195	308,629
258	1/1/2023	732.8	225,698	46,777,753	134,512	175,417	195	310,124
259	1/2/2023	736.4	226,140	46,869,381	135,672	175,760	195	311,627
260	1/3/2023	740.0	226,579	46,960,288	136,841	176,101	195	313,137
261	1/4/2023	743.5	227,014	47,050,461	138,020	176,439	195	314,654
262	1/5/2023	747.1	227,445	47,139,886	139,209	176,775	195	316,179
263	1/6/2023	750.8	227,873	47,228,550	140,409	177,107	195	317,711
264	1/7/2023	754.4	228,297	47,316,438	141,618	177,437	195	319,250
265	1/8/2023	758.1	228,717	47,403,537	142,839	177,763	195	320,797
266	1/9/2023	761.7	229,133	47,489,831	144,069	178,087	195	322,351
267	1/10/2023	765.4	229,546	47,575,308	145,311	178,407	195	323,913
268	1/11/2023	769.1	229,954	47,659,951	146,563	178,725	195	325,483
269	1/12/2023	772.9	230,359	47,743,747	147,826	179,039	195	327,060
270	1/1/2024	776.6	230,759	47,826,680	149,099	179,350	195	328,644
271	1/2/2024	780.4	231,155	47,908,736	150,384	179,658	195	330,237
272	1/3/2024	784.2	231,546	47,989,898	151,680	179,962	195	331,837
273	1/4/2024	788.0	231,933	48,070,151	152,987	180,263	195	333,445
274	1/5/2024	791.8	232,316	48,149,480	154,304	180,561	195	335,060
275	1/6/2024	795.6	232,694	48,227,870	155,634	180,855	195	336,684
276	1/7/2024	799.5	233,068	48,305,304	156,975	181,145	195	338,315
277	1/8/2024	803.4	233,437	48,381,766	158,328	181,432	195	339,955
278	1/9/2024	807.3	233,801	48,457,239	159,692	181,715	195	341,602
279	1/10/2024	811.2	234,160	48,531,707	161,068	181,994	195	343,257
280	1/11/2024	815.1	234,515	48,605,154	162,456	182,269	195	344,920
281	1/12/2024	819.1	234,864	48,677,562	163,856	182,541	195	346,592
282	1/1/2025	823.0	235,208	48,748,914	165,268	182,808	195	348,271
283	1/2/2025	827.0	235,548	48,819,194	166,692	183,072	195	349,959
284	1/3/2025	831.0	235,881	48,888,383	168,129	183,331	195	351,655
285	1/4/2025	835.1	236,210	48,956,464	169,577	183,587	195	353,359
286	1/5/2025	839.1	236,533	49,023,420	171,038	183,838	195	355,071
287	1/6/2025	843.2	236,850	49,089,232	172,511	184,085	195	356,791
288	1/7/2025	847.3	237,162	49,153,883	173,998	184,327	195	358,520
289	1/8/2025	851.4	237,469	49,217,354	175,497	184,565	195	360,257
290	1/9/2025	855.5	237,769	49,279,626	177,009	184,799	195	362,003
291	1/10/2025	859.7	238,064	49,340,681	178,534	185,028	195	363,757
292	1/11/2025	863.8	238,352	49,400,499	180,073	185,252	195	365,520
293	1/12/2025	868.0	238,635	49,459,061	181,625	185,471	195	367,291
294	1/1/2026	872.2	238,911	49,516,347	183,190	185,686	195	369,071
295	1/2/2026	876.4	239,181	49,572,338	184,768	185,896	195	370,859
296	1/3/2026	880.7	239,445	49,627,015	186,360	186,101	195	372,656
297	1/4/2026	885.0	239,703	49,680,358	187,966	186,301	195	374,462

