

概要

本文诸段是对中国城镇职工养老保险制度结构改革的提议，系中国欧盟社会保障改革项目第一部分欧方常驻专家根据项目计划成果四之要求撰写的（成果四：通过加强多样方案、养老基金社会统筹、公务员/公共部门人员养老保险方案和现有的多层养老系统，在中国全面覆盖养老保险系统的国家政策框架获得巩固）。

本提议是在认真审读本项目第一部分中方专家 2015 年-2017 年所做的《评估报告》和《政策建议》的基础上精心撰写的，参考材料还包括本项目第二部分 2018 年对养老保险制度筹资和缴费征集模式的研究。本文附录中列出了对提议发挥了参考作用的项目研究报告。

本文的提议，主要是希望城镇职工养老保险制度能够多样发展基本养老保险和第二支柱养老保险，同时加强制度对参保人员的吸引力，保障其可持续性，实现公平（对弱势群体公平）、有效（对缴费人员公平）的制度福利。

本文建议改革城镇职工养老保险制度，使个人账户中的现有金额（多为虚账）能以修订后的基本养老金公式计算，并使未来个人缴费能够从改革之日起，分配到第二支柱中，并由专门的金融机构进行管理。此处讲的第二支柱当然包括已经在企业年金制度中积累的资产。

财政部未来若能实现有效的缴费征集，制度的总体成本应可保持在可接受范围内。而提议的改革就可以更快地执行，并容易为所有相关方理解。

当然，就未来可能进行的改革，本文仅仅介绍了大体内容。若中国政府能够考虑本文的提议，则可以继续深化提议，为此将需进行附加研究，并希望能够通过中欧双方专家的合作实现。

本提议的草稿已经中欧双方专家审读并评议，在此表示感谢，特别是对中国社科院的房连泉先生、瑞典社保局卡尔·博尔霍兹先生非常有意义的建议表示感谢。

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背景情况与近期发展

1. 近来有许多政策决议，对中国社会保障体系的架构有所影响。这有助于为中国城镇职工养老保险制度明确可行的改革。改革应重点解决下列难点。
 - 制度碎片化，造成参保登记困难、劳动力流动受阻；
 - 第二与第三支柱发展不足（补充保障制度、私人保障制度）；
 - 缴费人员认为基本养老保险制度缴费负担过重；
 - 个人账户筹资水平较低（空账）；
 - 替代率低，且不断下降；制度福利指数挂钩不系统；
 - 财务可持续性不太确定，特别是在地区差异明显与人口老龄化的背景之下。
2. 制度进来的新发展与新政策中，下列数点最为关键：
 - 大范围降低用人单位缴费率；
 - 机关与事业单位养老保险制度与城镇职工基本养老保险制度并轨（但仍为两部分，并有新的补充养老保险制度）；
 - 希望推进企业年金制度或同等制度的发展；
 - 设立中央调剂基金、推动全国统筹；
 - 划拨国有资产，补充养老保险基金；
 - 寻求改进实际工资与缴费基数、待遇之间的关系；
 - 提高个人账户利率；
 - 研究采取适当的指数挂钩机制；
 - 委托财政部进行缴费征集、整合国税和地税系统；
 - 为企业年金基金、第二和第三支柱研究税优制度；
 - 建立国家医疗保障局。

区分第一支柱和第二支柱

3. 国家希望对城镇职工养老保险制度进行综合改革，可以有助于实现公平性（实现基本保障）与效率性（按缴费发放待遇）之间的平衡。具体而言，同时实现基本养老金和个人账户积累是成问题的。越来越多的声音支持发展独立的第二和第三支柱。
4. 同时，基本养老保险制度让千百万退休职工免于贫困，这是巨大的成就，值得改革注意；建议继续保持基本养老保险制度强大的收入再分配机制。

5. 未来的预想可能是将基本养老保险制度作为第一支柱，而通过扩大企业年金或类似制度的方式将个人账户制度转变为第二支柱。ⁱ并由个人视情况决定是否参与第三支柱，也可以有（或没有）用人单位的支助。
6. 另外一方面，中国政府貌似希望将个人账户留在基本养老保险制度中，仍然作为名义账户（NDC），因为过去两年期记账利率得到提高。所以，将个人账户从第一支柱转出仍然只是假设。我们因此可以比较，如果个人账户保持原样，虚账（基本养老保险）和实账（企业年金）并行，并采取不同的利率计算积累基金，其结果会如何。从制度的精简性、透明性和社会接受性来讲，这样做不一定会有先天的积极效果。
7. 将社保缴费征集责任转交财政部，目的在于提高遵缴率，由此缴费来源更广，可以减少现有缴费企业负担，保障制度可持续性。有观点认为，若将个人账户转入第二支柱，也会增加民众对加入第二支柱的兴趣。

转移现有的个人账户制度

8. 建立第二支柱的公司，目前大多建立的是企业年金。虽然各公司年金基金数量不等，但从技术上讲账户数目和总额基本还是一样。
9. 但是仍有一些特殊之处，使得这一过程发展地不像预期那样顺畅，具体包括：
 - 要对企业年金基金进行管理，基金管理人需要相应数额的账户。但是，很多个人账户实际上却是名义账户（“空账”）。ⁱⁱ
 - 如果政府要补全空账资金，成本约为 4 万亿人民币；这比过去 20 年划给基本养老基金的财政补贴总合还多。ⁱⁱⁱ
 - 个人年满 60 岁时，个人账户中的养老金，就要除以 139，但是一般保险公司则会除以约 300。^{iv}将个人账户转交基金管理人或私营保险商管理，就会造成养老金待遇大大下降，何况现在个人账户的替代率已经相当的低了。
 - 保险公司或者私营养老基金管理人很难保障参保人的最低养老金，特别是可供购买的金融工具波动性很大。但如果缴费人员的其他养老金来源数额较大，且不受类似不确定因素影响的话，他们可能会接受这种个别风险因素。
 - 将现有约 3 亿缴费人员的个人账户都转至第二支柱，^v不是个简单的工程，何况各地数据因制度区隔，还不易共享；此外，账户管理公司也需要很长时间进行准备。
10. 鉴于以上诸端，现在要面临的风险就是要推迟个人账户管理责任向第二支柱民营机构转化的进度，并且操作困难还会大增。此外，改革后的实际退休金数额会降低，民众会因此失望。
11. 在此情形下，可以考虑别的办法，一方面避免落入上述的预设情境，另一方面还要严格推进第二和第三支柱的发展，并明确界定现收现付、固定待遇、基本养老金、实账缴费、固定缴费、补充养老金的形式。

现行养老金待遇计算公式分析

12. 根据现行规定，中国城镇职工养老金制度（对缴费人员）发放的待遇由两部分组成。一部分是现收现付的固定待遇；另一部分是个人账户（有的实账、有的空账）中积累的待遇。固定待遇部分按照每年缴费工资和当地社会平均工资的平均数之 1% 增长；固定缴费部分则是每月在缴费人员个人账户中积累的金额，根据退休年龄不同除以不同的数值（60 岁除以 139，55 岁除以 175，50 岁除以 190）。
13. 固定待遇部分的缴费率通常为 20%（单位缴费），个人账户部分的通常为 8%（职工缴费）。缴费基数工资是社会平均工资的 60% 或 300%^{vi}。职工缴纳或代缴的缴费不一定与其从单位（未完全申报）获得的实际工资一致。在很多情况中，筹缴机关都设定实际最低养老金（基本养老金+个人账户），个人须依照社会平均工资的 40% 到 60%（依统筹地区情况而定）最低缴纳 15 年（法定退休年龄以前）。

