THIRD DIVISION

G.R. No. 179334 – SECRETARY OF THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS AND DISTRICT ENGINEER CELESTINO R. CONTRERAS, Petitioner v. SPOUSES HERACLEO AND RAMONA TECSON, Respondent.

Promulgated:

JUL 0 1 2013 Than punch

SEPARATE OPINION

LEONEN, J.:

I agree with the ponencia of Justice Peralta in so far as the fair market value of a property subjected to expropriation must be the value of the property at the time of the actual taking by the government, at the moment that the owner is unable to have beneficial use (see *Republic v. Vda. de Castellvi*).¹

However, I also agree with Justice Velasco that gross injustice will result if the amount that will be awarded today will be based simply on the value of the property at the time of the actual taking. Should the value of the property been awarded to the owners at the time of the taking, they would have used it for other profitable uses. Hence, the failure of the State to have paid at the proper time deprives the owners of the true value of the property that they had.

I am of the opinion that the proper way to resolve this would be to use the economic concept of present value.² This concept is usually summarized this way: Money received today is more valuable than the same amount of money received tomorrow.³ By applying this concept, we are able to capture just compensation in a more holistic manner. We take into consideration the potential of money to increase (or decrease) in value across time.

If the parties in an expropriation case would have perfect foresight, they would have known the amount of "fair market value at the time of taking." If this amount of money was deposited in a bank pending expropriation proceedings, by the time proceedings are over, the property owner would be able to withdraw the principal (fair market value at the time

G.R. No. L-20620, August 15, 1974, 58 SCRA 336, 352.

Present value (of an asset) is defined as "the value for an asset that yields a stream of income over time." PAULA. SAMUELSON AND WILLIAM D. NORDHAUS, ECONOMICS 748 (Eighteenth Edition).

N. GREGORY MANKIW, ESSENTIALS OF ECONOMICS 414 (2007 Edition).

of taking) and the interest earnings it has accumulated over the time of the proceedings. Economists have devised a simple method to compute for the value of money in consideration of this future interest earnings.

For purposes of explaining this method, consider property owner AA who owns a piece of land. The government took his property at Year 0. Let us assume that his property had a fair market value of $\rat{P}100$ at the time of taking. In our ideal situation, the government should have paid him $\rat{P}100$ at Year 0. By then, AA could have put the money in the bank so it could earn interest. Let us peg the interest rate at 5% per annum (or in decimal form, 0.05).

If the expropriation proceedings took just one year (again, another ideal situation), AA could only be paid after that year. The value of the ₱100 would have appreciated already. We have to take into consideration the fact that in Year 1, AA could have earned an additional ₱5 in interest if he had been paid in Year 0.

In order to compute the present value of ₱100, we have to consider this formula:

Present Value in Year 1 = Value at the Time of Taking + (Interest Earned of the Value at the Time of Taking)

In formula⁵ terms, it will look like this:

$$PV_1 = V + (V*r)$$

$$PV_1 = V*(1+r)$$

PV₁ = present value in Year 1 **V** = value at the time of taking **r** = interest rate

So in the event that AA gets paid in Year 1, then:

$$PV_1 = V^*(1+r)$$

 $PV_1 = P100 (1 + 0.05)$

$$PV_1 = ₱105$$

⁴ Interest rates are dependent on risk, inflation and tax treatment. *See* PAUL A. SAMUELSON AND WILLIAM D. NORDHAUS, ECONOMICS 269 (Eighteenth Edition). Actual interest rate to be applied should be computed reasonably according to historical epochs in our political economy. For example, during the war, we have experienced extraordinary inflation. This extraordinary inflation influenced adversely interest rates of financial investments. The period of martial law is another example of a historical epoch that influenced interest rates.

N. Gregory Mankiw, Essentials of Economics 414-415 (2007 Edition).

So if AA were to be paid in Year 1 instead of in Year 0, it is only just that he be paid \$\mathbb{P}\$105 to take into account the interest earnings he has foregone due to the expropriation proceedings. If he were to be paid in Year 2, we should take into consideration not only the interest earned of the principal, but the fact that the interest earned in Year 1 will also be subject to interest earnings in Year 2. This concept is referred to as *compounding* interest rates. So our formula becomes:

Present Value in Year 2 = [Present Value in Year 1] + [Interest Earned of Present Value in Year 1]

Recall that in formula terms, Present Value in Year 1 was expressed as:

$$PV_1 = [V*(1+r)]$$

Hence, in Year 2, the formula will be:

$$PV_2 = PV_1*(1+r)$$
 or $PV_2 = [V*(1+r)]*(1+r)$

Seeing that the term (1+r) is repeated, it can be further simplified as:

$$PV_2 = V^*(1+r)^2$$

$$PV_2 = P100 * (1+0.05)^2$$

$$PV_2 = P100 * 1.1025$$

$$PV_2 = P110.25$$

This is the same as if we multiply the present value in Year 1 of ₱105 by 1.05 (our multiplier with the interest rate).

If proceedings go on until Year 3, then the formula would be:

$$PV_3 = PV_2*(1+r)$$

 $PV_3 = \{[V*(1+r)]*(1+r)\}*(1+r)$

Again, (1+r) is repeated three times, the same number as the number of years; hence, simplifying the formula would yield:

$$PV_3 = V*(1+r)^3$$

Due to compounding interests, the formula for present value at any given year becomes:

$$PV_t = V*(1+r)^t$$

PV stands for the present value of the property. In order to calculate the present value of the property, the corresponding formula is used. V stands for the value of the property at the time of the taking, taking in all the considerations that the court may use in order to arrive at the fair market value in accordance with law.

This is multiplied to (1 + r) where r equals the implied rate of return (average year-to-year interest rate) and raised to the exponent t. The exponent t refers to the time period or the number of years for which the value of the money would have changed. It is treated as an exponent because it is the number of times you have to multiply (1+r) to capture the effect of compounding interest rates.

So if AA were to be paid seventy-three (73) years from the time of taking, the present value of the amount he should have been paid at the time of taking would be:

$$PV_{t} = V^{*}(1+r)^{t}$$

$$PV_{73} = P100 * (1+0.05)^{73}$$

$$PV_{73} = P100 * (35.2224)$$

$$PV_{73} = P3,522.24$$

As applied in this case, the property which is the subject of the current controversy is worth ₱0.70/sq.m. in 1940, but it is actually worth more than ₱0.70/sq. m. by 2013. There is a period of 73 years between the actual taking and the time payment is to be made. The value of the cash to be paid to the owner at this time is definitely more because of changes in the interest rate.

Computing for present value would only reflect the cost of the property today. It should be separate from the six percent (6%) per annum computed on a compounded basis awarded as actual or compensatory damages.

Thus, applying the formula, assuming the average interest rate is at:

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4%, the property will be worth ₱ 12.26 per sq. m.; 5%, the property will be worth ₱ 24.66 per sq. m.;
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^{6%,} the property will be worth ₱ 49.25 per sq. m.

Using the established concept of present value incorporates the discipline of economics into our jurisprudence on takings. Valuation is indeed an inexact science and economics also has its own assumptions. However, in my reckoning, this is infinitely better than leaving it up to the trial court judge.

I submit that this proposal is a happy middle ground. It meets the need for doctrinal precision urged by Justice Peralta and the thirst for substantial justice in Justice Velasco's separate opinion. After all, I am sure that we all share in each other's goals.

I vote to **GRANT** the petition and to **REMAND** the case to the court of origin for proper valuation according to the formula discussed.

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MARVIC MARIO VICTOR FAMORCA LEONEN

Associate Justice