298	1/5/2026	889.3	239,953	49,732,345	189,586	186,496	195	376,277
299	1/6/2026	893.6	240,198	49,782,957	191,219	186,686	195	376,100
300	1/7/2026	897.9	240,435	49,832,173	192,866	186,871	195	379,932
301	1/8/2026	902.2	240,666	49,879,973	194,528	187,050	195	381,773
302	1/9/2026	906.6	240,889	49,926,334	196,204	187,224	195	383,623
303	1/10/2026	911.0	241,106	49,971,236	197,895	187,392	195	385,482
304	1/11/2026	915.4	241,316	50,014,657	199,600	187,555	195	387,350
305	1/12/2026	919.9	241,518	50,056,575	201,320	187,712	195	369,227
306	1/1/2027	924.3	241,713	50,096,968	203,055	187,864	195	391,114
307	1/2/2027	928.8	241,900	50,135,813	204,805	188,009	195	393,009
308	1/3/2027	933.3	242,080	50,173,088	206,569	188,149	195	394,913
309	1/4/2027	937.8	242,252	50,208,771	208,349	188,283	195	396,827
310	1/5/2027	942.4	242,416	50,242,838	210,144	188,411	195	398,750
311	1/6/2027	947.0	242,573	50,275,267	211,955	188,532	195	400,682
312	1/7/2027	951.6	242,721	50,306,033	213,781	188,648	195	402,624
313	1/8/2027	956.2	242,862	50,335,114	215,623	188,757	195	404,575
314	1/9/2027	960.8	242,994	50,362,485	217,482	188,859	195	406,536
315	1/10/2027	965.5	243,117	50,388,120	219,356	188,955	195	408,506
316	1/11/2027	970.1	243,233	50,411,997	221,245	189,045	195	410,485
317	1/12/2027	974.8	243,339	50,434,091	223,152	189,128	195	412,475
318	1/1/2028	979.6	243,437	50,454,376	225,074	189,204	195	414,473
319	1/2/2028	984.3	243,526	50,472,828	227,014	189,273	195	416,482
320	1/3/2028	989.1	243,606	50,489,420	228,970	189,335	195	418,500
321	1/4/2028	993.9	243,677	50,504,127	230,943	189,390	195	420,528
322	1/5/2028	998.7	243,739	50,516,923	232,933	189,438	195	422,566
323	1/6/2028	1,003.5	243,791	50,527,781	234,940	189,479	195	424,614
324	1/7/2028	1,008.4	243,834	50,536,675	236,964	189,513	195	426,672
325	1/8/2028	1,013.3	243,868	50,543,579	239,006	189,538	195	428,739
326	1/9/2028	1,018.2	243,891	50,548,464	241,065	189,557	195	430,817
327	1/10/2028	1,023.2	243,905	50,551,304	243,143	189,567	195	432,905
328	1/11/2028	1,028.1	243,908	50,552,069	245,238	189,570	195	435,003
329	1/12/2028	1,033.1	243,902	50,550,733	247,351	189,565	195	437,111
330	1/1/2029	1,038.1	243,885	50,547,267	249,482	189,552	195	439,229
331	1/2/2029	1,043.1	243,858	50,541,643	251,632	189,531	195	441,358
332	1/3/2029	1,048.2	243,820	50,533,831	253,800	189,502	195	443,497
333	1/4/2029	1,053.3	243,772	50,523,803	255,987	189,464	195	445,646
334	1/5/2029	1,058.4	243,713	50,511,529	258,192	189,418	195	447,805
335	1/6/2029	1,063.5	243,643	50,496,980	260,417	189,364	195	449,976
336	1/7/2029	1,068.7	243,561	50,480,124	262,661	189,300	195	452,156
337	1/8/2029	1,073.9	243,469	50,460,932	264,925	189,228	195	454,346
338	1/9/2029	1,079.1	243,365	50,439,372	267,206	189,148	195	456,549
339	1/10/2029	1,084.3	243,249	50,415,415	269,509	189,058	195	458,762
340	1/11/2029	1,089.5	243,122	50,389,028	271,831	188,959	195	460,985
341	1/12/2029	1,094.8	242,983	50,360,180	274,173	188,851	195	463,219
342	1/1/2030	1,100.1	242,831	50,328,838	276,536	188,733	195	465,464
343	1/2/2030	1,105.5	242,668	50,294,970	278,919	188,606	195	467,720
344	1/3/2030	1,110.8	242,492	50,258,543	281,322	188,470	195	469,987
345	1/4/2030	1,116.2	242,304	50,219,525	283,746	188,323	195	472,264
346	1/5/2030	1,121.6	242,103	50,177,882	286,191	188,167	195	474,553
347	1/6/2030	1,127.1	241,889	50,133,580	288,657	188,001	195	476,853
348	1/7/2030	1,132.5	241,663	50,086,586	291,144	187,825	195	479,164
349	1/8/2030	1,138.0	241,423	50,036,865	293,653	187,638	195	481,486
350	1/9/2030	1,143.5	241,169	49,984,381	296,183	187,441	195	483,819
351	1/10/2030	1,149.1	240,903	49,929,101	298,735	187,234	195	466,164
352	1/11/2030	1,154.7	240,622	49,870,988	301,309	187,016	195	488,520
353	1/12/2030	1,160.3	240,328	49,810,007	303,905	186,788	195	490,888
354	1/1/2031	1,165.9	240,020	49,746,122	306,524	186,548	195	493,267
355	1/2/2031	1,171.5	239,697	49,679,295	309,165	186,297	195	495,657
356	1/3/2031	1,177.2	239,361	49,609,491	311,828	186,036	195	498,059
357	1/4/2031	1,182.9	239,009	49,536,672	314,515	185,763	195	500,473