现行养老金待遇计算公式

基本养老金: $0.01 \times \text{缴费年限} \times (\text{当地社会平均工资} + \text{个人平均工资}) / 2$

个人平均工资(当地社会平均工资的 60% - 300%)

个人账户每月待遇: $(\text{缴费总额} + \text{累计利息}) / \text{精算因子}$

精算因子在 60 岁时为 139

最低养老金（基本养老金+个人账户）：社会平均工资的 40% 到 60%（依统筹地区情况而定）

14. 制度最开始的替代率为：基本养老金（现收现付、固定待遇）：35%，个人账户：25%。但实际替代率过去几年一直在下降，现在约为 45%。^{vii}
15. 个人账户所积累的金额（更准确的说，是职工向个人账户缴纳的金额和利息之合）在 2014 年时为 4 万亿人民币（5 千亿“实账资产”，3 万 5 千亿“空账资产”）。个人账户建立于 1997 年，是全国通行的制度。
16. 2017 以前，个人账户所积累的利息都仅以银行利率计算。历史上，这相对于其他相关指标（比如 GDP 或工资的增长率）都低很多。^{viii} 这就导致个人账户发放的养老金水平相对较低。要注意，发放的养老金并没有与指数挂钩。因此其价值就会随时间而推移不断下降。这就等于说，60 岁时以 139 作为精算因数，虽然看起来比较好，但实际上并没有得到实践检验。^{ix}
17. 在养老金计算公式中，有一部分是职工自己的缴费，与社会平均工资有一定的比例关系。这是待遇计算公式为平衡社会性因素（公平）和个人缴费（效率）所采取的办法。
18. 但是，由于一边是相对较高、且容易达到的最低基本养老金待遇（仅需缴费满 15 年即可获得），另一边是相对较低的个人账户待遇，总体养老金实际上较低。对低缴费职工的收入再分配而言，其作用较大；但对于处于平均水平以上的工资而言，替代率就不高了。
19. 这就是说，现行养老金计算公式中与工资挂钩的两大要素：一个与当地社会平均工资挂钩，另一个与个人缴费基数工资挂钩，都有一定问题，因为它们对制度的效率造成了影响（即对影响过往工资的替

代率造成了影响)。其替代办法可以是实施最低养老金(现在已经非正式地执行此法,按当地社会平均缴费基数工资的 40%-60%计算)。

20. 但要注意,计算公式中的最低平均工资,不只是要与最低待挂钩,也是要鼓励个人在工资高于平均水平时,支付与工资相应的缴费,因为不完整申报工资,就会直接影响养老金起步水平。
21. 最初,养老金计算公式中只有当地社会平均工资,用于统筹社会缴费。这让养老金制度中的两大部分区别比较明显,即:一部分用于社会共济,以工作(参保)年限为基础;另一部分是对个人过往缴费的回报。这是中国城镇职工养老保险中非常有特色的一点。它能够保障统筹地区职工(缴费人员)之间的共济。一旦取消,就会造成制度基本原则的巨大问题,招来大家反对。
22. 但要考虑是否停止或限制*目前非个人缴费部分的基本养老金提升趋势(当地平均工资的 40%-60%),因为它在某种意义上是通过慷慨的低水平待遇实现了双重保障,并且趋于替代现行的养老金计算公式(于是这就成为一种鼓励企业不进行完整申报的措施)。

协调当前与未来制度规定

23. 虽然将个人账户积累的微薄资金转交第二支柱基金管理人负责比较困难,但也不能简单地将账户微薄的基金忽略掉。
24. 较为明智的做法是设计一种新的转轨办法,让 1997 年以后参保的职工能够根据个人缴费金额保持养老金待遇。如果多种转轨规定并存,就会让大众无所适从,还会让大众对养老金制度及其可持续性失去信任。
25. 因此,建议修改现收现付制固定待遇部分的规定,确认个人账户中理论积累的资金,而让固定待遇部分之后成为基本养老金。要做到这一点,就要强化个人账户部分在待遇计算公式中的对应角色。
26. 为避免现有参保人员因为转移以往个人账户而认为自己会面临潜在损失,建议修订待遇计算公式,明确地让替代工资更为慷慨。在将缴费征集责任转交给财政部之后,遵缴率有待提高,这就能实现前面讲的办法了。^{xi}

改革后基本养老金的参数

27. 改革后的基本养老金待遇计算公式中,关键问题之一就是个人账户积累资金的价值。如上所述,现在个人账户的缴费金额是工资的 8%,在与利息一起累计之后,(通常)除以 139,作为每月养老金额。
28. 假设积累利息能让缴费(以当期工资为准)的购买力在退休前的整个缴费期保持不变,30 年缴费(60 岁)后的积累金额算法即为:个人工资 $\times 0,08 \times 360 / 139$,即替代率为 20.7%。对于平均工资与社会平均工资相等的缴费人员而言,这就等于说养老金的 2/3 要来自社会统筹部分,以使替代率达到个人最终缴费工资的 50%。但是,鉴于(到目前为止),个人账户中的利息积累并不足,缴费者并不期待替代率能达到这个水平。现在替代率只是 45%。
29. 因此合理的建议是:在基本养老金待遇计算公式中,通过设定 1%-1.5%的积累率的办法,提高个人账户的分量。同时提高个人缴费基数在参考工资中的比率,因为社会(缴费的)平均工资只是最终收入的 1/3。照此,则待遇计算公式变为:

基础养老金 (包括之前的个人账户)= $0.015 \times \text{缴费年限} \times (\text{当地社会平均工资} + 2 \times \text{个人平均工资}) / 3$

个人平均工资 (当地社会平均工资的 60% - 300%)

30. 缴费满 30 年以后，按照社会平均工资 60% 缴费的职工，一般替代率会是 55%；按照社会平均工资 100% 缴费的职工，一般替代率会是 45%；按照社会平均工资 300% 缴费的职工，一般替代率会是 35%。
31. 如果保持缴费水平的最高门槛（分别为当地社会平均工资的 60% 和 300%），则待遇计算公式可以保证在缴费满 30 年以后，基本养老金会不少于 $30 \times 0.015 \times \text{当地社会平均工资} \times 2.2/3$ ，即相当于社会平均工资的 1/3。如果保持缴费水平的最低门槛不低于社会平均工资的 40%（60%），则有双保证。一方面是保证任一养老金都不会太接近平均最后个人工资（预计为平均个人工资的 75%），另一方面保证必须缴费满 30 年或相当于 30 年者方可领取最低养老金^{xii}。
32. 改革时，也要考虑建立残障养老金（非工残障），也要以残障当事人退休前缴费年限计算，其养老金应至少要求缴费满 5 年^{xiii}。
33. 领取最低养老金时，要求最低缴费满 30 年，与相关国际制度是一致的。这样一来，养老金公式按照实际缴费年限占完全缴费年限的比例计算待遇，看起来就不必按照最低缴费年限计算了。最低缴费 15 年的规定（残障者为最低 5 年）可以考虑换为国际通行的 30 年规定，也可以适用于在法定退休年龄前停止工作、申请后置领取养老金的人员。
34. 当地社会平均工资和个人平均工资的适用年限是可以开放讨论的。现在的规定（社会统筹部分的基本养老金）仍然坚持短参考期（1 年）。虽然这完全符合养老金制度的目标，即养老金要替代最终工资，但这导致职工在临近退休时，紧盯着最终工资。所以我们建议，在计算个人工资时，采取更长时间，如 5 年、10 年或 25 年等，总之要与过往收入指标合理挂钩（地方平均工资可以用作参考）。
35. 发放中的待遇当然也要与指数挂钩。当前基本养老金的指数挂钩机制不会因改革而动摇。与之类似，目前关于延长退休年龄的讨论也仍然完全有意义。
36. 本文开头提到，中国政府已经决定实现全国统筹——将缴费征集和管理责任转交财政部会让这一进程更为容易。但是，这并非指中国各地的基本养老金都要变得一样。实际上，省际工资水平差距很大（大过 2:1），省内差距也很大。所以制定地方参数、暂时（至少是中期内）保持省际分界（“统筹地区”）还是合理的。

已经获取的权益和正在获取的权益

37. 考虑到城乡之间流动的农民工，仍然需要继续制度统筹机制，实现基本养老金权益的跨省转移和代管。中国政府已经了解到国际上关于缴费期统计算和待遇按比计算的经验。这在中国也很容易执行，特别是在养老金制度已经较为统一的情况下。
38. 可以设想，在实践时，一方面不同统筹地区发生的缴费期可以统计算，另一方面不同的地方机关可以根据当地的法规计算待遇，然后发放给领取人。另外一种办法是，职工最终申请养老金的负责机关

可以根据自身规则计算待遇总额（根据支付时的当地平均工资+个人平均工资），然后要求其他关联机关按比例进行事后报销。

39. 如果财政部负责征缴之后，数据能够实现集中，再将个人账户分立为第二支柱，那么职工转换统筹地区后，转移缴费的程序就会不再那么繁复。而跨省补偿机制会大大限制财政交换。那么也可以设想从中央政府设立专门机构，其核心职能为推进农民工养老权益的跨省转移接续。
40. 制度的集中化也有助于统一机关事业单位人员养老金发放管理（见张盈华（2015）论文尾注）。改革后的养老金制度可以直接适用于当期的缴费人员或已经缴费等待后置领取待遇的人员。对此，可以考虑在修订基本养老金计算公式后，对补充养老金制度进行一定设计，以减少在机关事业单位养老金制度与城镇职工养老金制度整合后出现的养老金权益损失所带来的影响，因为新的计算公式应当比旧的更好一些。不过差别不能太大，而且也建议依然采取现有的机关事业单位人员的补充养老金制度，因为大家都不希望频繁的制度变动对这一类人群造成大的影响。
41. 此外，我们提议的改革不会影响到现在发放中的养老金待遇。与之类似，缴费制度改革前已经发生缴费期，在改革后也一并确认，保持不变。
42. 政府对过去非缴费型待遇或某些待遇的责任，可以通过精算方式进行计算：将该类待遇受益人划为“封闭群体”，实现精确计算；而在 1997 年或之后参保的人员的待遇，则通过缴费和金融产品回报发放。然后就可以计算现收现付（分档）缴费率（单位缴费）修订值，同时职工要将其薪酬的 8% 缴入他们所选的或单位所选的认证养老基金管理公司。
43. 对于未来的城镇居民养老制度，需要进行深度思考。在此制度中，参保人员的平均缴费为每年 200 元人民币，存入个人账户中。此账户为低比率基本养老金，为居民提供最低补充收入。如果个人账户取消的话，此制度即变成事实上的非缴费型制度。在新的国家医保局负责医疗保险征缴之后，参保成员将很难追溯过往记录。
44. 因此，我们所提议的改革仅限于城镇职工养老保险制度。在此制度下，如果农民工参加薪酬就业的话，就可以向该制度支付缴费。关于居民养老保险制度，我们还是建议政府单独作考虑。

总结

45. 作为中欧社保改革项目第一部分，当我们将手上的建议提交给相关方面评议时，我们完全知道，很多细节仍然需要继续讨论，以使改革具有操作性。具体而言，就是要测试基本养老金部分（第一支柱）在职职工单位缴费率的财务要求。
46. 精算对于任何大型改革和养老金制度监控而言都是重中之重。只有通过精算才可确定或修订核心参数的值。这些核心参数主要是退休年龄、过往收入挂钩指数、待遇挂钩指数、最高和最低缴费/待遇、待遇计算公式中的地方社会平均工资比例和个人缴费基数工资、累计率、利息累计、折算因数、待遇发放条件等。
47. 附录三比较了每一核心参数的当前情况与提议改革后的情况。附录四比较了当前制度与提议改革后制度的质性差异，包括一系列技术因素，如：公立单位依赖度、效率性和公平性、结果可预料性、缴费记管和转移接续等。

48. 中欧社会保障改革项目第一部分衷心希望，本篇提议能够对中国养老金体系的成功设计有所贡献，帮助制度顺利应对时代发展、不负人民寄托。

让·维克多·圭亚

2018年6月28日

第3版

附录一 - 所参考的项目报告

作者	标题		地址
房连泉	Diagnosis & Baseline data on the Chinese pension system	2015	http://www.euchinasrpr.eu/images/documents/Component1/baselineC1.pdf
张盈华	中国公共部门养老保险制度改革	2015	http://www.euchinasrpr.eu/images/documents/Component1Cn/Publicpensions%20reform.pdf
宋晓梧	完善城镇职工基本养老保险“统账结合”制度研究	2015	http://www.euchinasrpr.eu/images/documents/Component1Cn/Combination%20Social%20Pooling%20&%20Individualua.pdf
董克用	转型期的中国养老金体制：现状、困境与改革路径	2015	http://www.euchinasrpr.eu/images/documents/Component1Cn/Multitier%20pension%20systems.pdf
汪泽英	城乡养老保险制度整合问题研究报告	2015	http://www.euchinasrpr.eu/images/documents/Component1/Integration%20Rural%20and%20Urban%20Pension%20schemes.pdf
科恩	欧洲最佳实践报告（第一卷）	2015	http://www.euchinasrpr.eu/images/documents/Component1/1stBPC1CN.pdf
郑秉文	中国城镇基本养老保险制度财务可持续性研究	2016	http://www.euchinasrpr.eu/images/documents/Component1Cn/ZBWCN.pdf
董克用	中国人口老龄化及其社会、经济影响	2016	http://www.euchinasrpr.eu/images/documents/Component1Cn/AGINGDKYCN.pdf
圭亚	Some striking features of the Chinese pension system	2017	http://www.euchinasrpr.eu/en/components-en/component1-en/update-to-2015-baseline-data
周弘	公共养老金计划下的参数化改革	2017	http://www.euchinasrpr.eu/images/documents/Component1/ParametricCN.pdf
李实	中国社会保障制度的收入再分配效果	2017	http://www.euchinasrpr.eu/images/documents/Component1Cn/LiShiCN.pdf
郑功成	中国社会保障政策评估	2017	http://www.euchinasrpr.eu/images/documents/Component1Cn/2017-assessment-report/EvalSSCN.pdf
郑秉文	中国养老金体系中企业年金的角色	2018	尚无链接
汪德华	社保缴费征集：制度统一的中国情况	2018	尚无链接