358	1/5/2031	1,188.7	238,643	49,460,800	317,226	185,478	195	502,899
359	1/6/2031	1,194.4	238,262	49,381,836	319,959	185,182	195	505,336
360	1/7/2031	1,200.2	237,866	49,299,743	322,716	184,874	195	507,785
361	1/8/2031	1,206.0	237,455	49,214,482	325,497	184,554	195	510,246
362	1/9/2031	1,211.9	237,028	49,126,013	328,301	184,223	195	512,719
363	1/10/2031	1,217.7	236,585	49,034,297	331,130	183,879	195	516,204
364	1/11/2031	1,223.7	236,127	48,939,294	333,984	183,522	195	517,701
365	1/12/2031	1,229.6	235,653	48,840,963	336,861	183,154	195	520,210
366	1/1/2032	1,235.5	235,162	48,739,264	339,764	182,772	195	522,731
367	1/2/2032	1,241.5	234,655	48,634,155	342,691	182,378	195	525,264
368	1/3/2032	1,247.6	234,131	48,525,595	345,644	181,971	195	527,810
369	1/4/2032	1,253.6	233,590	48,413,541	348,622	181,551	195	530,368
370	1/5/2032	1,259.7	233,033	48,297,952	351,626	181,117	195	532,938
371	1/6/2032	1,265.8	232,458	48,178,784	354,656	180,670	195	535,521
372	1/7/2032	1,271.9	231,865	48,055,993	357,712	180,210	195	538,117
373	1/8/2032	1,278.1	231,255	47,929,536	360,794	179,736	195	540,725
374	1/9/2032	1,284.3	230,627	47,799,369	363,902	179,248	195	543,345
375	1/10/2032	1,290.5	229,981	47,665,448	367,039	178,745	195	545,979
376	1/11/2032	1,296.8	229,316	47,527,725	370,201	178,229	195	548,825
377	1/12/2032	1,303.1	228,633	47,386,157	373,391	177,698	195	551,284
378	1/1/2033	1,309.4	227,931	47,240,697	376,608	177,153	195	553,956
379	1/2/2033	1,315.7	227,211	47,091,300	379,853	176,592	195	556,640
380	1/3/2033	1,322.1	226,471	46,937,918	383,126	176,017	195	559,338
381	1/4/2033	1,328.5	225,711	46,780,503	386,427	175,427	195	562,049
382	1/5/2033	1,335.0	224,932	46,619,008	389,757	174,821	195	564,773
383	1/6/2033	1,341.4	224,133	46,453,384	393,115	174,200	195	567,510
384	1/7/2033	1,347.9	223,313	46,283,582	396,503	173,563	195	570,261
385	1/8/2033	1,354.5	222,474	46,109,553	399,919	172,911	195	573,025
386	1/9/2033	1,361.0	221,613	45,931,247	403,365	172,242	195	575,802
387	1/10/2033	1,367.6	220,732	45,748,614	406,841	171,557	195	578,593