附录二-个人账户购买力损失

	工资	缴费额	缴费占工资比率
1997	1250	100	8.00
1998	1399	103	7.34
1999	1566	105	6.73
2000	1753	108	6.17
2001	1962	111	5.66
2002	2196	114	5.19
2003	2458	117	4.76
2004	2751	120	4.36
2005	3080	123	4.00
2006	3447	127	3.67
2007	3858	130	3.37
2008	4318	133	3.09
2009	4834	137	2.83
2010	5410	140	2.60
2011	6056	144	2.38
2012	6778	148	2.18

此处所用的年度平均增长率：工资+11.93%，银行利率+2.65%

附录三- 当前与提议改革后制度参数比较

养老金技术参数	当前制度	提议改革后制度
退休年龄	50-55-60, 在修改中	同样
过往收入与指数挂钩	个人账户较弱、不稳定	基本养老金自动挂钩。金融机构规则对第二支柱进行指数挂钩
待遇与指数挂钩	不系统, 在重审中	待定——与平均工资挂钩或其他指数挂钩
最低或最高缴费与待遇	社会平均工资的 60%或 300%	当地平均缴费工资的 60%或 300%
当地平均社会工资与个人缴费工资在待遇计算公式中的比例	50-50	1/3 – 2/3
积累率	每年 1%, 最高 30 年	每年 1.5%, 最高 30 年
利息积累	按照银行利率, 专向工资增长率	仅针对第二支柱, 依照金融机构规则进行
折算因数	60 岁时为 1/139	仅针对第二支柱, 依照金融机构规则进行, 可能在 60 岁时接近 1/300
最低领取资格	缴费满 15 年即可获得全额养老金	缴费满 30 年方可获得全额普通养老金, 如果缴费在 15-30 年之间, 则普通养老金降低; 缴费满 15 年可获得全额残障养老金 (但缴费 5-15 年则残障养老金降低)。
残障相关规定	仅限于提前退休	需要建立
经办管理	地方社保机关	第一支柱为社保机关; 第二、第三支柱为金融机构
筹资	实际上为现收现付制度	第一支柱为现收现付制度; 第二、第三支柱为实账制度

附录四-当前与改革后制度质性差别

	现有制度	提议改革后制度
第一、第二支柱分开	--	++
收入再分配功能	++	+
待遇匹配缴费	+	++
过往收入与指数挂钩	+-	++
替代率稳定性	--	+-
养老金金额可预测性	-	+
最低养老金影响力	++	+-
跨省保管/转移接续	+-	++
财务可持续性	-	+

ⁱ 还是有必要提起注意：政府要承担其对强制性养老金制度的责任。在将第二支柱责任转交给非政府管理的公司时，政府应该进行必要的安排，对此类受托公司的治理、效率、经常性开支或其他成本进行监督和管控。很多国家（包括相当发达的国家）的例子都显示，在这一领域有许多严重的错误行为引起的风险，导致缴费人员损失巨大，最后不得不通过国家财政对其养老金福利进行补贴，而不与缴费多少相匹配。

ⁱⁱ 2014 年，个人账户总额为 4.1 万亿人民币，而只有 5000 亿（12%）为“实账资产”（见圭亚论文（2017），第 15 页）。

ⁱⁱⁱ 这些金额并不包括公务员和同类人员的待遇（机关事业单位养老保险制度于 2015 年 1 月与城镇职工养老保险制度并轨）。机关事业单位养老保险累积结余达到了相当的水平（约为 3.5 万亿人民币）。

^{iv} 在法国，工作 30 年，年满 60 岁退休时，以 318 个月除之；在美国，工作 25 年后，以 300 个月除之。见 <https://www.bankrate.com/calculators/investing/annuity-calculator.aspx>

^v 2015 年在城镇职工为 2.62 亿，在职机关事业单位职工为 3800 万——见张盈华论文（2015）

^{vi} 社会平均工资是统筹地区的平均缴费工资。虽然养老金统筹多年来一直由省级统筹，但“十三五”计划后已经开始实施全国统筹。还有很多地区保留了特别的参数，用以处理本省养老金问题（如广东的 24 个地区）。

^{vii} 如果以缴费基数为参考，而不是以实际工资为参考，则替代率更高——在天津接近 60%（工作年满 30 年）。养老金的实际缴费率可以低至如广东的 9%（用人单位可任一将缴费基数确定为低于实际工资的水平）。来源：郑功成（2017）

^{viii} 1998-2011 年，个人账户中的资金平均以 2.65% 的利率积累，而工资则每年以 11.93% 提高——这就意味着在制度开始实施时工资的 8%，在 15 年以后仅仅相当于工资的 2.2%。这就等于丧失了 4 倍购买力——数据见李珍（2013）——圭亚（2017）引用——作者计算见附录二。

^{ix} 假定个人账户内未与指数挂钩的福利内含 7% 的“提升利率”，则按预期寿命算出的除数（300）就可能降低到约 140。

^x 例如，对 1997 年以前参加工作，而在 2027 年达到退休年龄的人员，要限制其获得最低养老金的条件（即，在工作年限内并没有真正实现 30 年缴费的人员，如 1967 年或以前出生的人）

^{xi} 可以通过让新企业（纳税单位）加入制度或按照实际工资计算缴费（也是为了税收申报的目的）的方式改进此方面。

^{xii} “相当”一词，主要适用于缴费制度建立以前就参加工作的养老金领取人。

^{xiii} 见《国际劳工组织社会保障（最低标准）公约》第 102 号，中国正积极考虑适用该公约。



PROPOSAL FOR A REFORMED STRUCTURE OF THE CHINESE PENSION SYSTEM FOR URBAN EMPLOYEES

EXECUTIVE SUMMARY

The paragraphs to follow submit a proposal for a reformed structure of the Chinese pension scheme for Urban employees. This proposal is being formulated by the Component One Resident Expert of the EU-China Social protection reform project, pursuant to the Project result R.4 (“National policy framework for a full coverage of old-age insurance system throughout China is consolidated by strengthening the interface of various schemes (...”).

The Proposal was elaborated after carefully reviewing the assessment reports and pension reform proposals respectively submitted by Chinese experts under the framework of Component One programmes of activities 2015 to 2017 – as well as the most recent works produced under Component 2 auspices in 2018 concerning pensions financing and contributory patterns. The list of project reports which contents were used to develop the proposal is listed in an annex to this Note.

The Proposal basically intends at responding to the expectation that the protection under the pension system for urban employees be diversified between basic public protection and a segregated second pillar, while reinforcing the attractiveness of the system, ensuring its sustainability and resulting in pension benefits that are both equitable (fair to the most vulnerable) and efficient (fair to the contributors).