388	1/11/2033	1,374.3	219,830	45,561,603	410,346	170,856	195	581,397
389	1/12/2033	1,380.9	218,906	45,370,163	413,882	170,138	195	584,215
390	1/1/2034	1,387.6	217,961	45,174,242	417,448	169,403	195	587,046
391	1/2/2034	1,394.3	216,994	44,973,788	421,045	168,652	195	589,892
392	1/3/2034	1,401.1	216,005	44,768,748	424,673	167,883	195	592,751
393	1/4/2034	1,407.9	214,993	44,559,068	428,331	167,097	195	595,623
394	1/5/2034	1,414.7	213,959	44,344,696	432,022	166,293	195	598,510
395	1/6/2034	1,421.6	212,901	44,125,575	435,745	165,471	195	601,411
396	1/7/2034	1,428.5	211,821	43,901,651	439,500	164,631	195	604,326
397	1/8/2034	1,435.4	210,717	43,672,868	443,287	163,773	195	607,255
398	1/9/2034	1,442.4	209,589	43,439,170	447,106	162,897	195	610,198
399	1/10/2034	1,449.4	208,438	43,200,502	450,959	162,002	195	613,156
400	1/11/2034	1,456.4	207,262	42,956,805	454,844	161,088	195	616,127
401	1/12/2034	1,463.4	206,062	42,708,023	458,764	160,155	195	619,114
402	1/1/2035	1,470.5	204,837	42,454,096	462,716	159,203	195	622,114
403	1/2/2035	1,477.7	203,586	42,194,966	466,704	158,231	195	625,130
404	1/3/2035	1,484.8	202,311	41,930,573	470,724	157,240	195	628,159
405	1/4/2035	1,492.0	201,009	41,660,858	474,781	156,228	195	631,204
406	1/5/2035	1,499.3	199,682	41,385,759	478,871	155,197	195	634,263
407	1/6/2035	1,506.5	198,328	41,105,216	482,997	154,145	195	637,337
408	1/7/2035	1,513.8	196,948	40,819,167	487,159	153,072	195	640,426
409	1/8/2035	1,521.2	195,541	40,527,549	491,358	151,978	195	643,531
410	1/9/2035	1,528.6	194,107	40,230,298	495,591	150,864	195	646,650
411	1/10/2035	1,536.0	192,645	39,927,352	499,861	149,728	195	649,784
412	1/11/2035	1,543.4	191,156	39,618,647	504,168	148,570	195	652,933
413	1/12/2035	1,550.9	189,638	39,304,117	508,513	147,390	195	656,098
414	1/1/2036	1,558.4	188,092	38,983,696	512,894	146,189	195	659,278
415	1/2/2036	1,566.0	186,518	38,657,320	517,313	144,965	195	662,473
416	1/3/2036	1,573.6	184,914	38,324,921	521,771	143,718	195	665,684
417	1/4/2036	1,581.2	183,281	37,986,431	526,267	142,449	195	668,911

418	1/5/2036	1,588.9	181,618	37,641,782	530,801	141,157	195	672,153
419	1/6/2036	1,596.6	179,925	37,290,906	535,375	139,841	195	675,411
420	1/7/2036	1,604.3	178,201	36,933,732	539,988	138,501	195	678,684
421	1/8/2036	1,612.1	176,447	36,570,191	544,641	137,138	195	681,974
422	1/9/2036	1,619.9	174,662	36,200,212	549,333	135,751	195	685,279
423	1/10/2036	1,627.7	172,846	35,823,725	554,067	134,339	195	688,601
424	1/11/2036	1,635.6	170,997	35,440,655	558,841	132,902	195	691,938
425	1/12/2036	1,643.6	169,117	35,050,931	563,656	131,441	195	695,292
426	1/1/2037	1,651.5	167,204	34,654,479	568,513	129,954	195	698,662
427	1/2/2037	1,659.5	165,259	34,251,225	573,411	128,442	195	702,048
428	1/3/2037	1,667.6	163,280	33,841,094	578,352	126,904	195	705,451
429	1/4/2037	1,675.7	161,267	33,424,009	583,336	125,340	195	708,871
430	1/5/2037	1,683.8	159,221	32,999,894	588,361	123,750	195	712,306
431	1/6/2037	1,692.0	157,140	32,568,673	593,431	122,133	195	715,759
432	1/7/2037	1,700.2	155,025	32,130,267	598,544	120,489	195	719,228
433	1/8/2037	1,708.4	152,875	31,684,598	603,702	118,817	195	722,714
434	1/9/2037	1,716.7	150,689	31,231,585	608,904	117,118	195	726,217
435	1/10/2037	1,725.0	148,468	30,771,149	614,150	115,392	195	729,737
436	1/11/2037	1,733.4	146,210	30,303,209	619,442	113,637	195	733,274
437	1/12/2037	1,741.8	143,915	29,827,682	624,779	111,854	195	736,828
438	1/1/2038	1,750.2	141,584	29,344,487	630,163	110,042	195	740,400
439	1/2/2038	1,758.7	139,215	28,853,539	635,593	108,201	195	743,989
440	1/3/2038	1,767.2	136,809	28,354,755	641,070	106,330	195	747,595
441	1/4/2038	1,775.8	134,364	27,848,049	646,593	104,430	195	751,218
442	1/5/2038	1,784.4	131,881	27,333,337	652,165	102,500	195	754,860
443	1/6/2038	1,793.1	129,358	26,810,530	657,784	100,539	195	758,518
444	1/7/2038	1,801.8	126,796	26,279,542	663,452	98,548	195	762,195
445	1/8/2038	1,810.5	124,194	25,740,284	669,168	96,526	195	765,889
446	1/9/2038	1,819.3	121,552	25,192,668	674,934	94,473	195	769,602
447	1/10/2038	1,828.1	118,869	24,636,603	680,750	92,387	195	773,332
448	1/11/2038	1,837.0	116,145	24,071,998	686,615	90,270	195	777,080
449	1/12/2038	1,845.9	113,379	23,498,762	692,532	88,120	195	780,847
450	1/1/2039	1,854.8	110,571	22,916,801	698,499	85,938	195	784,632
451	1/2/2039	1,863.8	107,721	22,326,023	704,517	83,723	195	788,435
452	1/3/2039	1,872.8	104,827	21,726,333	710,587	81,474	195	792,256
453	1/4/2039	1,881.9	101,890	21,117,636	716,711	79,191	195	796,097
454	1/5/2039	1,891.0	98,910	20,499,835	722,886	76,874	195	799,955
455	1/6/2039	1,900.2	95,884	19,872,833	729,115	74,523	195	803,833
456	1/7/2039	1,909.4	92,814	19,236,532	735,397	72,137	195	807,729
457	1/8/2039	1,918.7	89,699	18,590,834	741,733	69,716	195	811,644
458	1/9/2039	1,928.0	86,538	17,935,639	748,124	67,259	195	815,578
459	1/10/2039	1,937.3	83,330	17,270,845	754,571	64,766	195	819,532
460	1/11/2039	1,946.7	80,076	16,596,350	761,073	62,236	195	823,504
461	1/12/2039	1,956.2	76,774	15,912,051	767,631	59,670	195	827,496
462	1/1/2040	1,965.7	73,425	15,217,845	774,245	57,067	195	831,507
463	1/2/2040	1,975.2	70,027	14,513,627	780,916	54,426	195	835,537
464	1/3/2040	1,984.8	66,580	13,799,291	787,645	51,747	195	839,587
465	1/4/2040	1,994.4	63,084	13,074,730	794,432	49,030	195	843,657
466	1/5/2040	2,004.1	59,538	12,339,836	801,277	46,274	195	847,746
467	1/6/2040	2,013.8	55,942	11,594,501	808,181	43,479	195	851,855
468	1/7/2040	2,023.5	52,295	10,838,615	815,144	40,645	195	855,984
469	1/8/2040	2,033.3	48,597	10,072,068	822,168	37,770	195	860,133
470	1/9/2040	2,043.2	44,846	9,294,746	829,252	34,855	195	864,302
471	1/10/2040	2,053.1	41,043	8,506,537	836,397	31,900	195	868,492
472	1/11/2040	2,063.1	37,187	7,707,327	843,605	28,902	195	872,702
473	1/12/2040	2,073.1	33,277	6,896,999	850,873	25,864	195	876,932
474	1/1/2041	2,083.1	29,313	6,075,439	858,204	22,783	195	881,182
475	1/2/2041	2,093.2	25,295	5,242,530	865,600	19,659	195	885,454
476	1/3/2041	2,103.4	21,221	4,398,151	873,058	16,493	195	889,746
477	1/4/2041	2,113.6	17,091	3,542,184	880,581	13,283	195	894,059