It is proposed to develop a reformed pension system for Urban employees where the amounts in existing individual accounts – mostly virtual – would be allocated to a revised formula for the basic pension while the future individual contributions for pensions would go to a second pillar started from the date of the reform and managed by specific financial institutions. This second pillar would include assets already accumulated under Enterprise annuity funds arrangements, whenever appropriate.

The overall cost of the system would be kept at an acceptable level, thanks to improvements in compliance expected from Ministry of Finance future involvement in contributions collection. The reform could be implemented rapidly and be easy to understand by all those concerned.

Of course, the paragraphs hereafter represent only the broad contents of a future possible reform. Should this be considered by Chinese authorities as worth elaborating further, a number of additional researches would have to be conducted, hopefully through an extended collaboration between European and Chinese partners.

Special thanks go to Chinese and European colleagues who reviewed and commented on previous drafts of this Proposal – thanks in particular to Mr. Fang Lianquan from the Chinese Academy of Social Sciences CASS and to Mr. Karl Birkholz from the Swedish pension scheme Pensionsmyndigheten for their very useful suggestions.

Jean-Victor Gruat,
June 2018.
v.3

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BACKGROUND & RECENT DEVELOPMENTS

1. A number of recent decisions affecting the structure of the Chinese social security system may facilitate the identification of a feasible reform for the Chinese pension system for urban employees, which would notably address the following difficult points:
 - A fragmentation of the system acting as a deterrent for registering, and an impediment for labour mobility;
 - An insufficient development of second and third pillar arrangements (supplementary protection, individual protection);
 - A perceived high burden of contribution on basic pension system;
 - A low level of funding for individual accounts (empty accounts);
 - A low and declining replacement rate, a non-systematic indexation of benefits;
 - An apparent uncertain financial sustainability, especially for the issues of regional gap and overall demographic ageing.
2. Among recent developments and statements, the most relevant appear to be as follows:
 - Widespread reduction in employers' contribution rates;
 - Integration of staff from Government and Public institutions in the Urban Employees' pension scheme (under separate section, with newly established supplementary pension scheme);
 - Desirability to promote and develop enterprise annuity schemes or equivalent;
 - Establishment of the Central adjustment fund and efforts made towards national pooling;
 - Earmark part of SOEs shares to contribute to overall pension financing;
 - Search for improved relationship between actual salary and basis for contributions and benefits;
 - Improved interest rate on individual accounts;
 - Search for appropriate indexation mechanism;
 - Entrusting MoF with contributions collection responsibility, integration of national and local network of tax bureaus;
 - Envisaged tax exemption for enterprise annuity funds, second and third pillar arrangements;
 - Postponing legal retirement age;
 - Establishment of a national administration for medical insurance.

SEGREGATING FIRST AND SECOND PILLAR ARRANGEMENTS

3. Reflection towards a comprehensive reform of the pension system for urban employees seems to be inclined towards a more precise delineation between equity (basic protection) and efficiency (link with contributions) considerations in the pension system. More specifically, the simultaneous handling of basic pension and individual accounts appears as questionable, and the advocacy for second and third pillar independent structures is more and more frequent.
4. At the same time, the achievements of the pension system in keeping dozens of millions of former elder workers out of poverty calls for caution in reform, and the preservation of a robust, redistributive basic pension mechanism appears as advisable.
5. A possible scenario for the future might therefore be to keep basic pension arrangements as first pillar, but to transfer the responsibility to handle individual accounts to second-pillar type arrangements via a considerable

extension of enterprise annuities or similar mechanisms¹. It would be up to individuals to enter into such third pillar arrangements they deem suitable, with or without support from their employers.

6. Otherwise, it seems that the government is inclined to make the individual account in the basic pension system notional (NDC system), since the booking interest has been enhanced in last two years. So, the transfer of the individual account in the first pillar remains hypothetical. One may therefore confront with a situation where two individual accounts are maintained for the same contributors, one notional (basic pension) and one real (enterprise annuity), with different modalities for accruing interest and for computing benefits. This would not a priori be a positive factor towards the simplification, transparency and social acceptability of the system which are otherwise advocated.
7. The transfer of responsibility to collect contributions to Ministry of Finance is expected to dramatically increase compliance, and therefore to generate additional resources making the system more sustainable while lessening the burden on already compliant enterprises. The upgrading of individual accounts into second pillar type arrangements would also, allegedly, enhance the interest of potential contributors for joining the system.

TRANSFERRING EXISTING INDIVIDUAL ACCOUNTS

8. Companies potentially interested in handling second pillar arrangements are notably to be found among those currently handling enterprise annuity funds. Even though amounts are different, be it for number of accounts or for sums involved, the technique basically remains the same.
9. There are however some specific aspects that may render the process less straight forward as it might be expected to be – a few of them being listed below.
 - To take over rights in course of acquisition private Fund managers would request a transfer of corresponding amounts. However, a number of individual accounts are in fact notional (“empty”)²
 - If the Government was to compensate for empty accounts, the cost would be of some 4 trillion RMB yuan which is well above the total fiscal subsidies already paid into the public social insurance pension fund over the last twenty years³
 - The portion of pension derived from individual accounts is obtained through a division by 139 when retiring at age 60 – while insurance companies would typically apply a divisor of approximately 300⁴. The transfer of individual accounts to Fund managers and private insurance carriers would therefore result in a sharp decline in pension entitlements, whereas replacement rate from individual accounts is already considered as notoriously low.
 - Insurance companies or private pension fund managers would have huge difficulties to guarantee a minimum yield to subscribers – all the more when financial instruments available may be extremely volatile. This factor of individual risk may be acceptable to contributors though, if their future pension income from other sources remains substantial, and not likely to be affected by similar uncertainties (defined benefit).
 - The transfer of up to date individual accounts for some 300 million active contributors⁵ will not be an easy operation, given the geographical fragmentation of data and the time needed by host companies to prepare for this transfer.
10. In view of the above, there is a serious risk of delays in implementation of a decided transfer of responsibilities for handling individual accounts to second pillar private institutions, and a possibility of operational difficulties

coupled with disappointment from the public in view of amounts actually paid to those retiring after the reform.

11. Under such circumstances, it might be worth considering an alternative course of action which would escape the pitfalls of the above described scenario, while adhering to the core idea of vigorously promoting second and third pillar initiatives thus clearly delineating the mark between PAYG, defined benefit, basic pension and funded, defined contribution, supplementary pensions.

ANALYSIS OF THE CURRENT PENSION FORMULA

12. According to the provisions currently in force, the benefits paid by the Chinese pension scheme for urban employees are – for those beneficiaries having contributed to the scheme – composed of two elements, one PAYG and defined benefit, and one representing amounts accumulated in individual accounts (real or fictional). The defined benefits component is accumulated at 1% per validated year of the average between the final contributory wage and the local social (average) contributory wage; the defined contribution component represents monthly a fraction of the amount accumulated on the individual account of the beneficiary (including accrued interests) varying with the age at retirement (1/139 at age 60, 1/175 at age 55, 1/190 at age 50).
13. Contribution rates are normally of 20% (employers' contribution) towards defined benefit component (Pooling area) and 8% (employees' contribution) towards individual accounts. Contributory wage is to be between 60% and 300% of the average social wage⁶. Contributions paid by and on behalf of employees do not necessarily correspond to their actual income from employment (under-declaration). In many instances, pooling authorities have established a de facto minimum pension (basic pension plus individual account) at 40% to 60% (depending on the pooling area) of the average social wage after a minimum contributory period of 15 years (subject to reaching the required retirement age).