478	1/5/2041	2,123.8	12,904	2,674,507	888,168	10,029	195	898,392
479	1/6/2041	2,134.1	8,661	1,795,000	895,821	6,731	195	902,747
480	1/7/2041	2,144.4	4,359	903,538	903,538	3,388	195	907,121
		TOTAL:	83,946,153	0	103,946,153	65,088,161	93,600	169,127,914
			Indexation			Interest	Invoice fee	Total

APR Simulator

This simulator shows the amortisation table of a credit agreement whose characteristics are entered by the user, and calculate the APR of the credit.

Select language: EN English

Description of the credit product

Press the button to reset to the default example (example 3).

MAIN FEATURES OF THE CREDIT PRODUCT

A) Total amount of the credit

Note: the total amount of the credit is the ceiling or the total sums available under the credit agreement.

Assumptions applicable

Amount:

B) Conditions governing drawdowns

Assumptions applicable

Select: Immediately and in full

C) Conditions governing repayments

DYNAMIC

Assumptions applicable

Frequency of repayments: monthly

NOTE: It determines the periods in the table are given as: [MONTHS](#).

Amount: Equal instalments (to be calculated)

Special Payments (*)

Advance payment*

Final Payment*

The length of the first period of repayment is different

D) Duration of the credit agreement

Note: The duration of a credit agreement where repayments are given as a constant amount known in advance or as a percentage of the balance outstanding is given implicitly by the drawdowns, costs, and repayments. For this reason, the duration to enter here for these agreements only has as an objective to determine the number of periods to show in the preliminary amortisation table. After pressing the button Calculate this duration will be replaced by the real one.

Assumptions applicable

Duration: periods

COSTS OF THE CREDIT

Assumptions applicable

A) Borrowing rate

Assumptions applicable

Level: Fixed for the entire duration of the credit by a percentage of

Defined as: Nominal (annual) DYNAMIC

B) Other cost included in the Total Cost of the Credit

Note: Costs which cannot be defined using pre-specified parameters should be entered in the table manually.

Examples

	Given as	Amount or %	Financed	Date of charge	
<input type="checkbox"/> Cost 1	Fixed amount	<input type="text"/>	Yes	Other frequency (units of periods) *	<input type="text" value="12 months"/>
<input type="checkbox"/> Cost 2	% of the credit limit	<input type="text"/>	Yes	All conclusion	
<input type="checkbox"/> Cost 3	% of the drawdowns in each period	<input type="text"/>	Yes		
<input type="checkbox"/> Cost 4	% of the balance outstanding (capital + interest) in each period	<input type="text"/>	Yes		
<input type="checkbox"/> Cost 5	% of the balance outstanding (only capital) in each period	<input type="text"/>	Yes		
<input type="checkbox"/> Cost 6	% of the credit not used at the beginning of each period	<input type="text"/>	Yes		
<input type="checkbox"/> Cost 7	% of the final balance in each period	<input type="text"/>			

Obs (*)

Other income and expenses from ancillary contracts

Note: Use the two columns under 'Other IE' to enter other income and expenses connected to the credit as a result of mandatory ancillary contracts. For example, if the credit agreement requires savings in an account, the initial deposit would constitute an expense and the recovery value of the deposit would constitute income for the consumer.