CURRENT PENSION FORMULA

BASIC PENSION: $0.01 * NYC * (ALS + AIS) / 2$ – NYC number of years of contribution, ALS average local salary, AIS average individual salary (floor 60% of ALS, ceiling 300% of ALS)

INDIVIDUAL ACCOUNTS, MONTHLY : $(CA + AI) / ACTF$ – CA contributed amounts, AI, accrued interest, ACTF, actuarial factor – 139 at age 60

MINIMUM (BASIC + INDIV. ACCOUNTS) from 40% to 60% of ALS depending on regions

14. While the replacement income expected from the scheme was initially of 35% under the basic pension (PAYG, defined benefit) and 25% under the individual account components, the actual replacement rate has been declining over the years and is currently around the 45% mark⁷.
15. Amounts accumulated on individual accounts (or better say amounts contributed by workers towards their individual accounts plus interests) represented some 4 trillion RMB yuan in 2014 (500 billion “real assets”, 3.500 billion “empty accounts”). Individual accounts were introduced in 1997 as a nationwide feature of the pension scheme.

16. Interests accrued on individual accounts were until the year 2017 limited to interest rates paid by banks, which is historically far below other relevant indicators, such as GDP or wages growth rates⁸. This contributes to the relatively low level of pensions paid out of individual accounts. It has to be noted that while adjustment to benefits in payment apply to the whole basic pension, amounts remaining on individual accounts do not produce interest anymore as soon as the benefit starts being paid.
17. The actual value of the remaining part on individual accounts therefore decreases over time which in a sense may partly justify *a posteriori* the use of an apparently very favorable divisor of 139 at age 60⁹ - it being understood that benefits remain payable in full even after the amount available on individual accounts would have been fully exhausted¹⁰.
18. The inclusion in the defined benefit formula of an element reflecting the workers' own contribution at par with the element reflecting the evolution of the average social wage responded to a perceived need to achieve a better balance between social considerations (equity) and recognition of individual contributions (efficiency) in the basic pension formula.
19. However, the predominance of the relatively high and easy to achieve minimum benefit (qualifying period of 15 years only) and the final relatively low level accumulated on individual accounts resulted in a quasi *de facto* flat rate pension benefit, achieving good results in terms of redistribution towards the workers with low levels of contributions but delivering poorly in terms of replacement rate for contributors with real income above average.
20. This being said, the existence in the pension formula of two elements related to salary – one being the average local wage and the other the individual contributory wage – could be questioned, since it affects the efficiency of the scheme (benefits as replacement of past income) and could be substituted by the recognition of the entitlement to a minimum pension – as is currently informally practiced (40 or even 60% of the average local (contributory) wage).
21. It has to be noted however that the use of average minimum wage in the benefit formula itself – and not only as an exogenous variable for minimum-type benefits – represents an incentive for contributing at a level corresponding to individual income when higher than average, since under-declaration will directly affect the initial pension level.
22. Initially, only the average local wage appeared in the pension formula for its segment out of resources pooling, thus clearly segregating two components or pillars in the basic pension – one of solidarity based on work (insurance) duration, and one of individual reward of past contribution. This element is therefore a very distinctive feature of the Chinese pension scheme of Urban employees, which has a clear role to play in ensuring solidarity among workers (contributors) within a pooling area, and which abolition may raise strong questions and objections at the level of principles guiding the scheme.
23. What might be considered though, is the feasibility to discontinue or to limit¹¹ the current practice of raising basic pensions non-individual accounts components to substantial levels (40% to 60% of average local wage) which represents in a sense a double protection through which generous flat rate benefits tend to supersede the application of the benefit formula (and hence to act as an incentive towards under-declaration).

RECONCILE CURRENT AND FUTURE PROVISIONS

24. The difficulty to transfer to second pillar fund managers the responsibility to honour amounts accumulated on individual accounts does not mean that those amounts should simply be disregarded.
25. It would not however appear as wise either to design new transitional measures for workers having joined the fund after 1997 to keep entitlements based on personal contributions. The co-existence of numerous transitional provisions is indeed likely to generate confusion in public minds, and to run counter the advocated goal of renewed trust in pension provisions and their sustainability.
26. It is therefore proposed that amounts theoretically accumulated on individual accounts be recognized through a modification in the PAYG defined benefit component, which would henceforth represent the totality of the basic pension. This would be achieved through strengthening the portion corresponding to individual contributions in the benefit formula.
27. To avoid leaving the impression that current members may be suffering potential losses via the discontinuation of past individual accounts, it is also proposed to revise the formula to make it appear more generous in terms of replacement income – which should be possible thanks to the improvements in compliance expected from the transfer of the responsibility for contributions collection to Ministry of Finance¹².

PARAMETERS FOR A REFORMED BASIC PENSION

28. One key issue for the reformed formula applied to basic pension is the value to be attached to amounts in individual accounts. As already mentioned, those are currently receiving 8% of the contributory income, and after accruing interests are divided (normally) by 139 to obtain a monthly pension.
29. Assuming that interests accrued are such that the purchasing power of contributions expressed with reference to current salaries is kept throughout the contributory period until retirement, the amounts accumulated after 30 years of contributions would represent (age 60) $IS \cdot 0,08 \cdot 360 / 139$ i.e. a 20.7 % replacement rate. This – for a contributor whose average wage is equal to the average social wage – would be equal to 2/3 of the amount paid out of the social pooling, with a total replacement rate reaching 50% of the last individual contributory wage. However, in view of the (until now) less favorable accrual of interests on individual accounts, contributors are not expecting this level of replacement rate, which is currently of some 45%.
30. It would therefore not appear as unreasonable to suggest that, in the basic pension formula, the impact of individual accounts be accounted for through both an increase from 1% to 1.5% of the accumulation rate, and the increase in the reference salary of the share of individual contributory base, the social (contributory) average representing only one third of the final income. The formula would then become:

BASIC PENSION (incl. Former Individual accounts): $0.015 \cdot NYC \cdot (ALS + 2 \cdot AIS) / 3$

where NYC is the number of years of contribution, ALS the average (contributory) local salary, AIS the average (contributory) individual salary (floor 60% of ALS, ceiling 300% of ALS)

31. After 30 years of contribution, a typical replacement rate would be of 55% of contributory income for workers contributing at 60% of the average social wage , of 45% of contributory income at contribution levels corresponding to the average social wage, and of 35% of contributory income for those contributing at the ceiling of 3 times the average social wage.,
32. When keeping the threshold for maximum contributory levels (60% and 300% of ALS respectively) the formula would ensure that, after 30 years of service, no basic benefit would be less than $30 \times 0,015 \times \text{ALS} \times 2.2/3$ i.e. one third of the average social wage. The established practice of a minimum pension not below 40% (or 60%) of the average social wage could therefore be kept, subject however to two safeguards, one to ensure that no pension reaches levels too close to the average final individual wage – a limit of 75% of the average individual salary AIS could be envisaged -, and the other to limit access to minimum benefits to pensioners with at least 30 years of contributory services or equivalent¹³.
33. Consideration could be paid, on the occasion of the reform, to the introduction of basic disability pensions (disability being non occupation-related) where calculations would be based on the number of years the beneficiary could have accomplished until retirement, had he/she not been disabled. Such pensions could be subject to a minimum qualifying period of 5 years of contributory services¹⁴.
34. While a threshold of 30 years of service to access minimum benefits is recommended – and is compatible with the contents of relevant international instruments – the fact that the pension benefit formula is proportional to the duration of insurance makes the establishment of a threshold in terms of minimum number of contributory years apparently unnecessary to prevent abuses. A minimum contributory period of 15 years for old-age (5 for disability) could however be considered as per relevant international instruments – and also be applied to workers having interrupted their career before reaching retirement age, and claiming later a deferred retirement benefit.
35. The period to be covered under the average local salary and the individual local salary respectively is open for debate. While the current provisions (basic pension from the pooling funds) retain a short reference period – one year – it may be argued that although this is congruent with the pension scheme objective that benefits should replace last income when it is lost, this opens the way, as far as individual wages are concerned, to complacent salary increases for workers approaching retirement. It might therefore be advisable to calculate the individual salary over a longer period of time, 5 years, 10 years, 25 years, etc. subject to the proper indexation of past earnings (average local salaries could be used as a reference).
36. Benefits in course of payment should of course also be indexed, and the on-going reflection concerning such indexation mechanism is not to be affected by the proposed reform, as far as basic pensions are concerned. Similarly, on-going discussions on raising the retirement age would remain fully valid.
37. It was mentioned at the beginning of this Note that the decision had been made to establish a pooling at the national level – which might be made easier through the transfer to Ministry of Finance of the task to collect and manage pension contributions. This does not however mean that China could be considered as one unified territory in terms of basic pension benefits. As a matter of fact, there are important geographical discrepancies between salary levels among the provinces (the gap being greater than 2:1) as well as within the Provinces. It therefore appears as reasonable to, at least in a medium term perspective, keep existing boundaries (“pooling areas”) for the definition of local parameters.

ACQUIRED RIGHTS AND RIGHTS IN COURSE OF ACQUISITION

38. Coordination mechanisms will still have to be decided upon and implemented as far as urban-rural migrant workers are concerned for the portability and vesting of basic pension rights. The international experience of totalization of periods and apportionment of benefits is now well known of Chinese authorities and could easily be implemented, especially within a system having acquired a certain level of centralization.
39. In practical terms, it might be envisaged that while the qualifying condition to access benefits or minimum payments might be appreciated through totalization of periods of insurance under various pooling arrangements, each responsible local administration would then calculate benefits according to its own legislation – and have them delivered to the beneficiary. Alternatively, the competent organization where the employees lodges his/her final claim could calculate the total benefit under its own regulations (based on local average salary + averaged individual salary wherever paid) and request reimbursement from other concerned agencies on a proportional basis.
40. The centralization of data thanks to Ministry of Finance intervention and the discontinuation of individual accounts would make the cumbersome procedure of transferring contributions whenever a worker changed the pooling area obsolete, and compensation mechanisms among provinces would drastically limit financial exchanges. One may even envisage that a special entity be created centrally, which key mission would be to facilitate portability and vesting operations for migrant workers.
41. This centralization may also help unify the management of pension entitlements for public officials (GOPI – see endnote 3 and Zhang Yinghua (2015)). The reformed pension scheme could immediately apply to those currently contributing - or–having contributed but awaiting for deferred benefit. It might be considered to what extent the revised basic pension formula could affect the supplementary benefit scheme introduced to make good for losses incurred in future pension rights when merging into the Urban employees’ pension scheme, since the new formula is likely to be slightly more favorable than the previous one. However differences are not likely to be very substantive, and it might therefore be advisable to opt for a status quo concerning supplementary pensions for GOPI officials, since too frequent changes in pension provisions affecting this category of staff is not desirable.
42. Otherwise, the proposed reform should not affect pensions in course of payment. Similarly, existing provisions for the recognition of periods of work accomplished before the instauration of the reformed contributory system could remain unchanged.
43. The commitment of the Government towards these non-contributory benefits or part of benefits could be actuarially evaluated – beneficiaries forming what is called a “closed group”, a precise calculation is feasible – while the scheme for those joining in on or after 1997 would be financed out of contributions and financial products. A revised PAYG (scaled premium) contribution rate (contributions to be paid by employers) could then be computed, with employees contributing 8% of their remuneration into an authorized pension fund management company of their choice – or of the choice of their entrepreneurs.
44. An in-depth reflection should be devoted to the future of urban and rural residents’ pension scheme. Under that scheme, the average contribution paid by insured persons is of about 200 RMB yuan annually, which goes into individual accounts providing minimal supplements to basic flat rate pensions. If individual accounts are being abolished, the scheme might become de facto non-contributory, and its membership will be extremely

difficult to trace all the more when responsibility for contributions collection under medical care might become incumbent upon the newly created State Medical Insurance Administration.

45. The proposed reform is therefore purposely limited to the urban employees' pension scheme – to which all rural urban migrant workers should contribute while under salaried employment – and it is recommended that a specific reflection be conducted by the Government on the possible future of the Residents' pension schemes.

CONCLUSION

46. When submitting this Proposal to comments of all interested parties, the EU-China SPRP Component One is perfectly aware that a number of details still need to be discussed to reach a stage of operationalization of the reform. In particular, it would be necessary to test the financial requirements attached to the basic pension component (first pillar) expressed in terms of employers' contribution rates for active workers.
47. Actuarial calculations are indeed to be central to any substantial reform and monitoring of pension systems. It is only through such calculations that the value to be attached to core parameters could be confirmed or amended – those core parameters being notably retirement age, indexation of past earnings, indexation of benefits, minimum and maximum for contributions and benefits, share of average local and individual contributory wages in benefit formula, accumulation rates, accrual of interest, commutation factors, qualifying conditions, etc.
48. Annex 3 provides a comparison for each of these core parameters between current and proposed situations. As for annex 4, it draws a table expressing the qualitative differences between the current and the proposed system concerning a number of technical factors, such as reliance on public institutions, efficiency and equity, predictability of results, vesting and portability, etc.
49. Component One of the EU-China Social protection reform project sincerely hopes that, through this proposal, it will contribute to the design of a successful mutation of the Chinese pension system, matching the needs of its development and the expectations of its people.