Generate amortisation table

Press the button to generate a preliminary amortisation table according to the information entered above.

INSTRUCTIONS OF THE SIMULATOR

Obtaining the amortisation table and the APR of a credit agreement using this simulator consists of three stages. During the three stages, you should read the explanatory notes and the assumptions applicable and provide information consistent with them in order to obtain the APR. Also, any error highlighted in red should be solved before proceeding.

STAGE 1

Enter the characteristics of the credit product in the area 'Description of the credit product'.

Notes:

- The frequency of the repayment of the credit determines the length of the regular periods shown in the amortisation table.
- All the periods are assumed to have the same duration except for the first period of repayment if you specified so.
- The duration of the credit is only definitive in the case of instalment credits (i.e. credits repaid by equal instalments or increasing or decreasing instalments). For the rest of credits the software will determine the duration which makes the full repayment of the credit possible in the last period. For this reason, for these other credits you can enter a rough estimation of the duration of the credit or just the number of periods you want to see in the preliminary amortisation table, which will be obtained in stage 2.

STAGE 2

Click on the button Generate in the area 'Generate amortisation table' to obtain a preliminary amortisation table from the information provided in the first stage.

Notes:

- The new table will replace any existing information in the table by the information provided in stage 1.
- Once the preliminary amortisation table has been generated, you can change the information in the table for all those variables with a title shaded in yellow (drawdowns, borrowing rate, other costs and other income and expenses). The rest of the variables should not be changed for consistency of the simulator. The information introduced in this way will be considered in stage 3 as long as the periods covered in the preliminary amortisation table also appear in the final amortisation table.

STAGE 3

Click on the button "Calculate" in the area 'Calculate repayments and APR' to obtain the APR and other relevant information about the credit.

Notes:

- In instalment credits, the simulator observes the duration of the credit entered in stage 1 and it will obtain the instalments which pay off the credit in the last period. In stage 3 the amortisation table is updated and the amount of the first repayment of the credit and the duration of the credit is shown in the area 'Main results'.
- For the rest of credits, the simulator observes the scheme and definition of repayments entered in stage 1 and increases or decreases the number of periods in order to ensure full repayment of the credit in the last period. In stage 3 the amortisation table is updated and the duration of the credit is shown in the area 'Main results'; the duration is also copied to the cell with the duration of the credit agreement in the area 'Description of the credit product' in order to facilitate the design of new credit agreements with similar characteristics.
- Finally, in both cases the simulator displays the APR and other relevant information of the credit in the area 'Main results'.

AFTER STAGE 3

Once stage 3 is finished, you have control of the characteristics of the credit and the amortisation table. That is, it is possible to change the dynamic cells in the input area and the variables with a title shaded in yellow and also the repayments of the credit in the column 'Payments/Repayment of the credit/Total' in the amortisation table. This allows you to view the effect of these changes on the credit.

Since these changes might mean the credit is not fully repaid in the last period or the present value of cash flows is not equal to zero, you should be aware of any message in red next to the buttons Recalculate in the area of 'Main results'. If a message appears, it will be necessary to recalculate the amount of the first repayment or the APR clicking on the corresponding button.

FURTHER INFORMATION

Other functionalities of the simulator using the Excel tool Goal Seek, the design of amortisation tables for specific cases and the definition of the variables and stages are described in the document "Excel Simulator for the Calculation of the APR".

Calculate repayments and APR

Press the button to obtain the final amortisation table and the main results.

Main results

Caution: This information might not be valid if changes have been made after pressing the button 'Calculate' and, as a result, the Final balance at the last period and/or the Present value of the cash flows are not zero. Cautionary notes are shown if this happens. Use the buttons 'Recalculate' to solve these situations.

Final balance in the last period 0,00
 Amount of the first repayment 274,11 DYNAMIC
 Duration of the credit 24

Present value of the cash flows 0,00
 Annual Percentage Rate of Charge 11,6% DYNAMIC

Total cost of the credit* 658,64
 Total amount of credit 6000,00
 Total amount payable* 6658,64

Obs. (*)

Period	Drawdowns	Balance				Interest on capital		Other costs		Payments				Other I/E		Cash Flows			
		Initial	Outstanding (only capital)	Outstanding (capital plus interest)	Final	Borrowing rate (%)	Interest charges	Not financed	Financed	Repayment of the credit			Capital amortisation	Interest	Total	Income	Expenses	Value at end period	Present value
										Capital amortisation	Interest	Total							
0	6000,00				6000,00			120,00										5880,00	5880,00
1		5000,00	6000,00	6045,00	5770,89	9,00%	45,00			229,11	45,00	274,11	0,00	274,11				-274,11	-271,62
2		5770,89	5770,89	5814,17	5540,06	9,00%	43,28			230,83	43,28	274,11	0,00	274,11				-274,11	-269,14
3		5540,06	5540,06	5581,62	5307,51	9,00%	41,55			232,56	41,55	274,11	0,00	274,11				-274,11	-266,65
4		5307,51	5307,51	5347,31	5073,20	9,00%	39,81			234,30	39,81	274,11	0,00	274,11				-274,11	-264,27
5		5073,20	5073,20	5111,25	4837,15	9,00%	38,05			236,06	38,05	274,11	0,00	274,11				-274,11	-261,88
6		4837,15	4837,15	4873,42	4599,32	9,00%	36,28			237,83	36,28	274,11	0,00	274,11				-274,11	-259,48
7		4599,32	4599,32	4633,81	4359,70	9,00%	34,49			239,61	34,49	274,11	0,00	274,11				-274,11	-257,12
8		4359,70	4359,70	4392,40	4118,29	9,00%	32,70			241,41	32,70	274,11	0,00	274,11				-274,11	-254,78
9		4118,29	4118,29	4149,18	3875,07	9,00%	30,89			243,22	30,89	274,11	0,00	274,11				-274,11	-252,46
10		3875,07	3875,07	3904,13	3630,02	9,00%	29,06			245,05	29,06	274,11	0,00	274,11				-274,11	-250,16
11		3630,02	3630,02	3657,25	3383,14	9,00%	27,23			246,88	27,23	274,11	0,00	274,11				-274,11	-247,89
12		3383,14	3383,14	3408,51	3134,41	9,00%	25,37			248,73	25,37	274,11	0,00	274,11				-274,11	-245,63
13		3134,41	3134,41	3157,91	2883,81	9,00%	23,51			250,60	23,51	274,11	0,00	274,11				-274,11	-243,40
14		2883,81	2883,81	2905,43	2631,33	9,00%	21,63			252,48	21,63	274,11	0,00	274,11				-274,11	-241,18
15		2631,33	2631,33	2651,06	2376,95	9,00%	19,73			254,37	19,73	274,11	0,00	274,11				-274,11	-238,99
16		2376,95	2376,95	2394,78	2120,67	9,00%	17,83			256,28	17,83	274,11	0,00	274,11				-274,11	-236,81
17		2120,67	2120,67	2136,58	1862,47	9,00%	15,91			258,20	15,91	274,11	0,00	274,11				-274,11	-234,66
18		1862,47	1862,47	1876,44	1602,33	9,00%	13,97			260,14	13,97	274,11	0,00	274,11				-274,11	-232,52
19		1602,33	1602,33	1614,35	1340,24	9,00%	12,02			262,09	12,02	274,11	0,00	274,11				-274,11	-230,40
20		1340,24	1340,24	1350,29	1076,18	9,00%	10,05			264,06	10,05	274,11	0,00	274,11				-274,11	-228,31
21		1076,18	1076,18	1084,25	810,14	9,00%	8,07			266,04	8,07	274,11	0,00	274,11				-274,11	-226,23
22		810,14	810,14	816,22	542,11	9,00%	6,08			268,03	6,08	274,11	0,00	274,11				-274,11	-224,17
23		542,11	542,11	546,18	272,07	9,00%	4,07			270,04	4,07	274,11	0,00	274,11				-274,11	-222,13
24		272,07	272,07	274,11	0,00	9,00%	2,04			272,07	2,04	274,11	0,00	274,11				-274,11	-220,11