JVG, 28 June 2018

v.3

Annex 1 - Project reports used as reference materials

Author	Title		Address
Fang Lianquan	Diagnosis and Baseline report on China's pension system	2015	http://www.euchinasprp.eu/images/documents/Component1/baselineC1.pdf
Zhang Yinghua	Pension reform for public sector	2015	http://www.euchinasprp.eu/images/documents/Component1/131PublicpensionsENNNov4.pdf
Song Xiaowu	Evaluation of the combination of basic pension and individual accounts	2015	http://www.euchinasprp.eu/images/documents/Component1/132ENV18JUL15.pdf
Dong Keyong	Multi-tiered design of pension systems (public pension, enterprise annuity and individual pension)	2015	http://www.euchinasprp.eu/images/documents/Component1/134ENV27Jul15.pdf
Wang Zeying	Strategy of integrating social security system in urban and rural context also through the portability of social insurance	2015	http://www.euchinasprp.eu/images/documents/Component1/143MigrantEN(2015-10-20).pdf
Vleminckx Koen	First consolidated European best practices report	2015	http://www.euchinasprp.eu/images/documents/Component1/1stCBestPracticesReportDraft.pdf
Zheng Bingwen	The financial sustainability of the basic pension system in China	2016	http://www.euchinasprp.eu/images/documents/2016%20assessment%20report/ZBWEN.pdf
Dong Keyong	China's ageing population and its economic and social impact	2016	http://www.euchinasprp.eu/images/documents/2016%20assessment%20report/AGINGDKYEN.pdf
Gruat J-V	Some striking features of the Chinese pension system	2017	http://www.euchinasprp.eu/en/components-en/component1-en/update-to-2015-baseline-data
Zhou Hong	Parametric reform in Public pension schemes	2017	http://www.euchinasprp.eu/images/documents/Component1/2017-assessment-report/ParametricEN.pdf
Li Shi	Redistributive effect of pension reform in China	2017	http://www.euchinasprp.eu/images/documents/Component1/2017-assessment-report/RedistributionEN.pdf
Zheng Gongchen	Evaluation of Social security policies	2017	http://www.euchinasprp.eu/images/documents/Component1/2017-assessment-report/EvalSSEn.pdf
Zheng Bingwen	The role of enterprise annuity funds in the Chinese pension system	2018	n.a.
Wang Dehua	Social contributions collection: towards a unified system, the Chinese context	2018	n.a.

Annex 2 – Illustrating the loss of purchasing power on individual accounts

	Salary	Contribution value	Contribution as % of salary
1997	1250	100	8.00
1998	1399	103	7.34
1999	1566	105	6.73
2000	1753	108	6.17
2001	1962	111	5.66
2002	2196	114	5.19
2003	2458	117	4.76
2004	2751	120	4.36
2005	3080	123	4.00
2006	3447	127	3.67
2007	3858	130	3.37
2008	4318	133	3.09
2009	4834	137	2.83
2010	5410	140	2.60
2011	6056	144	2.38
2012	6778	148	2.18

Used historical yearly average growth rates: salary + 11.93%, bank interest rate + 2.65 %

Annex 3 – Compared pension parameters, current and proposed schemes

TECHNICAL PENSION PARAMETERS	CURRENT SCHEME	PROPOSED SCHEME
Retirement age	50 – 55 – 60 under revision	Same
Indexation of past earnings	Weak and unstable for individual accounts	Automatic for basic pension. According to Financial company rules for 2 nd pillar
Indexation of benefits	Not systematic – under review	TBD – average wage indexation or other index
Minimum and maximum for contributions and benefits	60% and 300% average social wage	60% and 300% average contributory local wage
Share of average local and individual contributory wages in benefit formula	50 - 50	1/3 – 2/3
Accumulation rates	1% per year max. 30 years	1.5 % per year max. 30 years
Accrual of interest	Bank interest rate, moving to wage growth	Pillar 2 only, following rules by Financial company
Commutation factors	1/139 age 60	Pillar 2 only According to rules Financial company, probably vicinity 1/300 at age 60
Qualifying conditions	15 years to qualify for full pension	30 years for full pension, reduced benefit if 15 to 30 years (old age). 15 years for full disability benefit (5 for reduced benefit)
Disability provisions	Early retirement only	To be introduced
Management	Public local social insurance agency	Public pension institution for first pillar, authorized financial institutions for pillars 2 and 3
Financing	De facto PAYG	PAYG first pillar, full funding second and third pillars

Annex 4 – Qualitative differences, current and proposed systems

	CURRENT	PROPOSED
Separation first – second pillar	- -	+ +
Redistributive effect	+ +	+
Benefits matching contributions	+	+ +
Indexation of past earnings	+ -	+ +
Stability in replacement rates	- -	+ -
Predictability of pension amounts	-	+
Influence of minimum pension	+ +	+ -
Vesting / Portability	+ -	+ +
Sustainability	-	+

¹ A word of caution appears as necessary though. The Government is to be held responsible for the proper functioning of the compulsory pension system. When transferring the responsibility for handling second pillar arrangements to specialised non governmental companies, the Government should therefore make the necessary arrangements for a proper monitoring and control over the governance, the efficiency, the overhead and other costs of these trustees. A number of examples from a great variety of countries including highly developed ones has indeed showed that their might be serious risks of misbehaviour in that area, leading to substantial losses for contributors whose benefits in the end had to be taken over by State finances without matching contributions.

² In 2014, when amounts in individual accounts were computed at 4.1 trillion RMB yuan, only 500 billion – 12% - were “ real assets” (See Gruat JV (2017), p. 15)

³ These amounts do not take into account the entitlements of Civil servants and comparable categories (“GOPI” Government officials and Public institutions – incorporated in pension scheme for Urban employees from January 2015). The total accumulated surplus of the public social insurance fund reaches a comparable level (around 3.5 trillion RMB yuan)

⁴ 318 months in France at age 60 for annuities served over 30 years. In the US, 300 months for annuities served over 25 years – see <https://www.bankrate.com/calculators/investing/annuity-calculator.aspx>

⁵ In 2015, 262 million active urban employees, 38 million GOPI – see Zhang Yinghua (2015)

⁶ The average social wage is the average wage contributed in the pooling area. Although pension pooling was established at Provincial level years ago, and a national pooling as provided in the XIIIth Five-year Plan starts being implemented, there are still many local areas with specific parameters in handling pension matters within individual Provinces (e.g. 24 in Guangdong Province).

⁷ If one takes as reference the contributory base and not the real salary, the replacement rate is higher – near 60% in Tianjin after 30 years of validated employment. Actual contribution rates for pension may be as low as 9% in Guangdong province (contributory base arbitrarily fixed below real wage by employers). Source: Zheng Gongcheng (2017)

⁸ Between 1998 and 2011, amounts on individual accounts accrued an average 2.65% interest rate, while wages increased over the period by an average of 11.93% per year – this means that the amount corresponding to 8% of the salary at the inception of the scheme represented only 2.2% of the salary 15 years later hence a loss of about 4 times in purchasing power – see Zhen Li, 2013 for data – mentioned in JV Gruat (2017) -, author’s calculations in annex 2.

⁹ Assuming an implicit 7% “advanced interest” corresponding to the non-indexation of benefits from individual accounts, a life-expectancy related divisor of 300 could probably be decreased to around 140.

¹⁰ There is no real time calculation of balance of amounts available on individual accounts after those were used to compute the initial level of pension benefits.

¹¹ For example, limiting access to minimum benefits to those having started their career before 1997 and reaching retirement age before 2027 (i.e. those who, physically, cannot reach 30 years of contributory employment within a normal working duration, e.g. male borne 1967 and before.

¹² Improvements may come from both the inclusion of new enterprises in the scheme (known otherwise as tax payers) and the alignment of contributory amounts on real salaries (when also declared for tax purposes)

¹³ The expression “or equivalent” notably refers to the case of beneficiaries who started their career before the introduction of the contributory scheme.

¹⁴ See ILO Convention on Social security (minimum standards) n.102, the ratification of which is being actively considered by China